

TOTAL S.A.  
Form 20-F  
March 27, 2014  
Table of Contents

**UNITED STATES SECURITIES AND EXCHANGE COMMISSION**

WASHINGTON, D.C. 20549

**Form 20-F**

(Mark One)

.. REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR 12(g) OF THE SECURITIES EXCHANGE ACT OF 1934  
OR

p ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934  
**For the fiscal year ended December 31, 2013**

OR

.. TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 For the transition period  
from \_\_\_\_\_ to \_\_\_\_\_

OR

.. SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 Date of event  
requiring this shell company report

Commission file number: 1-10888

**TOTAL S.A.**

(Exact Name of Registrant as Specified in Its Charter)

Republic of France

# Edgar Filing: TOTAL S.A. - Form 20-F

(Jurisdiction of Incorporation or Organization)

2, place Jean Millier

La Défense 6

92400 Courbevoie

France

(Address of Principal Executive Offices)

Patrick de La Chevardi re

Chief Financial Officer

TOTAL S.A.

2, place Jean Millier

La D fense 6

92400 Courbevoie

France

Tel: +33 (0)1 47 44 45 46

Fax: +33 (0)1 47 44 49 44

(Name, Telephone, Email and/or Facsimile number and Address of Company Contact Person)

Securities registered or to be registered pursuant to Section 12(b) of the Act.

Title of each class  
Shares  
American Depositary Shares

Name of each exchange on which registered  
New York Stock Exchange\*  
New York Stock Exchange

\* Not for trading, but only in connection with the registration of American Depositary Shares, pursuant to the requirements of the Securities and Exchange Commission.

Securities registered or to be registered pursuant to Section 12(g) of the Act.

None

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act.

None

## Edgar Filing: TOTAL S.A. - Form 20-F

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report.

2,377,678,160 Shares, par value €2.50 each, as of December 31, 2013

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act. Yes ☐ No ☒

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934. Yes ☐ No ☒

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☐ No ☒

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate website, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).\*\*

Yes ☐ No ☒

\*\*This requirement is not currently applicable to the registrant.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer. See definition of accelerated filer and large accelerated filer in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer ☐

Accelerated filer ☐

Non-accelerated filer ☒

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

International Financial Reporting Standards as issued by the International

U.S. GAAP ☐

Accounting Standards Board ☐

Other ☒

If Other has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow. Item 17 ☐ Item 18 ☐

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

**Table of Contents****TABLE OF CONTENTS**

	<b>Page</b>
<u>CERTAIN TERMS</u>	i
<u>ABBREVIATIONS</u>	ii
<u>CONVERSION TABLE</u>	iii
<b>Item 1.</b> <u>Identity of Directors, Senior Management and Advisers</u>	1
<b>Item 2.</b> <u>Offer Statistics and Expected Timetable</u>	1
<b>Item 3.</b> <u>Key Information</u>	1
<u>Selected Financial Data</u>	1
<u>Exchange Rate Information</u>	2
<u>Risk Factors</u>	2
<b>Item 4.</b> <u>Information on the Company</u>	9
<u>History and Development</u>	9
<u>Business Overview</u>	9
<u>Other Matters</u>	46
<b>Item 4A.</b> <u>Unresolved Staff Comments</u>	78
<b>Item 5.</b> <u>Operating and Financial Review and Prospects</u>	78
<b>Item 6.</b> <u>Directors, Senior Management and Employees</u>	91
<u>Directors and Senior Management</u>	91
<u>Compensation</u>	99
<u>Corporate Governance</u>	118
<u>Employees and Share Ownership</u>	128
<b>Item 7.</b> <u>Major Shareholders and Related Party Transactions</u>	132
<b>Item 8.</b> <u>Financial Information</u>	134
<b>Item 9.</b> <u>The Offer and Listing</u>	137
<b>Item 10.</b> <u>Additional Information</u>	138
<b>Item 11.</b> <u>Quantitative and Qualitative Disclosures About Market Risk</u>	151
<b>Item 12.</b> <u>Description of Securities Other than Equity Securities</u>	152
<b>Item 13.</b> <u>Defaults, Dividend Arrearages and Delinquencies</u>	152
<b>Item 14.</b> <u>Material Modifications to the Rights of Security Holders and Use of Proceeds</u>	152
<b>Item 15.</b> <u>Controls and Procedures</u>	152
<b>Item 16A.</b> <u>Audit Committee Financial Expert</u>	153
<b>Item 16B.</b> <u>Code of Ethics</u>	153
<b>Item 16C.</b> <u>Principal Accountant Fees and Services</u>	153
<b>Item 16D.</b> <u>Exemptions from the Listing Standards for Audit Committees</u>	154
<b>Item 16E.</b> <u>Purchases of Equity Securities by the Issuer and Affiliated Purchasers</u>	154
<b>Item 16F.</b> <u>Change in Registrant's Certifying Accountant</u>	154
<b>Item 16G.</b> <u>Corporate Governance</u>	154

## Edgar Filing: TOTAL S.A. - Form 20-F

<b>Item 16H.</b>	<u>Mine Safety Disclosure</u>	157
<b>Item 17.</b>	<u>Financial Statements</u>	157
<b>Item 18.</b>	<u>Financial Statements</u>	157
<b>Item 19.</b>	<u>Exhibits</u>	157

## **Table of Contents**

### **Basis of presentation**

Financial information included in this Annual Report is presented according to International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board (IASB) and IFRS as adopted by the European Union (EU) as of December 31, 2013.

### **Statements regarding competitive position**

Unless otherwise indicated, statements made in Item 4. Information on the Company referring to TOTAL's competitive position are based on the Company's estimates, and in some cases rely on a range of sources, including investment analysts' reports, independent market studies and TOTAL's internal assessments of market share based on publicly available information about the financial results and performance of market participants.

### **Additional information**

This Annual Report on Form 20-F reports information primarily regarding TOTAL's business, operations and financial information relating to the fiscal year ended December 31, 2013. For more recent updates regarding TOTAL, you may inspect any reports, statements or other information TOTAL files with the United States Securities and Exchange Commission (SEC). All of TOTAL's SEC filings made after December 31, 2001, are available to the public at the SEC website at <http://www.sec.gov> and from certain commercial document retrieval services. See also Item 10. Additional Information Documents on Display.

### **Certain terms**

Unless the context indicates otherwise, the following terms have the meanings shown below:

<b>acreage</b>	The area, expressed in acres, over which TOTAL has interests in exploration or production.
<b>ADRs</b>	American Depositary Receipts evidencing ADSs.
<b>ADSs</b>	American Depositary Shares representing the shares of TOTAL S.A.
<b>association / consortium / joint venture</b>	Terms used to generally describe a project in which two or more entities participate. For the principles and methods of consolidation applicable to different types of joint arrangements according to IFRS, refer to Note 1 to the Consolidated Financial Statements.
<b>barrels</b>	Barrels of crude oil, condensates, NGL or bitumen.
<b>Company</b>	TOTAL S.A.
<b>condensates</b>	Condensates are a mixture of hydrocarbons that exist in a gaseous phase at original reservoir temperature and pressure, but that, when produced, exist in a liquid phase at surface temperature and pressure. Condensates are sometimes referred to as C5+.
<b>crude oil</b>	Crude oil is a mixture of compounds (mainly pentanes and heavier hydrocarbons) that exists in a liquid phase at original reservoir temperature and pressure and remains liquid at atmospheric pressure and ambient temperature. Crude oil or oil are sometimes used as generic terms to designate crude oil plus condensates plus NGL.

## Edgar Filing: TOTAL S.A. - Form 20-F

<b>Depository</b>	The Bank of New York Mellon.
<b>Depository Agreement</b>	The depository agreement pursuant to which ADSs are issued, a copy of which is attached as Exhibit 1 to the registration statement on Form F-6 (Reg. No. 333-172005) filed with the SEC on February 1, 2011.
<b>Group</b>	TOTAL S.A. and its subsidiaries and affiliates. The terms TOTAL and Group are used interchangeably.
<b>hydrocracker</b>	A refinery unit which uses a catalyst and extraordinarily high pressure, in the presence of surplus hydrogen, to shorten molecules.
<b>liquids</b>	Liquids consist of crude oil, bitumen, condensates and NGL.
<b>LNG</b>	Liquefied natural gas.
<b>LPG</b>	Liquefied petroleum gas is a mixture of hydrocarbons, the principal components of which are propane and butane, in a gaseous state at atmospheric pressure, but which is liquefied under moderate pressure and ambient temperature. LPG is included in NGL.
<b>NGL</b>	Natural gas liquids (NGL) are a mixture of light hydrocarbons that exist in the gaseous phase at atmospheric pressure and are recovered as liquids in gas processing plants; NGL include very light hydrocarbons (ethane, propane and butane).
<b>oil and gas</b>	Generic term which includes all hydrocarbons ( <i>e.g.</i> , crude oil, condensates, NGL, bitumen and natural gas).
<b>project</b>	As used in this report, <b>project</b> may encompass different meanings, such as properties, agreements, investments, developments, phases, activities or components,

## **Table of Contents**

each of which may also informally be described as a project. Such use is for convenience only and is not intended as a precise description of the term project as it relates to any specific governmental law or regulation.

### **proved reserves**

Proved oil and gas reserves are those quantities of oil and gas, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible from a given date forward, from known reservoirs, and under existing economic conditions, operating methods, and government regulations, prior to the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether deterministic or probabilistic methods are used for the estimation. The full definition of proved reserves that we are required to follow in presenting such information in our financial results and elsewhere in reports we file with the SEC is found in Rule 4-10 of Regulation S-X under the U.S. Securities Act of 1933, as amended (including as amended by the SEC Modernization of Oil and Gas Reporting Release No. 33-8995 of December 31, 2008).

### **proved developed reserves**

Proved developed oil and gas reserves are proved reserves that can be expected to be recovered (i) through existing wells with existing equipment and operating methods or in which the cost of the required equipment is relatively minor compared to the cost of a new well; and (ii) through installed extraction equipment and infrastructure operational at the time of the reserves estimate if the extraction is by means not involving a well. The full definition of developed reserves that we are required to follow in presenting such information in our financial results and elsewhere in reports we file with the SEC is found in Rule 4-10 of Regulation S-X under the U.S. Securities Act of 1933, as amended (including as amended by the SEC Modernization of Oil and Gas Reporting Release No. 33-8995 of December 31, 2008).

### **proved undeveloped reserves**

Proved undeveloped oil and gas reserves are proved reserves that are expected to be recovered from new wells on undrilled acreage, or from existing wells where a relatively major expenditure is required for recompletion. The full definition of undeveloped reserves that we are required to follow in presenting such information in our financial results and elsewhere in reports we file with the SEC is found in Rule 4-10 of Regulation S-X under the U.S. Securities Act of 1933, as amended (including as amended by the SEC Modernization of Oil and Gas Reporting Release No. 33-8995 of December 31, 2008).

### **steam cracker**

A petrochemical plant that turns naphtha and light hydrocarbons into ethylene, propylene, and other chemical raw materials.

### **TOTAL**

TOTAL S.A. and its subsidiaries and affiliates. We use such term interchangeably with the term Group. When we refer to the parent holding company alone, we use the term TOTAL S.A. or the Company.

### **trains**

Facilities for converting, liquefying, storing and off-loading natural gas.

### **ERMI**

ERMI is an indicator intended to represent the refining margin after variable costs for a theoretical complex refinery located around Rotterdam in Northern Europe that processes a mix of crude oil and other inputs commonly supplied to this region to produce and market the main refined products at prevailing prices in the region.

### **turnarounds** **Abbreviations**

Temporary shutdowns of facilities for maintenance, overhaul and upgrading.



## Edgar Filing: TOTAL S.A. - Form 20-F

b	barrel
cf	cubic feet
boe	barrel of oil equivalent
t	metric ton
m <sup>3</sup>	cubic meter
/d	per day
/y	per year

k	thousand
M	million
B	billion
W	watt
GWh	gigawatt-hour
TWh	terawatt-hour
Wp	watt peak
Btu	British thermal unit

ii TOTAL S.A. Form 20-F 2013

**Table of Contents****Conversion table**

1 acre	= 0.405 hectares	
1 b	= 42 U.S. gallons	
1 boe	= 1 b of crude oil	= 5,403 cf of gas in 2013 <sup>(a)</sup>
		= 5,434 cf of gas in 2012
		= 5,447 cf of gas in 2011
1 b/d of crude oil	= approximately 50 t/y of crude oil	
1 Bm <sup>3</sup> /y	= approximately 0.1 Bcf/d	
1 m <sup>3</sup>	= 35.3147 cf	
1 kilometer	= approximately 0.62 miles	
1 ton	= 1 t	= 1,000 kilograms (approximately 2,205 pounds)
1 ton of oil	= 1 t of oil	= approximately 7.5 b of oil (assuming a specific gravity of 37° API)
1 Mt of LNG	= approximately 48 Mcf of gas	
1 Mt/y LNG	= approximately 131 Mcf/d	

<sup>(a)</sup> Natural gas is converted to barrels of oil equivalent using a ratio of cubic feet of natural gas per one barrel. This ratio is based on the actual average equivalent energy content of TOTAL's natural gas reserves during the applicable periods, and is subject to change. The tabular conversion rate is applicable to TOTAL's natural gas reserves on a group-wide basis.

## **Table of Contents**

### **Cautionary statement concerning forward-looking statements**

TOTAL has made certain forward-looking statements in this document and in the documents referred to in, or incorporated by reference into, this Annual Report. Such statements are subject to risks and uncertainties. These statements are based on the beliefs and assumptions of the management of TOTAL and on the information currently available to such management. Forward-looking statements include information concerning forecasts, projections, anticipated synergies, and other information concerning possible or assumed future results of TOTAL, and may be preceded by, followed by, or otherwise include the words "believes", "expects", "anticipates", "intends", "plans", "targets", "estimates" or similar expressions.

Forward-looking statements are not assurances of results or values. They involve risks, uncertainties and assumptions. TOTAL's future results and share value may differ materially from those expressed in these forward-looking statements. Many of the factors that will determine these results and values are beyond TOTAL's ability to control or predict. Except for its ongoing obligations to disclose material information as required by applicable securities laws, TOTAL does not have any intention or obligation to update forward-looking statements after the distribution of this document, even if new information, future events or other circumstances have made them incorrect or misleading.

You should understand that various factors, certain of which are discussed elsewhere in this document and in the documents referred to in, or incorporated by reference into, this document, could affect the future results of TOTAL and could cause results to differ materially from those expressed in such forward-looking statements, including:

- material adverse changes in general economic conditions or in the markets served by TOTAL, including changes in the prices of oil, natural gas, refined products, petrochemical products and other chemicals;
- changes in currency exchange rates and currency devaluations;
- the success and the economic efficiency of oil and natural gas exploration, development and production programs, including, without limitation, those that are not controlled and/or operated by TOTAL;
- uncertainties about estimates of changes in proven and potential reserves and the capabilities of production facilities;
- uncertainties about the ability to control unit costs in exploration, production, refining and marketing (including refining margins) and chemicals;
- changes in the current capital expenditure plans of TOTAL;
- the ability of TOTAL to realize anticipated cost savings, synergies and operating efficiencies;
- the financial resources of competitors;
- changes in laws and regulations, including tax and environmental laws and industrial safety regulations;
- the quality of future opportunities that may be presented to or pursued by TOTAL;
- the ability to generate cash flow or obtain financing to fund growth and the cost of such financing and liquidity conditions in the capital markets generally;
- the ability to obtain governmental or regulatory approvals;
- the ability to respond to challenges in international markets, including political or economic conditions (including national and international armed conflict) and trade and regulatory matters (including actual or proposed sanctions on companies that conduct business in certain countries);
- the ability to complete and integrate appropriate acquisitions, strategic alliances and joint ventures;
- changes in the political environment that adversely affect exploration, production licenses and contractual rights or impose minimum drilling obligations, price controls, nationalization or expropriation, and regulation of refining and marketing, chemicals and power generating activities;
- the possibility that other unpredictable events such as labor disputes or industrial accidents will adversely affect the business of TOTAL; and
- the risk that TOTAL will inadequately hedge the price of crude oil or finished products.

For additional factors, you should read the information set forth under Item 3. Risk Factors, Item 4. Information on the Company Other Matters, Item 5. Operating and Financial Review and Prospects and Item 11. Quantitative and Qualitative Disclosures About Market Risk.

**Table of Contents**

Items 1 - 3

**ITEM 1. IDENTITY OF DIRECTORS, SENIOR MANAGEMENT AND ADVISERS**

Not applicable.

**ITEM 2. OFFER STATISTICS AND EXPECTED TIMETABLE**

Not applicable.

**ITEM 3. KEY INFORMATION****SELECTED FINANCIAL DATA**

The following table presents selected consolidated financial data for TOTAL on the basis of IFRS as issued by the IASB and IFRS as adopted by the EU for the years ended December 31, 2013, 2012, 2011, 2010 and 2009. Following the application of revised accounting standard IAS 19 effective January 1, 2013, the information for 2012, 2011, 2010 and 2009 has been restated; however, the impact on such restated results is not significant (for further information concerning this restatement, see the introduction to the Notes to the Consolidated Financial Statements included elsewhere herein). Ernst & Young Audit and KPMG S.A., independent registered public accounting firms and the Company's auditors, audited the historical consolidated financial statements of TOTAL for these periods from which the financial data presented below for such periods are derived, except for the application of the revised accounting standard IAS 19 for the years ended 2009 and 2010. All such data should be read in conjunction with the Consolidated Financial Statements and the Notes thereto included elsewhere herein.

**SELECTED CONSOLIDATED FINANCIAL DATA**

(M€, except share and per share data <sup>(p)</sup> )	2013	2012	2011	2010	2009
<b>INCOME STATEMENT DATA</b>					
Revenues from sales	171,655	182,299	166,550	140,476	112,153
Net income, Group share	8,440	10,609	12,309	10,597	8,400
Earnings per share	3.73	4.70	5.48	4.74	3.77
Fully diluted earnings per share	3.72	4.68	5.45	4.72	3.75
<b>CASH FLOW STATEMENT DATA</b>					
Cash flow from operating activities	21,473	22,462	19,536	18,493	12,360
Total expenditures	25,922	22,943	24,541	16,273	13,349
<b>BALANCE SHEET DATA</b>					
Total assets	173,491	171,224	163,705	143,441	127,476
Non-current financial debt	25,069	22,274	22,557	20,783	19,437
Non-controlling interests	2,281	1,280	1,352	857	987
Shareholders' equity - Group share	72,629	71,185	66,945	59,648	51,860
Common shares	5,944	5,915	5,909	5,874	5,871
<b>DIVIDENDS</b>					
Dividend per share (euros)	€2.38 <sup>(p)</sup>	€2.34	€2.28	€2.28	€2.28
Dividend per share (dollars)	\$3.16 <sup>(b)(c)</sup>	\$3.05	\$2.97	\$3.15	\$3.08
<b>COMMON SHARES<sup>(d)</sup></b>					
Average number outstanding of common shares €2.50 par value (shares undiluted)	2,264,349,795	2,255,801,563	2,247,479,529	2,234,829,043	2,230,599,211

## Edgar Filing: TOTAL S.A. - Form 20-F

Average number outstanding of common shares €2.50 par value (shares diluted)	2,271,543,658	2,266,635,745	2,256,951,403	2,244,494,576	2,237,292,199
--	---------------	---------------	---------------	---------------	---------------

- (a) *Following the application of revised accounting standard IAS 19 effective January 1, 2013, the information for 2012, 2011, 2010 and 2009 has been restated; however, the impact on such restated results is not significant (for further information concerning this restatement, see the introduction to the Notes to the Consolidated Financial Statements included elsewhere herein).*
- (b) *Subject to approval by the shareholders' meeting on May 16, 2014.*
- (c) *Estimated dividend in dollars includes the first quarterly interim dividend of \$0.80 paid in October 2013 and the second quarterly interim dividend of \$0.81 paid in January 2014, as well as the third quarterly interim dividend of €0.59 payable in March 2014 (ADR-related payment in April 2014) and the proposed final dividend of €0.61 payable in June 2014 (ADR-related payment in June 2014), both converted at a rate of \$1.30/€.*
- (d) *The number of common shares shown has been used to calculate per share amounts.*

2013 Form 20-F TOTAL S.A. 1

**Table of Contents****Item 3****EXCHANGE RATE INFORMATION**

For information regarding the effects of currency fluctuations on TOTAL's results, see Item 5. Operating and Financial Review and Prospects.

Most currency amounts in this Annual Report on Form 20-F are expressed in euros ( euros or € ) or in U.S. dollars ( dollars or \$ ). For the convenience of the reader, this Annual Report on Form 20-F presents certain translations into dollars of certain euro amounts.

The following table sets out the average dollar/euro exchange rates expressed in dollars per €1.00 for the years indicated, based on an average of the daily European Central Bank ( ECB ) reference exchange rates. Such rates are used by TOTAL in preparation of its Consolidated Statement of Income and Consolidated Statement of Cash Flow in its Consolidated Financial Statements. No representation is made that the euro could have been converted into dollars at the rates shown or at any other rates for such periods or at such dates.

**DOLLAR/EURO EXCHANGE RATES**

<b>Year</b>	<b>Average Rate</b>
2009	1.3948
2010	1.3257
2011	1.3920
2012	1.2848
2013	1.3281

The table below shows the high and low dollar/euro exchange rates for the four months ended December 31, 2013, and for the first months of 2014, based on the daily ECB reference exchange rates published during the relevant month expressed in dollars per €1.00.

**DOLLAR/EURO EXCHANGE RATES**

<b>Period</b>	<b>High</b>	<b>Low</b>
September 2013	1.3545	1.3117
October 2013	1.3805	1.3493
November 2013	1.3611	1.3365
December 2013	1.3814	1.3536
January 2014	1.3687	1.3516
February 2014	1.3813	1.3495
March 2014 <sup>(a)</sup>	1.3942	1.3732

*(a) Through March 25, 2014.*

The ECB reference exchange rate on March 25, 2014, for the dollar against the euro was \$1.3789/€.

## RISK FACTORS

The Group and its businesses are subject to various risks relating to changing competitive, economic, political, legal, social, industry, business and financial conditions. These conditions, along with TOTAL's approaches to managing certain of these risks, are described below and discussed in greater detail elsewhere in this Annual Report, particularly under the headings Item 4. Information on the Company Other Matters, Item 5. Operating and Financial Review and Prospects and Item 11. Quantitative and Qualitative Disclosures About Market Risk.

### *Our operating results and future rate of growth are exposed to the effects of changing commodity prices.*

Prices for oil and natural gas historically have fluctuated widely due to many factors over which TOTAL has no control. These factors include:

- global and regional supply and demand;
- global and regional economic and political developments in resource-producing regions, particularly in the Middle East, Africa and South America;
- the ability of the Organization of Petroleum Exporting Countries (OPEC) and other producing nations to influence global production levels and prices;
- prices of unconventional energies as well as evolving approaches for developing oil sands, which may affect the Group's realized prices, notably under its long-term gas sales contracts and asset valuations, notably in North America;
- cost and availability of new technology;
- governmental regulations and actions;
- global economic and financial market conditions;
- war or other conflicts;
- changes in demographics, including population growth rates and consumer preferences; and
- adverse weather conditions (such as hurricanes) that can disrupt supplies or interrupt operations of the Group's facilities.

Substantial or extended declines in oil and natural gas prices would adversely affect TOTAL's results of operations by reducing its profits. For the year 2014, we estimate that a decrease of \$1.00 per barrel in the average annual price of Brent crude would have the effect of reducing our annual adjusted net operating income from the Upstream segment by approximately €0.12 billion (calculated with a base case exchange rate of \$1.30 per €1.00 and a Brent price of \$100 per barrel). In addition to the adverse effect on revenues, margins and profitability from any fall in oil and natural gas prices, a prolonged period of low prices or other indicators could lead to a review of the Group's properties and oil and natural gas reserves. Such review would reflect the Company's view based on estimates, assumptions and judgments and could result in a reduction in the Group's reported reserves and/or a charge for impairment that could have a significant effect on the Group's results in the period in which it occurs. Lower oil and natural gas prices over prolonged periods may also reduce the economic viability of projects planned or in development, negatively impact the asset sale program of the Group and reduce liquidity, thereby decreasing the Group's ability to finance capital expenditures and/or causing it to cancel or postpone investment.

<sup>(1)</sup> For the period 2009–2013, the averages of the ECB reference exchange rates expressed in dollars per €1.00 on the last business day of each month during the relevant year are as follows: 2009 1.40; 2010 1.32; 2011 1.40; 2012 1.29; and 2013 1.33.

## Table of Contents

### Item 3 - Risk Factors

projects. If TOTAL is unable to follow through with investment projects, the Group's opportunities for future revenue and profitability growth would be reduced, which could materially impact the Group's financial condition.

However, in a high oil and gas price environment, the Group can experience significant increases in cost and fiscal take, and, under some production-sharing contracts, the Group's entitlement to reserves could be reduced. Higher prices can also reduce demand for the Group's products.

The Group's earnings from its Refining & Chemicals and Marketing & Services segments are primarily dependent upon the supply and demand for refined products and the associated margins on refined product sales, with the impact of changes in oil and gas prices on earnings on these segments being dependent upon the speed at which the prices of refined products adjust to reflect movements in oil and gas prices.

***Our long-term profitability depends on cost effective discovery, acquisition and development of new reserves; if we are unsuccessful, our results of operations and financial condition would be materially and adversely affected.***

A significant portion of the Group's revenues and the majority of its operating income are derived from the sale of oil and gas that the Group extracts from underground reserves developed as part of its Upstream business. The development of oil and gas fields, the construction of facilities and the drilling of production or injection wells is capital intensive, requires advanced technology and moreover, due to constantly changing market conditions and difficult environmental challenges, cost projections are uncertain. In order for this Upstream business to continue to be profitable, the Group needs to replace its reserves with new proved reserves. Furthermore, the Group needs to accomplish such replacement in a manner that allows subsequent production to be economically viable. However, TOTAL's ability to discover or acquire and develop new reserves successfully is uncertain and can be negatively affected by a number of factors, including:

- the geological nature of oil and gas fields, notably unexpected drilling conditions, including pressure or irregularities in geological formations;
- the risk of dry holes or failure to find expected commercial quantities of hydrocarbons;
- equipment failures, fires, blow-outs or accidents;
- the Group's inability to develop or deploy new technologies that permit access to previously inaccessible fields;
- the Group's inability to anticipate market changes in a timely manner;
- adverse weather conditions;
- compliance with both anticipated and unanticipated governmental requirements, including U.S. and EU regulations that may give a competitive advantage to companies not subject to such regulations;
- shortages or delays in the availability or delivery of appropriate equipment;
- industrial action;
- competition from publicly held and state-run oil and gas companies for the acquisition and development of assets and licenses, as well as from other major international oil companies (see Item 4. Other Matters Competition);
- increased taxes and royalties, including retroactive claims; and
- problems with legal title.

Any of these factors could lead to cost overruns and impair the Group's ability to make discoveries and acquisitions or complete a development project, or to make production economical. It is impossible to guarantee that new reserves of oil and gas will be discovered in sufficient quantities to replace the Group's reserves currently being developed, produced and marketed. Furthermore, some of these factors may also affect the Group's projects and facilities further down the oil and gas chain. If TOTAL fails to develop new reserves cost-effectively on an ongoing basis, the Group's results of operations, including profits, and the Group's financial condition, would be materially and adversely affected.

***Our oil and gas reserves data are only estimates, and subsequent downward adjustments are possible. If actual production from such reserves is lower than current estimates indicate, our results of operations and financial condition would be negatively impacted.***

The proved reserves figures of the Group are estimates reflecting applicable reporting regulations. Proved reserves are those reserves which, by analysis of geosciences and engineering data, can be estimated with reasonable certainty to be economically producible from a given date forward, from known reservoirs and under existing economic conditions, operating methods and government regulations prior to the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether deterministic or probabilistic methods are used for the estimation. Reserves are estimated by teams of qualified, experienced and trained geoscientists, petroleum engineers and project engineers, who rigorously review and analyze in detail all available geosciences and engineering data (e.g., seismic, electrical logs, cores, fluids, pressures, flow rates, facilities parameters). This process involves making subjective judgments, including with respect to the estimate of hydrocarbons initially in place, initial production rates and recovery efficiency, based on available geological, technical and economic data. Consequently, estimates of reserves are not exact measurements and are subject to revision. In addition, they may be negatively impacted by a variety of factors that are beyond the Group's control and that could cause such estimates to be adjusted downward in the future, or cause the Group's actual production to be lower than its currently reported proved reserves indicate. The main such factors include:



## Edgar Filing: TOTAL S.A. - Form 20-F

a decline in the price of oil or gas, making reserves no longer economically viable to exploit and therefore not classifiable as proved;  
an increase in the price of oil or gas, which may reduce the reserves to which the Group are entitled under production sharing and risked service contracts and other contractual terms;  
changes in tax rules and other government regulations that make reserves no longer economically viable to exploit; and  
the actual production performance of the Group's reservoirs.

The Group's reserves estimates may therefore require substantial downward revisions to the extent its subjective judgments prove not to have been conservative enough based on the available geosciences and engineering data, or the Group's assumptions regarding factors or variables that are beyond its control prove to be incorrect over time. Any downward adjustment would indicate lower future production amounts, which could adversely affect the Group's results of operations, including profits as well as its financial condition.

2013 Form 20-F TOTAL S.A. 3

## **Table of Contents**

### **Item 3 - Risk Factors**

#### ***Our production growth depends on the delivery of our major development projects.***

The Group's targeted production growth relies heavily on the successful execution of its major development projects, which are complex and capital-intensive. These major projects are subject to a number of challenges, including:

- negotiations with partners, governments, suppliers, customers and others;
- cost overruns and delays related to the availability of skilled labor or delays in manufacturing and delivery of critical equipment, or shortages in the availability of such equipment;
- unforeseen technical difficulties that could delay project startup or cause unscheduled project downtime;
- the actual performance of the reservoir and natural field decline; and
- timely issuance or renewal of permits and licenses by government agencies.

Poor delivery of any major project that underpins production or production growth could adversely affect the Group's financial performance. In addition, many of TOTAL's projects under developments are larger and more complex than past major projects, which increases the potential execution risk.

#### ***Many of our projects are conducted by equity affiliates. This may reduce our degree of control, as well as our ability to identify and manage risks.***

A significant and growing number of the Group's projects are conducted by equity affiliates. In cases where a company in which the Group holds an interest is not the operator, it may have limited influence over, and control of, the behavior, performance and costs of the partnership, its ability to manage risks may be limited and it may, nevertheless, be pursued by regulators or claimants in the event of an incident. Additionally, the partners of the Group may not be able to meet their financial or other obligations to the projects, which may threaten the viability of a given project, and they may not have the financial capacity to fully indemnify the Group in the event of an incident.

#### ***We have significant production and reserves located in politically, economically and socially unstable areas, where the likelihood of material disruption of our operations is relatively high.***

A significant portion of TOTAL's oil and gas production and reserves is located in countries outside of the Organisation for Economic Co-operation and Development (OECD). In recent years, a number of these countries have experienced varying degrees of one or more of the following: economic instability, political volatility, civil war, violent conflict, social unrest and actions of terrorist groups. Any of these conditions alone or in combination could disrupt the Group's operations in any of these regions, causing substantial declines in production. In addition, uncertainties surrounding enforcement of contractual rights in these regions may adversely impact the Group's results. In Africa, which represented 29% of the Group's 2013 combined liquids and gas production, certain of the countries in which the Group has production have recently suffered from some of these conditions, including Nigeria, which has been the main contributing country to the Group's production of hydrocarbons since 2012, and Libya. The Middle East, which represented 23% of the Group's 2013 combined liquids and gas production, has recently suffered increased political volatility in connection with violent conflict and social unrest, including Syria, where European Union (EU) and U.S. economic sanctions have prohibited TOTAL from producing oil

and gas since 2011, and Yemen. In South America, which represented 7% of the Group's 2013 combined liquids and gas production, certain of the countries in which TOTAL has production have recently suffered from some of the above-mentioned conditions, including Argentina and Venezuela. Furthermore, in addition to current production, TOTAL is also exploring for and developing new reserves in other regions of the world that are historically characterized by political, social and economic instability, such as the Caspian Sea region where TOTAL has large projects currently underway. The occurrence and magnitude of incidents related to economic, social and political instability are unpredictable. It is possible that they could have a material adverse impact on the Group's production and operations in the future and/or cause certain investors to reduce their holdings of TOTAL's securities.

TOTAL, like other major international energy companies, has a geographically diverse portfolio of reserves and operational sites, which allows it to conduct its business and financial affairs so as to reduce its exposure to political and economic risks. However, there can be no assurance that such events will not have a material adverse impact on the Group.

#### ***Our operations throughout emerging countries are subject to intervention by the governments of these countries, which could have an adverse effect on our results of operations.***

TOTAL has significant exploration and production activities, and in some cases refining, marketing or chemicals operations, in developing countries whose governmental and regulatory framework is subject to unexpected change and where the enforcement of contractual rights is uncertain. In addition, the Group's exploration and production activity in such countries is often done in conjunction with state-owned entities, for example as part of a joint venture, where the state has a significant degree of control. In recent years, in various regions globally, TOTAL has seen governments and state-owned enterprises imposing more stringent conditions on companies pursuing exploration and production activities in their respective countries, increasing the costs and uncertainties of the Group's business operations, which is a trend TOTAL expects to continue. Potential increasing intervention by governments in such countries can take a wide variety of forms,

including:

- the award or denial of exploration and production interests;
- the imposition of specific drilling obligations;
- price and/or production quota controls and export limits;
- nationalization or expropriation of assets;
- unilateral cancellation or modification of license or contract rights;
- increases in taxes and royalties, including retroactive claims;
- the renegotiation of contracts;
- payment delays; and
- currency exchange restrictions or currency devaluation.

Imposition of any of these factors by a host government in a developing country where TOTAL has substantial operations, including exploration, could cause the Group to incur material costs or cause the Group's production or value of the Group's assets to decrease, potentially having a material adverse effect on its results of operations, including profits.

For example, the Nigerian government has been contemplating new legislation to govern the petroleum industry which, if passed into law, could have an impact on the existing and future activities of the Group in that country through increased taxes and/or costs of operation and could adversely affect financial returns from projects in that country.

## Table of Contents

### Item 3 - Risk Factors

#### ***Ethical misconduct or breaches of applicable laws by our employees could expose us to criminal and civil penalties and be damaging to our reputation and shareholder value.***

The Code of Conduct of the Group, which applies to all of its employees, defines the Group's commitment to integrity, compliance with all applicable legal requirements, high ethical standards and the behaviors and actions the Group expects of the businesses and people of the Group wherever it operates (for additional information on the Group's Code of Conduct, see Item 4. Other Matters - Fair operating practices). Ethical misconduct or non-compliance with applicable laws and regulations, including non-compliance with anti-bribery and anticorruption laws, by TOTAL, its partners, agents or others that act on the Group's behalf, could expose TOTAL and its employees to criminal and civil penalties and could be damaging to TOTAL's reputation and shareholder value. In addition, ethical misconduct or non-compliance with applicable law may lead the competent authorities to impose other measures, such as the appointment of an independent monitor in charge of reviewing the Group's compliance and internal control procedures and, if need be, recommending improvements of such procedures. Regarding this point, refer to Item 8. Legal or arbitration proceedings - Iran for an overview of the settlements between TOTAL, the SEC and the Department of Justice (DoJ) providing for the appointment of an independent monitor, who was appointed in late 2013.

#### ***We are exposed to risks related to the safety and security of our operations.***

TOTAL engages in a broad scope of activities, which include, in particular, drilling, oil and gas production, processing, transportation, refining and petrochemical activities, storage and distribution of petroleum products, specialty chemicals and solar energy. These activities involve a wide range of operational risks, such as explosions, fires, accidents, equipment failures, leakage of toxic products, emissions or discharges into the air, water or soil, and related environmental and health risks. In the transportation area, the type of risk depends not only on the hazardous nature of the products transported, but also on the transportation methods used (mainly maritime, river-maritime, rail, road and pipelines), the volumes involved and the sensitivity of the regions through which the transport passes (quality of infrastructure, population density, environmental considerations). Most of the Group's activities will also eventually require environmental site remediation, closure and decommissioning after production is discontinued.

The industrial events that could have the most significant impact are primarily: a major industrial accident (fire, explosion, leakage of highly toxic products); and large-scale accidental pollution or pollution at a particularly sensitive site.

Each of the described risks corresponds to events that could potentially harm human health, cause death, damage property, disrupt business activities or cause environmental damage. The Group's employees, contractors, residents living near the facilities or customers can suffer injuries. Property damage can involve the facilities of the Group as well as the property of third parties. The seriousness of the consequences of these events varies according to the vulnerability of the people, ecosystems and business activities impacted, on the one hand, and the number of people in the impact area and the location of the ecosystems and business activities in relation to TOTAL's facilities or to the trajectory of the products after the event, on the other hand.

Acts of terrorism against the Group's plants and sites, pipelines, transportation and computer systems could also severely disrupt business and operations and could cause harm to people, the environment and property.

Like most industrial groups, TOTAL is impacted by reports of occupational illnesses, particularly those caused by past exposure of the Group's employees to asbestos. Asbestos exposure has been subject to close monitoring at all of the Group's business segments. As of December 31, 2013, the Group estimates that the ultimate cost of all pending or future asbestos-related claims is not likely to have a material impact on the Group's financial position.

Certain segments or activities face specific additional risks.

TOTAL's Upstream segment activities face, notably, risks related to the physical characteristics of oil or gas fields. These risks include eruptions of oil or gas, discovery of hydrocarbon pockets with abnormal pressure, crumbling of well openings, leaks that can harm the environment and explosions or fires. These events, which may cause injury, death or environmental damage, can also damage or destroy oil or gas wells as well as equipment and other property, lead to a disruption of the Group's operations or reduce its production. In addition, since exploration and production activities may take place on sites that are ecologically sensitive (for example, in tropical forests or in a marine environment), each site requires a risk-based approach to avoid or minimize the impact on human health, flora and fauna, the ecosystem and biodiversity. In certain situations where the operator is not a Group entity, the Group may have reduced influence and control over third parties, which may limit its ability to manage and control these risks.

The activities of the Refining & Chemicals and Marketing & Services business segments also entail additional health, safety and environmental risks related to the overall life cycle of the products manufactured, as well as the raw materials used in the manufacturing process, such as catalysts, additives and monomers. These risks can arise from the intrinsic characteristics of the products involved (flammability, toxicity or long-term environmental impacts such as greenhouse gas emissions), their use (including by customers), emissions and discharges resulting from their manufacturing process (such as greenhouse gas emissions), and from material and waste disposal (recycling, regeneration or other process, or waste elimination).

## Edgar Filing: TOTAL S.A. - Form 20-F

Contracts signed by the Group's entities may provide for indemnification obligations either by TOTAL in favor of the contractor or third parties or by the contractor or third parties in favor of TOTAL if, for example, an event occurs leading to death, personal injury or property or environmental damage.

With respect to joint ventures in which an entity of the Group has an interest and the assets of which are operated by such Group entity under an operating agreement between the joint venture and such entity, contractual terms generally provide that the operator assumes full liability for damages caused by its gross negligence or willful misconduct.

With respect to joint ventures in which an entity of the Group has an interest but the assets of which are operated by a third party, contractual terms generally provide that the operator assumes full liability for damages caused by its gross negligence or willful misconduct.

In the absence of the operator's gross negligence or willful misconduct, other liabilities are generally borne by the joint venture and the cost thereof is assumed by the partners of the joint venture in proportion to their respective ownership interests.

2013 Form 20-F TOTAL S.A. 5

## **Table of Contents**

### **Item 3 - Risk Factors**

With respect to third-party providers of goods and services, the amount and nature of the liability assumed by the third party depends on the context and may be limited by contract. With respect to their customers, the Group's entities ensure that their products meet applicable specifications and abide by all applicable consumer protection laws. Failure to do so could lead to personal injury, environmental harm and loss of customers, which could negatively impact the Group's results of operations, financial position and reputation.

***Crisis management systems are necessary to respond effectively to emergencies and to avoid potential disruptions in our business and operations.***

TOTAL has crisis management plans in place to deal with emergencies. However, these plans cannot exclude the risk that the Group's business and operations may be severely disrupted in a crisis situation or ensure the absence of impacts on third parties or the environment. TOTAL also has implemented business continuity plans in order to continue or resume operations following a shutdown or incident. An inability to restore or replace critical capacity in a timely manner could prolong the impact of any disruption and could have a material adverse effect on the Group's business and operations. For more information on the Group's crisis management systems, see Item 4. Other Matters Management and monitoring of industrial and environmental risks.

***While our insurance coverage is in line with industry practice, we are not insured against all possible risks.***

The Group maintains insurance to protect itself against the risk of damage to Group property and/or business interruption to the Group's main refining and petrochemical sites. In addition, the Group also maintains worldwide third-party liability insurance coverage for all of its subsidiaries. The Group's insurance and risk management policies are described under Item 4. Other Matters Insurance and risk management. TOTAL believes that its insurance coverage is in line with industry practice and sufficient to cover normal risks in its operations. However, the Group is not insured against all potential risks. In the event of a major environmental disaster, for example, TOTAL's liability may exceed the maximum coverage provided by its third-party liability insurance. The loss TOTAL could suffer in the event of such disaster would depend on all the facts and circumstances of the event and would be subject to a whole range of uncertainties, including legal uncertainty as to the scope of liability for consequential damages, which may include economic damage not directly connected to the disaster. The Group cannot guarantee that it will not suffer any uninsured loss and there can be no guarantee, particularly in the case of a major environmental disaster or industrial accident, that such loss would not have a material adverse effect on the Group.

***We are subject to stringent environmental, health and safety laws in numerous countries and may incur material costs to comply with these laws and regulations.***

TOTAL's workforce and the public are exposed to risks inherent to the Group's operations that potentially could lead to loss of life, injuries, property damage or environmental damage and could result in regulatory action and legal liability against the entities of the Group and its officers as well as damage to the Group's reputation.

TOTAL incurs, and will continue to incur, substantial expenditures to comply with increasingly complex laws and regulations aimed at protecting worker health and safety and natural habitats.

These expenditures include:

- costs incurred to prevent, control, eliminate or reduce certain types of air and water emissions, including those costs incurred in connection with measures taken to address climate change;
- remedial measures related to environmental contamination or accidents at various sites, including those owned by third parties;
- indemnification of individuals or entities claiming damages caused by accidents or by the Group's activities;
- increased production costs and costs related to changes in product specifications; and
- costs related to the decommissioning of drilling platforms and other facilities.

Such expenditures incurred could have a material effect on the results of operations of the Group and its financial position, if the Group's reserves prove inadequate.

Furthermore, in countries where the Group operates or plans to operate, the introduction of new laws and regulations, stricter enforcement or news interpretations of existing laws and regulations or the imposition of tougher license requirements may also cause the Group's entities to incur higher costs resulting from actions taken to comply with such laws and regulations, including:

- modifying operations;

installing pollution control equipment;  
implementing additional safety measures; and  
performing site clean-ups.

As a further result of, notably, the introduction of any new laws and regulations, the Group could also be compelled to curtail, modify or cease certain operations or implement temporary shutdowns of facilities, which could diminish the Group's productivity and have a material adverse impact on its results of operations.

All TOTAL entities monitor legal and regulatory developments in order to remain in compliance with local and international rules and standards for the assessment and management of industrial and environmental risks. With regard to the permanent shutdown of an activity, the Group's environmental contingencies and asset retirement obligations are addressed in the Asset retirement obligation and Provisions for environmental contingencies sections of the Group's Consolidated Balance Sheet (see Note 19 to the Consolidated Financial Statements). Future expenditures related to asset retirement obligations are accounted for in accordance with the accounting principles described in Note 1Q to the Consolidated Financial Statements.

***Laws and regulations related to climate change and its physical effects may adversely affect our businesses.***

Growing public concern in a number of countries over greenhouse gas emissions and climate change, as well as a multiplication of stricter regulations in this area, could adversely affect the Group's businesses and product sales, increase its operating costs and reduce its profitability.

More of TOTAL's future production could come from unconventional sources in order to help meet the world's growing demand for energy. Since energy intensity of oil and gas production from unconventional sources can be higher than that of production from conventional sources, the CO<sub>2</sub> emissions produced by the Group's activities may increase. Therefore, TOTAL may need to incur additional costs related to certain projects. For information concerning the regulation of CO<sub>2</sub> emission allowances in Europe, see Item 4. Other Matters.

## Table of Contents

### Item 3 - Risk Factors

Management and monitoring of industrial and environmental risks    Health, safety and environmental regulations    European Union    2009 Emissions allowances    .

Finally, TOTAL's businesses operate in varied locales where the potential physical impacts of climate change, including changes in weather patterns, are highly uncertain and may adversely impact the results of the Group's operations.

#### *We face foreign exchange risks that could adversely affect our results of operations.*

The Group faces foreign exchange risks because a large percentage of its revenues and cash receipts are denominated in dollars, the international currency of petroleum sales, while a significant portion of its operating expenses and income taxes accrue in euros and other currencies. Movements between the dollar and euro or other currencies may adversely affect the Group's business by negatively impacting its booked revenues and income, and may also result in significant translation adjustments that impact its shareholders' equity.

#### *We are exposed to trading risks that could adversely affect our business.*

TOTAL's trading business is particularly sensitive to market risk and more specifically to price risk as a consequence of the volatility of oil prices, to liquidity risk (inability to buy or sell oil cargoes at quoted prices) and to performance risk (counterparty does not fulfill its contractual obligations). The Group uses various instruments such as futures, forwards, swaps and options on organized markets or over-the-counter markets to hedge against fluctuations in the price of crude oil, refined products, natural gas, power, coal, emissions and freight-rates. Although TOTAL believes it has established appropriate risk management procedures, large market fluctuations may adversely affect the Group's business and results of operations and make it more difficult to optimize revenues from the Group's oil and gas production and to obtain favorable pricing to supply the Group's refineries.

#### *Disruption of our critical IT services or breaches of information security could adversely affect our operations.*

The businesses of the Group depend heavily on the reliability and security of its information technology (IT) systems. If the integrity of the IT systems were compromised due to, for example, technical failure or cyber attack, the business operations and assets of the Group could sustain serious damage, material intellectual property could be divulged and, in some cases, personal injury, environmental harm and regulatory violations could occur, potentially having a material adverse effect on the Group's results of operations, including profits.

#### *We have activities in certain countries that are targeted by economic sanctions under relevant U.S. and EU laws, and if our activities are not conducted in accordance with the relevant conditions, we could be sanctioned or otherwise penalized.*

The United States has adopted various laws and regulations designed to restrict trade with Cuba, Iran, Sudan and Syria, and the U.S. Department of State has identified these countries as state sponsors of terrorism. The European Union (EU) has similar restrictions with respect to Iran and Syria. A violation of these laws or regulations could result in criminal and material financial penalties, including being prohibited from transacting in U.S. dollars. The Group currently has limited marketing and trading

activities in Cuba and a limited presence in Iran and Syria (for more information, see Item 4. Other Matters - Cuba, Iran and Syria). Since the independence of the Republic of South Sudan on July 9, 2011, TOTAL is no longer present in Sudan.

With respect to Iran, the United States has adopted a number of measures since 1996 that provide for the possible imposition of sanctions against non-U.S. companies engaged in certain activities in and with Iran, including in Iran's energy sector. The United States first adopted legislation in 1996 authorizing sanctions against non-U.S. companies doing business in Iran and Libya (the Iran and Libya Sanctions Act, referred to as ILSA). In 2006, ILSA was amended to concern only business in Iran (then renamed the Iran Sanctions Act, referred to as ISA). Pursuant to ISA, which as described below has since been amended and expanded, the President of the United States is authorized to initiate an investigation into the activities of non-U.S. companies in Iran's energy sector and to consider the possible imposition of sanctions against persons found, amongst other activities, to have knowingly made investments of \$20 million or more in any 12-month period in the petroleum sector in Iran. In May 1998, the U.S. government waived the application of ISA sanctions for TOTAL's investment in the South Pars gas field. This waiver, which has not been modified since it was granted, does not address any of TOTAL's other activities in Iran. In each of the years between the passage of ILSA and 2007, TOTAL made investments in Iran in excess of \$20 million (excluding the investments made as part of the development of South Pars). These investments will not be subject to investigation by the U.S. authorities due to the application of the Special Rule granted on September 30, 2010, as further described below. Since 2008, TOTAL's position has consisted essentially in being reimbursed for its past investments as part of buyback contracts signed between 1995 and 1999 with respect to permits on which the Group is no longer the operator. Since 2011, TOTAL has had no production in Iran.

ISA was amended in July 2010 by the Comprehensive Iran Sanctions, Accountability and Divestment Act of 2010 (CISADA), which expanded both the list of activities with Iran that could lead to sanctions and the list of sanctions available. In particular, CISADA authorized sanctions for knowingly providing refined petroleum products above certain monetary thresholds to Iran and for providing goods, services, technology, information or support that could directly and significantly either facilitate Iran's domestic production of refined petroleum products or contribute to Iran's ability to import refined petroleum products. TOTAL



## Edgar Filing: TOTAL S.A. - Form 20-F

had already discontinued potentially sanctionable sales of refined petroleum products to Iran prior to CISADA's enactment. On September 30, 2010, the U.S. State Department announced that the U.S. government, pursuant to the "Special Rule" provision of ISA added by CISADA that allows it to avoid making a determination of sanctionability under ISA with respect to any party that provides certain assurances, would not make such a determination with respect to TOTAL. The U.S. State Department further indicated at that time that, as long as TOTAL acts in accordance with its commitments, TOTAL will not be regarded as a company of concern for its past Iran-related activities.

Since the applicability of the "Special Rule" to TOTAL was announced by the U.S. State Department, the United States has imposed a number of additional measures targeting activities in Iran. On November 21, 2011, President Obama issued Executive Order 13590, which authorized sanctions for knowingly, on or after November 21, 2011, selling, leasing, or providing to Iran goods, services, technology or support above certain monetary thresholds that could directly and significantly contribute to the maintenance

2013 Form 20-F TOTAL S.A. 7

## **Table of Contents**

### **Item 3 - Risk Factors**

or expansion of Iran's ability to develop petroleum resources located in Iran, or domestic production of petrochemical products. TOTAL does not conduct activities in Iran that it believes would be sanctionable under Executive Order 13590. In any event, there is no provision in Executive Order 13590 that modifies the aforementioned Special Rule, and the U.S. State Department issued guidance that completion of existing contracts is not sanctionable under Executive Order 13590.

On July 30, 2012, President Obama issued Executive Order 13622, which authorized sanctions for, amongst other activities, (i) knowingly, on or after July 30, 2012, engaging in a significant transaction for the purchase or acquisition of petroleum, petroleum products or petrochemical products from Iran, or (ii) materially assisting, sponsoring or providing financial, material, or technological support for, or goods or services in support of, the National Iranian Oil Company, the Naftiran Intertrade Company (NICO), or the Central Bank of Iran. There is no provision in Executive Order 13622 that modifies the aforementioned Special Rule. In addition, Executive Order 13622 contains an exception for the Shah Deniz gas field pipeline project, in which TOTAL (10%) and NICO (10%) participate, to supply natural gas from the Shah Deniz gas field in Azerbaijan to Europe and Turkey. This Executive Order was amended and expanded by Executive Order 13645 (discussed in further detail below), in order to capture as potentially sanctionable conduct a wider range of petroleum-related activities. TOTAL does not conduct activities that it believes would be sanctionable under Executive Order 13622 as amended by Executive Order 13645.

On August 10, 2012, President Obama signed into law the Iran Threat Reduction and Syria Human Rights Act of 2012 (ITRA), which, amongst other things, amended ISA and CISADA. ITRA, like CISADA before it, expanded both the list of activities with Iran that could lead to sanctions and the list of sanctions available. Amongst other things, ITRA authorized sanctions for (i) the provision to Iran of goods, services, technology, information or support above a certain market value that could directly and significantly facilitate the maintenance or expansion of Iran's domestic production of refined petroleum products, including any direct and significant assistance with the construction, modernization, or repair of petroleum refineries or infrastructure directly associated with petroleum refineries, (ii) participation in a joint venture established on or after January 1, 2002 with respect to the development of petroleum resources outside of Iran where either the Government of Iran is a substantial partner or investor or where the joint venture could enhance Iran's ability to develop petroleum resources in Iran, and (iii) owning, operating, controlling or insuring a vessel used to transport crude oil from Iran to another country. ITRA also contains an exception for the Shah Deniz gas field project. TOTAL does not conduct activities that it believes would be sanctionable under ITRA.

ITRA also added Section 13(r) to the Securities Exchange Act of 1934, as amended (Exchange Act), which requires TOTAL to disclose whether it or any of its affiliates has engaged during the calendar year in certain Iran-related activities, including those targeted under ISA, without regard to whether such activities are sanctionable under ISA, and any transaction or dealing with the Government of Iran that is not conducted pursuant to a specific authorization of the U.S.

government (see Item 4. Other Matters - Iran). For any annual report that contains responsive Section 13(r) disclosure, an Iran Notice is separately filed with the United States Securities and Exchange Commission (SEC). The SEC must notify the President and U.S. Congress, and the President must initiate an investigation and make a sanctions determination within 180 days after initiating the investigation.

TOTAL believes that its Iran-related activities required to be disclosed by Section 13(r) are not sanctionable, and TOTAL has not been informed that it is at risk of possible imposition of sanctions for activities previously disclosed.

The United States has adopted other sanctions measures, including the National Defense Authorization Act of Fiscal Year 2012 (NDAA 2012), which authorizes the imposition of sanctions on foreign financial institutions engaged in certain transactions, the Iran Freedom and Counter-Proliferation Act of 2012 (IFCA), which, amongst other things, authorizes the imposition of sanctions on entities that knowingly provided goods or services to the energy, shipbuilding, and shipping sectors, or to port operations, of Iran, and Executive Order 13645, which, in addition to amending Executive Order 13622 as discussed above, implements certain provisions of IFCA and authorizes additional sanctions against, amongst other things, foreign financial institutions that engage in certain transactions, potentially including those for the sale, supply, or transfer to or from Iran of natural gas, and for the purchase of petroleum or petroleum products from Iran. TOTAL does not conduct activities that it believes would be sanctionable under IFCA, NDAA 2012 or Executive Order 13645.

Also with regard to Iran, France and the EU have adopted measures, based on United Nations Security Council resolutions, which restrict the movement of certain individuals and goods to or from Iran as well as certain financial transactions with Iran, in each case when such individuals, goods or transactions are related to nuclear proliferation and weapons activities or likely to contribute to their development. In July and October 2010, the EU adopted new restrictive measures regarding Iran. Among other things, the supply of key equipment and technology in the following sectors of the oil and gas industry in Iran are prohibited: refining, liquefied natural gas, exploration and production. The prohibition extends to technical assistance, training and financial assistance in connection with such items. Extension of loans or credit to, acquisition of shares in, entry into joint ventures with or other participation in enterprises in Iran (or Iranian-owned enterprises outside of Iran) engaged in any of the targeted sectors also is prohibited. Moreover, with respect to restrictions on transfers of funds and on financial services, any transfer of at least €40,000 or equivalent to or from an Iranian individual or entity shall require a prior authorization of the competent authorities of the EU Member States. TOTAL conducts its activities in compliance with these EU measures.

On January 23, 2012, the Council of the EU prohibited the purchase, import and transport of Iranian oil and petroleum and petrochemical products by European persons and by entities constituted under the laws of an EU Member State. Prior to that date, TOTAL had ceased these now-prohibited activities.

With respect to Syria, the EU adopted measures in May 2011 with criminal and financial penalties that prohibit the supply of certain equipment to Syria, as well as certain financial and asset transactions with respect to a list of named individuals and entities. These measures apply to European persons and to entities constituted under the laws of an EU Member State. In September 2011, the EU adopted further measures, including, notably, a prohibition on the purchase, import

## Edgar Filing: TOTAL S.A. - Form 20-F

or transportation from Syria of crude oil and petroleum products. Since early September 2011, the Group ceased to purchase hydrocarbons from Syria. On December 1, 2011, the EU extended sanctions against, among others, three state-owned Syrian oil firms, including General Petroleum Corporation, TOTAL s co-contracting partner in the production sharing agreement signed in 1988 (Deir Es Zor licence) and the Tabiyeh contract. The United States also has various

8 TOTAL S.A. Form 20-F 2013

## **Table of Contents**

Items 3 - 4

measures regarding Syria. Since early December 2011, the Group has ceased its activities that contribute to oil and gas production in Syria.

In addition, the U.S. Treasury Department's Office of Foreign Assets Control (referred to as "OFAC") administers and enforces economic sanctions programs, some of which are based on the United Nations Security Council resolutions referred to above, against targeted foreign countries, territories, entities and individuals (including those engaged in activities related to terrorism or the proliferation of weapons of mass destruction and other threats to the national security, foreign policy or economy of the United States). The activities that are restricted depend on the sanctions program and targeted country or parties, and civil and/or criminal penalties, imposed on a per transaction basis, can be substantial. These OFAC sanctions generally apply to U.S. persons and activities taking place in the United States or that are otherwise subject to U.S. jurisdiction. Sanctions administered by OFAC target, among others, Cuba, Iran, Sudan and Syria. TOTAL does not believe that these sanctions are applicable to any of its activities in the OFAC-targeted countries.

Moreover, many U.S. states have adopted legislation requiring state pension funds to divest themselves of securities in any company with active business operations in Iran, and state contracts not to be awarded to such companies. State insurance regulators have adopted similar initiatives relating to investments

by insurance companies in companies doing business with the Iranian oil and gas, nuclear and defense sectors. If TOTAL's presence in Iran were determined to fall within the prohibited scope of these laws, and TOTAL were not to qualify for any available exemptions, certain U.S. institutions holding interests in TOTAL may be required to sell their interests. If significant, sales of securities resulting from such laws and/or regulatory initiatives could have an adverse effect on the prices of TOTAL's securities.

TOTAL continues to closely monitor legislative and other developments in France, the EU and the United States, including the Joint Plan of Action recently announced among Iran and the P5+1 countries (China, France, Russia, the United Kingdom and the United States of America, as well as Germany) regarding limits on Iran's nuclear activities and the suspension of certain United States and European Union sanctions regarding Iran, in order to determine whether its limited activities or presence in sanctioned or potentially sanctioned jurisdictions could subject TOTAL to the application of sanctions.

TOTAL is also closely monitoring developments of the situation in Crimea and any related regulations and/or economic sanctions that could be adopted by the authorities.

TOTAL cannot assure that current or future regulations or developments will not have a negative impact on its business or reputation.

## **ITEM 4. INFORMATION ON THE COMPANY**

### **HISTORY AND DEVELOPMENT**

TOTAL S.A., a French *société anonyme* (limited company) incorporated in France on March 28, 1924, together with its subsidiaries and affiliates, is the fifth largest publicly-traded integrated international oil and gas company in the world<sup>(1)</sup>.

With operations in more than 130 countries, TOTAL has activities in every sector of the oil industry: including in the upstream (oil and gas exploration, development and production, liquefied natural gas) and downstream (refining, petrochemicals, specialty chemicals, the trading and shipping of crude oil and petroleum products, marketing). In addition, TOTAL has equity stakes in coal mines and operates in the power generation and renewable energy sectors.

## Edgar Filing: TOTAL S.A. - Form 20-F

TOTAL began its Upstream operations in the Middle East in 1924. Since that time, the Company has grown and expanded its

operations worldwide. In early 1999, the Company acquired control of PetroFina S.A. (hereafter referred to as PetroFina or Fina ) and, in early 2000, the Company acquired control of Elf Aquitaine S.A. (hereafter referred to as Elf Aquitaine or Elf ).

The Company's corporate name is TOTAL S.A. Its registered office is 2, place Jean Millier, La Défense 6, 92400 Courbevoie, France. Its telephone number is +33 (0)1 47 44 45 46.

TOTAL S.A. is registered in France at the Nanterre Trade Register under the registration number 542 051 180. The length of the life of the Company is 99 years from March 22, 2000, unless it is dissolved or extended prior to such date.

### BUSINESS OVERVIEW

TOTAL's worldwide operations in 2013 were conducted through three business segments: Upstream, Refining & Chemicals and Marketing & Services. The table below gives information on the

geographic breakdown of TOTAL's activities and is taken from Note 5 to the Consolidated Financial Statements included elsewhere herein.

(M€)	France	Rest of Europe	North America	Africa	Rest of world	Total
<b>2013</b>						
Non-Group sales <sup>(a)</sup>	43,412	96,876	16,815	17,428	15,011	<b>189,542</b>
Property, plant and equipment, intangible assets, net	4,533	19,463	14,204	27,444	23,456	<b>89,100</b>
Capital expenditures	1,335	4,736	3,130	8,060	8,661	<b>25,922</b>
<b>2012</b>						
Non-Group sales <sup>(a)</sup>	45,981	103,862	17,648	17,921	14,649	<b>200,061</b>
Property, plant and equipment, intangible assets, net	4,560	17,697	15,220	24,999	19,714	<b>82,190</b>
Capital expenditures	1,589	4,406	3,148	7,274	6,526	<b>22,943</b>
<b>2011</b>						
Non-Group sales <sup>(a)</sup>	42,626	81,453	15,917	15,077	29,620	<b>184,693</b>
Property, plant and equipment, intangible assets, net	5,637	15,576	14,518	23,546	17,593	<b>76,870</b>
Capital expenditures	1,530	3,802	5,245	5,264	8,700	<b>24,541</b>

<sup>(a)</sup> Non-Group sales from continuing operations.

<sup>(1)</sup> Based on market capitalization (in dollars) as of December 31, 2013.

## **Table of Contents**

### **Item 4 - Business Overview**

#### **UPSTREAM SEGMENT**

TOTAL's Upstream segment includes the activities of Exploration & Production and Gas & Power. The Group has exploration and production activities in more than fifty countries and produces oil or gas in approximately thirty countries. Gas & Power conducts activities downstream from production related to natural gas, liquefied natural gas (LNG) and liquefied petroleum gas (LPG), as well as power generation and trading, and other activities. Effective July 1, 2012, the Upstream segment no longer includes the activities of New Energies, which are now reported with Marketing & Services. As a result, certain information has been restated according to the new organization.

#### **Exploration & Production**

#### **Exploration and development**

TOTAL's Upstream segment aims at continuing to combine long-term growth and profitability at the level of the best actors of the industry.

TOTAL evaluates exploration opportunities based on a variety of geological, technical, political, economic (including taxes and license terms), environmental and societal factors, and on projected oil and gas prices. Discoveries of new fields and extensions of existing fields have brought an additional 2,260 Mboe to the Upstream segment's proved reserves during the 3-year period ended December 31, 2013 (before deducting production and sales of reserves in place and adding any acquisitions of reserves in place during this period). The level of revisions during this 3-year period is close to nil (-11 Mboe) since the positive revisions on a large majority of the fields have been significantly impacted by the effects of the increase of the

reference oil price (from \$79.02/b in 2010 to \$108.02/b in 2013 for Brent crude), the variations of the U.S. onshore gas price (from \$4.38/MBtu in 2010 to \$4.21/MBtu in 2011, \$2.85/MBtu in 2012 and \$3.67/MBtu in 2013 for Henry Hub) and by a perimeter change in four projects.

In 2013, the exploration investments of consolidated subsidiaries amounted to €2,809 million (including exploration bonuses included in the unproved property acquisition costs). Exploration investments were made primarily in the United States, United Kingdom, Australia, Norway, Iraq, French Guiana, Angola, Kenya, Côte d'Ivoire and Mauritania. In 2012, the exploration investments of consolidated subsidiaries amounted to €2,634 million (including exploration bonuses included in the unproved property acquisition costs). The main exploration investments were made in Angola, the United Kingdom, the United States, Norway, Iraq, Nigeria, Brazil, Malaysia, the Republic of Congo and French Guiana. In 2011, the exploration investments of consolidated subsidiaries amounted to €1,629 million (including exploration bonuses included in the unproved property acquisition costs) notably in Norway, the United Kingdom, Angola, Brazil, Azerbaijan, Indonesia, Brunei, Kenya, French Guiana and Nigeria.

The Group's consolidated Exploration & Production subsidiaries' development investments amounted to €16 billion in 2013, primarily in Norway, Angola, Australia, Nigeria, Canada, United Kingdom, the Republic of the Congo, Gabon, Indonesia, Russia, the United States and Kazakhstan. The Group's consolidated Exploration & Production subsidiaries' development investments amounted to €14 billion in 2012, primarily in Angola, Norway, Canada, Australia, Nigeria, the United Kingdom, Gabon, Kazakhstan, Indonesia, the Republic of the Congo, the United States and Russia. The Group's consolidated Exploration & Production subsidiaries' development investments amounted to €10 billion in 2011, mostly in Angola, Nigeria, Norway, Kazakhstan, the United Kingdom, Australia, Canada, Gabon, Indonesia, the Republic of the Congo, the United States and Thailand.

#### **Reserves**

The definitions used for proved, proved developed and proved undeveloped oil and gas reserves are in accordance with the United States Securities & Exchange Commission (SEC) Rule 4-10 of Regulation S-X as amended by the SEC Modernization of Oil and Gas Reporting release issued on December 31, 2008. Proved reserves are estimated using geological and engineering data to determine with reasonable certainty whether the crude oil or natural gas in known reservoirs is

## Edgar Filing: TOTAL S.A. - Form 20-F

recoverable under existing regulatory, economic and operating conditions.

TOTAL's oil and gas reserves are consolidated annually, taking into account, among other factors, levels of production, field reassessments, additional reserves from discoveries and acquisitions, disposal of reserves and other economic factors. Unless otherwise indicated, any reference to TOTAL's proved reserves, proved developed reserves, proved undeveloped reserves and production reflects the Group's entire share of such reserves or such production. TOTAL's worldwide proved reserves include the proved reserves of its consolidated subsidiaries as well as its proportionate share of the proved reserves of equity affiliates. For further information concerning changes in TOTAL's proved reserves for the years ended December 31, 2013, 2012 and 2011, see Supplemental Oil and Gas Information (Unaudited).

The reserves estimation process involves making subjective judgments. Consequently, estimates of reserves are not exact measurements and are subject to revision under well-established control procedures.

The reserves booking process requires, among other things:

internal peer reviews of technical evaluations to ensure that the SEC definitions and guidance are followed; and  
that management makes significant funding commitments towards the development of the reserves prior to booking.  
For further information regarding the preparation of reserves estimates, see Supplemental Oil and Gas Information (Unaudited).

### **Proved reserves for years 2013, 2012 and 2011**

In accordance with the amended Rule 4-10 of Regulation S-X, proved reserves at December 31, are calculated using a 12-month average price determined as the unweighted arithmetic average of the first-day-of-the-month price for each month of the relevant year unless prices are defined by contractual arrangements, excluding escalations based upon future conditions. The reference prices for 2013, 2012 and 2011 were, respectively, \$108.02/b, \$111.13/b and \$110.96/b for Brent crude.

As of December 31, 2013, TOTAL's combined proved reserves of oil and gas were 11 526 Mboe (49% of which were proved developed reserves). Liquids (crude oil, condensates, natural gas

**Table of Contents****Item 4 - Business Overview**

liquids and bitumen) represented approximately 47% of these reserves and natural gas the remaining 53%. These reserves were located in Europe (mainly in Norway and the United Kingdom), in Africa (mainly in Angola, Gabon, Nigeria and the Republic of the Congo), in the Americas (mainly in Canada, Argentina and Venezuela), in the Middle East (mainly in Qatar, the United Arab Emirates and Yemen), and in Asia (mainly in Australia, Kazakhstan and Russia).

As of December 31, 2012, TOTAL's combined proved reserves of oil and gas were 11,368 Mboe (51% of which were proved developed reserves). Liquids (crude oil, condensates, natural gas liquids and bitumen) represented approximately 50% of these reserves and natural gas the remaining 50%. These reserves were located in Europe (mainly in Norway and the United Kingdom), in Africa (mainly in Angola, Gabon, Libya, Nigeria and the Republic of the Congo), in the Americas (mainly in Canada, Argentina and Venezuela), in the Middle East (mainly in Qatar, the United Arab Emirates and Yemen), and in Asia (mainly in Australia, Kazakhstan and Russia).

As of December 31, 2011, TOTAL's combined proved reserves of oil and gas were 11,423 Mboe (53% of which were proved developed reserves). Liquids (crude oil, condensates, natural gas liquids and bitumen) represented approximately 51% of these reserves and natural gas the remaining 49%. These reserves were located in Europe (mainly in Italy, Norway and the United Kingdom), in Africa (mainly in Angola, Gabon, Libya, Nigeria and the Republic of the Congo), in the Americas (mainly in Canada, the United States, Argentina and Venezuela), in the Middle East (mainly in Qatar, the United Arab Emirates and Yemen), and in Asia (mainly in Australia, Indonesia, Kazakhstan and Russia).

**Sensitivity to oil and gas prices**

Changes in the price used as a reference for the proved reserves estimation result in non-proportionate inverse changes in proved reserves associated with production sharing and risked service contracts (which together represent approximately 25% of TOTAL's reserves as of December 31, 2013). Under such contracts, TOTAL is entitled to a portion of the production, the sale of which is meant to cover expenses incurred by the Group. As oil prices increase, fewer barrels are necessary to cover the same amount of expenses. Moreover, the number of barrels retrievable under these contracts may vary according to criteria such as cumulative production, the rate of return on investment or the income-cumulative expenses ratio. This decrease is partly offset by an extension of the duration over which fields can be produced economically. However, the increase in reserves due to extended field life resulting from higher prices is generally less than the decrease in reserves under production sharing or risked service contracts due to such higher prices. As a result, higher prices lead to a decrease in TOTAL's reserves.

Furthermore, changes in the price used as a reference for the proved reserves estimation have an impact on the volume of royalties in Canada and thus TOTAL's share of proved reserves.

Lastly, for any type of contract, a decrease of the reference price of petroleum products may involve a significant reduction of proved reserves.

**Production**

For the full year 2013, average daily oil and gas production was 2,299 kboe/d compared to 2,300 kboe/d in 2012 and 2,346 kboe/d in 2011. Liquids accounted for approximately 51% and natural gas for approximately 49% of TOTAL's combined liquids and natural gas production in 2013.

The table on the next page sets forth by geographic area TOTAL's average daily production of liquids and natural gas for each of the last three years.

Consistent with industry practice, TOTAL often holds a percentage interest in its fields rather than a 100% interest, with the balance being held by joint venture partners (which may include other international oil companies, state-owned oil companies or government entities). TOTAL frequently acts as operator (the party responsible for technical production) on acreage in which it holds an interest. See the table Presentation of production activities by geographic area on the following pages for a description of TOTAL's producing assets.

As in 2012 and 2011, substantially all of the liquids production from TOTAL's Upstream segment in 2013 was marketed by the Trading & Shipping division of TOTAL's Refining & Chemicals segment (see table Trading & Shipping Trading's crude oil sales and supply and refined products sales, below).

The majority of TOTAL's natural gas production is sold under long term contracts. However, its North American production, and part of its production from the United Kingdom, Norway and Argentina, is sold on the spot market. The long-term contracts under which TOTAL sells its natural gas usually provide for a price related to, among other factors, average crude oil and other petroleum product prices, as well as, in some cases, a cost-of-living index. Though the price of natural gas tends to fluctuate in line with crude oil prices, a slight delay may occur before changes in crude oil prices are reflected in long-term natural gas prices. Due to the interaction between the contract price of natural gas and crude oil prices, contract prices are not usually affected by short-term market fluctuations in the spot price of natural gas.



## Edgar Filing: TOTAL S.A. - Form 20-F

Some of TOTAL's long-term contracts, notably in Argentina, Indonesia, Nigeria, Norway, Qatar and Russia, specify the delivery of quantities of natural gas that may or may not be fixed and determinable. Such delivery commitments vary substantially, both in duration and in scope, from contract to contract throughout the world. For example, in some cases, contracts require delivery of natural gas on an as-needed basis, and, in other cases, contracts call for the delivery of varied amounts of natural gas over different periods of time. Nevertheless, TOTAL estimates the fixed and determinable quantity of gas to be delivered over the period 2014-2016 to be 3,795 Bcf. The Group expects to satisfy most of these obligations through the production of its proved reserves of natural gas, with, if needed, additional sourcing from spot market purchases (see Supplemental Oil and Gas Information (Unaudited) ).

2013 Form 20-F TOTAL S.A. 11

**Table of Contents**

## Item 4 - Business Overview

**PRODUCTION BY REGION**

	2013			2012			2011		
	Liquids	Natural gas	Total	Liquids	Natural gas	Total	Liquids	Natural gas	Total
	kb/d	Mcf/d	kboe/d	kb/d	Mcf/d	kboe/d	kb/d	Mcf/d	kboe/d
<b>Africa</b>	<b>531</b>	<b>699</b>	<b>670</b>	<b>574</b>	<b>705</b>	<b>713</b>	<b>517</b>	<b>715</b>	<b>659</b>
Algeria	5	82	21	6	90	23	16	94	33
Angola	175	62	186	172	44	179	128	39	135
Cameroon							2	1	3
Gabon	55	16	59	54	19	57	55	17	58
Libya	50		50	62		62	20		20
Nigeria	158	511	261	173	521	279	179	534	287
The Congo, Republic of	88	28	93	107	31	113	117	30	123
<b>North America</b>	<b>28</b>	<b>256</b>	<b>73</b>	<b>25</b>	<b>246</b>	<b>69</b>	<b>27</b>	<b>227</b>	<b>67</b>
Canada <sup>(a)</sup>	13		13	12		12	11		11
United States	15	256	60	13	246	57	16	227	56
<b>South America</b>	<b>54</b>	<b>627</b>	<b>166</b>	<b>59</b>	<b>682</b>	<b>182</b>	<b>71</b>	<b>648</b>	<b>188</b>
Argentina	13	366	78	12	394	83	14	397	86
Bolivia	4	129	28	3	124	27	3	118	25
Colombia				1	23	6	5	27	11
Trinidad & Tobago	2	52	12	4	70	16	4	47	12
Venezuela	35	80	48	39	71	50	45	59	54
<b>Asia-Pacific</b>	<b>30</b>	<b>1,170</b>	<b>235</b>	<b>27</b>	<b>1,089</b>	<b>221</b>	<b>27</b>	<b>1,160</b>	<b>231</b>
Australia		25	4		29	5		25	4
Brunei	2	59	13	2	54	12	2	56	13
China		46	8		7	1			
Indonesia	17	605	131	16	605	132	18	757	158
Myanmar		129	16		127	16		119	15
Thailand	11	306	63	9	267	55	7	203	41
<b>CIS</b>	<b>32</b>	<b>1,046</b>	<b>227</b>	<b>27</b>	<b>909</b>	<b>195</b>	<b>22</b>	<b>525</b>	<b>119</b>
Azerbaijan	5	82	20	4	64	16	4	57	14
Russia	27	964	207	23	845	179	18	468	105
<b>Europe</b>	<b>168</b>	<b>1,231</b>	<b>392</b>	<b>197</b>	<b>1,259</b>	<b>427</b>	<b>245</b>	<b>1,453</b>	<b>512</b>
France	1	45	9	2	58	13	5	69	18
The Netherlands	1	195	35	1	184	33	1	214	38
Norway	136	575	243	159	622	275	172	619	287
United Kingdom	30	416	105	35	395	106	67	551	169
<b>Middle East</b>	<b>324</b>	<b>1,155</b>	<b>536</b>	<b>311</b>	<b>990</b>	<b>493</b>	<b>317</b>	<b>1,370</b>	<b>570</b>
United Arab Emirates	247	71	260	233	70	246	226	72	240
Iran									
Iraq	7	1	7	6		6			
Oman	24	66	37	24	61	37	24	62	36
Qatar	36	558	137	38	560	139	44	616	155
Syria							11	218	53
Yemen	10	459	95	10	299	65	12	402	86
<b>Total production</b>	<b>1,167</b>	<b>6,184</b>	<b>2,299</b>	<b>1,220</b>	<b>5,880</b>	<b>2,300</b>	<b>1,226</b>	<b>6,098</b>	<b>2,346</b>
<b>Including share of equity affiliates</b>	<b>325</b>	<b>1,955</b>	<b>687</b>	<b>308</b>	<b>1,635</b>	<b>611</b>	<b>316</b>	<b>1,383</b>	<b>571</b>
Algeria							10	3	10
Angola		16	3						
Colombia							4		4
Venezuela	35	7	37	38	7	40	44	7	45
United Arab Emirates	240	61	253	225	61	237	219	62	231
Oman	23	66	35	23	60	34	22	62	34
Qatar	8	385	78	7	364	74	8	382	78
Russia	19	962	197	15	844	171	9	465	95
Yemen		458	84		299	55		402	74

## Edgar Filing: TOTAL S.A. - Form 20-F

*(a) The Group's production in Canada consists of bitumen only. All of the Group's bitumen production is in Canada.*

12 TOTAL S.A. Form 20-F 2013

**Table of Contents**

Item 4 - Business Overview

**PRESENTATION OF PRODUCTION ACTIVITIES BY REGION**

The table below sets forth, by country, TOTAL's producing assets, the year in which TOTAL's activities commenced, the Group's interest in each asset and whether TOTAL is operator of the asset.

TOTAL's producing assets as of December 31, 2013 <sup>(a)</sup>			
	Year of entry into the country	Operated (Group share in %)	Non-operated (Group share in %)
<b>Africa</b>			
<b>Algeria</b>	<b>1952</b>		Tin Fouye Tabankort (35.00%)
<b>Angola</b>	<b>1953</b>	Girassol, Jasmim, Rosa, Dalia, Pazflor (Block 17) (40.00%)	Cabinda Block 0 (10.00%) Kuito, BBLT, Tombua-Landana (Block 14) (20.00%)(b)
<b>Gabon</b>	<b>1928</b>	Anguille (100.00%)  Anguille Nord Est (100.00%)  Anguille Sud-Est (100.00%)  Atora (40.00%)  Avocette (57.50%)  Ayol Marine (100.00%)  Baliste (50.00%)  Barbier (100.00%)  Baudroie Marine (50.00%)  Baudroie Nord Marine (50.00%)  Coucal (57.50%)  Girelle (100.00%)  Gonelle (100.00%)  Grand Anguille Marine (100.00%)  Grondin (100.00%)  Hylia Marine (75.00%)  Lopez Nord (100.00%)	Angola LNG (13.60%)

## Edgar Filing: TOTAL S.A. - Form 20-F

		Mandaros (100.00%)	
		M Boukou (57.5%)	
		M Boumba (100.00%)	
		Mérou Sardine Sud (50.00%)	
		Pageau (100.00%)	
		Port Gentil Océan (100.00%)	
		Port Gentil Sud Marine (100.00%)	
		Tchengue (100.00%)	
		Torpille (100.00%)	
		Torpille Nord Est (100.00%)	
<b>Libya</b>	<b>1959</b>		Rabi Kounga (47.50%) Zones 15, 16 & 32 (75.00%)(c)
			Zones 70 & 87 (75.00%)(c)
			Zones 129 & 130 (30.00%)(c)
			Zones 130 & 131 (24.00%)(c)
<b>Nigeria</b>	<b>1962</b>	OML 58 (40.00%)	
		OML 99 Amenam-Kpono (30.40%)	
		OML 100 (40.00%)	
		OML 102 (40.00%) OML 130 (24.00%)	OML 102-Ekanga (40.00%)
		OML 138 (20.00%)	
			Shell Petroleum Development Company (SPDC 10.00%)
			OML 118 - Bonga (12.50%)

**Table of Contents**

## Item 4 - Business Overview

TOTAL's producing assets as of December 31, 2013 <sup>(a)</sup>			
	Year of entry into the country	Operated (Group share in %)	Non-operated (Group share in %)
<b>The Congo, Republic of</b>	<b>1928</b>	Kombi-Likalala-Libondo (65.00%)	
		Moho Bilondo (53.50%)	
		Nkossa (53.50%)	
		Nsoko (53.50%)	
		Sendji (55.25%)	
		Tchendo (65.00%)	
		Tchibeli-Litanzi-Loussima (65.00%)	
		Tchibouela (65.00%)	
		Yanga (55.25%)	
			Loango (50.00%)
			Zatchi (35.00%)
<b>North America</b>			
<b>Canada</b>	<b>1999</b>		Surmont (50.00%)
<b>United States</b>	<b>1957</b>		Several assets in the Barnett Shale area (25.00%)(d)
			Several assets in the Utica Shale area (25.00%)(d)
			Chinook (33.33%)
			Tahiti (17.00%)
<b>South America</b>			
<b>Argentina</b>	<b>1978</b>	Aguada Pichana (27.27%)	
		Aguada San Roque (24.71%)	
		Aries (37.50%)	
		Cañadon Alfa Complex (37.50%)	
		Carina (37.50%)	
		Hidra (37.50%)	
		Kaus (37.50%)	
<b>Bolivia</b>	<b>1995</b>		Sierra Chata (2.51%)
			San Alberto (15.00%) San Antonio (15.00%)
<b>Venezuela</b>	<b>1980</b>		Itau (41.00%)
			PetroCedeño (30.323%) Yucal Placer (69.50%)
<b>Asia-Pacific</b>			
<b>Australia</b>	<b>2005</b>		Various fields in UJV GLNG (27.50%)(e)
<b>Brunei</b>	<b>1986</b>	Maharaja Lela Jamalulalam (37.50%)	
<b>China</b>	<b>2006</b>		South Sulige (49.00%)

## Edgar Filing: TOTAL S.A. - Form 20-F

<b>Indonesia</b>	<b>1968</b>	Bekapai (50.00%)	
		Handil (50.00%)	
		Peciko (50.00%)	
		Sisi-Nubi (47.90%)	
		South Mahakam (50.00%)	
		Tambora (50.00%)	
		Tunu (50.00%)	
			Badak (1.05%)
			Nilam-gas and condensates (9.29%)
			Nilam-oil (10.58%)
			Ruby-gas and condensates(15.00%)
<b>Myanmar</b>	<b>1992</b>	Yadana (31.24%)	
<b>Thailand</b>	<b>1990</b>		Bongkot (33.33%)
<b>Commonwealth of Independant States</b>			
<b>Azerbaijan</b>	<b>1996</b>		Shah Deniz (10.00%)
<b>Kazakhstan</b>	<b>1992</b>		Kashagan (16.81%)
<b>Russia</b>	<b>1991</b>	Kharyaga (40.00%)	
			Several fields through the participation in Novatek (16.96%)
<b>Europe</b>			
<b>France</b>	<b>1939</b>	Lacq (100.00%)	
		Laggrave (100.00%)	

**Table of Contents**

Item 4 - Business Overview

	Year of entry into the country	Operated  (Group share in %)	Non-operated  (Group share in %)
Norway	1965	Atla (40.00%)	
		Skirne (40.00%)	
			Åsgard (7.68%)
			Ekofisk (39.90%)
			Ekofisk South (39.90%)
			Eldfisk (39.90%)
			Embla (39.90%)
			Gimle (4.90%)
			Glitne (21.80%)
			Gungne (10.00%)
			Heimdal (16.76%)
			Huldra (24.33%)
			Islay (5.51%) <sup>(f)</sup>
			Kristin (6.00%)
			Kvitebjørn (5.00%)
			Mikkell (7.65%)
			Morvin (6.00%)
			Oseberg (14.70%)
			Oseberg East (14.70%)
			Oseberg South (14.70%)
			Sleipner East (10.00%)
			Sleipner West (9.41%)
			Snøhvit (18.40%)
			Stjerne (14.70%)
			Tor (48.20%)



## Edgar Filing: TOTAL S.A. - Form 20-F

		Troll I (3.69%)
		Troll II (3.69%)
		Tune (10.00%)
		Tyrihans (23.145%)
		Vale (24.24%)
		Vilje (24.24%)
		Visund (7.70%)
		Visund South (7.70%)
		Visund North (7.70%)
		Yttergryta (24.50%)
<b>The Netherlands</b>	<b>1964</b>	F6a gaz (55.66%)
		F6a huile (65.68%)
		F15a Jurassic (38.20%)
		F15a/F15d Triassic (32.47%)
		F15d (32.47%)
		J3a (30.00%)
		K1a (40.10%)
		K1b/K2a (60.00%)
		K2c (60.00%)
		K3b (56.16%)
		K3d (56.16%)
		K4a (50.00%)
		K4b/K5a (36.31%)
		K5b (50.00%)
		K6/L7 (56.16%)
		L1a (60.00%)
		L1d (60.00%)
		L1e (55.66%)
		L1f (55.66%)
		L4a (55.66%)

Edgar Filing: TOTAL S.A. - Form 20-F

L4d (55.66%)

E16a (16.92%)

E17a/E17b (14.10%)

J3b/J6 (25.00%)

Q16a (6.49%)

2013 Form 20-F TOTAL S.A. 15

**Table of Contents**

## Item 4 - Business Overview

	Year of entry into the country	Operated (Group share in %)	Non-operated (Group share in %)
<b>United Kingdom</b>	<b>1962</b>	Alwyn North, Dunbar, Forvie North, Ellon, Grant, Jura Nuggets (100.00%)	
		Elgin-Franklin, West Franklin (EFOG 46.17%)(g)	
		Glenelg (49.47%)	
		Islay (94.49%)(f)	
			Bruce (43.25%)
			Markham unitized fields (7.35%)
			Keith (25.00%)
<b>Middle East</b>			
<b>U.A.E.</b>	<b>1939</b>	Abu Dhabi-Abu Al Bu Khoosh (75.00%)	
			Abu Dhabi offshore (13.33%)(h)
			Abu Dhabi onshore (9.50%)(i)
			GASCO (15.00%)
			ADGAS (5.00%)
<b>Iraq</b>	<b>1920</b>		Halfaya (18.75%)(j)
<b>Oman</b>	<b>1937</b>		Various fields onshore (Block 6) (4.00%)(k)
			Mukhaizna field (Block 53) (2.00%)(l)
<b>Qatar</b>	<b>1936</b>	Al Khalij (100.00%)	
			North Field-Bloc NF Dolphin (24.50%)
			North Field-Bloc NFB (20.00%)
			North Field-Qatargas 2 Train 5 (16.70%)
<b>Yemen</b>	<b>1987</b>	Kharir/Atuf (Block 10) (28.57%)	
			Various fields onshore (Block 5) (15.00%)

(a) The Group's interest in the local entity is approximately 100% in all cases except for Total Gabon (58.28%) and certain entities in Abu Dhabi and Oman (see notes b through l below).

(b) Stake in the company Angola Block 14 BV (TOTAL 50.01%).

(c) TOTAL's stake in the foreign consortium.

(d) TOTAL's interest in the joint venture with Chesapeake.

(e) TOTAL's interest in the unincorporated joint venture.

(f) The field of Islay extends partially in Norway. TOTAL E&P UK holds a 94.49 % and TOTAL E&P Norge 5.51%.

(g) TOTAL holds a 46.17% indirect interest through its interest in EFOG (company 100% owned by TOTAL).

(h) Through ADMA (equity affiliate), TOTAL holds a 13.33% interest and participates in the operating company, Abu Dhabi Marine Operating Company.

(i) Through ADPC (equity affiliate), TOTAL holds a 9.50% interest and participates in the operating company, Abu Dhabi Company for Onshore Oil Operation.

(j) TOTAL holds an interest of 18.75% in the consortium.

(k) TOTAL holds an indirect interest of 4.00% in Petroleum Development Oman LLC, operator of Block 6, via its 10% interest in Pohol. TOTAL also holds a 5.54% interest in the Oman LNG facility (trains 1 and 2), and an indirect participation of 2.04% through O LNG in Qalhat LNG (train 3).

(l) TOTAL holds a direct interest of 2.00% in Block 53.

## Africa

**In 2013, TOTAL's production in Africa was 670 kboe/d, representing 29% of the Group's overall production, compared to 713 kboe/d in 2012 and 659 kboe/d in 2011.**

In **South Africa**, TOTAL acquired an interest in the 11B-12B license (50%, operator) in September 2013. This license, which covers an area of 19,000 km<sup>2</sup>, is located approximately 175 km south of the South African coast in water depths ranging from 200 m to 1,800 m. The drilling of an exploration well is planned for 2014.

In addition, in August 2013, the Group was granted approval by the South African authorities to convert its technical cooperation license for the Outeniqua Block (100%) into an exploration license, subject to the sale by TOTAL of 20% of its stake when the corresponding license agreement will have been negotiated and signed. The Outeniqua Block, which covers approximately 76,000 km<sup>2</sup>, is located to the southwest of the 11B-12B license in water depths ranging from 400 m to 4,000 m. A 2D seismic campaign of 7,000 km combined with sea bed core drilling activities is expected to be launched.

In **Algeria**, TOTAL's production was 21 kboe/d during 2013, compared to 23 kboe/d in 2012 and 33 kboe/d in 2011. The decline in production between 2011 and 2012 was mainly due to

the sale of TOTAL's interest in CEPISA (48.83%), which was completed in July 2011. All of the Group's production in Algeria now comes from the Tin Fouyé Tabenkort (TFT) field (35%). TOTAL also has stakes of 37.75% and 47% in the Timimoun and Ahnet gas development projects, respectively.

On the TFT field, plateau production was maintained at 170 kboe/d.

The development of the Timimoun field continued in 2013 and the responses for the main calls for tender (plant construction and drilling devices) have been reviewed. In February 2014, the main contract was allocated. Commercial gas production could start in 2017, with anticipated plateau production of 1.6 Bm<sup>3</sup>/year (160 Mcf/d). The 3D seismic survey of an area of 2,240 km<sup>2</sup>, which started in December 2012, was completed in July 2013. The data is currently being analyzed.

Within the framework of the Ahnet project, discussions are continuing between the project partners and the authorities, particularly in light of the provisions of the new 13-02 oil legislation, which provide greater incentives for the development of unconventional hydrocarbons. The anticipated plateau production is 4 Bm<sup>3</sup>/year (400 Mcf/d) as of 2018.

In **Angola**, the Group's production in 2013 was 186 kboe/d, compared to 179 kboe/d in 2012 and 135 kboe/d in 2011, and

## Table of Contents

### Item 4 - Business Overview

comes from Blocks 0, 14 and 17. Recent highlights include the launch of the CLOV project in 2010, the start-up of production on Pazflor in 2011, several discoveries on Blocks 15/06 and 17/06, and, finally, the acquisition of interests in exploration Blocks 25, 39 and 40 in the Kwanza basin.

Deep-offshore Block 17 (40%, operator) is TOTAL's principal asset in Angola. It is composed of four major hubs: Girassol, Dalia, Pazflor, which are all in production, and CLOV, which is currently being developed. The Pazflor project, consisting of the Perpetua, Zinia, Hortensia and Acacia fields, has achieved plateau production (220 kb/d). The CLOV project, which was launched in 2010, will result in the installation of a fourth Floating Production, Storage and Offloading unit (FPSO) with a production capacity of 160 kb/d. Production start-up is expected mid-2014.

On the ultra-deep-offshore Block 32 (30%, operator), the basic engineering studies for the Kaombo project were completed and the final investment decision is expected to be made in the first half of 2014. The project will permit the development of the discoveries made in the southeast portion of the block through two FPSOs with a capacity in excess of 100 kb/d each.

On Block 14 (20%<sup>(1)</sup>), production comes from the Tombua-Landana and Kuito fields as well as the BBLT project, comprising the Benguela, Belize, Lobito and Tomboco fields.

Block 14K (36.75%) corresponds to the offshore unitization zone between Angola (Block 14) and the Republic of Congo (Haute Mer license). The development of the Lianzi field, which was started in 2012, will be achieved by means of a connection to the existing BBLT platform (Block 14). Production start-up is planned for 2015. TOTAL's interest in the unitized block is held 10% through Angola Block 14 BV and 26.75% through Total E&P Congo.

On Block 0 (10%), the development of Mafumeira Sul was approved by the partners and the authorities in 2012. This project constitutes the second phase of the development of the Mafumeira field. Production start-up is planned for 2016.

On Block 15/06 (15%), the development of a first production hub, including the discoveries located in the northwest portion of the block, began in early 2012. In February 2014, TOTAL signed an agreement to sell its entire interest in Block 15/06. The closing of this transaction is expected to take place during the first half of 2014.

TOTAL has operations on exploration Blocks 33 (58.67%, operator), 17/06 (30%, operator), 25 (35%, operator), 39 (15%) and 40 (50%, operator). The Group plans to drill pre-salt targets in Blocks 25, 39 and 40 in 2014 in the deep offshore Kwanza basin. TOTAL signed a disposal agreement to reduce its interest in Block 40 to 40%. The closing of this transaction is expected to take place during the first half of 2014.

TOTAL is also developing its LNG activities through the Angola LNG project (13.6%), which includes a gas liquefaction plant near Soyo supplied in particular by the gas associated with production from Blocks 0, 14, 15, 17 and 18. LNG production started in June 2013 but, due to various incidents, the plant has not yet reached full capacity (5.2 Mt/y).

In **Cameroon**, TOTAL no longer holds any exploration or production assets since the sale of its subsidiary Total E&P Cameroun in 2011. Production was 3 kb/d in 2011.

In **Côte d'Ivoire**, TOTAL is active in four deep offshore exploration licenses located 50 km to 100 km from the coast and covering approximately 5,200 km<sup>2</sup> at water depths ranging from 1,000 m to 3,000 m.

TOTAL is the operator of the CI-100 (60%) license in the Tano basin and holds stakes in the CI-514 (54%, operator), CI-515 (45%) and CI-516 (45%) licenses in the San Pedro basin.

A comprehensive 3D seismic survey has been conducted on the CI-100 license and a first exploration well (Ivoire-1X) was drilled in early 2013 in the northwest portion of the block at a water depth of more than 2,300 m. This well has encountered a good-quality oil horizon. The recorded data is currently undergoing analysis in order to assess the potential of the discovered reservoirs and define an exploration and additional works program.

A 3D seismic survey campaign covering the whole of the three licenses CI-514, CI-515 and CI-516 was completed in December 2012. The interpretation of the data is ongoing.

Following the drilling of a first exploration well on license CI-514, two more wells are due to be drilled on licenses CI-515 and CI-516 during the course of 2014.

In **Egypt**, TOTAL is the operator of Block 4 (East El Burullus Offshore) and reduced its stake in this license from 90% to 50% in January 2013. The license, located in the Nile river basin, covers a 4-year initial exploration period and includes a commitment to carrying out 3D seismic work and drilling exploration wells. Following the 3D seismic campaign covering 3,374 km<sup>2</sup> that was conducted in 2011, an exploration well (Kala-1) was drilled in late 2013, whose results have been disappointing.

In **Gabon**, the Group's production in 2013 was 59 kb/d compared to 57 kb/d in 2012 and 58 kb/d in 2011. The Group's exploration and production activities in Gabon are mainly carried out by Total Gabon<sup>(2)</sup>, one of the Group's oldest subsidiaries in sub-Saharan Africa.

## Edgar Filing: TOTAL S.A. - Form 20-F

As part of the Anguille field redevelopment project (estimated production capacity of 20 kboe/d), the AGM North platform, from which twenty-one additional development wells are expected to be drilled, was installed in 2012. Production started as planned with two wells in March 2013.

On the deep-offshore Diaba license, the operator Total Gabon sold off part of its interest in 2012 and now has a stake of 42.5%. An initial exploration well (Diaman-1B) was drilled during 2013 at a water depth of more than 1,700 m. This well revealed an accumulation of gas and condensates in the pre-salt reservoirs of the Gamba Formation. Data analysis is currently underway in order to assess this discovery and reassess the surrounding prospects.

The Nguongui-updip well was drilled on the Mutamba-Iroru license (50%) in 2012 and revealed the presence of hydrocarbons. Work is currently being conducted to evaluate the commercial viability of this discovery. A 2D seismic survey was conducted on the Nziembou license (20%) in 2012. Drilling preparation activities are being conducted for a first exploration well scheduled in 2014.

In **Kenya**, TOTAL acquired a 40% stake in five offshore licenses in the Lamu basin in 2011, namely licenses L5, L7, L11a, L11b and L12, representing a total surface area of more than 30,600 km<sup>2</sup> at water depths of between 100 m and 3,000 m. Following the 3D

*(1) Interest held by the company Angola Block 14 BV (TOTAL 50.01%, INPEX Corporation 49.99% since February 2013).*

*(2) Total Gabon is a Gabonese company listed on Euronext Paris. The Group holds 58.28%, the Republic of Gabon holds 25% and the public float is 16.72%.*

## Table of Contents

### Item 4 - Business Overview

seismic survey campaign covering 3,500 km<sup>2</sup> that was conducted during the initial exploration period, 25% of the surface area of the five blocks was relinquished. In 2013, two exploration wells were drilled in Blocks L7 and L11b, but did not result in positive results. In 2012, the Group also acquired the L22 offshore license (100%, operator), located in the same basin and covering a surface area of more than 10,000 km<sup>2</sup> in water depths ranging from 2,000 m to 3,500 m. In December 2013, TOTAL sold 30% of its stake in this license. A 2D seismic survey and sea core drilling operations are planned for 2014 on the L22 offshore license.

In **Libya**, the Group's production in 2013 was 50 kb/d compared to 62 kb/d in 2012 and 20 kb/d in 2011. TOTAL is a partner in the following contract zones: 15, 16 & 32 (75%<sup>(1)</sup>), 70 & 87 (75%<sup>(1)</sup>), 129 & 130 (30%<sup>(1)</sup>) and 130 & 131 (24%<sup>(1)</sup>) and Block NC191 (100%<sup>(1)</sup>, operator).

Production which, in 2012, had returned to its level prior to the events of 2011 was affected from mid-2013 onward by the blockade of most of the country's terminals and pipelines due to social and political unrest.

In onshore zones 70 and 87 (Mabruk), production has been affected since August 2013 due to the blockade of the Es Sider export terminal. Development of the Garian field was approved in July 2013 and production at the field is expected to start in the third quarter 2014.

In onshore zones 129, 130 and 131, production was stopped in 2013 during several months due to the blocking of the production installation and the evacuation pipeline. The seismic survey campaign, which was interrupted in 2011 due to force majeure, has not yet resumed. However, the exploration of these blocks continued in 2013 with the drilling of three wells.

In the onshore Murzuk basin, a plan for the development of Block NC 191 was submitted to the authorities in 2009. Discussions have resumed following the interruptions associated with the events of 2011.

In offshore zones 15, 16 and 32 (Al Jurf), production has not been affected by the social unrest in the country. The drilling of two exploration wells scheduled for the second quarter of 2013 was postponed due to technical reasons. The first of these wells was started at the end of 2013.

In **Madagascar**, TOTAL is active on the Bemolanga 3102 license (60%, operator). Since the exploitation of oil sand accumulations is no longer planned, TOTAL is refocusing on the conventional exploration of the block, which is expected to continue in 2014 with a 2D seismic survey following the approval of an additional 2-year extension of the exploration phase by the local authorities.

In **Morocco**, the Anzarane offshore reconnaissance contract covering an offshore zone of 100,000 km<sup>2</sup>, which was granted in December 2011 to TOTAL and ONHYM (National Bureau of Petroleum and Mines), was extended for one year in December 2013. A 3D seismic survey campaign covering 5,900 km<sup>2</sup> that started in late 2012 was completed in July 2013. The collected data is currently being processed.

In **Mauritania**, the Group has exploration operations on the Ta7 and Ta8 licenses (60%, operator) located in the Taoudenni basin. In 2012, TOTAL acquired interests in two exploration licenses

(90%, operator): Block C9 in ultra-deep offshore, and Block Ta29 onshore in the Taoudenni basin. During 2013, TOTAL sold 18% of its stake in Block Ta29, but retains operatorship and a 72% interest.

Following a 2D seismic survey performed in 2011 on license Ta7, well Ta7-1 was drilled in 2013. Tests have been conducted, but they did not allow to highlight hydrocarbons in commercial quantity.

On Block Ta29, a 900 km<sup>2</sup> seismic was performed in 2012. The processing and the interpretation of these seismic data have been completed. Studies are underway to identify a prospect on this block.

A 3D seismic survey campaign covering 4,700 km<sup>2</sup> was conducted on Block C9 in 2013. The data is currently being processed and interpreted.

In **Mozambique**, TOTAL acquired in 2012 a 40% stake in the production sharing contract regarding offshore Blocks 3 and 6. Located in the Rovuma basin, these two blocks cover a total surface area of 15,250 km<sup>2</sup> in water depths ranging from 0 m to 2,500 m. An exploration well was drilled in 2012 and half of the surface area of the two blocks was relinquished in 2013 at the start of the second exploration period.

In **Nigeria**, Group production in 2013 was 261 kb/d compared to 279 kb/d in 2012 and 287 kb/d in 2011. These declines are primarily due to the sharp increase in oil bunkering and in 2013 the blockade of Nigeria LNG export cargos. Despite such factors negatively affecting production, Nigeria remained the main contributor to the Group's production.

TOTAL, which has been present in the country since 1962, operates six production licenses (OML) out of the thirty-eight in which it has a stake, and one out of the four exploration licenses (OPL) in which it is present.

Regarding variations in TOTAL's licenses:

## Edgar Filing: TOTAL S.A. - Form 20-F

In September 2013, TOTAL was granted approval by the authorities to increase its stake in exploration license OPL 285 from 26.67% to 60%. In May 2013, TOTAL obtained the approval of the authorities for the renewal of licenses OML 99, 100 and 102 for a period of twenty years.

On the OML 138 license (20%), TOTAL started production in the Usan offshore field in 2012 (180 kb/d, FPSO capacity), which reached the level of 130 kboe/d in 2013. Since February 2014, TOTAL is no longer the operator of the OML 138 license. In 2012, TOTAL signed an agreement for the sale of its 20% stake in Block OML 138. The approval by the authorities has not yet been received.

TOTAL decided not to continue its exploration activities in JDZ Block 1 (48.6%, operator) following the analysis of the results of wells drilled in 2012. Block was relinquished in September 2013. Also, the Block OPL 221 was relinquished in November 2013.

TOTAL sold its 10% stake in Blocks OML 26 and 42 in 2011 and in Blocks OML 30, 34 and 40 in 2012. These interests had previously been indirectly controlled via the joint venture Shell Petroleum Development Company (SPDC).

*(1) TOTAL's stake in the foreign consortium.*

18 TOTAL S.A. Form 20-F 2013



**Table of Contents****Item 4 - Business Overview**

TOTAL continues, with its developments, to meet the growing domestic demand for gas and to strengthen its ability to supply gas to the LNG projects in which it owns a stake:

As part of its joint venture with the Nigerian National Petroleum Company (NNPC), TOTAL is pursuing the project to increase the gas production capacity of the OML 58 license (40%, operator) from 370 Mcf/d to 550 Mcf/d.

On the OML 102 license (40%, operator), TOTAL is continuing to develop the Ofon phase 2 project, which was launched in 2011, with an expected capacity of 70 kboe/d and production start-up is scheduled for the end of 2014. In 2011, the Group also discovered Etisong North, located 15 km from the currently-producing Ofon field. The exploration campaign continued in 2012 with the drilling of the Eben well, which is also south of Ofon. The positive results produced by this well further enhance the interest of the future Etisong-Eben development hub as a satellite of the Ofon field.

On the OML 130 license (24%, operator), the development of the Egina field (capacity of 200 kboe/d) was launched in June 2013 and contracts have been awarded. Production start-up is expected at year-end 2017.

On the OML 99 license (40%, operator), engineering work is underway to develop the Ikike field, where production is expected to start in 2017 (estimated capacity of 55 kboe/d).

On the OML 112/117 licenses (40%), development studies have been suspended waiting for the resolution of contractual issues that arose in 2013.

TOTAL is also active in the LNG sector with a 15% holding in the company Nigeria LNG, which possesses a liquefaction plant of a total capacity of 22 Mt/y. In addition, TOTAL holds a 17% stake in Brass LNG, which is continuing to study the project for a gas liquefaction plant with two LNG trains of a capacity of 5 Mt/y each.

The production that is not operated by the Group in Nigeria comes mainly from the SPDC joint venture, in which TOTAL holds a 10% stake. The sharp increase of oil bunkering in 2013 had an impact on onshore production, as well as on the integrity of the facilities and the local environment.

In addition, TOTAL also holds a 12.5% stake in the OML 118 deep-offshore license. In connection with this license, the Bonga field contributed 15 kboe/d to Group production in 2013. The partners continued the development of the Bonga Northwest project in 2013. On the OML 118 license, a pre-unitization agreement relating to the Bonga South West discovery has been signed in December 2013.

In **Uganda**, TOTAL has been active since 2012 and holds a 33.33% interest in the EA-1, EA-1A and EA-2 licenses as well as the Kingfisher license. All of these licenses are located in the Lake Albert region, where oil resources have already been discovered. TOTAL is the operator of licenses EA-1 and EA-1A and a partner on the other licenses.

On the appraisal license EA-1, a campaign of wells, production tests and a 3D seismic survey are underway. Five development plans will be submitted to the authorities before the end of 2014: Ngiri (submitted in December 2013), Jobi-Rii (April 2014), and Mpyo, Gunya and Jobi East (December 2014).

The EA-1A license expired in February 2013, following a campaign involving the drilling of five exploration wells that resulted in one discovery (Lyc). With the exception of the scope relating to this discovery, the license has been returned to the authorities.

On the appraisal license EA-2, the campaign of wells and production tests started in 2012 continued during 2013. An additional well is due to be drilled in 2014. Two development plans were submitted to the authorities in June 2013 (Kasamene and Wahrindi fields, as well as those of Kigogole, Ngege, Ngara and Nsoga).

The development plan for the Kingfisher field, which is located on the EA-3 production license, was approved by the authorities in September 2013. The basic engineering studies are currently being prepared.

The Kanywataba exploration well was drilled in June 2012 with negative results. The Kanywataba license expired in August 2012 and was returned to the authorities.

At the initiative of the Ugandan government, discussions are underway concerning the construction of a refinery that will be developed in two phases (30 kb/d in the first phase followed by a second phase providing an additional 30 kb/d), as well as an export pipeline.

In the **Republic of Congo**, the Group's production in 2013 was 93 kboe/d compared to 113 kboe/d in 2012 and 123 kboe/d in 2011. The decrease in production was due in particular to the end of plateau production at Moho Bilondo in mid-2010 and to a planned shut-down on the Nkossa field.

The development of the Lianzi field was approved in 2012. Located in the offshore unitization zone Block 14K (36.75%) between Angola and the Republic of Congo (Haute Mer license), this field will be developed by a tieback to the existing Benguela-Belize-Lobito-Tomboco platform (Block 14 in Angola).

Production start-up is expected in 2015. TOTAL's interest in the unitized block is held 26.75% through Total E&P Congo and 10% through Angola Block 14 BV.

## Edgar Filing: TOTAL S.A. - Form 20-F

The Moho Bilondo offshore field (53.5%, operator) reached plateau production of 90 kboe/d in mid-2010. The field has now started its decline. The Phase 1b and Moho North projects were launched in March 2013 following agreements on the contractual and fiscal conditions in 2012. Production start-up is planned for 2015 and 2016, respectively, with estimated production capacity of 140 kboe/d (40 kboe/d for Phase 1b and 100 kboe/d for Moho North).

Production at Libondo (65%, operator), which is part of the Kombi-Likalala-Libondo operating license, started in 2011. Plateau production reached 12 kboe/d in 2011.

In July 2013, TOTAL obtained the Haute Mer B license (34.62%, operator) in association with other partners.

As part of the renewal of the Loango and Zatchi licenses, an agreement on the related contractual and fiscal conditions was signed in October 2013. This agreement is subject to approval by the parliament. TOTAL's interest in these licenses will change respectively from 50% to 42.50% for Loango and from 35% to 29.75% for Zatchi with retroactive effect in October 2013.

In December 2013, in connection with a share capital increase of Total E&P Congo, Qatar Petroleum International Upstream (QPI) entered into the share capital of this subsidiary at a level of 15%.

In the **Democratic Republic of the Congo**, following the Presidential decree approving TOTAL's entry in 2011 as operator with a 60% interest in Block III of the Graben Albertine, the exploration permit was issued in January 2012 by the Minister of Hydrocarbons for a period of three years and subsequently extended by an additional year due to the postponement of the works in light of the general security situation in the eastern part of

2013 Form 20-F TOTAL S.A. 19

## Table of Contents

### Item 4 - Business Overview

the country. This block is located in the Lake Albert region. TOTAL acquired an additional 6.66% of this block in March 2012. The prospecting program is limited to the northern portion of the license, which is outside the Virunga park. A helicopter acquisition of gravimetric and magnetic data was completed in August 2012 with encouraging results. The 2D seismic survey campaign prepared in 2013 is scheduled to start in 2014.

In the **Republic of South Sudan**, TOTAL is negotiating a new contract with the state authorities that would make it possible to resume exploration activities in part of Block B. Since the independence of the Republic of South Sudan on July 9, 2011, TOTAL is no longer present in Sudan.

### North America

**In 2013, TOTAL's production in North America was 73 kboe/d, representing 3% of the Group's total production, compared to 69 kboe/d in 2012 and 67 kboe/d in 2011.**

In **Canada**, the Group's production in 2013 was 13 kboe/d compared to 12 kboe/d in 2012 and 11 kboe/d in 2011. The Group's oil sands portfolio is focused around two main hubs: on the one hand, a Steam Assisted Gravity Drainage (SAGD) hub focused on continuing developments at Surmont's (50%), and, on the other, a mining hub, which includes the Joslyn (38.25%, operator), Fort Hills (39.2%) and Northern Lights (50%, operator) mining projects as well as a 100% stake in a number of oil sands leases acquired through a series of auction sales.

On the Surmont lease, additional wells were drilled in 2013 in order to optimize production. The decision to construct an additional steam generation unit was also made with the same aim in mind. The drilling of additional wells is expected to continue in 2014.

In early 2010, the partners involved in the project decided to launch the construction of the second development phase. The goal of production start-up from Surmont Phase 2 has been set for 2015 and overall production capacity from the field is expected to increase to 130 kboe/d.

On the Fort Hills project (production capacity estimated at 180 kb/d), the final investment decision was made in October 2013. Site preparation work is underway and production start-up is planned for the end of 2017.

On the Joslyn license, engineering studies are currently being conducted in order to optimize production from the Joslyn North Mine project.

In March 2013, TOTAL concluded an agreement for the sale of its 49% stake in the Voyageur *upgrader* project.

In the **United States**, the Group's production in 2013 was 60 kboe/d compared to 57 kboe/d in 2012 and 56 kboe/d in 2011.

In the Gulf of Mexico:

Phase 2 of the deep-offshore Tahiti oil field (17%) was launched in 2010. This phase comprises drilling four injection wells and two producing wells. The injection of water started in 2012. The first producing well was put into operation in late 2013 and the second producing well, the drilling of which is currently being completed, is due to start production in 2014.

The Chinook 4 well in the deep-offshore Chinook project (33.33%) started production in the third quarter of 2012.

Drilling of the Chinook 5 well was completed in 2013 and started production in early 2014.

The TOTAL (40%) - Cobalt (60%, operator) alliance's exploratory drilling campaign, which was launched in 2009, was resumed in 2012 after the U.S. government lifted the moratorium on deep-offshore drilling operations. This resulted in the drilling of the Ligurian 2 well (dry well) together with the North Platte well at which a major oil discovery was made and for which studies are currently being conducted. The Ardennes well, which was drilled in 2013, gave disappointing results, just like the Aegean well, which was completed in December 2013. The Aegean well is the last one of the drilling campaign.

TOTAL is active in shale gas production in Texas and has a 25% stake in the Chesapeake portfolio in the Barnett Shale basin through its participation in a joint venture with Chesapeake. Given the drop in gas prices in the United States, drilling operations have been sharply reduced from 2012 onwards (approximately sixty wells drilled in 2013 compared to 100 in 2012 and more than 300 in 2011).

TOTAL is also active in the production of shale gas in Ohio and has a 25% stake in the liquid-rich Utica shale gas play through a joint venture with Chesapeake and EnerVest. More than 200 liquids-rich gas wells were drilled in 2013 (compared to approximately 100 in 2012) and approximately 190 of these have been connected and started producing (compared to forty-seven in 2012).

Engineers from TOTAL are assigned to the teams led by Chesapeake.

## Edgar Filing: TOTAL S.A. - Form 20-F

The Group holds a 50% stake in American Shale Oil LLC (AMSO) to develop *in situ* shale oil technology. The first *in situ* heating tests have been performed and are resulting in adaptations to the selected technology.

In 2012, TOTAL entered into a 50/50 association with Red Leaf Resources for the ex-situ development of oil shale and agreed to fund a production pilot before any larger-scale development. In addition, TOTAL finalized an agreement to purchase approximately 120 km<sup>2</sup> of additional land in Colorado and Utah, with a view to developing *in situ* shale oil techniques (AMSO technique) or *ex-situ* techniques (Red Leaf technique).

In **Mexico**, TOTAL is conducting various studies with state-owned PEMEX under a general technical cooperation agreement renewed in July 2011 for a period of five years.

### South America

**In 2013, TOTAL's production in South America was 166 kboe/d, representing 7% of the Group's total production, compared to 182 kboe/d in 2012 and 188 kboe/d in 2011.**

In **Argentina**, where TOTAL has been present since 1978, the Group operated about 30%<sup>(1)</sup> of the country's production in 2013. The Group's production in 2013 was 78 kboe/d compared to 83 kboe/d in 2012 and 86 kboe/d in 2011. In order to encourage investment in exploration and production, the Argentinean government has concluded gas price agreements with various producers as of December 2012. Under the terms of these agreements, the Argentinean government guarantees the price of gas for quantities above a fixed production level in exchange for

<sup>(1)</sup> Source: Argentinean Ministry of Federal Planning, Public Investment and Services – Energy Secretary.

## Table of Contents

### Item 4 - Business Overview

compliance with defined production targets and applicable penalties (*i.e.*, Deliver or Pay ). In February 2013, TOTAL signed an agreement of this type for a period of five years with retroactive effect from December 1, 2012.

In Tierra del Fuego, the Group notably operates the Carina and Aries offshore fields (37.5%). Following the re-appraisal of the reserves of the Carina field, three additional wells are expected to be drilled from the existing platform. These wells should allow production levels from the facilities operated by the Group in Tierra del Fuego to be maintained at about 630 Mcf/d until the Vega Pleyade field (37.5%, operator) starts up in 2015. Development of this field started in October 2013.

In the Neuquén basin, TOTAL started a drilling campaign on its mining licenses in 2011 in order to assess their shale gas and oil potential. In 2012 and 2013, this campaign, which started on the Aguada Pichana license (27.3%, operator), was extended to all the blocks operated by the Group: San Roque (24.7%, operator), Rincón la Ceniza and La Escalonada (85%, operator), Aguada de Castro (42.5%, operator), and Pampa de las Yeguas II (42.5%, operator), as well as to the blocks operated by third parties: Cerro Las Minas (40%), Cerro Partido (45%), Rincón de Aranda (45%), and Veta Escondida (45%). The first results, all positive, of the production tests on the wells drilled during this campaign permit envisaging various development scenarios in the region. A pilot development intended to test the unconventional production potential at the Aguada Pichana Block is expected to enter into production in late 2014.

In **Bolivia**, the Group's production, primarily gas, was 28 kbbl/d in 2013 compared to 27 kbbl/d in 2012 and 25 kbbl/d in 2011. TOTAL has stakes in seven licenses: three production licenses, San Alberto and San Antonio (15%) and Block XX Tarija Oeste (41%), two licenses in the development phase, Aquio and Ipati (60%, operator), and two licenses in the exploration or appraisal phase, Rio Hondo (50%) and Azero (50%, operator).

Production started in 2011 on the Itaú gas and condensates field located on Block XX Tarija Oeste; it is routed to the existing facilities of the neighboring San Alberto field. Phase 2 of the development of the field entered into production at the end of 2013.

In 2004, TOTAL discovered the Incahuasi gas field on the Ipati Block. In 2011 and 2013, two additional wells confirmed the extension of the discovery northwards onto the adjacent Aquio Block as well as southwards onto the Ipati license. In April 2013, TOTAL was granted approval by the authorities to start development of Phase 1 of the project, including the connection of three existing wells to a central processing plant of 6.5 Mm<sup>3</sup>/d. The key contracts relating to the construction of the plant and its connection to the export network were granted in October 2013. In July 2013, TOTAL sold 20% stakes in the Aquio and Ipati fields thereby reducing its interest in these fields from 80 to 60%.

In August 2013, TOTAL acquired a 50% stake in the Azero exploration license in the Andean Piedmont. This is located to the west of the Ipati and Aquio Blocks and covers an area of more than 7,800 km<sup>2</sup>.

In **Brazil**, the Group has stakes in fourteen exploration licenses.

In October 2013, TOTAL acquired a 20% stake in the Libra field. This field is currently being assessed and is the largest pre-salt oil field discovered to date in the Santos basin off the coast of Brazil. The field is located in very deep water (2,000 m) approximately 170 km off the coast of Rio de Janeiro and covers an area of 1,550 km<sup>2</sup>. Additional

exploration works including contractual obligations to be realized by the end of 2017 and appraisal and development studies of the field were launched.

Following the eleventh call for tender organized by the Brazilian authorities in May 2013, TOTAL acquired a stake in ten new operating licenses. Holding a 40% stake, the Group operates five blocks (FZA-M-57, FZA-M-86, FZA-M-88, FZA-M-125 and FZA-M-127) located in the Foz do Amazonas basin and has a 45% interest in a block (CE-M-661) located in the Ceara basin. TOTAL also has a 25% stake in three blocks (ES-M-669, ES-M-671 and ES-M-743) located in the Espirito Santo basin and a 50% share in another block (BAR-M-346) located in the Barreirinhas basin.

TOTAL also has a stake in the Xerelete field, which the Group has operated since 2012. This stake is primarily located on Block BC-2 (41.2%) and extends into Block BM-C-14 (50%). The drilling of a well targeting pre-salt horizons was launched at the beginning of January 2014.

A well was drilled in 2012 in the Gato Do Mato field, which is located in Block BM-S-54 (20%) and was discovered in the Santos basin in 2010. The encouraging results are currently being analyzed in order to define the next stages in the assessment of the field.

In **Colombia**, TOTAL no longer has production since the sale in 2012 of one of its subsidiaries, TEPMA BV, which held a stake in the Cusiana field. Production was 6 kbbl/d in 2012 and 11 kbbl/d in 2011.

Following the discovery of Huron-1 on the Niscota (50%) license in 2009 and the drilling of the second well, Huron-2, which yielded positive test results in April 2013, a third well, Huron-3, was drilled with disappointing results. The conceptual development studies have started for a declaration of commerciality that is expected during the second quarter of 2014.

After selling 10% of its stake in the Orensa pipeline in 2011 and reducing its interest in this asset to 5.2%, TOTAL sold its entire stake in 2013, but kept its transport rights. TOTAL has relinquished its stakes in the OAM and ODC pipelines that were previously held by TEPMA BV.

## Edgar Filing: TOTAL S.A. - Form 20-F

In **French Guiana**, TOTAL owns a 25% stake in the Guyane Maritime license. This license, located approximately 150 km from the coast in water depths ranging from 200 m to 3,000 m, covers an area of approximately 24,000 km<sup>2</sup>. At the end of 2011, the authorities extended the research permit until May 31, 2016.

In 2011, drilling at the GM-ES-1 well, which is located on the Zaedyus prospect at a water depth of more than 2,000 m, revealed two hydrocarbon columns in sandstone reservoirs. Two 3D seismic survey campaigns covering a total area of more than 5,000 km<sup>2</sup> were conducted in the center and extreme eastern portions of the block in 2012. A drilling campaign consisting of four wells was conducted from July 2012 until the end of 2013. The results of this campaign did not make it possible to prove the existence of an exploitable hydrocarbon reservoir, but the results did provide additional information that is currently being analyzed.

In **Trinidad and Tobago**, where TOTAL has been active since 1996, the Group's production in 2013 was 12 kboe/d compared to 16 kboe/d in 2012 and 12 kboe/d in 2011. In September 2013, TOTAL sold all of its exploration and production assets by disposing of the companies Total E&P Trinidad BV, which held a 30% stake in the Angostura offshore field located in Block 2C, and Elf Exploration Trinidad BV, which owned an 8.5% share in the adjacent exploration Block 3A. The Group no longer owns any exploration or production assets in the country.

2013 Form 20-F TOTAL S.A. 21

## Table of Contents

### Item 4 - Business Overview

In **Uruguay**, TOTAL holds a 100% stake in three exploration licenses: offshore Block 14, and onshore Blocks B1 and B2.

In October 2013, TOTAL signed two exploration and production contracts for Blocks B1 and B2 for unconventional plays. These two blocks, which cover a total area of 5,200 km<sup>2</sup>, are primarily located in the Artigas province in the northwestern part of the country. The commitments undertaken in respect of these licenses relate to the conduct of geological, geochemical and environmental studies.

In 2012, TOTAL acquired a stake in Block 14, which is located approximately 250 km offshore in water depths ranging from 2,000 m to 3,500 m and covers an area of some 6,700 km<sup>2</sup>. In particular, TOTAL agreed to conduct a 3D seismic survey of the entire block, which was completed in early 2014. The Group has also agreed to drill one well in the first 3-year exploration phase.

In **Venezuela**, where TOTAL has had operations since 1980, the Group's production was 48 kboe/d in 2013 compared to 50 kboe/d in 2012 and 54 kboe/d in 2011. TOTAL has equity stakes in PetroCedeño (30.3%), which produces and upgrades extra heavy oil in the Orinoco Belt, in Yucal Placer (69.5%), which produces gas dedicated to the domestic market, and in the offshore exploration Block 4, located in Plataforma Deltana (49%). The development phase of the southern zone of the PetroCedeño field, which started in 2011, is continuing with forty-three producing wells having been drilled at the end of 2013. The postponement of a debottlenecking project in addition with a performance study performed on the field in 2013 led to a revision of PetroCedeño's reserves. Pursuant to an amendment to the gas sale contract, a new development phase of the Yucal Placer field, which is expected to boost the production capacity from 100 Mcf/d to 300 Mcf/d, was launched in June 2012.

### Asia-Pacific

**In 2013, TOTAL's production in Asia-Pacific was 235 kboe/d, representing 10% of the Group's total production, compared to 221 kboe/d in 2012 and 231 kboe/d in 2011.**

In **Australia**, the Group produced 4 kboe/d in 2013 compared to 5 kboe/d in 2012 and 4 kboe/d in 2011. TOTAL has held leasehold rights in the country since 2005. The Group owns 30% of the Ichthys project, 27.5% of the Gladstone LNG project (GLNG), and nine offshore exploration licenses off the northwest coast in the Browse, Bonaparte and Carnarvon basins, including five that it operates, as well as four onshore shale gas exploration licenses in the southern part of the South Georgina basin. The acquisition of the fourth license located in the Northern Territory remains subject to the approval of authorities.

In early 2013, TOTAL acquired an additional 6% in the Ichthys project, increasing its stake to 30%. This project, launched in early 2012, is aimed at the development of the Ichthys gas and condensates field located in the Browse basin. This development includes a floating platform designed for gas production, treatment and export, an FPSO (with a maximum capacity of 100 kb/d of condensates) to stabilize and export condensates, an 889 km gas pipeline and an onshore liquefaction plant (capacities of 8.4 Mt/y of LNG and 1.6 Mt/y of NGL) located in Darwin. The LNG has already been sold mainly to Asian buyers under long-term contracts. Production start-up is expected at year-end 2016.

TOTAL has an indirect interest of 27.5% in the GLNG project. This integrated gas production, transport and liquefaction project is based on the development of coal gas from the Fairview, Roma, Scotia and Arcadia fields. The final investment decision was made in early 2011 and start-up is expected in 2015. LNG production is expected to eventually reach 7.2 Mt/y. The upstream development of the project and the construction of the gas pipeline and liquefaction plant are underway.

In June 2013, the WA-492 and WA-493 licenses in the Carnarvon basin were awarded to TOTAL (100%, operator). TOTAL has undertaken to conduct a 2D seismic survey on these licenses during the coming years.

At the end of 2012, TOTAL reduced its share in the WA-408 license located in the Browse basin (50%, operator) by disposing of 50% of its stake to partners. Two exploration wells were drilled in 2013. The first well, Bassett West 1, which was drilled during the first half of 2013, highlighted hydrocarbons. Studies are currently underway. The second one, which was completed at the end of 2013, has been definitively abandoned due to the negative results obtained.

In 2012, TOTAL signed an agreement to enter four shale gas exploration licenses in the South Georgina basin in the center of the country. This agreement, which allows TOTAL to increase its stake to 68% and become the operator in the event of development, has now been finalized. Work started on the three blocks in Queensland during the course of 2013 in the form of a 2D seismic survey that was acquired during the second half of the year. The first exploration wells are due to be drilled during 2014.

Two wells were drilled in 2011 on the WA-403 license (60%, operator) in the Bonaparte basin. As one well demonstrated the presence of hydrocarbons, additional appraisal work was performed on this block during 2013, including a 3D seismic survey, the results of which are currently being interpreted.

In **Brunei**, where TOTAL has been present since 1986, the Group operates the offshore Maharaja Lela Jamalulalam gas and condensates field located on Block B (37.5%). The Group's production in 2013 was 13 kboe/d compared to 12 kboe/d in 2012 and 13 kboe/d in 2011. The gas is delivered to the Brunei LNG liquefaction plant.

The study of the development project started in 2010 for the production of the new reserves discovered in the south of the field (Maharaja Lela South) was finalized in 2013. The project was officially launched in early 2014 with the execution of most of the related industrial contracts and with the formal signature of

## Edgar Filing: TOTAL S.A. - Form 20-F

the 20-year extension of the present petroleum contract.

Studies are currently being conducted to reassess the potential of deep-offshore exploration Block CA1 (54%, operator) and are expected to result in a new operating strategy. In addition, discussions have started in the perspective of possible unitization with regards to the hydrocarbon identified in the southeast part of the block (Jagus East well) in 2012 and the discovery made by BSP (Geronggong) in a neighboring block.

In **China**, TOTAL has been present since 2006 on the South Sulige Block located in the Ordos basin in the Inner Mongolia province. Following appraisal work by TOTAL, China National Petroleum Corporation (CNPC) and TOTAL agreed to a development plan pursuant to which CNPC is the operator and TOTAL has a 49% stake. The first development wells have been drilled and test-phase production has been underway since August 2012. The Group's production in 2013 was 8 kboe/d compared to 1 kboe/d in 2012.

In March 2013, TOTAL and Sinopec concluded a joint study agreement relating to shale gas potential on the Xuancheng license (4,000 km<sup>2</sup>) close to Nanjing. 2D seismic survey activities have been realized from October 2013 to February 2014 (600 km). A drilling campaign is scheduled for 2014 and 2015. If the results



**Table of Contents****Item 4 - Business Overview**

of this campaign are favorable, an agreement relating to the long-term development of these resources might subsequently be negotiated with Sinopec.

In **Indonesia**, where TOTAL has had operations since 1968, the Group's production in 2013 was 131 kboe/d compared to 132 kboe/d in 2012 and 158 kboe/d in 2011.

TOTAL's operations in Indonesia are primarily concentrated on the Mahakam permit (50%, operator), which covers in particular the Peciko and Tunu gas fields. TOTAL also has a stake in the Sisi-Nubi gas field (47.9%, operator). The Group delivers most of its natural gas production to the Bontang LNG plant. The overall capacity of the eight liquefaction trains at this plant is 22 Mt/y.

In 2013, TOTAL's gas production operations amounted to 1,757 Mcf/d. This value is down from the 2012 production level (1,871 Mcf/d) due to the maturity of most of the fields on the Mahakam permit, even though this decline was partially offset in 2013 by an increase in production in the South Mahakam fields. The gas operated and delivered by TOTAL accounted for approximately 80% of Bontang's LNG supply. This gas production is supplemented by condensate and oil production from the Handil and Bekapai fields, which are operated by the Group.

With regard to the Mahakam permit:

On the Tunu field, in 2013, additional development wells were drilled in the main reservoir alongside in the shallow gas reservoirs.

On the Peciko field, Phase 7 drilling, which started in 2009, is continuing.

On South Mahakam, where production started in 2012 and which contains the Stupa, West Stupa and East Mandu condensate gas fields, other development wells are currently being drilled.

On the Sisi-Nubi field, which began production in 2007, drilling operations are continuing within the framework of a second phase of development.

The gas from Sisi-Nubi is produced through Tunu's processing facilities.

On the Sebuku license (15%), production started at the Ruby gas field in October 2013. Production capacity is estimated at 100 Mcf/d. Ruby's production is transported by pipeline for processing and separation at the Senipah terminal operated by TOTAL.

On the Sageri exploration Block (50%), the first exploration well (Lempuk-1X), completed in early 2012, produced negative results. The license is currently being relinquished.

On the South East Mahakam exploration Block (50%, operator), the Tongkol South-1 exploration well, completed in September 2013, produced negative results.

In 2013, TOTAL took the necessary steps vis-à-vis the authorities to withdraw from the Sadang (30%), Arafura Sea (24.5%) and Amborip VI (24.5%) Blocks. In addition, and following the withdrawal of the other partners, the Group's stake in the South Sageri Block increased from 45% to 100% (operator), while its share in the South Mandar Block increased from 33% to 49.3%.

In February 2013, TOTAL sold 10% in the South West Bird's Head exploration Block (90%, operator). This block is located onshore and offshore in the Salawati basin in the province of West Papua. Results from the Anggrek Hitam 1 exploration well, where drilling was completed in September 2013, were negative.

In 2012, TOTAL acquired a 100% stake in the exploration Block Bengkulu I - Mentawai in the offshore Bengkulu basin, southwest of Sumatra. The preparatory work on the Rendang 1 exploration well started at the end of 2013 and drilling start-up is planned during the first half of 2014. The Group also acquired a stake in the exploration Block Telen (100%, operator) in the offshore Kutai basin in East Kalimantan province.

In 2011, the Group acquired an 18.4% stake in a coal bed methane (CBM) block on Kutai II in East Kalimantan province as well as a 50% stake in the similar Kutai Timur Block.

In **Malaysia**, on deep-offshore exploration Block SK 317 B (85%, operator), which is located in Sarawak, an exploration well was started in December 2013. Following disappointing geological exploration results, TOTAL withdrew from the PM303 offshore exploration block at the start of 2011 and should do the same for the PM324 license (50%, operator) in May 2014 upon expiration of the operating period. An agreement has been reached with the regulator to convert the second commitment well on PM324 into expenditures on other exploration blocks.

In **Myanmar**, Group production in 2013 was 16 kboe/d compared to 16 kboe/d in 2012 and 15 kboe/d in 2011. TOTAL is the operator of the Yadana field (31.2%). This field, which is located on offshore Blocks M5 and M6, primarily produces gas for delivery to PTT (the Thai state-owned company) for use in Thai power plants. The Yadana field also supplies the domestic market via two pipelines built and operated by MOGE, a Myanmar state-owned company.

In 2012, TOTAL acquired a 40% share in a production sharing agreement on the M-11 offshore Block in the Martaban basin. The first exploration well, Manizawta-1, drilled in 2013 is dry.

In **Papua New Guinea**, TOTAL acquired in 2012 a 40% stake in the PPL234 and PPL244 offshore permits, as well as 50% in the PRL10 offshore permit and an option for 35% of the PPL338 and PPL339 onshore permits. The results of two exploration wells drilled on PPL244 are unsuccessful. An onshore 2D seismic survey was also conducted in 2013.

## Edgar Filing: TOTAL S.A. - Form 20-F

In March 2014, TOTAL acquired a stake in Block PRL-15 (40.1%) and an option to acquire an interest in exploration Blocks PPL-474, PPL-475, PPL-476 and PPL-477 and in the Triceratops discovery (PRL-39) located in the same zone. The government of Papua New Guinea retains the right to back-in for 22.5% when the final decision is made. In such scenario, TOTAL will hold a 31.1% participating interest when the final decision is made. Block PRL-15 contains two major discoveries: Elk and Antelope.

In the **Philippines**, TOTAL has held since 2012 a 75% stake in the SC56 license in the southern Sulu Sea. The program of operations includes the refurbishment of older seismic lines and a new seismic campaign that was realized at the beginning of 2013. The collected data is currently being interpreted.

In **Thailand**, the Group's production in 2013 was 63 kboe/d compared to 55 kboe/d in 2012 and 41 kboe/d in 2011. This production comes from the Bongkot (33.33%) offshore gas and condensates field. PTT purchases all of the natural gas and condensates production from this field.

In the northern portion of the Bongkot field, new investments are in progress to allow gas demand to be met and plateau production to be maintained:

- phase 3J (two wellhead platforms) was launched as scheduled in 2012;
- phase 3K (two wellhead platforms) was launched as scheduled in 2013;
- phase 3L (two wellhead platforms) was approved in 2012 with start-up scheduled for 2014;

2013 Form 20-F TOTAL S.A. 23

## Table of Contents

### Item 4 - Business Overview

phase 3M (four wellhead platforms) was approved in March 2013 with start-up scheduled for 2015; and the fourth series of low-pressure compressors, which make it possible to boost gas production, was approved in 2012 and start-up is expected in late 2014.

The southern portion of the field (Greater Bongkot South) is also being developed in several phases. This development is designed to include a processing platform, a residential platform and thirteen production platforms:

phase 4A (six well platforms) was launched as scheduled in 2012;  
phase 4B (four well platforms) is continuing and start-up is scheduled for 2014; and  
development of phase 4C (three well platforms) will take place following the other two phases.

The exploration on these licenses continues with the drilling of several wells every year (seven in 2013).

In **Vietnam**, the Group no longer possesses any exploration asset following the sale in August 2013 of its stake in offshore Block 15-1/05 (35%).

### Commonwealth of Independent States (CIS)

**In 2013, TOTAL's production in the CIS was 227 kboe/d, representing 10% of total Group production, compared to 195 kboe/d in 2012 and 119 kboe/d in 2011.**

In **Azerbaijan**, where TOTAL has been present since 1996 on the Shah Deniz field (10%), production amounted to 20 kboe/d in 2013 and has been growing regularly year-on-year since 2010. TOTAL also has a 10% stake in the South Caucasus Pipeline Company (SCP) gas pipeline, which transports the gas produced at Shah Deniz to the Turkish and Georgian markets. TOTAL also holds a 5% stake in the Baku-Tbilisi-Ceyhan (BTC) oil pipeline, which connects Baku and the Mediterranean Sea and, among other functions, evacuates the condensates from the gas transported from Shah Deniz.

Gas deliveries to Turkey and Georgia continued throughout 2013, at a lower pace for Turkey due to weaker demand than initially expected. As in 2012, however, the Azerbaijan state-owned SOCAR continued to take greater quantities of gas than provided for by the agreement, thus making it possible for the facilities to operate at maximum capacity.

Following the agreements signed in 2011 regarding the sale of additional gas volumes to Turkey and the transfer conditions for volumes intended for the European market, the final investment decision concerning the second phase of development at Shah Deniz was made in December 2013. In September 2013, gas sales agreements representing a total volume of 10 Gm<sup>3</sup>/y were signed with European buyers. These volumes are expected to be transported from 2021 through Turkey via the Trans Anatolian pipeline (TANAP) within the framework of a project headed by SOCAR, and via the Trans Adriatic Pipeline (TAP) that is expected to link Turkey to Italy and in which TOTAL acquired a 10% stake in July 2013.

With regard to the Absheron Block in the Caspian Sea, TOTAL (40%) is the operator during the exploration phase and a joint operating company will manage operations during the development and production phase. A discovery and commerciality declaration was filed in 2012 following a significant discovery in 2011. The development plan for the field is currently being prepared. Discussions are underway for the construction of a drilling rig in the Caspian Sea in order to prepare for the development of this discovery.

In **Kazakhstan**, TOTAL has been active since 1992 through its 16.81% stake in the North Caspian license, which covers the Kashagan field in particular.

The Kashagan project is expected to develop the field in several phases. Production from the first phase (300 kb/d) started on September 11, 2013 and was first halted on September 24, 2013, and then, after having been restarted, a second time on October 9, 2013, due to leaks detected on the gas export pipeline. Investigations are underway in order to identify the origin of these technical malfunctions and to allow production to resume rapidly.

In November 2012, TOTAL acquired a 75% share in the North and South Nurmuna onshore exploration blocks. These two blocks cover an area of 14,600 km<sup>2</sup> and are located in the southwest of the country. A 2D seismic survey was conducted on each of these blocks in 2013. The data is currently being interpreted and a well is planned to be drilled in 2014.

In **Russia**, where TOTAL has had operations through its subsidiary since 1991, the Group's production in 2013 was 207 kboe/d compared to 179 kboe/d in 2012 and 105 kboe/d in 2011. This production comes from the Kharyaga field and from TOTAL's stake in the Russian company Novatek, which is listed in Moscow and London.

On the Kharyaga field (40%, operator), work related to the development plan for Phases 3 and 4 is ongoing. This plan aims to maintain plateau oil production above 30 kboe/d. Phase 3 is expected to be completed in 2015 with the end of the flaring of the associated gas.

## Edgar Filing: TOTAL S.A. - Form 20-F

In compliance with the strategic partnership agreement signed in 2011 with Novatek, TOTAL continued to increase its share in Novatek to 16.9636% as of December 31, 2013 and intends to further increase its share up to 19.4%. TOTAL is currently participating in two projects with Novatek:

**Termokarstovoye:** This onshore deposit of gas and condensates is located in the Yamalo-Nenets district. The development and production license for the Termokarstovoye field is owned by ZAO Terneftegas, a joint venture between Novatek (51%) and TOTAL (49%).

Development of this field started in late 2011, with production start-up being expected for mid-2015 at a capacity of 65 kboe/d.

**Yamal LNG:** The aim of this project, which has been declared to be of national interest by Russian authorities, is to develop the South Tambey gas and condensates field in the Yamal Peninsula and to construct a three-train gas liquefaction plant with an LNG production capacity of 16.5 Mt/y. The first production is expected late 2017. The LNG produced is intended for sale in Europe and Asia using ice-class LNG tankers. The final investment decision was made in December 2013. The company Yamal LNG is jointly-owned by Novatek (60%), TOTAL (20%) and, as of January 2014, CNPC (20%).

In January 2014, Novatek increased its stake in the company Severenergia (production of 100 kb/d in 2013) by acquiring ENI's shares through the company Arcticgaz (50/50 Joint venture between Novatek and Gazpromneft). In December 2013, Novatek exchanged its interest held in Sibneftegas for the entirety of Rosneft's interests in Severenergia. Since June 2013, Novatek has held a 50 % stake in the Nortgaz field.

In 2013, TOTAL undertook conceptual studies showing that new technical solutions could allow a viable development of the Shtokman field. Discussions with Gazprom for further studies are required to find a

## Table of Contents

### Item 4 - Business Overview

technical, contractual and economically viable solution for the development of the Shtokman field.

In **Tajikistan**, TOTAL acquired a 33.3% stake in the Bocktar Block in the first half of 2013. The agreement represents the start of TOTAL's activity in the country. Environmental and societal studies started at the beginning of 2014. The first phase of a seismic campaign covering 800 km is due to start in 2014, with initial drilling operations planned for late 2015.

## Europe

**In 2013, TOTAL's production in Europe was 392 kboe/d, representing 17% of the Group's overall production, compared to 427 kboe/d in 2012 and 512 kboe/d in 2011.**

In **Bulgaria**, the Khan Asparuh license, which covers 14,220 km<sup>2</sup> in the Black Sea, was awarded to TOTAL in 2012. In March 2013, TOTAL sold 60% of its stake and has retained 40% of this block. TOTAL will be the operator as of April 2014. A 2D and 3D seismic survey was performed from June 2013 to January 2014. The data is due to be processed and interpreted in 2014 in order to define drilling objectives in 2015 and 2016.

In **Cyprus**, TOTAL has been present since February 2013 in the deep-offshore exploration Blocks 10 (100%, operator) and 11 (100%, operator) located southwest of the country. A 3D seismic survey was completed on Block 11 in 2013. A 2D seismic survey on Block 10 started in February 2014.

In **Denmark**, TOTAL has, since 2010, owned an 80% stake in and the operatorship of licenses 1/10 (Nordjylland) and 2/10 (Nordsjaelland, formerly Frederoskilde). These onshore licenses, of which the shale gas potential continues to be assessed, cover areas of 3,000 km<sup>2</sup> and 2,300 km<sup>2</sup>, respectively. Following geoscience surveys on license 1/10 in 2011, the decision was made to drill a well. Initially planned for 2013, this well is now scheduled for 2014 due to additional environmental studies requested by the local authorities. Geoscience studies are ongoing on license 2/10 and a gravimetry acquisition was made in 2013.

In **France**, the Group's production in 2013 was 9 kboe/d compared to 13 kboe/d in 2012 and 18 kboe/d in 2011. TOTAL's major assets are the Lacq (100%) and Meillon (100%) gas fields, located in the southwest part of the country.

On the Lacq field, which started production in 1957, a carbon dioxide capture, injection and storage pilot was commissioned in 2010. In connection with this project, a boiler was modified to operate in an oxy-fuel combustion environment and the CO<sub>2</sub> emitted was captured and re-injected in the depleted Rousse field. As part of TOTAL's Sustainable Development policy, this project allowed the Group to assess one of the technological possibilities for reducing CO<sub>2</sub> emissions. Most of the objectives of the experiment having been reached, the injection of CO<sub>2</sub> came to an end in the first quarter of 2013. As anticipated, TEPP ended the operations on Lacq in October 2013.

The sale agreements of Itteville, Vert-le-Grand, Vert-le-Petit and La Croix Blanche assets were signed in 2011, while those of Dommartin Lettrée, Vic-Bilh, Lacq, Lagrave and Pécorade assets were signed in 2012. The approval of the authorities has been obtained for the sale of all of these licenses, with the exception of the Lacq asset, for which approval is expected to be granted in 2014.

The Montélimar exclusive exploration license awarded to TOTAL in 2010 to assess, in particular, the shale gas potential of the area, was revoked by the government in October 2011. This revocation

stemmed from the law of July 13, 2011, prohibiting the exploration and extraction of hydrocarbons by drilling followed by hydraulic fracturing. The Group had submitted the required report to the government in which it undertook not to use hydraulic fracturing in light of the current prohibition. An appeal filed in December 2011 with the administrative court requesting that the judge cancel the revocation of the license is still pending.

In **Italy**, TOTAL holds a stake in two exploration licenses and has an interest in the Tempa Rossa field (50%, operator), discovered in 1989 and located on the Gorgoglione concession (Basilicate region). Although preparation work started in 2008, the proceedings initiated by the Prosecutor of the Potenza Court against Total Italia led to a freeze in the preparation work (for additional information on this dispute, see Item 8. Legal or arbitration proceedings Italy). After resuming the preparation work, the final investment decision was made in July 2012 and production start-up is expected for 2016 at a capacity of 55 kboe/d. Following a call for tenders, all the civil engineering and construction contracts were awarded in 2012 and are currently in progress. The Gorgoglione 2 well was tested in 2012 and confirmed the results obtained from the other wells. The drilling of a sidetrack at well TR-2 started in November 2013.

In March 2013, TOTAL finalized an agreement to sell 25% of the stake acquired in Tempa Rossa in 2011. This transfer, which reduced the Group's holding from 75% to 50%, took place in June 2013 following the approval of the Italian authorities.

In **Norway**, where the Group has had operations since the mid-1960s, TOTAL has equity stakes in 104 production licenses on the Norwegian continental shelf, 31 of which it operates. In 2013, the Group's production was 243 kboe/d, with 74 kboe/d from the Greater Ekofisk Area located in the southern sector of the North Sea, 103 kboe/d from the central and northern portions of the North Sea and 66 kboe/d from the Haltenbanken region (in the Norwegian Sea) and the Barents Sea. The Group's production in Norway in 2012 was 275 kboe/d and 287 kboe/d in 2011. The decrease in production between 2011 and 2013 was mainly due to the

## Edgar Filing: TOTAL S.A. - Form 20-F

decline of mature fields. Production should increase again and reach a level of around 300 kboe/d at the horizon 2017 with the start-up of several new fields, the developments of which have already been launched (Martin Linge, Ekofisk South, Eldfisk II).

In the Norwegian North Sea, the most substantial contribution to the Group's production, which is for the most part non-operated, comes from the Greater Ekofisk Area (*e.g.*, Ekofisk, Eldfisk, Embla).

In the southern Norwegian North Sea:

In the Greater Ekofisk Area, the Group owns a 39.9% stake in the Ekofisk and Eldfisk fields. The Ekofisk South and Eldfisk 2 projects, each with a capacity of 70 kboe/d, were launched in 2011. Production at Ekofisk South started in October 2013, while start-up at Eldfisk 2 is expected in early 2015. The project relating to the construction and installation of the new Ekofisk accommodation and field services center platform has now been completed and the accommodation has been operational as of November 2013.

In the central part of the Norwegian North Sea:

Gas production start-up at the Atla field, located on license PL102C (40%, operator) and Beta West field (10%), a satellite of Sleipner, took place in October 2012 and April 2011, respectively.

The development of the Gina Krog structure (38%), formerly known as Dagny and located to the north of

## **Table of Contents**

### **Item 4 - Business Overview**

Sleipner, was approved in 2013. Production start-up is planned for 2017.

On license PL036D (24.24%), the fast-track development of Vilje South was launched in 2011. Production start-up is expected in March 2014.

In the northern part of the Norwegian North Sea:

The Islay field (100%, operator) was put into production in 2012. This field extends on each side of the Norwegian/Great Britain border and the Group's interest in the Norwegian part is 5.51%.

The Stjerne field, located on license PL104 (14.7%), and Visund South field, located on license PL120 (7.7%), were put into production in July 2013 and November 2012, respectively.

On license PL120 (7.7%), the fast-track development of Visund North, which started in late 2011, made it possible to start production on the field in November 2013.

On the Greater Hild Area (51%, operator), located in the north, the Martin Linge development scheme was approved by the authorities in 2012, with production start-up scheduled end 2016 at an estimated capacity of 80 kboe/d.

The Oseberg Delta phase 2 project (14.7%), located on production licenses PL104 and PL79, was approved by the authorities in October 2013 and production start-up is planned for 2015.

In the Norwegian Sea, the Haltenbanken area includes the Tyrihans (23.2%), Linnorm (20%), Mikkell (7.7%) and Kristin (6%) fields as well as the Åsgard field (7.7%) and its satellites Yttergryta (24.5%) and Morvin (6%).

The Åsgard sub-sea compression project, which will increase hydrocarbon recovery on the Åsgard and Mikkell fields, was approved by the Norwegian authorities in 2012. All the main contracts have been awarded.

Development of the Linnorm gas field is still under study following the lower than expected results obtained at the Onyx South exploration well, which was drilled in 2013. It was planned to export the gas from Linnorm to the Nyhamna onshore terminal by installing a new pipeline (Polarled project).

The Polarled project (5.11%) was approved in December 2012. The project consists of the installation of a 481 km long pipeline from the Aasta Hansen field to the Nyhamna terminal and in the expansion of the terminal.

In the Barents Sea, a project intended to improve the performance of the Snøhvit liquefaction plant (18.4%, capacity of 4.2 Mt/y) was launched in 2012. This plant is supplied with gas from the Snøhvit, Albatross and Askeladd fields.

Several exploration wells were successfully drilled on a number of licenses during the 2011-2013 period and revealed the presence of hydrocarbons at the structures of Smørbukk North (PL479, 7.68%) and Rhea (PL120, 7.68%) in 2013, Garantiana (PL554, 40%, operator) and King Lear (PL146 and 333, 22.2%) in 2012, and Alve North (PL127, 50%, operator) and Norvarg (PL535, 40%, operator) in 2011. The Novarg appraisal well drilled in 2013 confirmed the presence of gas in the structure, but the well results, which are under study as of December 31, 2013, are below expectations.

In addition, the Group is continuing to optimize its asset portfolio in Norway by obtaining new licenses and divesting a number of non-strategic assets.

In the **Netherlands**, TOTAL has had natural gas exploration and production operations since 1964 and currently owns twenty-four offshore production licenses, including twenty that it operates, and two offshore exploration licenses, E17c (16.92%) and K1c (30%). In 2013, the Group's production was 35 kboe/d compared to 33 kboe/d in 2012 and 38 kboe/d in 2011.

## Edgar Filing: TOTAL S.A. - Form 20-F

Following the acquisition of additional stakes at the end of 2013, TOTAL now holds 50% stakes in Block K5b and 60% in Blocks K1b/K2a and K2c. TOTAL is the operator of these three blocks.

A 3D seismic survey of several offshore permits covering an area of 3,500 km<sup>2</sup> was conducted in 2012. The results of this campaign are currently being interpreted.

The development project K4-Z (50%, operator) started production in August 2013. This development project was launched in 2011 and consists of two sub-sea wells connected to the existing production and transport facilities.

The L4-D field (55.66%, operator) started production in 2012.

Production from the K5-CU project (49%, operator) started in early 2011.

In **Poland**, at the beginning of 2012, TOTAL signed an agreement to acquire a 49% stake in the Chelm and Werbkowice exploration concessions in order to assess their shale gas potential. A well was drilled and tested on the Chelm permit in 2011. The results from the well were analyzed in 2012 and 2013. In December 2013, following the departure of the operator, TOTAL increased its stake to 100% and became the operator of this permit. In 2012, the Werbkowice permit was relinquished.

In the **United Kingdom**, where TOTAL has had operations since 1962, the Group's production in 2013 was 105 kboe/d compared to 106 kboe/d in 2012 and 169 kboe/d in 2011. About 90% of production comes from operated fields located in two major zones: the Alwyn zone in the northern North Sea, and the Elgin/Franklin zone in the Central Graben. In 2012, the shutdown of the Elgin, Franklin and West Franklin fields, due to a gas leak from well G4 in Elgin, severely impacted production. Production at these three fields was resumed in March 2013.

In the Alwyn zone (100%), the start-up of satellite fields or new reservoir compartments made it possible to compensate in part for the natural decline in production potential. Consequently, wells N54 and N53 were put into production in 2012 and 2011, respectively. Well N55, which was drilled in 2012 in the Brent South West panel, is expected to be put into production in the middle of 2014.

On the Dunbar field (100%), a new drilling campaign (Dunbar phase IV) is due to begin during the second quarter 2014 and is expected to include three work-overs and six new wells.

The Islay field (100%, operator) was put into production in 2012. This field extends on each side of the Norwegian/Great Britain border and the Group's interest in the UK portion is 94.49%.

In 2012, TOTAL finalized the divestment of its stake in the Otter field.

In Central Graben, TOTAL increased its stake in Elgin Franklin Oil & Gas (EFOG), a company through which it holds an interest in the Elgin and Franklin fields (46.2%, operator), from 77.5% to 100% at the end of 2011. Production at the Elgin, Franklin and West Franklin fields was stopped following a gas leak on the Elgin field in March 2012. In May 2012, TOTAL confirmed that the leak from well G4 had been successfully stopped and, at the end of October 2012, well G4 was definitively secured by installing five cement plugs. The



## Table of Contents

### Item 4 - Business Overview

enquiry led by TOTAL permitted the clear identification of the causes of the accident and the definition of new criteria for well integrity to allow the resumption of production at Elgin/Franklin in total safety. Production in the Elgin/Franklin area resumed in March 2013 following the approval of the safety case by the UK Health and Safety Executive (HSE). Production has gradually risen to 55 kboe/d (approximately 25 kboe/d on the Group's account), representing 40% of the production potential of these fields. In order to recover the production level expected before the Elgin incident by 2015, a redevelopment project envisaging the drilling of new infill wells on Elgin and Franklin started in July 2013. Drilling work is due to start on Elgin in early 2015.

In addition, the West Franklin Phase II development project remains ongoing with production start-up scheduled for mid-2014.

In addition to Alwyn and the Central Graben, a third area, west of Shetland, is undergoing development. This area covers the fields of Laggan and Tormore (80%, operator) and the P967 license (50%, operator), which includes the Tobermory gas discovery. The decision to develop the Laggan and Tormore fields was made in 2010 and production is scheduled to start in 2014 with an expected capacity of 90 kboe/d. The development scheme includes: sub-sea production facilities; off-gas treatment (gas and condensates) at a plant located near the Sullom Voe terminal in the Shetland Islands, 150 km away; and a new gas pipeline connected to the Frigg gas line (FUKA) for the export of gas to the Saint Fergus terminal.

In early 2011, a gas and condensate discovery was made on the Edradour East license (75%, operator) near Laggan and Tormore. The decision to develop Edradour East using the existing infrastructure was made at the end of 2012. The Edradour development scheme is currently being optimized in order to include other possible fields in the same zone. Next to the Edradour East discovery, a second well (Spinnaker) started in September 2013 and is currently being drilled.

TOTAL also holds a stake in three assets operated by other parties: the Bruce (43.25%), Keith (25%), and Markham (7.35%) fields. The Group's stakes in other fields operated by third parties (Seymour, Alba, Armada, Maria, Moira, Mungo/Monan and Everest) were sold off in 2012.

Nine new licenses (three in the northern North Sea, three in Central Graben and three in West Shetland) were awarded to TOTAL in 2012 during the twenty-seventh exploration round.

Early 2014, TOTAL acquired a 40% stake in two shale gas exploration licenses (PEDL 139 et 140) located in the Gainsborough Trough basin of the East Midlands, and signed an agreement that permits the Group to acquire a 50% stake in the licence PEDL 209 located in the same area.

### Middle East

**In 2013, TOTAL's production in the Middle East was 536 kboe/d, representing 23% of the Group's production, compared to 493 kboe/d in 2012 and 570 kboe/d in 2011.**

In the **United Arab Emirates**, where TOTAL has had operations since 1939, the Group's production in 2013 was 260 kboe/d compared to 246 kboe/d in 2012 and 240 kboe/d in 2011. In 2013, the country maintained a steady rhythm of production which

led to an increase in TOTAL's share of production. The increase in production in 2013 was mainly due to higher production by Abu Dhabi Company for Onshore Oil Operations (ADCO).

TOTAL holds a 75% stake (operator) in the Abu Al Bu Khoosh field, a 9.5% stake in ADCO, which operates the five major onshore fields in Abu Dhabi, and a 13.3% stake in Abu Dhabi Marine (ADMA), which operates two offshore fields. TOTAL also has a 15% stake in Abu Dhabi Gas Industries (GASCO), which produces NGL (natural gas liquids) and condensates from the associated gas produced by ADCO as well as from the gas and condensates and associated gases produced by ADMA. TOTAL also has a 5% stake in Abu Dhabi Gas Liquefaction Company (ADGAS), which processes the associated gas produced by ADMA in order to produce LNG, NGL and condensates, and further possesses a 5% holding in National Gas Shipping Company (NGSCO), which owns eight LNG tankers and exports the LNG produced by ADGAS.

The ADCO license expired in January 2014 and the Abu Dhabi authorities have issued a call for tenders for the renewal of the license as of January 1, 2015.

The Group holds a 24.5% stake in Dolphin Energy Ltd. in partnership with Mubadala, a company owned by the government of Abu Dhabi, in order to market gas produced in Qatar primarily to the United Arab Emirates.

The Group also owns 33.33% of Ruwais Fertilizer Industries (FERTIL), which produces urea. The FERTIL 2 project was started in July 2013 and enabled FERTIL to more than double its production capacity to 2 Mt/y.

## Edgar Filing: TOTAL S.A. - Form 20-F

In **Iraq**, the Group's production was 7 kboe/d in 2013 compared to 6 kboe/d on average for the year 2012. TOTAL holds an 18.75% stake in the consortium that was awarded the development and production contract for the Halfaya field in the Missan province. Production of Phase 1 of the project, which has a capacity of 100 kb/d, started in June 2012. Phase 2, under construction, is expected to increase the production up to 200 kb/d by the end of 2014. The definitive development plan, which is expected to make it possible to achieve a plateau of 535 kb/d, was approved by the authorities in August 2013.

In early 2013, TOTAL acquired an 80% stake and became operator of the Baranan exploration Block (729 km<sup>2</sup>, southeast of Sulaymaniyah, in the Kurdistan area). A 2D seismic survey of 213 km was completed in January 2014. The data of this seismic is expected to result in the drilling of a first exploration well at the end of 2014.

Since 2012, TOTAL has held a 35% stake in the Safen and Harir exploration Blocks (424 km<sup>2</sup> and 705 km<sup>2</sup>, respectively, located to the northeast of Erbil), as well as a 20% stake in the Taza Block (505 km<sup>2</sup>, located southwest of Sulaymaniyah). During 2013, four exploration wells were drilled and resulted in two discoveries located in the Taza and Harir Blocks. The drilling of five new wells is planned for 2014 on three of these four blocks. In early 2014, TOTAL increased its stake in the Safen Block to 80% and became the operator.

In **Iran**, the Group has had no production since 2010. For further information on TOTAL and Iran, see Other Matters - Cuba, Iran and Syria, below.

In **Oman**, the Group's production in 2013 was 37 kboe/d, stable compared to 2012 and 2011. TOTAL primarily produces oil on

2013 Form 20-F TOTAL S.A. 27

## Table of Contents

### Item 4 - Business Overview

Block 6 (4%)<sup>(1)</sup> as well as on Block 53 (2%)<sup>(2)</sup>, and it also produces LNG through its stake in the Oman LNG (5.54%)/Qalhat LNG (2.04%)<sup>(3)</sup> liquefaction plant, which has a capacity of 10.5 Mt/y. In December 2013, TOTAL obtained the license for ultra-deep-offshore Block 41.

In **Qatar**, where TOTAL has had operations since 1936, the Group's production in 2013 was 137 kboe/d compared to 139 kboe/d in 2012 and 155 kboe/d in 2011. The Group has equity stakes in the Al Khalij field (40%), the NFB Block (20%) in the North field and the Qatargas 1 liquefaction plant (10%). The Group also holds a 16.7% stake in train 5 of Qatargas 2.

In 2012, TOTAL and state-owned Qatar Petroleum signed a new agreement to continue their partnership on the Al Khalij field for an additional 25-year period as of 2014. TOTAL will continue to be the operator (40%) alongside Qatar Petroleum (60%).

The production contract for the Dolphin gas project, signed in 2001 with Qatar Petroleum, provides for the sale of 2 Bcf/d of gas from the North Field for a 25-year period. The gas is processed in the Dolphin plant in Ras Laffan and exported to the United Arab Emirates through a 360 km gas pipeline.

The production capacity of train 5 of Qatargas 2 is 8 Mt/y. TOTAL has been a shareholder in this train since 2006. An agreement to share the two liquefaction trains of the Qatargas 2 project (trains 4 and 5) was signed in 2011. The agreement provides for an equal split of the physical production of the two trains as well as of the associated operating costs and capital outlay. In addition, TOTAL offtakes part of the LNG produced in compliance with the contracts signed in 2006, which provide for the purchase of 5.2 Mt/y of LNG from Qatargas 2 by the Group.

The Group became a partner in the offshore BC exploration permit (25%) in 2011. The first exploration well is due to be drilled during the first half of 2014.

In **Syria**, TOTAL has a 100% stake in the Deir Ez Zor permit, which is operated by the joint-venture company DEZPC in which TOTAL and the state-owned company SPC each have a 50% share. TOTAL also holds the Tabiyeh contract, which came into effect in 2009. The Group had no production in the country in 2013 or in 2012 compared to 53 kboe/d in 2011. TOTAL suspended its activities contributing to the production of hydrocarbons in Syria in December 2011, in compliance with the European Union's regulations regarding this country. For additional information, see Other Matters - Cuba, Iran and Syria, below.

In **Yemen**, where TOTAL has had operations since 1987, the Group's production was 95 kboe/d in 2013 compared to 65 kboe/d in 2012 and 86 kboe/d in 2011.

TOTAL owns a 39.62% stake in the Yemen LNG liquefaction plant (capacity of 6.7 Mt/y), which is located in Balhaf on the country's southern coast. This plant is supplied with the gas produced on Block 18, located near Marib in the center of the country, via a 320 km gas pipeline. The Balhaf plant suffered two rocket attacks in December 2013 and January 2014, but production was not impacted because one of the rockets resulted in slight damage and the other landed in the sea. Security measures have since been adopted due to the evolving risks.

TOTAL also has stakes in two oil basins, as the operator of Block 10 (Masila Basin, East Shabwa license, 28.57%) and as a partner on Block 5 (Marib basin, Jannah license, 15%).

TOTAL owns stakes in five onshore exploration licenses: 40% in Blocks 69 and 71, 50.1% in Block 70 (operator); 36% in Block 72 (operator); and 40% in Block 3 (operator).

<sup>(1)</sup> TOTAL holds an indirect interest of 4% in Petroleum Development Oman LLC, operator of Block 6, via its 10% interest in via Pohol (equity affiliate).

<sup>(2)</sup> TOTAL holds an indirect interest of 2% in Block 53.

<sup>(3)</sup> TOTAL's indirect stake in Qalhat LNG through its stake in Oman LNG.

**Table of Contents**

Item 4 - Business Overview

**OIL AND GAS ACREAGE**

As of December 31,							
(in thousands of acres at year-end)		2013		2012		2011	
		Undeveloped acreage <sup>(a)</sup>	Developed acreage	Undeveloped acreage <sup>(a)</sup>	Developed acreage	Undeveloped acreage <sup>(a)</sup>	Developed acreage
Europe	Gross	10,804	722	10,015	724	6,478	781
	Net	5,305	163	6,882	176	3,497	185
Africa	Gross	134,157	1,266	135,610	1,256	110,346	1,229
	Net	86,493	341	88,457	337	65,391	333
Americas	Gross	19,790	960	16,604	1,705	15,454	1,028
	Net	9,391	286	6,800	330	5,349	329
Middle East	Gross	33,242	1,482	32,369	1,896	31,671	1,461
	Net	4,534	192	3,082	256	2,707	217
Asia	Gross	55,980	1,064	37,208	955	40,552	930
	Net	29,880	309	18,184	270	19,591	255
<b>Total</b>	<b>Gross</b>	<b>253,973</b>	<b>5,494</b>	<b>231,806</b>	<b>6,536</b>	<b>204,501</b>	<b>5,429</b>
	<b>Net<sup>(b)</sup></b>	<b>135,603</b>	<b>1,291</b>	<b>123,405</b>	<b>1,369</b>	<b>96,535</b>	<b>1,319</b>

<sup>(a)</sup> Undeveloped acreage includes leases and concessions.<sup>(b)</sup> Net acreage equals the sum of the Group's equity stakes in gross acreage.**NUMBER OF PRODUCTIVE WELLS**

As of December 31,					
(wells at year-end)				2013	
				Gross productive wells	Net productive wells <sup>(a)</sup>
Europe	Oil			403	106
	Gas			286	87
Africa	Oil			2,269	615
	Gas			156	48
Americas	Oil			868	266
	Gas			3,311	634
Middle East	Oil			6,283	441
	Gas			295	36
Asia	Oil			229	81
	Gas			2,306	741
<b>Total</b>	<b>Oil</b>			<b>10,052</b>	<b>1,509</b>
	<b>Gas</b>			<b>6,354</b>	<b>1,546</b>

<sup>(a)</sup> Net wells equal the sum of the Group's equity stakes in gross wells.

**Table of Contents**

## Item 4 - Business Overview

**NUMBER OF NET PRODUCTIVE AND DRY WELLS DRILLED**

As of December 31,		2013				2012				2011	
(wells at year-end)		Net productive wells drilled <sup>(a)(b)</sup>	Net dry wells drilled <sup>(a)(c)</sup>	Net total wells drilled <sup>(a)(c)</sup>	Net productive wells drilled <sup>(a)(b)</sup>	Net dry wells drilled <sup>(a)(c)</sup>	Net total wells drilled <sup>(a)(c)</sup>	Net productive wells drilled <sup>(a)(b)</sup>	Net dry wells drilled <sup>(a)(c)</sup>	Net total wells drilled <sup>(a)(c)</sup>	
<b>Exploratory</b>	Europe	1.5	0.2	1.7	0.9	3.3	4.2	1.5	1.7	3.2	
	Africa	1.5	5.1	6.6	4.9	2.8	7.7	2.9	1.5	4.4	
	Americas	2.9	1.4	4.3	3.9	0.6	4.5	1.2	1.3	2.5	
	Middle East	0.6	0.7	1.3				1.2	0.8	2.0	
	Asia	1.6	4.3	5.9	2.4	1.4	3.8	2.1	3.7	5.8	
	<b>Total</b>	<b>8.1</b>	<b>11.7</b>	<b>19.8</b>	<b>12.1</b>	<b>8.1</b>	<b>20.2</b>	<b>8.9</b>	<b>9.0</b>	<b>17.9</b>	
<b>Development</b>	Europe	6.9	0.3	7.2	6.0	0.7	6.7	7.5		7.5	
	Africa	19.7	0.4	20.1	22.7		22.7	24.7		24.7	
	Americas	98.0		98.0	70.6		70.6	113.1		113.1	
	Middle East	42.7	0.3	43.0	43.3		43.3	32.6	2.6	35.2	
	Asia	198.0		198.0	127.8		127.8	118.4		118.4	
	<b>Total</b>	<b>365.3</b>	<b>1.0</b>	<b>366.3</b>	<b>270.4</b>	<b>0.7</b>	<b>271.1</b>	<b>296.3</b>	<b>2.6</b>	<b>298.9</b>	
<b>Total</b>		<b>373.4</b>	<b>12.7</b>	<b>386.1</b>	<b>282.5</b>	<b>8.8</b>	<b>291.3</b>	<b>305.2</b>	<b>11.6</b>	<b>316.8</b>	

<sup>(a)</sup> Net wells equal the sum of the Company's fractional interests in gross wells.

<sup>(b)</sup> Includes certain exploratory wells that were abandoned, but which would have been capable of producing oil in sufficient quantities to justify completion.

<sup>(c)</sup> For information: service wells and stratigraphic wells drilled within oil sands operations in Canada are not reported in this table (86.2 wells in 2013, 131.7 in 2012 and 82.2 in 2011).

**EXPLORATORY AND DEVELOPMENT WELLS IN THE PROCESS OF BEING DRILLED (INCLUDING WELLS TEMPORARILY SUSPENDED)**

As of December 31,		2013	
(wells at year-end)		Gross <sup>(a)</sup>	Net <sup>(a)(b)</sup>
<b>Exploratory</b>	Europe	2	1.5
	Africa	31	9.8
	Americas	15	6.7
	Middle East	10	3.6
	Asia	15	5.7
	<b>Total</b>	<b>73</b>	<b>27.3</b>
<b>Development</b>	Europe	35	13.4
	Africa	27	7.7
	Americas	348	120.7
	Middle East	129	15.8
	Asia	821	246.1
	<b>Total</b>	<b>1,360</b>	<b>403.7</b>
<b>Total</b>		<b>1,433</b>	<b>431.0</b>

<sup>(a)</sup> From 2013, includes drilled wells for which surface facilities permitting production have not yet been constructed. Such wells are also reported in the table Number of net productive and dry wells drilled, above, for the year in which they are drilled.

<sup>(b)</sup> Net wells equal the sum of the Group's equity stakes in gross wells.



**Table of Contents**

Item 4 - Business Overview

**INTERESTS IN PIPELINES**

The table below sets forth TOTAL's interests in oil and gas pipelines as of December 31, 2013.

Pipeline(s)	Origin	Destination	% interest	Operator	Liquids	Gas
<b>EUROPE</b>						
<b>Norway</b>						
Frostpipe (inhibited)	Lille-Frigg, Froy	Oseberg	36.25		x	
Heimdal to Brae Condensate Line	Heimdal	Brae	16.76		x	
Kvitebjorn pipeline	Kvitebjorn	Mongstad	5.00		x	
Norpipe Oil	Ekofisk Treatment center	Teeside (UK)	34.93		x	
Oseberg Transport System	Oseberg, Brage and Veslefrikk	Sture	12.98		x	
Sleipner East Condensate Pipe	Sleipner East	Karsto	10.00		x	
Troll Oil Pipeline I and II	Troll B and C	Vestprosess (Mongstad refinery)	3.71		x	
Vestprosess	Kollsnes (Area E)	Vestprosess (Mongstad refinery)	5.00		x	
Polared	Asta Hansteen/Linnorm	Nyhamna	5.11			x
<b>The Netherlands</b>						
Nogat pipeline	F3-FB	Den Helder	5.00			x
WGT K13-Den Helder	K13A	Den Helder	4.66			x
WGT K13-Extension	Markham	K13 (via K4/K5)	23.00			x
<b>United Kingdom</b>						
Alwyn Liquid Export Line	Alwyn North	Cormorant	100.00	x	x	
Bruce Liquid Export Line	Bruce	Forties (Unity)	43.25		x	
Central Graben Liquid Export Line (LEP)	Elgin-Franklin	ETAP	15.89		x	
Frigg System : UK line	Alwyn North, Bruce and others	St.Fergus (Scotland)	100.00	x		x
Ninian Pipeline System	Ninian	Sullom Voe	16.00		x	
Shearwater Elgin Area Line (SEAL)	Elgin-Franklin, Shearwater	Bacton	25.73			x
SEAL to Interconnector Link (SILK)	Bacton	Interconnector	54.66	x		x
<b>AFRICA</b>						
<b>Gabon</b>						
Mandji Pipes	Mandji fields	Cap Lopez Terminal	100.00 <sup>(a)</sup>	x	x	
Rabi Pipes	Rabi fields	Cap Lopez Terminal	100.00 <sup>(a)</sup>	x	x	
<b>AMERICAS</b>						
<b>Argentina</b>						
Gas Andes	Neuquén Basin (Argentina)	Santiago (Chile)	56.50	x		x
TGN	Network (Northern Argentina)		15.40			x
TGM	TGN	Uruguayana (Brazil)	32.68			x
<b>Bolivia</b>						
Transierra	Yacuiba (Bolivia)	Rio Grande (Bolivia)	11.00			x
<b>Brazil</b>						
TBG	Bolivia-Brazil border	Porto Alegre via São Paulo	9.67			x
<b>ASIA</b>						
Yadana	Yadana (Myanmar)	Ban-I Tong (Thai border)	31.24	x		x
<b>REST OF WORLD</b>						
BTC	Baku (Azerbaijan)	Ceyhan (Turkey, Mediterranean)	5.00		x	
SCP	Baku (Azerbaijan)	Georgia/Turkey Border	10.00			x
Dolphin (International transport and network)	Ras Laffan (Qatar)	U.A.E.	24.50			x

<sup>(a)</sup> Interest of Total Gabon. The Group has a financial interest of 58.28% in Total Gabon.

## **Table of Contents**

### **Item 4 - Business Overview**

#### **Gas & Power**

Gas & Power's primary objective is to contribute to the growth of the Group by ensuring sales outlets for its current and future natural gas reserves and production.

In order to optimize these gas resources, particularly liquefied natural gas (LNG), Gas & Power's activities include the trading and marketing of natural gas, liquefied natural gas, liquefied petroleum gas (LPG) and electricity as well as shipping. Gas & Power also has stakes in infrastructure companies (re-gasification terminals, natural gas transport and storage, power plants) necessary to implement its strategy.

In addition, Gas & Power manages a coal business line, handling everything from production to marketing.

#### **Liquefied natural gas**

A pioneer in the LNG industry, TOTAL today is one of the world's leading players<sup>(4)</sup> in the sector and has sound and diversified positions both in the upstream and downstream portions of the LNG chain. LNG development is key to the Group's strategy, with TOTAL strengthening its positions in most major production zones and markets.

Through its stakes in liquefaction plants<sup>(2)</sup> located in Qatar, the United Arab Emirates, Oman, Nigeria, Norway, Yemen and Angola and its gas supply agreement with the Bontang LNG plant in Indonesia, TOTAL markets LNG in all worldwide markets. The share of LNG production sold by TOTAL in 2013 reached 12.3 Mt, an increase of over 7% compared to 2012 LNG sales (11.4 Mt). This increase was due in particular to the improved performance of the Yemen LNG plant in 2013. The Group's forthcoming liquefaction projects, in particular in Australia and Russia, are aimed at increasing TOTAL's share of LNG sold over the coming years.

Gas & Power is responsible for LNG operations downstream from liquefaction plants. It is in charge of marketing LNG on behalf of Exploration & Production and developing the Group's LNG downstream portfolio for its trading, marketing and transport operations as well as re-gasification terminals.

#### ***Long-term Group LNG purchases***

TOTAL acquires long-term LNG volumes most frequently from liquefaction plants in which the Group holds a stake. These volumes support expansion of the Group's worldwide LNG portfolio.

In **Nigeria**, as part of the Nigeria LNG project in which the Group has a 15% interest, TOTAL signed an LNG purchase agreement, initially intended for deliveries to the United States and Europe, for 0.23 Mt/y over a 23-year period starting in 2006, to which an additional 0.94 Mt/y was added when the sixth train came on stream in 2007.

TOTAL also holds a 17% stake in the Brass LNG project involving the ongoing study of a gas liquefaction plant with plans to construct two LNG trains, each with a capacity of 5 Mt/y. In 2006, TOTAL signed a preliminary agreement with Brass LNG Ltd setting forth the principal terms of an LNG purchase agreement for approximately one-sixth of the plant's capacity over a 20-year period. This purchase agreement is subject to the final investment decision for the project.

In **Norway**, as part of the Snøhvit project, in which the Group holds an 18.4% stake, TOTAL signed in 2004 a purchase agreement for 0.78 Mt/y of LNG over a 15-year period primarily intended for North America and Europe. LNG deliveries started in 2007.

In **Qatar**, TOTAL signed purchase agreements in 2006 for 5.2 Mt/y of LNG from train 5 (16.7%) of Qatargas 2 over a 25-year period. This LNG is marketed mainly in France, the United Kingdom and North America. LNG deliveries started in 2009.

In **Yemen**, TOTAL signed an agreement with Yemen LNG Ltd (39.62%) in 2005 to purchase 2 Mt/y of LNG over a 20-year period, initially intended for delivery to the United States and Europe. LNG deliveries started in 2009.



## Edgar Filing: TOTAL S.A. - Form 20-F

Since 2009, part of the volume purchased by the Group pursuant to its long-term contracts related to the LNG projects mentioned above has been diverted to markets in Asia.

The new LNG sources described below are expected to support growth of the Group's LNG portfolio.

In **Australia**, TOTAL increased its stake in the Ichthys LNG project in early 2013 from 24% to 30%. Launched in early 2012, this project calls for the construction of two LNG trains, each with a capacity of 4.2 Mt/y. In addition, TOTAL signed in 2011 an LNG purchase agreement amounting to 0.9 Mt/y over a 15-year period. Deliveries are expected to start in 2017.

In **Russia**, TOTAL owns a 20% stake in Yamal LNG, which is overseeing a project to develop the South Tambey gas and condensates field and build a gas liquefaction plant with three trains supporting an LNG production of 16.5 Mt/y. The final investment decision was made in December 2013. Concurrently, TOTAL signed LNG purchase agreements amounting to 4 Mt/y over a 24-year period.

In the **United States**, TOTAL entered into an agreement in 2012 with the South Korean national natural gas company Kogas for the purchase of 0.7 Mt/y of LNG over a 20-year period from train 3 of the Sabine Pass gas terminal (Louisiana). Deliveries are expected to start in 2017. In parallel to this, TOTAL also entered into an agreement with Sabine Pass Liquefaction LLC for the purchase of 2 Mt/y of LNG over a 20-year period from train 5 of the Sabine Pass terminal. LNG deliveries will begin on the date on which train 5 is commissioned, which is scheduled for 2018. This agreement is conditional on, among other things, export and construction permits being obtained by Sabine Pass Liquefaction LLC (which owns and operates the terminal) for the construction of train 5 and the final investment decision for the project.

### ***Long-term Group LNG sales***

TOTAL has signed agreements for the sale of LNG from the Group's global LNG portfolio:

In **China**, TOTAL signed an LNG sales agreement with China National Offshore Oil Company (CNOOC). Under this agreement, which became effective in 2010, TOTAL supplies up to 1 Mt/y of LNG to CNOOC over a 15-year period.

In **South Korea**, TOTAL signed an LNG sales agreement in 2011 with Kogas. Under this agreement, TOTAL will deliver up to 2 Mt/y of LNG to Kogas between 2014 and 2031.

<sup>(1)</sup> Company data, based on upstream and downstream LNG portfolios in 2013.

<sup>(2)</sup> Exploration & Production is in charge of the Group's natural gas liquefaction and production operations.

**Table of Contents****Item 4 - Business Overview*****LNG shipping***

With regard to LNG transport operations, TOTAL has been the direct long-term charterer since 2004 of the Arctic Lady, a 145,000 m<sup>3</sup> LNG vessel that ships TOTAL's share of production from the Snøhvit liquefaction plant in Norway. In 2011, TOTAL signed a second long-term contract for the chartering of a 165,000 m<sup>3</sup> LNG vessel, the Meridian Spirit (former Maersk Meridian), in order to strengthen its transport capacities with regard to its lifting commitments in Norway.

The Group is also beginning to develop a fleet. TOTAL signed a long-term charter agreement in April 2013 in this regard with SK Shipping and Marubeni for two 182,000 m<sup>3</sup> vessels. The vessels will serve in fulfilling the purchase agreements of Total Gas & Power, including commitments relating to the Ichthys LNG project in Australia and the Sabine Pass project in the United States. These tankers, scheduled for delivery in 2017, will be among the largest to navigate the Panama Canal following its anticipated enlargement in 2015.

As of December 31, 2013, the Group held a 30% stake in Gaztransport & Technigaz (GTT), which focuses mainly on the design and engineering of membrane cryogenic tanks for LNG tankers. At year-end 2013, out of a worldwide tonnage estimated at 369 LNG vessels<sup>(1)</sup>, 262 active LNG vessels were equipped with membrane tanks built under GTT licenses. TOTAL sold a share of its stake in GTT through the initial public offering (IPO) of GTT's shares on Euronext Paris at the end of February 2014. Excluding the over-allotment option, TOTAL's residual stake in GTT is 11.5%.

**Trading**

TOTAL continued in 2013 to pursue its strategy of developing operations downstream from natural gas and LNG production. The aim of this strategy is to optimize access for the Group's current and future production to traditional markets (with long-term contracts) and to markets open to international competition (with short-term contracts and spot sales). In the context of deregulated markets, which allow customers to more freely access suppliers, in turn leading to marketing arrangements that are more flexible than traditional long-term contracts, TOTAL is developing trading, marketing and logistics businesses to offer its natural gas and LNG production directly to customers.

In parallel, the Group has operations in electricity trading and LPG as well as coal marketing. Furthermore, TOTAL began to market the petcoke production of the Port Arthur refinery (United States) in 2011.

Gas & Power's trading teams are located in London, Houston, Geneva and Singapore and conduct most of their business through the Group's wholly-owned subsidiaries Total Gas & Power, Total Gas & Power North America and Total Gas & Power Asia.

***Gas and electricity***

TOTAL has gas and electricity trading operations in Europe and North America with a view to selling the Group's production and supplying its gas marketing subsidiaries in addition to supporting other Group activities.

In **Europe**, TOTAL marketed 1,194 Bcf (33.8 Bm<sup>3</sup>) of natural gas in 2013, including approximately 13.8% coming from the Group's production, compared to 1,488 Bcf (42.1 Bm<sup>3</sup>) in 2012 and 1,500 Bcf (42.5 Bm<sup>3</sup>) in 2011. In addition, TOTAL marketed, mainly from external resources, 53.0 TWh of electricity in 2013 compared to 53.3 TWh in 2012 and 24.2 TWh in 2011.

In **North America**, TOTAL marketed from its own production or external resources 938 Bcf (26.6 Bm<sup>3</sup>) of natural gas in 2013, compared to 1,256 Bcf (36 Bm<sup>3</sup>) in 2012 and 1,694 Bcf (48 Bm<sup>3</sup>) in 2011.

***LNG***

TOTAL has LNG trading operations through spot sales and fixed-term contracts as described in Liquefied natural gas, above. Since 2009, new purchase agreements from the Qatargas 2 and Yemen LNG projects and new sale agreements in China, India, Japan and South Korea have substantially developed the Group's LNG marketing operations, particularly in Asia's most buoyant markets. This spot and fixed-term LNG portfolio allows TOTAL to supply gas to its main customers worldwide, while retaining a sufficient degree of flexibility to react to market opportunities.

In 2013, TOTAL purchased 89 contractual cargoes from Qatar, Yemen, Nigeria and Norway and 9 spot cargoes from France, Trinidad & Tobago and Nigeria, compared to respectively 87 and 8 in 2012 and 99 and 10 in 2011.

**LPG**

TOTAL traded and sold approximately 5.6 Mt of LPG (butane and propane) worldwide in 2013, compared to 6 Mt in 2012 and 5.7 Mt in 2011. Approximately 23% of these quantities came from fields or refineries operated by the Group. LPG trading involved the use of 11 time-charters, representing 233 voyages in 2013, and approximately 65 spot charters.

**Coal**

TOTAL marketed 8.5 Mt of coal in the international market in 2013 and 2012, compared to 7.5 Mt in 2011. More than 80% of this coal came from South Africa. Approximately 60% of the volume was sold in Asia, where coal is used primarily to generate electricity. The remaining volume was marketed in Europe.

**Petcoke**

TOTAL began to market the petcoke produced by the coker at the Port Arthur refinery in 2011. Approximately 1.2 Mt of petcoke was sold on the international market in 2013, compared to 1.1 Mt in 2012 and 0.6 Mt in 2011, to cement plants and electricity producers mainly in Mexico, Brazil, Turkey, China, Dominican Republic and other Latin American countries.

**Marketing**

To unlock value from the Group's production, TOTAL is developing gas, electricity and coal marketing operations with end users in the United Kingdom, France, Spain and Germany. At the end of 2012, the Group enlarged its European marketing coverage by creating two marketing affiliates: Total Gas & Power Belgium (formerly known as Total Gas & Power North Europe) in Belgium, and Total Gas & Power Nederland B.V. in the Netherlands. These two subsidiaries started their operations in 2013.

In the **United Kingdom**, TOTAL markets gas and electricity to the industrial and commercial segments through its subsidiary Total Gas & Power Ltd. In 2013, volumes of gas sold amounted to 142 Bcf (4.0 Bm<sup>3</sup>), compared to 146 Bcf (4.2 Bm<sup>3</sup>) in 2012 and 162 Bcf (4.6 Bm<sup>3</sup>) in 2011. Sales of electricity totaled approximately 4.7 TWh in 2013, compared to 3.9 TWh in 2012 and 4.1 TWh in 2011.

<sup>(1)</sup> *Gaztransport & Technigaz data.*

## Table of Contents

### Item 4 - Business Overview

In **France**, TOTAL markets natural gas through its subsidiary Total Energie Gaz (TEGAZ), the overall sales of which were 141 Bcf (4.0 Bm<sup>3</sup>) in 2013, compared to 176 Bcf (5 Bm<sup>3</sup>) in 2012 and 208 Bcf (5.9 Bm<sup>3</sup>) in 2011. The Group also markets coal to its French customers through its subsidiary CDF Energie, with sales of approximately 0.81 Mt in 2013, compared to 0.97 Mt in 2012 and 1.2 Mt in 2011.

In **Spain**, TOTAL markets natural gas to the industrial and commercial segments through Cepsa Gas Comercializadora, in which it holds a 35% stake. Volumes of gas sold amounted to 101 Bcf (2.9 Bm<sup>3</sup>) in 2013 and 2012 compared to 85 Bcf (2.4 Bm<sup>3</sup>) in 2011.

In **Germany**, Total Energie Gas GmbH, marketing subsidiary of TOTAL created in 2010, marketed 76 Bcf (2.2 Bm<sup>3</sup>) of gas in 2013 to industrial and commercial customers, compared to 5 Bcf (0.15 Bm<sup>3</sup>) in 2012.

The Group also holds stakes in the marketing companies that are associated with the Altamira and Hazira LNG re-gasification terminals located in Mexico and India, respectively.

### Gas facilities

TOTAL develops natural gas transport networks, gas storage facilities (both liquid and gaseous) and LNG re-gasification terminals downstream from its natural gas and LNG production.

#### *Natural gas transport, natural gas and LPG storage*

In **France**, TOTAL, through its 29.5% stake in Géométhane, owns natural gas storage in a salt cavern in Manosque with a capacity of 10.5 Bcf (0.3 Bm<sup>3</sup>). A 7 Bcf (0.2 Bm<sup>3</sup>) increase in storage capacity is scheduled to be commissioned in 2018.

TOTAL completed in July 2013 the sale of its subsidiary TIGF (Transport Infrastructures Gaz France) to the consortium consisting of Snam, EDF and GIC. TIGF has gas transport activities in southwestern France and operates a transport network of 5,000 km of gas pipeline.

In **South America**, TOTAL owns interests in several natural gas transport companies in Argentina, Chile and Brazil. These assets represent a total integrated network of approximately 9,500 km of pipelines serving the Argentinean, Chilean and Brazilian markets from gas-producing basins in Bolivia and Argentina, where the Group has natural gas reserves. These natural gas transport companies face a difficult operational and financial environment in Argentina stemming from the absence of an increase in transport tariffs and restrictions imposed on gas exports. However, GasAndes, a company in which TOTAL holds a 56.5% stake, successfully negotiated new contracts with all its customers.

In **India**, TOTAL holds a 50% stake in South Asian LPG Limited (SALPG), a company that operates an underground import and storage LPG terminal located on the east coast of the country. This cavern, the first of its kind in India, has a storage capacity of 60 kt. In 2013, inbound vessels transported 940 kt of LPG, compared to 950 kt in 2012 and 850 kt in 2011.

#### *LNG re-gasification*

TOTAL has entered into agreements to obtain long-term access to LNG re-gasification capacity on the three continents that are the largest consumers of natural gas: North America (United States and Mexico), Europe (France and the United Kingdom), and Asia (India). This diversified presence allows the Group to access new liquefaction projects by becoming a long-term buyer of a portion of the LNG produced at these plants, thereby strengthening its LNG supply portfolio.

In **France**, TOTAL holds a 27.54% stake in the company Fosmax and has, through its subsidiary Total Gas & Power Ltd., a re-gasification capacity of 79 Bcf/y (2.25 Bm<sup>3</sup>/y). The terminal received fifty-three vessels in 2013, compared to fifty-six in 2012 and fifty-nine in 2011.

In 2011, TOTAL acquired a 9.99% stake in Dunkerque LNG in order to develop a methane terminal project with a capacity of 459 Bcf/y (13 Bm<sup>3</sup>/y). Trade agreements have also been signed that allow TOTAL to reserve up to 2 Bm<sup>3</sup>/y of re-gasification capacity over a 20-year period. The project is underway and commissioning of the terminal is scheduled for the end of 2015.

In the **United Kingdom**, through its equity interest in the Qatargas 2 project, TOTAL holds an 8.35% stake in the South Hook LNG re-gasification terminal with a total capacity of 742 Bcf/y (21 Bm<sup>3</sup>/y) and an equivalent right of use to the terminal. In 2013, the terminal re-gasified fifty-two cargoes, compared to sixty-eight in 2012 and nearly one hundred in 2011.

## Edgar Filing: TOTAL S.A. - Form 20-F

In **Mexico**, TOTAL sold in 2011 its entire stake in the Altamira re-gasification terminal, but it retained a 25% reservation of the terminal's capacity (59 Bcf/y or 1.7 Bm<sup>3</sup>/y) through its 25% stake in Gas del Litoral.

In the **United States**, TOTAL has reserved a re-gasification capacity of approximately 353 Bcf/y (10 Bm<sup>3</sup>/y) at the Sabine Pass terminal (Louisiana) for a 20-year period ending in 2029. In 2012, the Sabine Pass terminal received the authorization to export LNG from four liquefaction trains, which involves converting the re-gasification plants into liquefaction plants. As a result, TOTAL negotiated financial compensation with Cheniere, the terminal's operator, in relation to the commissioning of the successive liquefaction trains.

In **India**, TOTAL holds a 26% stake in the Hazira terminal, where the natural gas re-gasification capacity was increased in 2013 to 244 Bcf/y (6.9 Bm<sup>3</sup>/y). The terminal, located on the west coast of India in the Gujarat state, is a merchant terminal with operations that cover both LNG re-gasification and gas marketing. Due to the Indian market's strong prospects for growth, a potential expansion project is under study to increase the terminal's capacity to 343 Bcf/y (9.7 Bm<sup>3</sup>/y) by 2018.

### *Electricity generation*

In a context of increasing global demand for electricity, TOTAL has developed expertise in the power generation sector, especially through cogeneration and combined-cycle power plant projects.

In **Abu Dhabi**, the Taweelah A1 power plant, which is owned by Gulf Total Tractebel Power Cy (20%), combines electricity generation and water desalination. The plant, in operation since 2003, currently has a net power generation capacity of 1,600 MW and a water desalination capacity of 385,000 m<sup>3</sup> per day. The plant's production is sold to Abu Dhabi Water and Electricity Company (ADWEC) as part of a long-term agreement.

In **Nigeria**, TOTAL and its partner, the state-owned Nigerian National Petroleum Corporation (NNPC), own interests in two gas-fired power plant projects that are part of the government's objectives to develop power generation and increase the share of natural gas production for domestic use:

the Afam VI power plant, part of the Shell Petroleum Development Company (SPDC) joint venture in which TOTAL holds a 10% stake, is a 630 MW combined-cycle power plant that has been in operation since the end of 2010; and

## Table of Contents

### Item 4 - Business Overview

the potential development of a new 417 MW combined-cycle power plant near the city of Obite (Niger Delta) in connection with the OML 58 gas project (40%, operator).

In **Thailand**, TOTAL owns 28% of Eastern Power and Electric Company Ltd, which operates the combined-cycle gas power plant in Bang Bo that has a capacity of 350 MW and has been in operation since 2003. The plant's production is sold to the Electricity Generating Authority of Thailand under a long-term agreement.

#### **Coal production**

For nearly thirty years, TOTAL, through its subsidiary Total Coal South Africa (TCSA), has produced and exported coal from South Africa primarily to Europe and Asia. In 2013, TCSA produced 4.3 Mt of coal.

TCSA owns and operates five mines in South Africa and continues to study other projects aimed at developing its mining resources.

The South African coal produced by TCSA or bought from third-parties' mines is either marketed locally or exported through the port of Richards Bay, in which TCSA holds a 4.8% interest.

## REFINING & CHEMICALS SEGMENT

The Refining & Chemicals segment constitutes a large industrial group that encompasses refining, petrochemicals, and specialty chemicals operations. This segment was created on January 1, 2012<sup>(1)</sup>, following the reorganization of the Downstream and Chemical segments, also includes Trading & Shipping activities.

### Refining & Chemicals

Refining & Chemicals includes the Group's refining, petrochemicals and specialty chemicals businesses. The petrochemicals business includes base petrochemicals (olefins and aromatics) and polymer derivatives (polyethylene, polypropylene and polystyrene). The specialty chemicals business includes elastomer processing, adhesives and electroplating chemistry. The volume of its Refining & Chemicals activities places TOTAL among the top ten integrated chemical producers in the world<sup>(2)</sup>.

Against the backdrop of rising worldwide demand for oil and petrochemicals driven by non-OECD countries, the strategy of Refining & Chemicals, in addition to the priority given to safety and environmental protection, involves:

- adapting production capacity to changes in demand in Europe by concentrating investments on integrated platforms;
- consolidating industrial means of production and the search for opportunities for growth in the United States; and
- strengthening TOTAL's positions in Asia and the Middle East, in particular to gain access to advantaged oil and gas resources and to benefit from growth in the markets.

This strategy is underpinned by an effort to differentiate through the technology used and innovation found in its products and processes, and involves pursuing asset portfolio management to focus on core businesses.

## Edgar Filing: TOTAL S.A. - Form 20-F

Since 2012, Refining & Chemicals has launched a comprehensive program to improve operational efficiency and to generate synergies between its refining and petrochemicals activities. In particular, four industrial priorities were set for the Refining & Chemicals activities: safety, availability of facilities, cost controls and energy efficiency. These action plans, combined with the development projects on its major integrated platforms and the growth of Specialty chemicals, should improve the profitability of operations by making the most of Refining & Petrochemicals' assets.

In June 2013, TOTAL completed the divestment of its Fertilizers activity (base chemicals) in Europe, mainly through the sale of its

shares in GPN S.A. (100%), France's leading producer of nitrogen fertilizers, and in the Belgian company Rosier S.A. (56.86%).

### Refining & Petrochemicals

TOTAL's refining capacity was 2,042 kb/d as of December 31, 2013, compared to 2,048 kb/d at year-end 2012 and 2,096 kb/d at year-end 2011. The Group's worldwide refined products sales (including trading operations) in 2013 were 3,418 kb/d, compared to 3,403 kb/d in 2012 and 3,639 kb/d in 2011.

TOTAL has equity stakes in twenty-one refineries (including nine that it operates), located in Europe, the United States, the French West Indies, Africa, the Middle East and China.

Refining & Chemicals sector manages the refining operations located in Europe (excluding the joint venture TotalErg in Italy), the United States, the Middle East and Asia, with a capacity of 1,953 kb/d at year-end 2013 (*i.e.*, 96% of the Group's total capacity<sup>(1)</sup>).

The petrochemicals businesses are located mainly in Europe, the United States, Qatar, South Korea and Saudi Arabia. Most of these sites are either adjacent or connected by pipelines to Group refineries. As a result, TOTAL's petrochemical operations are integrated within its refining operations.

The year 2013 saw the startup of the first production at the SATORP refinery in Saudi Arabia. Through this project, approved in 2009, the Group holds a stake, alongside Saudi Aramco, in one of the most competitive refining & petrochemicals platforms in the world.

TOTAL also announced in 2013 a major investment program to modernize the platform in Antwerp, Belgium, and a project to adapt the petrochemicals platform in Carling, France, with the goal of restoring competitiveness by 2016.

In 2011, TOTAL closed the sale to IPIC of its 48.83% stake in CEPISA as part of a public takeover bid on the entire share capital of CEPISA. With respect to refining operations, this sale concerned mainly four Spanish refineries (Huelva, Algeciras, Tenerife, Tarragona) and, with respect to petrochemicals operations, aromatics and their derivatives.

<sup>(1)</sup> As a result of the reorganization, certain information has been restated.

<sup>(2)</sup> Based on publicly available information, production capacities at year-end 2012.

<sup>(3)</sup> The divestment did not include TOTAL's interest in Grande Paroisse S.A., through which TOTAL has retained all liabilities related to the former activities of Grande Paroisse, and in particular those related to the AZF site in Toulouse.

<sup>(4)</sup> Earnings related to the refining assets in Africa, the French West Indies and the TotalErg joint venture are reported in the results of the Marketing & Services segment.

## Table of Contents

### Item 4 - Business Overview

#### Europe

TOTAL is the largest refiner in Western Europe<sup>(1)</sup>.

In **Western Europe**, TOTAL's refining capacity was 1,736 kb/d at year-end 2013, compared to 1,742 kb/d at year-end 2012 and 1,787 kb/d at year-end 2011, accounting for 85% of the Group's overall refining capacity. The decrease in 2012 was due primarily to the shutdown of the Rome refinery. The Group operates eight refineries in Western Europe (one in Antwerp, Belgium, five in France in Donges, Feyzin, Gonfreville, Grandpuits and La Mède, one in Immingham in the United Kingdom and one in Leuna, Germany) and owns stakes in the Schwedt refinery in Germany, the Zeeland refinery in the Netherlands and the Trecate refinery in Italy through its interest in TotalErg.

The Group's main petrochemical sites are located in Belgium, in Antwerp (steam crackers, aromatics, polyethylene) and Feluy (polyolefins, polystyrene), and in France, in Carling (steam cracker, aromatics, polyethylene, polystyrene), Feyzin (steam cracker, aromatics), Gonfreville (steam crackers, aromatics, styrene, polyolefins, polystyrene) and Lavéra (steam cracker, aromatics, polypropylene). Europe accounts for 54% of the Group's petrochemicals capacity, *i.e.*, 10,899 kt at year-end 2013 compared to 11,803 kt at year-end 2012 and 11,013 kt at year-end 2011. The decrease in 2013 was due essentially to the closure of one steam cracker in Antwerp. The increase in 2012 was due mainly to the acquisition of 35% of Fina Antwerp Olefins.

In **France**, the Group owns five refineries and continues to adapt its refining capacities by shifting the production emphasis to diesel and improving operational efficiency against the backdrop of a structural decline in the demand for petroleum products in Europe and an increase in gasoline surpluses. The Group has been implementing its industrial plan intended to reconfigure the Gonfreville refinery in Normandy, France, since 2009. The project is intended to upgrade the refinery and shift the production emphasis to diesel. For this purpose, the investments resulted in reducing the annual distillation capacity to 12 Mt from 16 Mt, upsizing the hydrocracker unit for heavy diesel cuts and improving energy efficiency by lowering carbon dioxide emissions. Most of the new configuration was rolled out at the beginning of 2013 after a major complete shutdown of the refinery. The complete project is expected to be finalized by mid-2014 with the startup of a new diesel desulfurization unit.

In parallel, the project to modernize the Normandy platform's petrochemical operations was completed in early 2012. This project improved the energy efficiency of the steam cracker and the high-density polyethylene unit.

In petrochemicals, the Group announced in September 2013 an investment plan for the Carling platform in Lorraine, France, to adapt its capacity and restore its competitiveness. The project provides for the development of new hydrocarbon resin and polymer production activities and the shutdown of the steam cracking activity in the second half of 2015.

In **Belgium**, the Group announced in May 2013 the launch of a major project to modernize its Antwerp platform. This project consists of two parts:

- i the construction of new conversion units in response to the shift in demand towards lighter oil products with a very low sulfur content; and
- i the construction of a new unit to convert the gases recovered from the refining process into raw materials for petrochemical units.

The modernization plan also provides for the shutdown of two of the site's oldest production units: one steam cracker in 2013, and a polyethylene production line by the end of 2014.

TOTAL built a new unit in Feluy that is starting up in 2014 in order to produce latest-generation expansible polystyrene for the fast-growing insulation market.

Moreover, in 2012, TOTAL acquired 35% of Fina Antwerp Olefins, Europe's second largest base petrochemicals (monomers) production plant<sup>(2)</sup>.

In the **United Kingdom**, the commissioning in 2011 of the hydrodesulfurization (HDS) unit at the Lindsey refinery allowed the refinery to increase its crude processing flexibility (up to 70% of high-sulfur crudes, compared to 10% previously) and its low-sulfur diesel production. In 2013, TOTAL decided to shut down its 70 kt/year polystyrene production site at Stalybridge, while continuing its commercial activity for polymers in the United Kingdom.



## Edgar Filing: TOTAL S.A. - Form 20-F

In **Italy**, TotalErg (49%) holds a 24.45% stake in the Trecate refinery. The Rome refinery, which was wholly-owned by TotalErg, was turned into a depot in 2012.

### ***North America***

The Group's main sites are located in Texas, in Port Arthur (refinery, steam cracker), Bayport (polyethylene) and La Porte (polypropylene), and in Louisiana, in Carville (styrene, polystyrene).

In 2011, TOTAL completed a program to upgrade the Port Arthur refinery that included the construction of a desulfurization unit, a vacuum distillation unit, a deep-conversion unit (or coker) and other associated units. This modernization allows the refinery to process more heavy and high-sulfur crudes and to increase production of lighter products, in particular low-sulfur distillates.

TOTAL and BASF purchased in 2011 Shell's stakes in Sabina, a butane processing plant, which they transferred to BTP (40%), their joint subsidiary that owns the Port Arthur steam cracker. This new structure increases synergies between the refinery and the steam cracker, which are located on the same site in Port Arthur.

Furthermore, as a result of the investment made to adapt its furnaces, the BTP cracker has, since April 2013, been able to produce almost 40% of its ethylene from ethane and 40% from butane and propane, which allows it to benefit from favorable market conditions in the United States. The ongoing construction of a new ethane-burning furnace will increase the steam cracker's production capacity by almost 15% in 2014.

### ***Asia and the Middle East***

TOTAL is continuing to expand in growth areas and is developing sites in countries with favorable access to raw materials.

In **Saudi Arabia**, the joint venture Saudi Aramco Total Refining and Petrochemical Company (SATORP) was created in 2008 by TOTAL (37.5%) and Saudi Aramco (Saudi Arabian Oil Company, 62.5%) in order to build a 400 kb/d refinery in Jubail. Saudi Aramco plans to retain a 37.5% interest, with the remaining 25%

*(1) Based on publicly available information, 2012 refining capacities and quantities sold.*

*(2) Based on publicly available information, production capacities at year-end 2012.*

**Table of Contents****Item 4 - Business Overview**

expected to be listed on the Saudi stock exchange. Most of the different units of SATORP were gradually commissioned in 2013 and the commercial exports of petroleum products started in September 2013. All the refining and petrochemicals units should be operational by the end of first quarter 2014. Production is expected to reach full capacity around mid-2014.

The configuration of this refinery is designed for processing heavy crudes produced in Saudi Arabia and selling fuels and other light products that meet strict specifications and that are mainly intended for export. The refinery is also integrated with the petrochemical units: a 700 kt/y paraxylene unit, a 200 kt/y propylene unit, and a 140 kt/y benzene unit.

In **China**, TOTAL holds a 22.4% stake in WEPEC, a company that operates a refinery located in Dalian and that also produces polypropylene.

The Group is also active through its polystyrene plant in Foshan (Guangzhou region), the capacity of which doubled to 200 kt/y at the beginning of 2011. A new polystyrene compounds unit started up on this site in the first quarter of 2013. TOTAL began the construction of a new 200 kt/y polystyrene plant in Ningbo in the Shanghai region, with production scheduled to start up in the second half of 2014.

In **South Korea**, TOTAL holds a 50% stake in Samsung Total Petrochemicals Co., Ltd., which operates the petrochemical site located in Daesan (condensate splitter, steam cracker, styrene, paraxylene, polyolefins). The joint venture completed in mid-2011 the first debottlenecking phase of the units at the Daesan site in order to bring them to full capacity. This first phase included increasing the capacity of the steam cracker to 1,000 kt/y and the polyolefin units to 1,150 kt/y. A second phase took place in September 2012 and involved increasing the capacity of the paraxylene unit to 700 kt/y.

In addition, to keep up with growth in the Asian markets, two major projects are under construction for planned start-up in 2014: a new 240 kt/y EVA<sup>(1)</sup> unit and a new aromatic unit with a capacity of 1.5 Mt/y of paraxylene and benzene, the raw material of which will be supplied by a new condensate splitter that will also produce kerosene (1.5 Mt/y) and diesel (1.0 Mt/y). As a result, the site's paraxylene production capacity will be increased to 1.8 Mt/y. Together, these projects are expected to double the production capacity of the site between 2011 and 2015.

In **Qatar**, the Group holds interests<sup>(2)</sup> in two ethane-based steam crackers (Qapco, RLOC) and four polyethylene lines (Qapco, Qatofin), including the linear low-density polyethylene plant with a capacity of 450 kt/y operated by Qatofin in Messaied and a new 300 kt/y low-density polyethylene line operated by Qapco, which started up in 2012.

TOTAL holds a 10% stake in the Ras Laffan condensate refinery, which has a capacity of 146 kb/d. Plans to double the refinery's capacity were approved in April 2013 and are expected to be completed in 2016. The project also includes the construction of a new diesel hydrogenation unit scheduled to come on-stream in 2014.

**Crude oil refining capacity**

The table below sets forth TOTAL's daily crude oil refining capacity<sup>(3)</sup>:

As of December 31, (kb/d)	2013	2012	2011
Nine refineries operated by Group companies			
Normandy (100%)	247	247	247
Provence (100%)	153	153	153
Donges (100%)	219	219	219
Feyzin (100%)	109	109	109
Grandpuits (100%)	101	101	101
Antwerp (100%)	338	338	338
Leuna (100%)	227	227	227
Lindsey - Immingham (100%)	207	207	207
Port Arthur (100%)	169	169	169
<b>Subtotal</b>	<b>1,770</b>	<b>1,770</b>	<b>1,770</b>
Other refineries in which the Group has equity stakes <sup>(a)</sup>	272	278	326
<b>Total</b>	<b>2,042</b>	<b>2,048</b>	<b>2,096</b>

<sup>(a)</sup> TOTAL's share in the eleven refineries in which TOTAL has equity stakes ranging from 10% to 55% (one in the Netherlands, in Germany, in China, in Qatar, in Italy and in Martinique and five in Africa). Rome refinery shutdown in 2012. The SATORP platform at Jubail in Saudi Arabia (TOTAL, 37.5%), that was in the process of starting up on December 31, 2013, was not taken into account in the above table of capacities. In 2014, once entirely operational, TOTAL's

## Edgar Filing: TOTAL S.A. - Form 20-F

share of capacity in the refinery will be 145 kb/d.

### Refined products

The table below sets forth by product category TOTAL's net share of refined quantities produced at the Group's refineries.

(kb/d)	2013	2012	2011
Gasoline	340	351	350
Aviation fuel <sup>(b)</sup>	146	153	158
Diesel and heating oils	739	734	804
Heavy fuels	133	160	179
Other products	322	338	335
<b>Total</b>	<b>1,680</b>	<b>1,736</b>	<b>1,826</b>

<sup>(a)</sup> For refineries not 100% owned by TOTAL, the production shown is TOTAL's equity share of the site's overall production.

<sup>(b)</sup> Avgas, jet fuel and kerosene.

<sup>(1)</sup> Ethylene and vinyl acetate copolymers.

<sup>(2)</sup> TOTAL interests: Qapco (20%); Qatofin (49%); Ras Laffan Olefin Cracker (22.5%).

<sup>(3)</sup> Capacity data based on refinery process unit stream-day capacities under normal operating conditions, less the impact of shutdown for regular repair and maintenance activities averaged over an extended period of time.

## Table of Contents

### Item 4 - Business Overview

#### Utilization rate

The tables below set forth the utilization rate of the Group's refineries<sup>(1)</sup>:

On crude and other feedstock <sup>(a)(b)</sup>	2013	2012	2011
France	78%	82%	91%
Rest of Europe <sup>(c)</sup>	87%	88%	78%
Americas	100%	99%	81%
Asia and Middle East	75%	67%	67%
Africa	78%	75%	80%
<b>Average</b>	<b>84%</b>	<b>86%</b>	<b>83%</b>

<sup>(a)</sup> Including equity share of refineries in which the Group has a stake.

<sup>(b)</sup> Crude + crackers feedstock/capacity and distillation at the beginning of the year.

<sup>(c)</sup> Including CEPSA (for first seven months of 2011) and TotalErg.

On crude <sup>(a)(b)</sup>	2013	2012	2011
<b>Average</b>	<b>80%</b>	<b>82%</b>	<b>78%</b>

<sup>(a)</sup> Including equity share of refineries in which the Group has a stake.

<sup>(b)</sup> Crude/distillation capacity at the beginning of the year.

#### Petrochemicals: breakdown of TOTAL's main production capacities

	2013				2012	2011
As of December 31, (in thousands of tons)	Europe	North America	Asia and Middle East <sup>(a)</sup>	Worldwide	Worldwide	Worldwide
Olefins <sup>(b)</sup>	4,939	1,295	1,420	7,654	8,039	7,097
Aromatics <sup>(c)</sup>	2,893	1,512	1,230	5,635	5,795	5,730
Polyethylene	1,200	445	644	2,289	2,239	2,094
Polypropylene	1,345	1,200	350	2,895	2,875	2,835
Polystyrene	522	700	308	1,530	1,595	1,555
Other <sup>(d)</sup>			63	63	358	358
<b>Total</b>	<b>10,899</b>	<b>5,152</b>	<b>4,014</b>	<b>20,065</b>	<b>20,900</b>	<b>19,668</b>

<sup>(a)</sup> Including interests in Qatar and 50% of Samsung Total Petrochemicals Co., Ltd. capacities. The SATORP platform at Jubail in Saudi Arabia (TOTAL, 37.5%), that was in the process of starting up on December 31, 2013, was not taken into account in the above table of capacities. In 2014, once entirely operational, TOTAL's share of capacity in the plant will be 390 kt (75 kt of olefins and 315 kt of aromatics).

<sup>(b)</sup> Ethylene, propylene and butadiene.

<sup>(c)</sup> Including Monomer Styrene.

<sup>(d)</sup> Mainly Monoethylene Glycol (MEG) and Cyclohexane.

#### Development of new avenues for the production of fuels and polymers

In addition to optimizing existing processes, TOTAL is exploring new ways for valorizing carbon resources, conventional or otherwise (natural gas, coal, biomass, waste). A number of innovative projects are being examined that entail defining access to the resource (nature, location, supply method, transport), the nature of the molecules and target markets (fuels, lubricants, petrochemicals, specialty chemicals), and the most appropriate, efficient and environmentally-friendly conversion processes.

### *Natural gas to liquids*

TOTAL continues to develop its know-how in the conversion of natural gas to fuel. For large-scale projects (more than 10 kboe/d), TOTAL is consolidating its know-how in the most efficient conversion processes and is contributing to the development of innovative solutions, in particular by developing new Fischer-Tropsch catalysts. TOTAL is also conducting research into small-scale concepts, such as torched gas solutions.

### *Coal to polymers*

TOTAL has developed know-how in the various processes used to convert coal into higher value products by gasification.

These efforts allow a better understanding of the technological issues specific to each process, such as Fischer-Tropsch, methanol, di-methyl ether (DME) and methane, particularly in terms of energy optimization, water consumption and carbon capture.

TOTAL is studying a coal to olefin (CTO) conversion project in partnership with the China Power Investment utility company that would be located in Inner Mongolia (China). This 800 kt/y olefins project would use the innovative Methanol-to-Olefins process (MTO/OCF), which has been successfully tested in 2013 on a demonstration unit at Feluy, Belgium. Following the approval from the Chinese authorities in November 2013, a detailed study has been launched.

In parallel, TOTAL is pursuing a program to develop new carbon capture and storage technologies in order to reduce the environmental footprint of the Group's industrial projects based on fossil energy. In partnership with the IFP Énergies Nouvelles (French Institute for Oil and Alternative Energies), TOTAL is involved in an R&D program related to chemical looping combustion, an innovative process to burn solid and gas feedstock that includes carbon capture at a very low energy cost. In 2010, this partnership resulted in the construction of a pilot at the Solaize site in France.

*(1) Ras Laffan refinery contribution (Middle East) included in utilization rates from 2013.*

**Table of Contents****Item 4 - Business Overview***Biomass to polymers*

TOTAL is involved in the development of processes dedicated or related to the conversion of biomass to polymers. The main area of focus is the development of a polylactic acid (PLA) production technology through Futero, a joint venture with Galactic, a lactic acid producer, as well as developing a technology for dehydration of bio-alcohols into olefins (monomers for the manufacture of large conventional polymers), in collaboration with IFPEN/Axens.

*Biomass to fuels*

TOTAL is a member of the BioTFuel consortium, the objective of which is to develop a chain for converting lignocellulose into fungible, sulfur-free liquid products through gasification and synthesis using the Fischer-Tropsch process. To benefit from economies of scale, it is envisaged to convert lignocellulosic feedstock into a blend with fossil resources. This development involves an initial pilot demonstration phase.

In 2013, the Group incorporated:

- in gasoline, 549 kt of ethanol<sup>(1)</sup> at its European refineries and several oil depots<sup>(2)</sup>, compared to 531 kt in 2012 and 494 kt in 2011<sup>(3)</sup>; and
- in diesel, 1,951 kt of VOME<sup>(4)</sup> at its European refineries and several oil depots<sup>(5)</sup>, compared to 1,927 kt in 2012 and 1,859 kt in 2011<sup>(3)</sup>.

**Specialty chemicals**

The specialty chemicals businesses include elastomer processing (Hutchinson), adhesives (Bostik) and electroplating chemistry (Atotech). They serve the automotive, construction, electronics, aerospace and convenience goods markets, for which marketing, innovation and customer service are key drivers. TOTAL markets specialty products in more than sixty countries and intends to develop by combining organic growth and targeted acquisitions. This development is focused on high-growth markets and the marketing of innovative products with high added value that meet the Group's Sustainable Development approach.

In 2013, consolidated worldwide sales of specialty chemicals activities (excluding Resins) totaled €5.7 billion, stable compared to 2012 and up 7% compared to 2011.

The Cray Valley coating resins and Sartomer photocure resins businesses were divested in 2011. However, the structural and hydrocarbon resins business lines were kept and have been incorporated into the Polymer division.

*Elastomer processing*

Hutchinson manufactures and markets products derived from elastomer processing that are principally intended for the automotive, aerospace and defense industries.

Among the industry's leaders worldwide<sup>(6)</sup>, Hutchinson provides its customers with innovative solutions in the areas of fluid transfer, air and fluid seals, anti-vibration, sound and thermal insulation, and transmission and mobility.

Hutchinson has eighty-four production sites worldwide, including fifty-six in Europe, seventeen in North America, six in Asia, four in South America and one in Africa.

Hutchinson's sales in 2013 were €3.28 billion, up 3% compared to 2012. Despite the difficulties experienced by the European automotive sector, sales for the automotive business increased by 5% due to the growth of the Asian and North American markets and increased market share in Europe. On the industrial markets, sales increased by 1%, mainly due to the increased sales on the civil aerospace that offset contraction of the defense markets.

To strengthen its position in the aerospace industry, Hutchinson acquired Kaefer in 2011, a German company specializing in aircraft interior equipment (e.g., insulation, ventilation ducts) and the Canadian company Marquez specializing in air-conditioning circuits at the end of 2012. In the automotive sector, Hutchinson acquired Keum-Ah in 2011, a South Korean company specializing in fluid transfer systems. Hutchinson closed the Oyartzun production plant in Spain at the end of 2012.

In July 2013, Hutchinson divested 30% of its automobile brake hose business in Spain (Palamos) through the creation of a joint venture with Japanese company Nichirin, one of the world leaders in this segment. Elsewhere, in July 2013, Hutchinson acquired Gasket International, a company based in Italy and China, which

## Edgar Filing: TOTAL S.A. - Form 20-F

specializes in the production of sealing parts for valves for the oil and gas industry.

Hutchinson continues to develop in strong growth potential markets and among the most dynamic and strongest customers. Hutchinson continuously strives to innovate, offering its customers high-performance materials and high-value added solutions capable of performing the most demanding functions.

### ***Adhesives***

Bostik is one of the world leaders in the adhesive sector and has significant positions on the industrial, hygiene and construction markets, complemented by both consumer and professional distribution channels.

Bostik has forty-six production sites worldwide, including eighteen in Europe, nine in North America, eight in Asia, six in Australia-New Zealand, three in South America and two in Africa.

Sales were €1.51 billion in 2013, a decrease of 3% compared to 2012.

Bostik continues to strengthen its technological positions in the construction and industrial sectors, pursue its program for differentiation focused mainly on an offering of innovative bonding solutions, continue its expansion in high-growth countries and improve its operational performance.

Consequently, following the start-up of a new production unit in Egypt and the opening of a new technology center for Asia in Shanghai in 2012, Bostik inaugurated in 2013 a new production unit in Changshu, China, which will ultimately become Bostik's largest production plant in the world.

<sup>(1)</sup> Including ethanol from ETBE (Ethyl-tertio-butyl-ether) and biomethanol from bio-MTBE (Methyl-tertio-butyl-ether), expressed in ethanol equivalent. Reference for bio content of ETBE and bio-MTBE is the RED directive.

<sup>(2)</sup> PCK and Zeeland Refinery included (TOTAL share).

<sup>(3)</sup> PCK and Zeeland Refinery included (TOTAL share). TotalErg (100% JV) included.

<sup>(4)</sup> VOME: Vegetable-Oil-Methyl-Ester. Including HVO (Hydrotreated Vegetable Oil).

<sup>(5)</sup> Including TotalErg's Rome and Trecate refinery/depots and TotalErg depots in Italy (100% TotalErg). PCK and Zeeland Refinery included (TOTAL share).

<sup>(6)</sup> Based on publicly available information, 2013 consolidated sales.

## **Table of Contents**

### **Item 4 - Business Overview**

Bostik continued to rationalize its industrial base in 2013 with the shutdown of production in Dublin, Ireland, Barcelona, Spain, Lisbon, Portugal and Zhuhai, China. A workshop was also shut down in Leicester, United Kingdom.

Finally, in 2013, Bostik launched its new visual identity, designed to transform Bostik into a more visible worldwide brand that will gradually replace some forty local brands.

#### ***Electroplating***

Atotech is the leading company in the electroplating sector based on worldwide sales<sup>(1)</sup>. It is active in the markets for electronics (printed circuits, semiconductors) and general surface treatments (automotive, construction, furnishing).

Atotech has seventeen production sites worldwide, including seven in Asia, six in Europe, three in North America and one in South America.

Sales totaled €0.89 billion in 2013, a decrease of 8% compared to 2012, mainly due to the slump in the sales of electroplating

equipment and the divestment of a commodities reselling activities (anodes).

In 2013, Atotech successfully continued to pursue its strategy designed to differentiate its products through a comprehensive service provided to its customers in terms of equipment, processes, design and chemical products and through the development of green, innovative technologies to reduce the environmental footprint. This strategy relies on global coverage provided by its technical centers located near customers.

In order to strengthen its position in the electronics market, Atotech started up a new production unit in 2011 aimed at the semiconductors market in Neuruppin (Germany) and acquired adhesive technologies (molecular interfaces) in the nanotechnology sector in the United States. In addition, a new equipment production site is expected to be opened in China in the third quarter of 2014.

Atotech intends to continue to develop in Asia, which already represents approximately 65% of its global sales.

## **Trading & Shipping**

Trading & Shipping's main focus is serving the Group, and its activities primarily involve:

- selling and marketing the Group's crude oil production;
- providing a supply of crude oil for the Group's refineries;
- importing and exporting the appropriate petroleum and refined products for the Group's refineries to be able to adjust their production to the needs of local markets;
- chartering appropriate ships for these activities; and
- undertaking trading on various derivatives markets.

Trading & Shipping conducts its activities worldwide through various wholly-owned subsidiaries, including TOTSA Total Oil Trading S.A., Atlantic Trading & Marketing Inc., Total Trading Asia



## Edgar Filing: TOTAL S.A. - Form 20-F

Pte, Total Trading and Marketing Canada L.P., Total Trading Atlantique S.A. and Chartering & Shipping Services S.A.

### Trading

TOTAL is one of the world's largest traders of crude oil and refined products on the basis of volumes traded. The table below sets forth selected information with respect to Trading's worldwide crude oil sales and supply sources and refined products sales for each of the past three years.

Trading of physical volumes of crude oil and refined products amounted to 4.5 Mb/d in 2013.

#### *Trading's crude oil sales and supply and refined products sales<sup>(a)</sup>*

(kb/d)	2013	2012	2011
<b>Group's worldwide liquids production</b>	<b>1,167</b>	<b>1,220</b>	<b>1,226</b>
Purchased by Trading from Exploration & Production	916	976	960
Purchased by Trading from external suppliers	1,994	1,904	1,833
<b>Total of Trading's supply</b>	<b>2,910</b>	<b>2,880</b>	<b>2,793</b>
Sales by Trading to Refining & Chemicals and Marketing & Services segments	1,556	1,569	1,524
Sales by Trading to external customers	1,354	1,311	1,269
<b>Total of Trading's sales</b>	<b>2,910</b>	<b>2,880</b>	<b>2,793</b>
<b>Total of Trading's refined products sales</b>	<b>1,628</b>	<b>1,608</b>	<b>1,632</b>

*(a) Including condensates.*

Trading operates extensively on physical and derivatives markets, both organized and over the counter. In connection with its trading activities, TOTAL, like most other oil companies, uses derivative energy instruments (futures, forwards, swaps and options) to adjust its exposure to fluctuations in the price of crude oil and refined products. These transactions are entered into with various counterparties.

For additional information concerning derivatives transactions by Trading & Shipping, see Notes 30 (Financial instruments related to

commodity contracts) and 31 (Market risks) to the Consolidated Financial Statements.

All of TOTAL's trading activities are subject to strict internal controls and trading limits.

In 2013, the global oil market was balanced and oil prices fell slightly from 2012. Crude oil prices were subject to increased backwardation<sup>(2)</sup>. Crude oil prices in North America benefited from a significant reduction in the price spread between the crude

<sup>(1)</sup> Based on publicly available information, 2013 consolidated sales.

<sup>(2)</sup> Backwardation is a term used to describe an energy market in which the value of the spot, or prompt, price is higher than the value of the forward or futures contracts trading concurrently. The reverse situation is described as contango.

**Table of Contents****Item 4 - Business Overview**

markers WTI (West Texas Intermediate, confined to the central United States and subject to a local production surplus) and Dated Brent (delivered in the North Sea and accessible to the

international crude market). Freight rates decreased in 2013 due to an ever-growing availability in charter capacities.

		2013	2012	2011	2013/12	min 2013	max 2013
Brent ICE 1 <sup>st</sup> Line <sup>(a)</sup>	(\$/b)	<b>108.70</b>	111.68	110.91	-2.7%	97.69 (Apr 17)	118.90 (Feb 8)
Brent ICE 12 <sup>th</sup> Line <sup>(b)</sup>	(\$/b)	<b>103.04</b>	106.66	108.12	-3.4%	95.95 (Apr 17)	110.50 (Feb 13)
Backwardation time structure (1 <sup>st</sup> 12 <sup>th</sup> )	(\$/b)	<b>5.67</b>	5.01	2.79	13.1%	11.37 (Sep 3)	1.74 (Apr 17)
WTI NYMEX 1 <sup>st</sup> Line <sup>(a)</sup>	(\$/b)	<b>98.05</b>	94.15	95.11	4.1%	86.68 (Feb 13)	110.53 (May 4)
WTI vs. Brent 1 <sup>st</sup> Line	(\$/b)	<b>-10.66</b>	-17.53	-15.80	-39.2%	-23.18 (Feb 8)	-0.02 (Jul 19)
Gasoil ICE 1 <sup>st</sup> Line <sup>(a)</sup>	(\$/t)	<b>918.98</b>	953.42	933.30	-3.6%	822.75 (May 1)	1,030.75 (Feb 18)
ICE Gasoil vs ICE Brent	(\$/b)	<b>14.65</b>	16.30	14.36	-10.1%	9.20 (May 2)	19.62 (Feb 11)

<sup>(a)</sup> 1<sup>st</sup> Line: quotation on ICE or NYMEX Futures for first nearby month delivery.

<sup>(b)</sup> 12<sup>th</sup> Line: quotation on ICE Futures for twelfth nearby month delivery.

In 2013, Trading s activities were affected by the global economic environment described below. After a slow-down worldwide during the first quarter of 2013, economic growth began a gradual recovery, pulling the Eurozone out of six quarters of recession by the second quarter of 2013. This slight improvement came to a halt in the third quarter under the impact of significant exchange rate fluctuations in emerging markets and the budget debate in the United States.

In this context, growth in the demand for oil nevertheless remained constant (+1.1 Mb/d<sup>(1)</sup>, nearly identical to 2012). Diesel fuel and gasoline led this growth (+0.4 Mb/d each), while demand for fuel oil contracted (-0.2 Mb/d) due to efficiency gains among shipowners and reduced demand from Japanese power generators. The increase in oil demand was focused in Asia and the Middle East (+0.6 Mb/d in total), while demand in Europe decreased (-0.2 Mb/d).

Estimated global oil supplies stagnated in 2013, increasing by only +0.2 Mb/d after jumping +2.7 Mb/d in 2012. Non-OPEC production grew by approximately +1.0 Mb/d, increasing by +1.2 Mb/d in North America (United States and Canada), which offset declining or stagnating output in other countries.

Overall OPEC production decreased by 1.0 Mb/d, with crude oil production decreasing by 1.1 Mb/d. Significant crude oil production capacity was made unavailable (more than 3 Mb/d in the third quarter, compared to approximately 2 Mb/d at the start of 2013), thereby limiting the supply from certain countries due to, among other reasons, sanctions imposed on Iran, conflicts in Libya and acts of sabotage in Nigeria and Iraq. Saudi Arabia increased its production during the course of 2013 to help maintain market equilibrium, which sharply reduced OPEC s excess capacity.

The differential between supply and demand narrowed in 2013, dropping from +1.2 Mb/d in 2012 to +0.3 Mb/d due to the increase in demand and flat supply, thereby slowing the anticipated increase in global oil stocks.

Crude oil prices started 2013 on an upward trend, with Dated Brent hitting a high of \$119.03/b on February 8. Prices then steadily fell, driven downward by the deteriorating economic environment in Europe and an oversupplied crude market, to reach a low of \$96.83/b on April 17. The price of Dated Brent stabilized during the second quarter of 2013 at a level between \$100/b and \$105/b. Market tensions in the third quarter drove the price of Dated Brent back upward (\$117.12/b on September 6), before prices subsequently leveled off below \$110/b.

On the futures market, the backwardation of ICE Brent contract prices increased as a result of the same supply tensions that lifted spot (Dated Brent) prices in the first quarter of 2013. This backwardation decreased considerably during the second quarter with the seasonal drop in demand for crude oil, mainly due to planned refinery shutdowns for maintenance. The post-maintenance resumption of refining activity and new supply tensions drove backwardation to a maximum of \$11/b toward the end of August before it decreased again late in the year.

The year 2013 was also marked by the narrowing of the crude price spread between WTI and Dated Brent. Extension of the Seaway pipeline from Cushing, Oklahoma, to the Texas coast of the Gulf of Mexico between January and April, along with the commissioning of additional pipelines from the Permian Basin in western Texas to the Gulf of Mexico in the second quarter, helped to restore balance in the central U.S. market. The crude price spread between WTI and Dated Brent consequently fell from around \$20/b in January/February 2013 to around \$4/b in July/August. This price spread widened once again beginning in the third

## Edgar Filing: TOTAL S.A. - Form 20-F

quarter with the continuing rapid increase in domestic U.S. crude production and only moderate increases in demand.

While global refining capacity grew by approximately +0.9 Mb/d in 2013, crude throughputs increased by only approximately +0.4 Mb/d, held back by weaker refining margins. The weak margins reflect the growing surplus in global refining capacity. Asian refiners dominated the increases in refinery throughputs and capacity (+0.6 Mb/d and +1.0 Mb/d, respectively).

### Shipping

The transportation of crude oil and refined products necessary for the activities of the Group is arranged by Shipping. These requirements are fulfilled through balanced use of the spot and time-charter markets. A rigorous safety policy is applied by Shipping mainly through a strict selection of chartered vessels. Like a certain number of other oil companies and shipowners, the Group uses freight rate derivative contracts to adjust its exposure to freight rate fluctuations.

In 2013, Trading & Shipping chartered more than 3,000 voyages to transport approximately 115 Mt of crude oil and refined products. As of December 31, 2013, Trading & Shipping employed a fleet of forty-six vessels, none of which were single-hulled, that were chartered under long-term or medium-term agreements (including seven LPG carriers). The fleet has an average age of approximately five years.

*(1) TOTAL estimates.*

2013 Form 20-F TOTAL S.A. 41

**Table of Contents****Item 4 - Business Overview****Freight rate averages of three representative routes for crude transportation**

		2013	2012	2011	min 2013	max 2013
VLCC Ras Tanura Chiba BITR <sup>(a)</sup>	(\$/t)	11.83	12.82	11.99	8.95 (Jan 29)	18.99 (Nov 20)
Suezmax Bonny Philadelphia BITR	(\$/t)	13.41	14.44	13.86	9.45 (Oct 2)	25.58 (Dec 18)
Aframax Sullom Voe Wilhemshaven BITR	(\$/t)	7.02	6.48	6.51	6.04 (Feb 1)	14.16 (Dec 24)

(a) VLCC: Very Large Crude Carrier. BITR : Baltic International Tanker Routes.

The first nine months of 2013 were a difficult period for the oil shipping sector, particularly for larger crude tankers. Conditions were more favorable, meanwhile, for petroleum product carriers. At the same time, marine bunker prices remained high with a knock-on effect on transport costs.

Global demand for the transport of crude oil stabilized in 2013 after posting an increase of more than 5% among larger-sized vessels in 2012. This situation was attributable mainly to a decrease in North American imports due to an increase in local production in that region. This was partially offset by an increase in demand in Asia, particularly in China, which has been diversifying its supply from more distant sources (South America, Western Africa). The increase in tonnage continued to be strong, weakening the balance between supply and demand to historic levels. This led to

record lows in VLCC freight rates through the end of the third quarter. The closing months of 2013 saw a reversal in crude oil freight rates, which reached a record annual level due to especially strong ongoing demand for deliveries to Asia from the Atlantic Basin.

The situation in the petroleum product shipping market was better overall than in the crude oil shipping market. Demand for the transport of petroleum products was particularly strong, with arbitrage in favor of longer routes, especially to Asia (notably the flow of naphtha from Europe to Asia on large carriers). Starting in early 2013, freight rates induced ship owners to resume ordering petroleum product tankers (MR and LR2<sup>(1)</sup>), a sector in which growth had moderated.

**MARKETING & SERVICES SEGMENT**

The Marketing & Services segment was created on January 1, 2012, following the reorganization of the Downstream and Chemicals segments, and includes worldwide supply and marketing activities in the oil products field, as well as, since July 1, 2012, the activity of New Energies<sup>(2)</sup>.

**Marketing & Services**

TOTAL is one of the leading marketers in Western Europe<sup>(3)</sup>. It is also the leader<sup>(4)</sup> in Africa and certain Middle Eastern countries.

## Edgar Filing: TOTAL S.A. - Form 20-F

TOTAL sells a wide range of products produced from its refineries and other facilities in approximately 150 countries<sup>(5)</sup>. TOTAL is among the key players in the specialty products market, in particular for lubricants, LPG, jet fuel, special fluids, bitumen, heavy fuels and marine fuels.

TOTAL also sells numerous services for consumers and professionals in the mobility, residential and industrial sectors.

As part of its activities, Marketing & Services holds stakes in five refineries in Africa, one in Europe through its share in TotalErg (49%) and one in the Caribbean.

Marketing & Services follows a proactive, primarily organic, development strategy involving the shifting of positions to high-growth areas.

### Europe

TOTAL operates a network of more than 8,850 service stations in Europe located throughout France, Belgium, the Netherlands, Luxembourg and Germany as well as Italy through its stake in TotalErg (49%). The Group is a major player in the market for fuel-payment cards, with nearly 3.8 million cards issued in twenty-seven European countries.

In specialty products, the Group benefits from its extensive presence in Europe and relies on numerous industrial facilities to

produce lubricants (mainly Rouen in France and Ertvelde in Belgium), special fluids (Oudalle in France), bitumen (Brunsbüttel in Germany) and grease (Baisieux in France).

In **Western Europe**, TOTAL continued to optimize its Marketing business in 2013.

In **France**, the dense network includes more than 1,600 TOTAL-branded service stations, 600 Total Access stations (service station concept combining low prices and premium TOTAL-branded fuels and services) and 1,550 Elan service stations, which are located mainly in rural areas. In addition, TOTAL's GR (fuel and service cards) offering was expanded in 2013, helping to consolidate the Group's leading position in the provision of solutions to road transport professionals.

TOTAL leads the heating oil market in France<sup>(6)</sup>, with seven local subsidiaries covering the entire country. TOTAL continued its diversification strategy in 2013, with the commercial launch of wood pellets and online sale of fuel through [fioulmarket.fr](http://fioulmarket.fr), France's first website for heating oil consumers.

In petroleum products logistics, Marketing & Services finalized the implementation of a new organization at the end of 2012. As a result of this adaptation, TOTAL now holds stakes in twenty-three depots, of which it operates seven.

In **Italy**, TotalErg (49%) has a network of more than 3,000 service stations, which makes it the third-largest operator in

<sup>(1)</sup> MR: Medium Range 50,000 DWT (deadweight tonnage); LR2: Long Range 110,000 DWT.

<sup>(2)</sup> As a result of the reorganization, certain information has been restated.

<sup>(3)</sup> Publicly available information, based on quantities sold (2013).

<sup>(4)</sup> PFC Energy and Company data.

<sup>(5)</sup> Including via national distributors.

<sup>(6)</sup> CPDP 2013 and Company data.

## Table of Contents

### Item 4 - Business Overview

the country. As part of an asset optimization strategy, TotalErg ceased production at its Rome refinery in late 2012 and subsequently converted that site into a logistics hub for petroleum products storage.

In the **United Kingdom**, TOTAL retains a market presence through its specialty products activities, particularly lubricants and jet fuel. In 2011, the Group sold its network of service stations and its fuel and heating oil marketing business in the United Kingdom, the Channel Islands and the Isle of Man.

In **Northern, Central and Eastern Europe**, TOTAL continued in 2013 to expand its direct presence in these growing markets, in particular for lubricants and bitumen. The Group specifically accelerated growth of its business in specialty products, including bitumen, in Russia and launched a marketing subsidiary in Kazakhstan.

TOTAL also operates a network of 731 AS24-branded service stations dedicated to commercial transporters in twenty-seven European countries. The Group continued developing its business in 2013 in Turkey, where it opened a new subsidiary. The AS24 network is expected to continue to grow, mainly through expansion in the Mediterranean Basin and Russia and through its toll payment card service, which covers more than seventeen countries.

### Africa & the Middle East

TOTAL is the leading marketer of petroleum products on the African continent and in certain Middle Eastern countries, with a market share averaging 13%<sup>(1)</sup> in 2013. The Group operates more than 4,700 service stations in more than forty countries in these high-growth markets, including major networks in South Africa, Turkey, Nigeria, Kenya, Egypt and Morocco.

In **Egypt**, TOTAL signed agreements with Shell (May 2013) and Chevron (August 2013) with a view to developing its network of service stations and wholesale business. After the closing of these transactions, the Group will become the second-largest private operator in Africa's largest market, with a 14% network market share.

As part of the optimization of its portfolio, the Group undertook processes to open up the share capital of selected subsidiaries to local investors to enhance its local presence.

In **Jordan**, TOTAL continued developing its service station network and wholesale business following its acquisition of a distribution license there in 2012.

TOTAL is pursuing its strategy for growth in the specialty products markets. The Group, which relies in particular on the lubricants blending plant in Dubai, started up new plants in Egypt in 2012 and in Saudi Arabia in October 2013.

Moreover, TOTAL has become a leading partner for mining customers by delivering supply chain and management solutions for fuels and lubricants.

### Asia-Pacific

At year-end 2013, TOTAL was present in more than twenty countries in the Asia-Pacific region, where the Group is strengthening its position in the distribution of fuels and specialty products. In the lubricants sector in particular, TOTAL continues to grow in the region, with a 6.3% increase in lubricant sales in 2013 compared with 2012.

TOTAL operates service stations in China, Pakistan, the Philippines, Cambodia and Indonesia and is a significant player in the Pacific Islands.

In **China**, the Group was operating approximately 200 service stations at year-end 2013 through two joint ventures with Sinochem and a wholly-owned subsidiary. In October 2013, the Group opened its third lubricants blending plant in China. Located in Tianjin, this state-of-the-art plant has a capacity of 200 kt/y.

In **Pakistan**, through its local partner PARCO, TOTAL announced in August 2013 its acquisition of Chevron's distribution network. Pending approval from the relevant authorities, this transaction encompasses the management of more than 500 service stations as well as Chevron's fuel business and storage sites.

In **India**, TOTAL continued to strengthen its positions in the lubricants and LPG sectors with the expansion of its LPG network to thirty-three stations in 2013. In 2012, TOTAL also inaugurated its first lubricants, bitumen, special fluids and additives technical center outside of Europe.

In **Vietnam**, TOTAL continued to strengthen its presence in the specialty products market. The Group became one of the leaders in the Vietnamese LPG market with the acquisition of Vinagas in 2012.

## Edgar Filing: TOTAL S.A. - Form 20-F

In **Singapore**, TOTAL announced in March 2013 the construction of a lubricants blending plant with a capacity of 310 kt/y to assist in meeting inland and marine lubricants demand in the Asia-Pacific region.

### Americas

In **Latin America** and the **Caribbean**, TOTAL is active directly in about twenty countries and indirectly (via distributors) in about ten more countries in the markets of specialty products (lubricants and special fluids) and fuels (service station network, wholesale, aviation). The Group holds a significant position<sup>(3)</sup> in the Caribbean fuel distribution business.

In the **United States** and **Canada**, TOTAL mainly markets specialty products, particularly lubricants, jet fuels and special fluids. To strengthen its special fluids business, the Group took on a project to build a special fluids production plant near Houston, Texas, which is expected to be operational at the beginning of 2015.

TOTAL operates a significant number of industrial units throughout the Americas (production of lubricants, storage and conditioning of LPG) and owns a 50% stake in SARA (Société anonyme de la raffinerie des Antilles) in Martinique.

<sup>(1)</sup> Market share in the countries where the Group operates, based on 2013 publicly available information, quantities sold.

<sup>(2)</sup> PFC Energy.

<sup>(3)</sup> Present in multiple Caribbean islands including Puerto Rico, Jamaica, Haiti, Martinique and Guadeloupe.

**Table of Contents****Item 4 - Business Overview****Sales of refined products**

The table below sets forth TOTAL's sales of refined products by region:

(kb/d)	2013	2012	2011
France	575	566	574
Europe, excluding France <sup>(a)</sup>	564	594	881
Americas	86	53	56
Africa	326	307	304
Rest of the World	198	190	172
<b>Total excluding Trading and refinery bulk sales</b>	<b>1,749</b>	<b>1,710</b>	<b>1,987</b>
Trading	1,155	1,161	1,215
Refinery bulk sales	514	532	437
<b>Total including Trading and refinery bulk sales</b>	<b>3,418</b>	<b>3,403</b>	<b>3,639</b>

<sup>(a)</sup> Including the Group's share in CEPSA (up to end of July 2011).

For data on biofuels, refer to Refining & Chemicals Refining & Petrochemicals Development of new avenues for the production of fuels and polymers, above.

**Service stations**

The table below sets forth the number of service stations of the Group (excluding AS24):

As of December 31,	2013	2012	2011
France <sup>(a)</sup>	3,813	3,911	4,046
Europe, excluding France	5,062	5,200	5,375
of which TotalErg	3,017	3,161	3,355
Africa	3,726	3,601	3,464
Rest of the World	2,219	2,013	1,934
<b>Total</b>	<b>14,820</b>	<b>14,725</b>	<b>14,819</b>

<sup>(a)</sup> TOTAL, Total Access, Elf and Elan-branded service stations.

**Product and services developments**

TOTAL continued in 2013 its technical and R&D partnerships in Formula 1 with Renault Sport F1, in the WRC with Citroën Racing and in endurance racing with Toyota. The purpose of these partnerships is to demonstrate TOTAL's technical excellence in the formulation of fuels and lubricants under extreme conditions and restrictions on fuel consumption. The TOTAL brand was associated with two Formula 1 world titles in 2013.

TOTAL continued its Clean Energy Partnership (CEP) in Germany, which is centered on hydrogen distribution. TOTAL currently has five demonstration stations for hydrogen distribution in Germany. A new hydrogen station is scheduled to open near the new airport in Berlin during the first half of 2014. TOTAL signed an agreement with Daimler in 2013 for the joint development of eight new stations under the CEP. Along with its partners in the H2 Mobility initiative, TOTAL also signed a preliminary agreement covering the implementation of an action plan targeting construction of a network of hydrogen stations throughout Germany. It is anticipated that this network will have approximately 400 stations by 2023 (subject to deployment of more than 250,000 fuel-cell electric vehicles).

TOTAL has approximately twenty prototype electric vehicle fueling stations in the Netherlands, Belgium, Germany and France. The demonstration program of the distribution of electricity (fast charge) intended for electric vehicles continued at these stations in 2013.



## Edgar Filing: TOTAL S.A. - Form 20-F

TOTAL undertook within its European subsidiaries additional studies in 2013 into the potential of LNG as a fuel for heavy duty vehicles. The development of at least two pilot stations is scheduled for 2014.

In response to global market developments and looking ahead to future growth opportunities, TOTAL developed and tested five new

energy optimization offerings among consumers and corporate customers in 2013 based on multi-energy production (fuels, gas, photovoltaic, wood) and energy efficiency services (audit, monitoring, management).

### **New Energies**

New Energies is developing renewable energies that will, in combination with hydrocarbons, help establish a more diversified energy mix while also generating lower CO<sub>2</sub> emissions. In meeting this objective, TOTAL is focusing on two main development axes: solar energy, which benefits from unlimited energetic resources, particularly in certain geographical zones where the Group has a significant presence, and the transformation of biomass through use of biotechnology, which aims to develop new biosourced product solutions for transport and chemicals. The Group keeps an active watch on other renewable energies not classified as priority areas for development at this time.

#### **Solar energy**

TOTAL is developing upstream operations through industrial production and downstream marketing activities in the photovoltaic sector based on crystalline silicon technology. The Group is also pursuing R&D in this field through several industrial and academic partnerships.

The economic context in this sector is currently stabilizing following two years of sharp price decreases that drove many players out of the market. Competitiveness in photovoltaic solar energy has improved and significant technical achievements have supported the emergence for the first time of markets that are profitable without subsidization.

## Table of Contents

### Item 4 - Business Overview

#### *SunPower*

As of December 31, 2013, TOTAL held a 64.65% stake in SunPower, a U.S. company listed on NASDAQ (NASDAQ: SPWR) and based in San José, California. SunPower is an integrated player that designs, manufactures and supplies the highest-efficiency solar panels in the market.<sup>(1)</sup> SunPower is active throughout the solar chain, from photovoltaic cell production based on crystalline silicon to the design and construction of large turnkey power plants, as well as the commercialization of solar solutions for residential and commercial markets.

Upstream, SunPower manufactures all of its cells in Asia (Philippines, Malaysia) and has a total production capacity of 1,300 MW/y. The company is continuing to adjust its production capacity while maintaining its technological leadership through a significant R&D program. The cells are assembled into modules, or solar panels, in plants located in Asia, the United States, Mexico, Europe and South Africa. A 350 MW expansion in capacity was approved at the end of 2013 for start-up of production in 2015.

Downstream, SunPower markets its panels worldwide for applications ranging from residential roof tiles to large solar power plants.

In the United States, SunPower completed the construction in 2013 of the California Valley Solar Ranch, solar power plant (CVSR, 314 MWp), and started up the plant at the world's largest solar farm, Solar Star (709 MWp), sold to NRG Energy and MidAmerican, respectively, at the time of the investment decision.

TOTAL and SunPower also launched new solar power plant projects in Chile and South Africa in 2013. In Chile, SunPower is both supplying panels for and constructing the Salvador plant (70 MWp) in cooperation with TOTAL. The project, in which TOTAL is a 20% shareholder, is 70% financed by OPIC, the U.S. development finance institution. The electricity produced will be sold on the spot market and used to power the Chilean electricity grid.

In South Africa, subsequent to a tender offer, TOTAL and SunPower were selected by the South African government to build a free-standing 86 MWp solar power plant. TOTAL is a 27% shareholder in the project, while SunPower will supply the solar panels and construct the plant, which will sell the electricity produced under an energy purchase agreement.

In Asia, SunPower was selected in September 2013 to become the main supplier of panels (69 MWp) to the largest solar power plant in Japan, located in the Aomori Prefecture.

#### *Other solar assets*

The Shams 1 solar power plant (109 MW of parabolic concentrated solar power) in Abu Dhabi was commissioned in September 2013 with production being sold to the Abu Dhabi Water Electricity Company (ADWEC). TOTAL (20%) will take part in its operation for a 25-year period.

TOTAL owns a 50% interest in the French company Sunzil, which markets photovoltaic panels overseas.

Elsewhere, the Group is continuing initiatives to display solar application solutions as part of decentralized rural electrification projects in a number of countries, including in South Africa via Kwazulu Energy Services Company (KES), in which TOTAL holds a 35% stake.

Photovoltech, a Belgian company (50%) specialized in manufacturing multicrystalline photovoltaic cells, was put into liquidation in October 2013 after having ceased operations in late 2012.

#### *New solar technologies*

In order to strengthen its technological leadership in the crystalline silicon field, and in addition to its cooperation with SunPower in the R&D field, New Energies partners with leading laboratories and research institutes in France and abroad. The aim of these partnerships is to optimize the photovoltaic solar chain (silicon, wafers, cells, modules and systems) by cutting production costs and multiplying its applications, while increasing the efficiency of the components in terms of electric conversion.

In this regard, TOTAL is working with the IMEC (Interuniversity MicroElectronics Center - Belgium) and the École Polytechnique's LPICM (Laboratory of physics of interfaces and thin layers), which specializes in plasma-deposition processes at low temperatures. Further to this partnership, TOTAL and, principally, the CNRS, the École Polytechnique and EDF signed in October 2013 a funding agreement with the National Research Agency (ANR) concerning the IPVF (Institut Photovoltaïque d'Île-de-France), which, with its team of nearly 200 researchers, aims to eventually become one of the main centers worldwide conducting research into latest-generation photovoltaic devices.

## Edgar Filing: TOTAL S.A. - Form 20-F

With respect to electricity storage, TOTAL is continuing its R&D program with renowned institutions such as the Massachusetts Institute of Technology (MIT) in the United States to develop a new battery technology, and is investing in start-ups including Ambri (11%), founded at MIT, as well as Lightsail and Enervault, also based in the United States.

### Biotechnologies and the conversion of biomass

TOTAL is exploring a number of opportunities for developing biomass depending on its nature, accessibility and sustainability. The Group's objective is to sell high-performance molecules in targeted markets (fuel, lubricants, special polymers, chemicals, etc.). The focus of New Energies is on the biochemical conversion process for this biomass.

Amyris Inc., a U.S. company listed on NASDAQ (NASDAQ: AMRS), was identified for TOTAL's first significant equity investment in biotechnology. At year-end 2013, TOTAL held 17.9% of the company. A collaboration agreement with Amyris has been signed covering research (including the formation of a shared research team), development, production and marketing activities relating to biosourced molecules. Amyris owns a cutting-edge industrial synthetic biological platform designed to create and optimize micro-organisms that can convert sugars into molecules of interest through fermentation. Amyris also owns a research laboratory and pilot units in California and Brazil. In early 2013, Amyris started up an industrial production site for farnesene, which is used in the production of renewable diesel and kerosene, in Brotas, in the state of São Paulo, Brazil.

At the end of 2013, TOTAL and Amyris created Total Amyris Biosolutions, a 50/50 joint venture that holds the exclusive rights and intellectual property in relation to farnesene.

<sup>(1)</sup> For additional information, see *Other Matters*, *Environmental protection*, *Sustainable use of resources*, *Energy efficiency*, below.

2013 Form 20-F TOTAL S.A. 45

## **Table of Contents**

### **Item 4**

In addition, the Group continues to develop a global network of R&D partnerships in technology segments that are complementary to Amyris' platform (deconstruction of lignocellulose, synthetic biology, metabolism engineering), including with Joint BioEnergy Institute (JBEI, United States), Novogy (United States), Gevo Inc. (NASDAQ: GEVO, United States), the University of Wageningen (Netherlands) and the Toulouse White Biotechnology consortium (TWB) (France).

The Group is also studying the longer-term potential for developing a cost-effective phototrophic process for producing biomolecules through the bio-engineering of microalgae and associated processes. An exploratory research agreement was signed with

the Grenoble CEA (Atomic and Alternative Energies Commission) in late 2013, and two development projects are underway with the AlgaePark consortium in the Netherlands.

### **Other renewable energies**

In the field of wind power, TOTAL owns a 12 MW wind farm in Mardyck (near Dunkirk, France), which was commissioned in 2003.

In marine energy, TOTAL holds a 26.7% share in Scotrenewables Tidal Power, located in the Orkney Islands in Scotland. Tests on a 250 kW prototype have been successfully completed. A 2 MW commercial model is being developed.

## **OTHER MATTERS**

Various factors, including certain events or circumstances discussed below, have affected or may affect TOTAL's business and results.

### **Exploration and production legal considerations**

TOTAL's Upstream segment conducts activities in various countries which are therefore subject to a broad range of regulations. These cover virtually all aspects of exploration and production operations, including leasehold rights, production rates, royalties, environmental protection, exports, taxes and foreign exchange rates. The terms of the concessions, licenses, permits and contracts governing the Group's ownership of oil and gas interests vary from country to country. These concessions, licenses, permits and contracts are generally granted by or entered into with a government entity or a state-owned company and are sometimes entered into with private owners. These arrangements usually take the form of concessions or production sharing contracts.

In the framework of oil concession agreements, the oil company owns the assets and the facilities and is entitled to the entire production.

In exchange, the operating risks, costs and investments are the oil company's responsibility and it agrees to remit to the relevant State, usually the owner of the subsoil resources, a production-based royalty, income tax, and possibly other taxes that may apply under local tax legislation.

The production sharing contract (PSC) involves a more complex legal framework than the concession agreement: it defines the terms and conditions of production sharing and sets the rules governing the cooperation between the company or consortium in possession of the license and the host State, which is generally represented by a state-owned company. The latter can thus be involved in operating decisions, cost accounting and production allocation.

## Edgar Filing: TOTAL S.A. - Form 20-F

The consortium agrees to undertake and finance all exploration, development and production activities at its own risk. In exchange, it is entitled to a portion of the production, known as **cost oil**, the sale of which should cover all of these expenses (investments and operating costs). The balance of production, known as **profit oil**, is then shared in varying proportions, between the company or consortium, on the one hand, and with the State or the state-owned company, on the other hand.

In some instances, concession agreements and PSCs coexist, sometimes in the same country. Even though there are other

contractual models, TOTAL's license portfolio is comprised mainly of concession agreements.

In every country, the authorities of the host State, often assisted by international accounting firms, perform joint venture and PSC cost audits and ensure the observance of contractual obligations.

In some countries, TOTAL has also signed contracts called **risked service contracts**, which are similar to production sharing contracts. However, the profit oil is replaced by risked monetary remuneration, agreed by contract, which depends notably on the field performance. For example, the remuneration under the Halfaya Iraqi contract is based on an amount calculated per barrel produced.

Oil and gas exploration and production activities are subject to authorization granted by public authorities (licenses), which are granted for specific and limited periods of time and include an obligation to return a large portion, or the entire portion in case of failure, of the area covered by the license at the end of the exploration period.

TOTAL pays taxes on income generated from its oil and gas production and sales activities under its concessions, production sharing contracts and risked service contracts, as provided for by local regulations. In addition, depending on the country, TOTAL's production and sales activities may be subject to a number of other taxes, fees and withholdings, including special petroleum taxes and fees. The taxes imposed on oil and gas production and sales activities may be substantially higher than those imposed on other industrial or commercial businesses.

The legal framework of TOTAL's exploration and production activities, established through concessions, licenses, permits and contracts granted by or entered into with a government entity, a state-owned company or, sometimes, private owners, is subject to certain risks that, in certain cases, can reduce or challenge the protections offered by this legal framework.

### Management and monitoring of industrial and environmental risks

#### *TOTAL policies regarding health, safety and the environment*

TOTAL has developed a **Health Safety Environment Quality Charter** (see **Health Safety Environment Quality Charter**, below) that sets out the basic principles applicable within the Group regarding the protection of people, property and the environment. This charter is rolled out at several levels within the Group by means of its management systems.

## **Table of Contents**

### **Item 4 - Other Matters**

Along these lines, TOTAL has developed efficient organizations as well as safety, environmental and quality management systems, which it makes every effort to have certified or assessed (*e.g.*, standards such as the International Safety Rating System, ISO 14001 and ISO 9001).

In most countries, TOTAL's operations are subject to laws and regulations concerning environmental protection, health and safety, to which TOTAL ensures compliance (see Health, safety and environmental regulations, below).

#### ***Assessment***

As part of its policy, TOTAL assesses risks and impacts in the areas of safety (particularly process safety), the environment and the protection of workers and local residents:

- prior to approving new projects, investments, acquisitions and disposals;
- periodically during operations (safety studies, environmental impact studies, health impact studies and Technological Risk Prevention Plan - PPRT in France);
- prior to releasing new substances on the market (toxicological and ecotoxicological studies and life cycle analyses); and
- based on the regulatory requirements of the countries where these activities are carried out and generally accepted professional practices.

In countries where prior administrative authorization and supervision is required, projects are not undertaken without the authorization of the relevant authorities based on the studies provided to the authorities.

In particular, TOTAL has developed a common methodology for analyzing technological risks that is being gradually applied to all activities carried out by the companies of the Group.

#### ***Management***

TOTAL develops risk management measures based on risk and impact assessments. These measures involve facility and structure design, the reinforcement of safety devices and remedies of environmental degradations.

In addition to developing organizations and management systems as described above, TOTAL strives to minimize industrial and environmental risks inherent in its operations by conducting thorough inspections and audits, training personnel and raising awareness among all those involved.

In addition, performance indicators (particularly in the areas of HSE) and risk monitoring have been put in place, objectives have been set and action plans have been implemented to achieve these objectives.

Although the emphasis is on preventing risks, TOTAL takes regular steps to prepare for crisis management based on the risk scenarios identified.

In particular, TOTAL has developed emergency plans and procedures to respond to an oil spill or leak. These plans and procedures are specific to each TOTAL affiliate and adapted to its organization, activities and environment and are consistent with the Group's plan. They are reviewed regularly and tested through exercises.

At the Group level, TOTAL has set up the PARAPOL (Plan to Mobilize Resources Against Pollution) alert scheme to facilitate crisis management and provide assistance without geographical restriction by mobilizing both internal and external resources in the event of pollution of marine, coastal or inland waters. The

PARAPOL procedure is made available to subsidiaries of the Group and its main goal is to facilitate access to internal experts and physical response resources.

Furthermore, the Company and its subsidiaries are currently members of certain oil spill cooperatives that are able to provide expertise, resources and equipment in all geographic areas where the Group has operations, including, in particular, Oil Spill Response Limited and CEDRE (Center for Documentation, Research and Experimentation on Accidental Water Pollution).

## Edgar Filing: TOTAL S.A. - Form 20-F

Following the blow-out on the Macondo well in the Gulf of Mexico in 2010 (in which the Group was not involved), TOTAL created three task forces in order to analyze risks and issue recommendations.

In Exploration & Production, Task Force 1 reviewed the safety aspects of deep offshore drilling operations (well architecture, design of blow-out preventers, training of personnel based on lessons learned from serious accidents that have occurred recently in the industry). Its efforts have led to the implementation of even more stringent controls and audits on drilling operations.

Task Force 2, in coordination with the Global Industry Response Group (GIRG) created by the OGP (International Association of Oil and Gas Producers), is developing deep offshore oil capture systems and planning related containment operations in case of a pollution event in deep waters. Several of these systems were positioned in various parts of the world in 2013 and one of them was tested by TOTAL in November 2013 during a large-scale exercise in Angola.

Task Force 3 addressed plans to fight accidental spills in order to strengthen the Group's ability to respond to major accidental pollution, such as a blow-out or a total loss of containment from an FPSO (Floating Production, Storage and Offloading facility). This initiative has led, in particular, to a sharp increase in the volume of dispersants available within the Group.

The task forces finalized most of their work in 2012 and the Group has continued deploying solutions to minimize such risks.

The Group believes that it is impossible to guarantee that the contingencies or liabilities related to the above mentioned concerns will not have a material impact on its business, assets and liabilities, consolidated financial situation, cash flow or income in the future.

### *Health, safety and environment regulations*

TOTAL is subject to extensive and increasingly strict health, safety and environmental (HSE) regulations in the European Union (EU), the United States and the rest of the world.

**i. European Union:** The following is a non-exhaustive list of major HSE regulations and directives that affect TOTAL's operations and products in the EU:

#### Risk prevention

The Seveso III Directive (2012/18/EU), which entered into force in August 2012, updated and replaced the Major Hazards Directive Seveso II of 1996 that required emergency planning, public disclosure of emergency plans, assessment of hazards and emergency management systems. The new Directive strengthened rules on the control of major accident hazards and integrated provisions on EU chemicals law (integration into the Seveso III Directive of the Classification, Labelling and Packaging (CLP) regulation and adapting the EU system to the UN's international chemicals classification). Globally

## Table of Contents

### Item 4 - Other Matters

Harmonized System, or GHS). This Directive also clarified and updated other provisions, including introducing stricter inspection standards, improving the level and quality of information available to the public in the event of an accident, and public participation in decision-making and access to justice. EU Member States must transpose and implement this Directive by June 2015, which is also the date on which the new UN GHS becomes fully applicable in Europe.

The EU adopted the Safety of offshore oil and gas operations Directive on June 10, 2013. The new regulatory framework aims at reducing the occurrence of major accidents related to offshore oil and gas operations and to limit their consequences by establishing minimum conditions for safe offshore exploration and exploitation and improving the response mechanisms in the event of a major accident. The new Directive sets clear rules that cover the whole lifecycle of all exploration and production activities from design to the final removal of an oil or gas installation. In addition, the Directive also provides rules for transparency and sharing of information, cooperation between EU Member States, emergency response plans and transboundary emergency preparedness and response. EU Member States must transpose and implement this Directive by July 2015.

The regulation REACH (Registration, Evaluation and Authorization and Restriction of Chemicals) came into force in June 2007 and required the pre-registration of chemical substances manufactured or imported into the EU by December 2008, to qualify for full registration under a phase-in during the period 2010-2018. This regulation requires the registration and identification of chemical substances manufactured or imported in EU Member States in a central database in the European Chemical Agency (ECHA) in Helsinki, and can result in restrictions on the sales or uses of such substances. REACH requires TOTAL to evaluate the hazards of its chemicals and products and may result in future changes to warning labels and material safety data sheets. To date, the Group has registered more than 220 substances.

#### Protection of the natural environment

The Industrial Emissions Directive ( IED ) (2010/75/EU) entered into force in January 2011 and replaced the Integrated Pollution Prevention and Control Directive (IPPC) and numerous sectorial directives as of January 2014, with the exception of the Large Combustion Plants (LCP) Directive of 2001, which will be repealed with effect from January 2016. The IED was required to be transposed by EU Member States into their national legislations by early January 2013. France transposed this Directive into its national legislation in May 2013.

By imposing the reduction of emissions from industrial installations, the IED will progressively result in stricter emission limits on certain facilities of TOTAL by making compulsory certain rules described in the Best Available Techniques (BAT) Reference Documents (BREFs). The BREFs and related BAT documents are published by the European Commission ( EC ) after exchanges of information between experts from the EU Member States, industry and environmental organizations to determine BATs. This exchange is coordinated by the European IPPC Bureau of the Institute for Prospective Technology Studies at the European Joint Research Centre in Seville (Spain).

Among other things, the Air Quality Framework Directive (2008/50/EC) ( AQFD ) and related directives on ambient air quality assessment and management limit emissions of sulphur dioxide, nitrogen dioxide and oxides of nitrogen, particulate matter, lead, carbon monoxide, benzene and ozone. The EC adopted in December 2013 a Clean Air Package including a Clean Air Programme for Europe with measures to ensure that existing targets of the AQFD are met in the short term and to introduce new air quality objectives for the period up to 2030, a revised National Emission Ceilings Directive with stricter national emission ceilings for the six main pollutants and a proposal for a new directive to reduce pollution from medium-sized combustion installations.

Certain maritime safety directives implemented in France between 2011 and 2012 require tankers to have double hulls and ship owners to acquire improved insurance coverage, mandate improvements to traffic monitoring, accident investigations and in-port vessel inspection, and further regulate organizations that inspect and confirm conformity to applicable regulations.

Numerous directives impose water quality standards based on the various uses of inland and coastal waters, including ground water, by setting limits on the discharges of many dangerous substances and by imposing information gathering and reporting requirements.

Adopted and effective since 2000, a comprehensive Water Framework Directive (2000/60/EC) is progressively replacing numerous existing directives with a comprehensive set of requirements, including additional regulations obligating EU Member States to classify all water courses according to their biological, chemical and ecological quality, and to completely ban the discharges of approximately thirty toxic substances by 2017.



Concerning the exploitation of shale gas, the EC launched in 2013 the Environmental, Climate and Energy Assessment Framework to Enable a Safe and Secure Unconventional Hydrocarbon Extraction initiative. This initiative, which is subject to an impact assessment, is intended to provide a framework to manage risks, address regulatory shortcomings and provide maximum legal clarity and predictability concerning the exploration and operation of shale gas to both market operators and citizens across the EU. In January 2014, the EC adopted a (non-binding) Recommendation setting minimum core principles for the exploration and production of hydrocarbons using high-volume hydraulic fracturing, which EU Member States are invited to apply within six months. Discussions are expected to be pursued with competent national authorities in 2014.

See [Business Overview](#) [Upstream Segment](#) [Exploration & Production](#) [Europe](#) [France](#) for an overview of TOTAL's Montélimar exclusive exploration license and related government revocation.

The EU framework Directive on Waste Disposal, which entered into force in December 2008, ensures that waste is recovered or disposed of without endangering human health and without using processes or methods that could unduly harm the environment. Numerous related EU directives regulate specific categories of waste.

Biodiversity issues are being given increasing regulatory consideration. Following the 2010 Nagoya summit, the UN's 65th General Assembly decided to form the

**Table of Contents**

## Item 4 - Other Matters

Intergovernmental Science-Policy Platform on Biodiversity (IPBES) in order to share knowledge and future policies on biodiversity and ecosystem services.

## Climate protection

With respect to the Kyoto protocol, which expired in 2012, the 2011 UN Climate Conference in Durban extended the Kyoto principles beyond 2012 in order to permit negotiations for the possible adoption by 2015 of a new legally-binding international agreement. The latest UN Climate Conference, held in Warsaw in December 2013, established a roadmap to negotiate the 2015 binding universal climate agreement to be signed by the negotiating countries. The next UN Climate Conference will be held in 2014 in Lima and will be followed in 2015 by the 21<sup>st</sup> Conference in Paris.

With a view towards the possible adoption of the aforementioned international agreement in 2015, certain negotiating countries have initiated or intensified domestic preparation for their national contributions towards such agreement.

The ETS (Emission Trading Scheme) Directive (2003/87/CE), as amended, was adopted in 2003 in the framework of the Kyoto Protocol in order to establish a scheme for greenhouse gas ( GHG ) emission allowance trading within the EU with the goal of significantly reducing GHG emissions. This trading scheme required EU Member States to prepare national allocation plans identifying CO<sub>2</sub> quotas for each industrial installation for specific sectors. In accordance with the 2009 revision of the aforementioned Directive, a progressive quota auctioning mechanism is in place for the period 2013-2020 (referred to as the "3<sup>rd</sup> phase"). Since the quantity of freely-allocated allowances will gradually decrease until 2020, TOTAL's industrial facilities may incur capital and operating costs to comply with such legislation, including the partial acquisition of emissions allowances.

The Climate Action and Renewable Energy Package imposes an EU objective referred to as "3 x 20", which commits EU Member States by 2020 to reduce overall GHG emissions to at least 20% below 1990 levels, to improve energy efficiency by 20% and to increase renewable energy usage by 20% compared to the projections for 2020.

In 2011, the EC published a Roadmap for moving to a competitive low-carbon economy in 2050 to look beyond these 2020 objectives and to set out a plan to meet the long-term target of reducing domestic emissions by 80% to 95% by mid-century.

In 2013, the EC published a Green Paper entitled "A 2030 Framework for Climate and Energy Policies" to propose to review European climate objectives for 2030. In January 2014, the EC proposed a new EU framework on climate and energy for 2030, including a target to reduce EU domestic GHG emissions by 40% by 2030, which is expected to be further debated in particular in the European Council and European Parliament.

The sectors most responsible for emissions in the EU (*i.e.*, power generation, industry, transport, buildings and construction, as well as agriculture) are charged with making the transition to a low-carbon economy over the coming decades, and these issues could affect TOTAL's operations in the future.

The 2009 Directive on Carbon Capture and Storage (CCS) (2009/31/EC) ("CCS Directive") forms the basis for developing CCS projects that are expected to help provide solutions for the reduction of CO<sub>2</sub> emissions. The EC issued four guidance documents in 2011 to support coherent implementation of the CCS Directive with respect to the geological storage of CO<sub>2</sub> across EU Member States.

CO<sub>2</sub> emission allowances

The regulations concerning the market for CO<sub>2</sub> emission allowances in Europe, EU-ETS (European Union Emissions Trading System), entered a third phase on January 1, 2013. This phase marks the end of the overall free allocation of emission allowances: certain emissions, such as those related to electricity production, no longer benefit from free allowances, while for others, free allowances have been significantly reduced. Free allocations are now established based on the emission level of the top-performing plants within the same sector ("top 10 benchmark") and lower-performing plants must purchase, at market price, the necessary allowances to cover their emissions over and above these free allocations. Moreover, the Group's plants will need to indirectly bear the cost of allowances for all electricity consumed (including electricity generated internally at its own facilities).

Given these new rules and the European Commission's decision to apply a cross-sectoral correction factor (CSCF) that reduces the total amount of free allocations for all sectors combined by an average of 11.6% over phase 3 (2013-2020), the Group estimates that approximately 30% of its emissions subject to the EU-ETS will not be covered by free allowances during the 2013-2020 period. The Group is exploring possible avenues of appeal against the method of calculating this correction factor.

## Edgar Filing: TOTAL S.A. - Form 20-F

The financial risk related to the foreseeable purchase of these allowances on the market should remain low for the Group if prices for emission allowances remain close to their current level (€5/t CO<sub>2</sub>). If significant changes are made to the regulation during phase 3, such as the authorization given to the European Commission to intervene at its own discretion in the allowance auction calendar (backloading), prices for CO<sub>2</sub> allowances could increase substantially, which could have a significant adverse impact on the results of the Group's refining operations. Finally, the revision in 2014 of the list of sectors exposed to carbon leakage represents another regulatory uncertainty that, if it were to affect the refining sector in Europe, could also have a significant adverse impact on the results of the Group's refining operations.

### Environmental liability

The Directive on Environmental Liability (2004/35/EC) ( ELD ) seeks to implement a strict liability approach for damage to water resources, soils and protected species and habitats by authorized industrial activities. The ELD, which came into force in 2004, has since been amended several times in order to broaden the scope of strict liability by adding the management of extractive waste and the operation of storage sites pursuant to Directive 2009/31/EC to the list of dangerous occupational activities in Annex III of the ELD, and to extend the scope of damage to marine waters . EU Member States reported to the EC in 2013 their experiences concerning the application of the amended ELD. Based on these reports, the EC will submit a report

## **Table of Contents**

### **Item 4 - Other Matters**

reviewing the amended ELD to the European Parliament and to the European Council by April 30, 2014, which may result in changes to the amended ELD.

Directive 2008/99/EC, which concerns the protection of the environment through criminal law, obliges EU Member States to provide for criminal penalties in respect of serious infringements of EC regulations. In France, such obligation was transposed in July 2013.

#### **Public information**

EU directives implementing the Aarhus International Convention of 1998 were adopted in 2003 and provide public information and participation rights in a variety of activities affecting the environment. French regulations on public inquiry and impact assessment were adopted in 2011 and entered into force in June 2012. These regulations reinforce public participation and information rights concerning projects that could affect the environment. In December 2012, September 2013 and December 2013, French regulations were published on public participation modalities in public decision-making processes on projects affecting the environment.

A proposed amendment of Directive 2011/92/EU on Environmental Impact Assessment (EIA) Directive was submitted to the European Parliament and Council by the EU Commission in October 2012 and the European Parliament adopted amendments in October 2013 to this proposal. As a result, this Directive is expected to be reviewed in 2014 and may result in the strengthening of provisions concerning the quality of environmental impact assessments.

**ii. United States:** In the United States, where TOTAL's operations are less extensive than in Europe, TOTAL is also subject to significant HSE regulations at both the state and federal levels. Of particular relevance to TOTAL's lines of business are:

#### **Protection of the natural environment**

The Clean Air Act and its regulations, which require, among other measures: stricter phased-in fuel specifications and sulfur reductions; enhanced emissions controls and monitoring at major sources of volatile organic compounds, nitrogen oxides, and other designated hazardous and non-hazardous air pollutants; GHG regulation; stringent pollutant emission limits; construction and operating permits for major air emission sources at chemical plants, refineries, marine and distribution terminals and other facilities; and risk management plans for the handling and storage of hazardous substances.

The Clean Water Act, which regulates the discharge of wastewater and other pollutants from both onshore and offshore operations and, among other measures, requires industrial facilities to obtain permits for most wastewater and surface water discharges, install control equipment and treatment systems, implement operational controls, and preventative measures, including spill prevention and control plans and practices to control storm water runoff.

The Resource Conservation and Recovery Act, which regulates the generation, storage, handling, treatment, transportation and disposal of hazardous waste and imposes corrective action requirements on regulated facilities requiring investigation and remediation of potentially contaminated areas at these facilities.

#### **Environmental liability**

The Comprehensive Environmental Response, Compensation, and Liability Act (also known as CERCLA or Superfund), under which waste generators, former and current site owners and operators, and certain other parties can be held jointly and severally liable for the entire cost of remediating sites contaminated by releases of hazardous substances regardless of fault or the amount or share of hazardous substances sent by a party to a site. The U.S. Environmental Protection Agency (EPA) has authority under Superfund to order responsible parties to clean up contaminated sites and may seek recovery of the government's response costs from responsible parties. States have similar legal authority to compel site investigations and cleanups and to

## Edgar Filing: TOTAL S.A. - Form 20-F

recover costs from responsible parties. The U.S. government and states may also sue responsible parties under CERCLA for damage to natural resources (e.g., rivers and wetlands) arising from releases of hazardous substances.

### Risk prevention

National and international maritime oil spill laws, regulations and conventions, including the Oil Pollution Act of 1990 ( OPA 90 ) and certain coastal state laws impose significant operational, compliance and liability regimes. OPA 90 imposes significant oil spill prevention requirements, spill response planning and training obligations, ship design requirements (including phased in double hull requirements for tankers), operational restrictions, spill liability for tankers and barges transporting oil, offshore oil platform facilities and onshore terminals and establishes an oil liability spill fund paid for by taxes on imported and domestic oil.

Offshore oil and gas operations are regulated by the Bureau of Ocean Energy Management, which is responsible for managing development of offshore resources, and the Bureau of Safety and Environmental Enforcement ( BSEE ), which is responsible for safety and environmental oversight of offshore oil and gas operations. The BSEE has implemented more stringent permitting requirements and oversight of offshore drilling. Among other changes, well design, casing and cementing standards have been upgraded and compliance must be certified by a professional engineer. In addition, plans must describe containment resources available in case of an underwater blowout and worst case discharge, and operators in the Gulf of Mexico are required to develop and implement a Safety and Environmental Management Systems program.

Other significant U.S. environmental legislation includes the Toxic Substances Control Act, which regulates the development, testing, import, export and introduction of new chemical products into commerce, and the Emergency Planning and Community Right-to-Know Act, which requires emergency planning and spill notification as well as public disclosure of chemical usage and emissions. The Hazardous Materials Transportation Act (HMTA) regulates material designations, packaging requirements, and operation rules and procedures for the transport of hazardous materials within the United States.

TOTAL s facilities in the United States are also subject to extensive workplace safety regulations promulgated by the Occupational Safety and Health Administration ( OSHA ). Most notable among OSHA regulations is the Process

**Table of Contents****Item 4 - Other Matters**

Safety Management of Highly Hazardous Chemicals standard, a comprehensive regulatory program that requires major industrial sources, including petroleum refineries and chemical manufacturing facilities, to undertake significant hazard assessments during the design of new industrial processes and modifications to existing processes, as well as a comprehensive and continual monitoring and management process for these chemicals.

**Climate protection**

EPA regulation of greenhouse gas (GHG) emissions from industrial sources under the Clean Air Act's Prevention of Significant Deterioration and Title V operating permit programs formally commenced in early January 2011. With the new EPA rules affecting a variety of emission sources and activities, TOTAL's U.S. subsidiaries may be required, among other things, to obtain GHG permits to construct new facilities or to modify existing facilities. As a result, TOTAL's U.S. subsidiaries could incur additional capital and operating costs to comply with control technology and/or facility upgrade requirements to reduce GHG emissions.

**Unconventional gas production**

TOTAL has investments in the United States in unconventional gas plays that utilize hydraulic fracturing, or fracking, a process that involves pumping a mixture of water, sand and chemicals underground at high pressure to fracture rock formations and release natural gas and liquids that are otherwise inaccessible. Currently, regulation of these practices occurs at the state level, although there are a number of federal legislative agency proposals that could alter the regulatory framework. In April 2012, the EPA issued final rules that established new air emission controls for oil and natural gas production and natural gas processing operations, which include new emissions standards for a variety of oil and natural gas production and processing activities. In addition, various state initiatives could result in stricter regulation of fracking. Increased regulation could affect TOTAL's operating costs, profitability and future investments in these unconventional gas plays.

**Legal proceedings**

Proceedings instituted by governmental authorities are pending or known to be contemplated against certain U.S.-based subsidiaries of TOTAL under applicable environmental laws that could result in monetary sanctions in excess of \$100,000. No individual proceeding is, nor are the proceedings as a whole, expected to have a material adverse effect on TOTAL's consolidated financial position or profitability.

**Health Safety Environment Quality Charter**

TOTAL's safety, health and environment policy is based on the charter below, which was adopted in 2000 and updated in 2009. This charter represents the common framework of the Group's HSE and Quality management systems. Group directives define the minimum requirements expected in the different HSE areas and are implemented in the business segments, which subsequently factor in the specific characteristics of their operations. Recommendations, guides and manuals are regularly published and made available to the different business segments. They provide invaluable guidance and support for implementing and managing the Group's policies.

**Safety Health Environment Quality Charter**

TOTAL has based its policy in matters pertaining to health, safety, the environment and quality on the following ten principles:

**Article 1:** TOTAL considers personal health and safety, operational safety, respect for the environment, customer satisfaction and listening to stakeholders as paramount priorities.

## Edgar Filing: TOTAL S.A. - Form 20-F

**Article 2:** TOTAL strives to comply with applicable laws and regulations wherever it conducts its business and supplements them, when appropriate, with its own specific requirements.

**Article 3:** TOTAL promotes among its employees a shared culture the core components of which are skills management, incident feedback, information and dialogue. This process is driven by the leadership and exemplary conduct of management.

**Article 4:** TOTAL favors the selection of its industrial and business partners on the basis of their ability to comply with its health, safety, environment and quality policy.

**Article 5:** TOTAL implements, for all its operations, appropriate management policies regarding health, safety, environment and quality risks which are regularly assessed. No project development or product launch may be undertaken without a risk assessment covering the entire life of the project or product.

**Article 6:** Appropriate health, safety, environment and quality management systems for each line of business undergo regular assessment involving measuring the performance, setting milestones, formulating relevant action plans and instituting suitable control procedures.

**Article 7:** In order to respond effectively in the event of accidents, TOTAL equips itself appropriately and establishes emergency procedures that are periodically reviewed and regularly tested during exercises.

**Article 8:** All employees, at all levels, must be aware of their role and personal responsibility in performing their duties, giving due consideration to the prevention of risks of accidents, harm to health, environmental damage or adverse impacts on product and service quality. Vigilance and professionalism in these fields are important criteria in evaluating the performance of each member of personnel, in particular for those in positions of responsibility.

**Article 9:** In matters of health, safety, environment and quality, TOTAL adopts a constructive attitude based on open dialogue with stakeholders and outside parties. Through its social commitment, it focuses on developing its business in harmony with the neighboring communities.

**Article 10:** TOTAL monitors and controls the Group's energy consumption, greenhouse gas emissions, production of ultimate waste and impact on biodiversity. The Group develops new processes, products and customer services in order to enhance energy efficiency and reduce environmental footprints. The Group is engaged in research and development for additional energy resources. TOTAL thus actively contributes to Sustainable Development.

2013 Form 20-F TOTAL S.A. 51

## Table of Contents

### Item 4 - Other Matters

The Industrial Safety department and the Sustainable Development and Environment department, together with the Security department, report to Corporate Affairs and provide support to the segments and ensure that they implement policies that reflect the principles of the charter in a concrete, effective manner.

In accordance with oil and gas industry best practices (set out in the IPIECA reporting guidance), the following health, safety and environment information relates to the activities, sites and industrial assets that TOTAL operates or for which it has been given contractual responsibility for managing operations, directly or through one of its subsidiaries. An exception is made for information concerning greenhouse gases, which is also expressed as a Group share of all assets in which TOTAL has a stake. The data presented in this section are provided on a current basis. For instance, data relating to SunPower, in which the Group holds a 64.65% interest, were taken into account from 2012.

### Occupational health and safety

For many years now, the Group has been developing an HSE normative framework. In this respect, directives have been drawn up for occupational health and safety. These directives set out TOTAL's requirements in these areas for personnel working on its sites. In 2013, the three business segments increased their efforts in terms of the reference frameworks of the HSE management systems in order to provide greater overall consistency, while at the same time respecting the businesses' specific characteristics.

Indicators are used to measure the main results in these areas and monthly reporting of occupational incidents is used to monitor performance at both the global and site level. The Group does not differentiate between the safety of its employees and that of external contractors. The indicators below include incidents and hours worked by Group Employees and contractors working on its sites.

	2013	2012	2011
LTIR <sup>(a)</sup> : number of lost time incidents per million hours worked	0.9	1.0	1.3
TRIR <sup>(b)</sup> : number of recorded incidents per million hours worked	1.6	1.8	2.2
SIR <sup>(c)</sup> : average number of days lost per lost time incident	32.0	27.2	23.9

<sup>(a)</sup> LTIR: Lost Time Injury Rate.

<sup>(b)</sup> TRIR: Total Recordable Injury Rate.

<sup>(c)</sup> SIR: Severity Injury Rate.

The severity injury rate increased in 2013 compared with the previous year. This was particularly apparent in the Upstream segment, where a single event led to the death of four people (see below) and an extended absence from work for fourteen other employees, and in Marketing & Services, where the inclusion in reporting for France of work carried out at service stations had a significant impact on the increase in the segment's severity rate. In Refining & Chemicals, however, this indicator decreased slightly. The impact on the severity injury rate of the increase in the activities of Exploration & Production and security-related accidents, especially in Marketing & Services, is also being closely monitored.

In 2013, the Group experienced eleven accidents that led to fifteen fatalities, including a tragic helicopter accident that resulted in the death of four contractors. This accident occurred in late August in the North Sea, off the coast of the Shetland Islands, when eighteen people were being carried from an offshore drilling rig by helicopter. An investigation is being conducted by the competent British authorities (AAIB).

The number of fatalities per million hours worked (Fatality Incident Rate) calculated over a 3-year rolling basis, however, shows a downward trend: 0.030 in 2011; 0.025 in 2012; and 0.021 in 2013.

Since 2010, the basic rules to be scrupulously followed by all personnel, employees and contractors alike, in all of the Group's lines of business worldwide, have been set out in a safety document entitled 'Safety at work: TOTAL's golden rules'. According to the Group's internal statistics, in more than 90% of severe incidents or near misses with high severity potential in the workplace, at least one of the golden rules had not been followed. The roll-out of the golden rules was accompanied by an awareness campaign in 2011 and 2012 to ensure that all employees know and understand these rules. The proper application of these golden rules, and more generally of all occupational safety procedures, is verified through site visits and audits. Regular presentations and seminars are also organized with the employee representatives on the European Works Council to promote the golden rules.

In 2013, a worldwide safety campaign was launched in connection with the World Day for Safety and Health at Work on the theme of commitment to safety: TOTAL commitment for me, for you, for all. This campaign, launched in eighteen languages, is expected to continue for several more years.



## Edgar Filing: TOTAL S.A. - Form 20-F

Moreover, the reporting of anomalies and near misses is strongly encouraged and monitored. The ability of each employee to identify anomalies or dangerous situations is a measure of the personnel's involvement and vigilance in accident prevention, which also reflects the safety culture level. An investigation is generally launched in response to any type of accident whatsoever. The method and depth of investigation depend on the actual or potential severity level. For example, a near miss with a high severity potential level is treated in the same way as a severe incident: its analysis is considered to be a key driving force for progress and, depending on its relevance to the other business units or business segments within the Group, triggers a safety alert and even the dissemination of a feedback report.

The Group's directives are equally demanding with regard to employee health. In particular, the Group's companies are expected to prepare a formal occupational risk assessment (chemical, physical, biological, ergonomic or psychosocial), create a risk management action plan and ensure medical monitoring of staff in line with the risks to which they are exposed. Two main indicators are monitored yearly:

	2013	2012	2011
Percentage of companies included in the Worldwide Human Resources Survey offering employees regular medical monitoring	95%	98%	96%
Number of occupational illnesses recorded in the year (in accordance with local regulations) per million hours worked	0.68	0.86	0.87
In 2013, there was an 18% decrease in recorded illnesses compared to 2012 with respect to the main occupational illnesses identified at TOTAL:			

Musculoskeletal disorders, the main cause of occupational illness, representing 42% of all recorded illnesses. This figure decreased by 12% compared with 2012 due to the implementation of a specific action plan to control risk and improve working conditions, particularly in Hutchinson's operations;

## Table of Contents

### Item 4 - Other Matters

Illnesses related to asbestos exposure, which decreased by 33% compared with 2012, in line with the continuous decline over several years due to the absence of recent exposure;

Illnesses related to noise exposure.

In support of the Group's policy on preventing occupational illnesses and to complement the periodic medical surveillance scheme currently in place, TOTAL set up an employee health observatory, which is responsible for keeping track of any medical conditions potentially affecting employees and, if applicable, suggesting and overseeing the appropriate preventive actions. By the end of 2013, thirteen of the Group's sites in Europe had signed up for the observatory, which monitors approximately 10% of the Group's employees.

At the same time, eight French sites give their employees a questionnaire to complete when they have periodic medical check-ups, which are used to measure the impact of the reaction to the stress factors to which they may be exposed.

On a broader level, TOTAL is associated with promoting individual and collective health in the countries where it operates (including flu vaccination campaigns and prevention and screening programs for certain diseases, such as AIDS, cancer and malaria, for employees, their families and local communities). Awareness campaigns relating to lifestyle risks in particular have also been in place for several years (including, for example, anti-smoking and anti-drinking campaigns, musculoskeletal disorder prevention programs).

## Environmental protection

### General policy

The main Group entities have Health, Safety and Environment (HSE) departments or units that ensure compliance with both relevant local regulations and internal requirements. In all, over 980 full-time equivalent positions dedicated to environmental matters were identified within the Group in 2013.

The Group steering bodies, led by the Sustainable Development and Environment department, have a threefold task:

- monitoring TOTAL's environmental performances, which are reviewed annually by the Management Committee and presented before the Executive Committee, for which multi-annual improvement targets are set;
- in conjunction with the business segments, handling the various environment-related areas under their responsibility; and
- promoting the internal standards to be applied by the Group's business units as set out in the charter.

New objectives were set in the beginning of 2013 for the period up to 2017.

In-house, TOTAL also promotes compliance of its environmental management systems with ISO 14001. In 2013, 314 sites operated by the Group were ISO 14001-certified (compared to 305 in 2012), out of a total of 858 operated sites. The objective for 2017 is to achieve certification for all production sites producing over 10 kt of CO<sub>2</sub> eq emissions per year. The policy of allowing new or recently acquired sites two years to achieve certification will continue to apply. At year-end 2013, 100% of the eighty-four sites meeting these conditions were ISO 14001 certified and one site that started up less than two years ago has scheduled its certification for 2014.

The environmental risks and impacts of any planned investment, disposal or acquisition subject to Executive Committee approval are assessed and reviewed before the final decision is made.

TOTAL ensures that all employees are aware of its environmental protection requirements. Employees are given training in the required skills. TOTAL also raises employee awareness through internal campaigns (*e.g.*, in-house magazines, intranet, posters) and provides annual information about the Group's environmental performance through circulation of the CSR report.

Two 3-day training courses on all aspects of HSE are also made available to the business units. HSE Implementation sessions are aimed at employees whose job is specifically to handle one or more HSE areas within a business unit (three sessions were held in 2013 with seventy-eight participants). The training session HSE for Managers is aimed at senior managers who are currently or will in the future be responsible for one of the Group's business units (five sessions were held in 2013 with 221 participants). Lastly, the HSE for Executives course focusing on management styles has been organized since 2012 for Group executives (five sessions were held in 2013 with 99 participants).

***Environmental footprint***

TOTAL implements an active policy of monitoring, managing and reducing the environmental footprint of its operations. As part of this policy, emissions are identified and quantified by environment (water, air and soil) so that appropriate measures can be taken to better control them.

**i. Water, air:** The Group's operations generate chronic emissions, such as fumes at combustion plants, emissions into the atmosphere from the various conversion processes and discharges into wastewater. In addition to complying with applicable legislation, the Group's companies actively pursue a policy aimed at reducing the amount of emissions. Sites use various treatment systems that include different types of measures:

Organizational measures (*e.g.*, using predictive models for controlling peaks in SO<sub>2</sub> emissions in accordance with weather forecast data, managing combustion processes).

Technical measures (such as building wastewater treatment plants).

These measures can be preventive to avoid generating pollutants (such as low-NO<sub>x</sub> burners for combustion plants) or curative (such as biological treatment of processed water to reduce the hydrocarbon content of the final effluent).

To ensure the quality of its wastewater discharge, TOTAL has set, for all of its offshore exploration and production operations, a target of complying with the hydrocarbon concentration requirements set out in the OSPAR standard (less than 30 mg/l), which is only mandatory in the North Sea. For the fifth consecutive applicable year, the Group achieved this goal on yearly average in 2013.

In 2013, the Normandy platform (petrochemical plant) hosted E4WATER, a European research project aimed at developing tomorrow's technologies that would permit recycling water based on a petrochemical pollution matrix. This involves testing seven pilot processes (sand filtration, ozonation for cooling, UV disinfection treatment, ozonation for waste water, bio-filtration, ultrafiltration and reverse osmosis) on two aqueous flows in the site: waste water and cooling water. These technologies are mature, but their combination on a petrochemical matrix is innovative. On completion of this project in 2015, the knowledge acquired will be used locally for a recycling project (40% reduction in withdrawal) or globally (recycling program for Exploration & Production and Refining & Chemicals segments). This project aims both to decrease the discharge of hazardous substances into the natural environment and to save natural resources by recycling water in the processes used by the Group.

**Table of Contents****Item 4 - Other Matters**

The table below shows changes in chronic emissions into the atmosphere (excluding greenhouse gas; see [Climate change](#), below) and discharged water quality:

	2013	2012	2011
SO <sub>2</sub> emissions (thousands of metric tons)	75	79	91
NOx emissions (thousands of metric tons)	91	88	84
Hydrocarbons in discharged water (metric tons, onshore and coastal, excluding Specialty Chemicals)	306	437	380
Chemical oxygen demand (COD) in water discharged by specialty chemicals (metric tons)	270	275	320

The presentation of hydrocarbon discharges in effluents was changed in 2013 to obtain an indicator consistent with the target set by the Group (40% reduction in onshore and coastal hydrocarbon discharges between 2011 and 2017). In order to compare 2013 performance with that of previous years, the concentration of hydrocarbons in water discharged by Exploration & Production was 17 mg/l in 2013 compared to 23 mg/l in 2012 and 20 mg/l in 2011.

The slight decrease in SO<sub>2</sub> emissions between 2012 and 2013 was driven by the shutdown of the catalytic crackers at two refineries and the proper operational performance of the sulfur units at other refineries. In addition, the vast majority of the fuels used at the Group's refineries are now gaseous, which have a much lower sulfur content than liquid fuels.

In 2013, NO<sub>x</sub> emissions produced by Exploration & Production increased by 5 kt due to the increase in drilling activities, and therefore of diesel consumption, and decreased by 1.5 kt as a result of the sale of the Fertilizers business.

The amount of hydrocarbons discharged at the coasts and onshore has declined sharply due to the improved performance of oil terminals in the Gulf of Guinea, with the inflow of investments and with the operational management between offshore facilities and terminals.

Below are the Group's achievements at year-end 2013 based on the objectives set at the beginning of 2013:

19% reduction in hydrocarbon discharges in water (onshore and coastal) since 2011 compared to the 40% target set for 2017;

24% reduction in SO<sub>2</sub> emissions compared to 2010, that is, exceeding the target set for 2017 (-20%).

**ii. Soil:** The risks of soil pollution related to TOTAL's operations come mainly from accidental spills and waste storage (see below). The Group's approach to preventing and controlling these types of pollution is based on four cornerstones:

- leak prevention, by implementing industry best practices in engineering, operations and transport;
- maintenance at appropriate intervals to minimize the risk of leaks;
- overall monitoring of the environment to identify any increase in soil pollution; and
- controlling pollution from previous activities by means of containment or reduction operations.

Decommissioned Group facilities (*e.g.*, chemical plants, service stations, mud pits or lagoons resulting from hydrocarbon extraction operations, wasteland on the site of decommissioned refinery units) impact the landscape and may, despite all of the precautions taken, be sources of chronic or accidental pollution.

TOTAL ensures that sites are remediated when it leaves in order to allow new operations to be set up once the future use of the land has been determined in agreement with the authorities. This continuous task is performed by various teams within the Group, some of which form subsidiaries, and has been governed by a *Polluted soil and site reclamation* policy since 2012.

**iii. Waste:** The Group's companies are focused on controlling the waste produced at every stage in their operations. This commitment is based on the following four principles, listed in decreasing order of priority:

1. reducing waste at source, by designing products and processes that generate as little waste as possible, as well as minimizing the quantity of waste produced by the Group's operations;
2. reusing products for a similar purpose in order to prevent them from becoming waste;

## Edgar Filing: TOTAL S.A. - Form 20-F

3. recycling residual waste; and
4. recovering energy, wherever possible, from non-recycled products.

To this end, TOTAL has entered into a variety of partnerships:

With Veolia, the Group is involved in the Osilub project, which culminated in the construction of a used motor oil recycling plant in Le Havre, France. The plant, of which TOTAL holds a 35% share, entered into production in 2012 and boasts a processing capacity of 120,000 t/y (50% of all the used motor oil collected in France); the recycled oil is used to make vacuum gas oil (VGO) for refinery production of lubricants and fuels.

In 2011, Total Energy Ventures (the Group's vehicle for investing mainly in new energy and environmental protection technologies) acquired a stake in Agilyx. This American startup has developed an innovative process to convert waste plastic into crude oil, for which it already has a unit in production.

A Group directive issued in 2012 sets out the minimum requirements related to waste management. It is carried out in four basic stages:

- waste identification (technical and regulatory);
- waste storage (soil protection and discharge management);
- waste traceability, from production through to disposal (*e.g.*, notes, logs, statements); and
- waste processing, with technical and regulatory knowledge of the relevant channels, under site responsibility.

TOTAL is especially committed to managing and treating waste classified as hazardous (depending on the type, waste is mainly processed outside the Group by specialized companies):

	2013	2012	2011
Volume of hazardous waste treated outside the Group (kt)	232	237	248

Since 2012, TOTAL has also been monitoring the different waste treatment technologies used for the following categories:

	2013	2012 <sup>(a)</sup>
Recycling	37%	38%
Waste-to-energy recovery	7%	9%
Incineration	12%	12%
Landfill	23%	20%

<sup>(a)</sup> The values for 2012 have been corrected given that a large volume of wastewater discharge should not have been recorded as waste at the Exploration & Production subsidiary in Yemen.

## Table of Contents

### Item 4 - Other Matters

**iv. Environmental nuisance:** TOTAL's operations may cause environmental nuisances for residents near its industrial sites. These may be sound or odor nuisances, but can also result from vibrations or road, sea or river traffic.

Most sites have a system for receiving and handling residents' complaints, the aim of which is to take account of and gain a clearer insight into the different types of nuisances and to minimize them. Monitoring systems can also be put in place, such as sound level measurements at the site perimeter or networks of sensors to determine the origin and intensity of odors.

#### *Incident risk*

In addition to setting up management structures and systems, TOTAL strives to minimize the industrial risks and the environmental impacts associated with its operations by:

- performing rigorous inspections and audits;
- training staff and raising the awareness of all parties involved; and
- implementing an active investment policy.

In particular, TOTAL strives to prevent accidental spills. A common technological risk management approach has been developed to formalize this requirement at the Group's industrial sites. The methodology is gradually being implemented in all operated businesses exposed to technological risks and sets out a risk analysis based on incident scenarios for which the severity of the consequences and the probability of occurrence are assessed. These parameters are used to create a decision matrix that identifies the required level of mitigation.

Specifically with regard to shipping, the Group has an internal policy setting out the rules for selecting vessels. These rules are based on the recommendations of the Oil Company International Marine Forum (OCIMF), an industry association made up of the main global oil companies that promotes best practices in oil shipping, and on OCIMF's Ship Inspection Report (SIRE) Program. TOTAL does not charter any single-hulled vessels for shipping hydrocarbons and the average age of the fleet chartered by TOTAL's Shipping division is about five years.

In accordance with industry best practices, TOTAL particularly monitors accidental liquid hydrocarbon spills of a volume of more than one barrel. Spills that exceed a certain severity threshold (whether in terms of volume spilt, toxicity of the product in question or sensitivity of the natural environment affected) are reviewed on a monthly basis and annual statistics are sent to the Group's Management Committee. All accidental spills are followed by a corrective action aimed at returning the environment to its original state as quickly as possible.

The table below shows the number and volume of accidental hydrocarbon spills with an environmental impact and that are greater than one barrel in volume:

	2013	2012	2011
Number of hydrocarbon spills with an environmental impact	169	219	263
Total volume of hydrocarbon spills with an environmental impact (thousands of m <sup>3</sup> )	1.8	2.0	1.8

*Note: Soil on sites is deemed to form part of the natural environment unless sealed.*

Excluding the amounts spilled as a result of the Elgin incident in the North Sea (approximately 700 m<sup>3</sup>) in 2012, the 2013 volumes increased over those of 2012. For the most part, this increase was due to spills at refineries (approximately one-third of the total), over

95% of which were recovered, as well as better reporting at Marketing & Services.

While risk prevention is emphasized, TOTAL regularly addresses the issue of crisis management on the basis of risk scenarios identified through analyses.

In particular, the Group has emergency plans and procedures in place in the event of a hydrocarbon leak or spill. For accidental spills that reach the surface, anti-pollution plans specific to each subsidiary or site, which are adapted to their structure, activities and environment while complying with Group recommendations, are regularly reviewed and tested during exercises. In 2012, the Group's requirements for preparing emergency plans and the associated exercises were set out in a Group directive.

## Edgar Filing: TOTAL S.A. - Form 20-F

The Group uses the following indicators to measure its readiness to counteract pollution:

	2013
Number of sites whose risk analysis identified at least one scenario of major accidental pollution to surface water	150
Proportion of those sites with an operational anti-pollution plan	87%
Proportion of subsidiaries and sites whose risk analysis identified at least one scenario of accidental pollution to surface water and that have performed at least one anti-pollution exercise during the year	82%
Also available to TOTAL's subsidiaries, the PARAPOL (Plan to Mobilize Resources Against Pollution) alert scheme is used to facilitate crisis management at the Group level. Its main aim is to mobilize the internal and external human and physical resources necessary to respond in the event of pollution of marine, coastal or inland waters, without geographical restriction, at any time, at the request of any site.	

The Group and its subsidiaries have assistance agreements with the main bodies specializing in oil spill management, such as Oil Spill Response Limited, CEDRE and Clean Caribbean & Americas. Their role is to provide expertise, resources and equipment in all of the regions where TOTAL has operations.

Following the blowout of the Macondo well in the Gulf of Mexico in 2010 (in which the Group was not involved), TOTAL created three task forces in order to analyze risks and issue recommendations. The task forces finalized most of their work in 2012, and the Group has continued deploying solutions to minimize such risks.

In 2012, the work carried out as part of the Subsea Well Response Project (SWRP), a consortium of nine oil companies including TOTAL, paved the way for the construction of several capping systems designed to prevent hydrocarbon spills in the underwater environment. In 2013, three of the four capping systems were positioned in various parts of the world, representing a solution that can be launched into action in case of a deepwater drilling pollution incident. The last one will be positioned in 2014.

Additionally, the work carried by TOTAL through its Subsea Emergency Response System (SERS) has also led to the construction of capping equipment to respond to an event on a production well. These capping systems will be positioned in 2014 in the Gulf of Guinea where TOTAL is strongly present in subsea production.

In November 2013, a large-scale exercise to simulate a massive oil leak in deep offshore waters was conducted in Angola. During this 3-day emergency exercise, known as Lula, the Angolan subsidiary deployed the resources that would have been needed to manage an actual event of this kind (*e.g.*, several ships, an

## Table of Contents

### Item 4 - Other Matters

airplane, helicopters, teams working on the FPSO, at the headquarters of the Total E&P Angola subsidiary in Luanda and the Group in Paris). It provided the ability to test a number of the systems implemented by the post-Macondo task forces:

- deployment of a subsea dispersant injection system;
- supply chain for large quantities of dispersants;
- surface anti-pollution mechanisms (*e.g.*, dispersion, recovery); and
- systems for tracking and predicting the location of oil slicks (*e.g.*, satellite tracking, prediction models based on oceanographic/meteorological data).

mobilization of partners that specialize in crisis management and pollution control.

Many lessons have already been learned from this exercise and a detailed feedback report is being drafted to further improve the Group's ability to respond to an accident of this scale.

#### *Sustainable use of resources*

**i. Water:** The distribution worldwide of available freshwater varies greatly in space and time. The issue of water consumption therefore requires different responses depending on the regional and technical context.

In order to establish which of its facilities are affected by this issue as a priority, TOTAL both:

- identifies water withdrawals and discharges across all of its sites; and
- identifies sites located in water stress areas (watersheds that will have less than 1,700 m<sup>3</sup> of renewable freshwater available per person and per year by 2025, according to the Falkenmark indicator), using the Global Water Tool for Oil & Gas developed jointly by the World Business Council for Sustainable Development and IPIECA.

	2013	2012	2011
Freshwater withdrawals excluding cooling water (million m <sup>3</sup> )	126	143	142
Percentage of Group sites, excluding Marketing, located in water-stressed areas	49%	49%	44%

The decrease in water withdrawals between 2012 and 2013 is due mainly to the deconsolidation of the Fertilizers business in 2013.

The Optimizing water consumption on industrial sites guide sets out best practices for saving and recycling water at all Group sites. The guide has been widely distributed throughout the Group since 2007.

In the activities of exploration and production, re-injecting water extracted at the same time as the hydrocarbons (production water) back into the original reservoir is one of the methods used to maintain reservoir pressure. The technical specifications in force in the Group stipulate that this option must be given priority over other production water treatment technologies.

At refineries and petrochemical sites, water is mainly used to produce steam and for cooling units. Increasing recycling and replacing water by air for cooling are TOTAL's preferred approaches for reducing freshwater withdrawals.

**ii. Soil:** Preliminary work for the Joslyn North oil sands mine in Canada began in 2013. Of the 4,000 hectares of forest cleared, about 630 will be rehabilitated at the end of the project (see TOTAL and oil sands, below), with the rest eventually replanted.

Aside from this example, TOTAL uses the ground surface that it needs to safely conduct its industrial operations and, at present, does not make extensive use of ground surfaces that could significantly conflict with the various natural ecosystems or with agriculture.

**iii. Raw materials:** Hydrocarbons, an energetic material, are the Group's main raw material. Optimum use of hydrocarbons therefore lies in what is known as energy efficiency, as described below.



## Edgar Filing: TOTAL S.A. - Form 20-F

Since 2011, TOTAL has measured the raw material loss rate for each line of business. This is the percentage of converted raw materials that are neither delivered to any of the business line's customers nor used for energy purposes.

Raw material loss rate	2013	2012	2011
Hydrocarbon production line of business	2.5%	2.8%	2.5%
Refining line of business	0.5%	0.5%	0.6%

**iv. Energy efficiency:** Streamlining energy use is one of the Group's performance targets. Internal documents (roadmaps and guides) describe the challenges, set out methodologies and action plans, and include quantified goals to reduce consumption. Since the beginning of 2013, a Group directive has defined the requirements to be met by 2016 at operated sites that use more than 50,000 tons of oil equivalent per year of primary energy.

In early 2013, the Group set an objective to improve energy efficiency by 1.5% per year on average between 2012 and 2017 within Exploration & Production, Refining and Petrochemicals, with the exception of the resins business. These areas represent over 95% of the Group's net primary energy consumption. A Group Energy Efficiency Index (GEEI) was created in early 2013 to assess the Group's performance in this area. It consists of a combination of energy intensity ratios (ratio of net primary energy consumption to the level of activity) per business, reduced to base 100 and consolidated with a weighting by each business's net primary energy consumption. Its value is therefore 100 in 2012 and the goal is to reach 92.5 by 2017.

	2013	2012	2011
Net primary energy consumption (TWh)	157	159	158
Group Energy Efficiency Index (GEEI) (base 100 in 2012)	102.3	100	

The decrease in net primary energy consumption is due primarily to the sale of the Fertilizers business.

The Group's energy efficiency worsened in 2013 despite the fact that the performance expected at Refining & Chemicals was achieved. This is mainly the result of the flaring of associated gas during the startup phase of the Usan field in Nigeria, which took longer than expected.

In early 2011, the Group's internal structure relating to Climate and Energy was changed:

A decision-making body was created in the form of the CO<sub>2</sub>/Energy Efficiency Management Committee. Its role is to define the guidelines and targets on greenhouse gas emissions and energy performance. It is based on a permanent energy efficiency task force and, where applicable, temporary Group-wide task forces.

Energy Network days and the Energy seminar provide opportunities for internal discussion, reflection and information-sharing.

## Table of Contents

### Item 4 - Other Matters

In France, Energy Efficiency Certificates (*Certificats d'économies d'énergie* - CEE) are awarded by the Energy and Climate Administration (*Direction générale de l'Énergie et du Climat*) in recognition of energy-saving activities. TOTAL is encouraging its customers to reduce their energy consumption by 50 TWh (over the entire service life of the product) over the period of 2011 to 2014.

Through the Total Ecosolutions program, the Group is also developing innovative products and services that perform above market average on the environmental front, such as by curbing energy use and greenhouse gas emissions while providing the same level of service. At year-end 2013, forty-two products and services bore the Total Ecosolutions label. SunPower's photovoltaic modules, which received the label in 2013, help avoid approximately 40% of greenhouse gas emissions throughout the entire life cycle compared to the market reference (average of the four main competing technologies). The CO<sub>2</sub> eq emissions avoided throughout the life cycle by the use of Total Ecosolutions products and services, compared to the use of benchmark products on the market and for an equivalent level of service, are measured annually based on sales volumes. This represented 740,000 t of CO<sub>2</sub> eq in 2012. In early 2013, the Group set the following target: to have fifty Total Ecosolutions labels by year-end 2015.

In late 2012, TOTAL introduced an energy efficiency scheme that allows its 40,000 employees in France to perform an energy audit of their homes (financed at a rate of 50%) and to receive investment subsidies for energy efficiency upgrades under the Energy Efficiency Certificate program in France and special discounts from building professionals who partner with the Group.

**v. Use of renewable energies:** As part of its strategy, TOTAL has long been committed to developing renewable energies. The main focus in developing renewable energies is solar energy through SunPower (64.65%). TOTAL is also exploring a number of avenues for converting biomass to energy.

A detailed description of the activities carried out by the Group in the field of new energy sources is provided in Item 4. Business Overview - Marketing & Services segment - New Energies, above.

TOTAL is using renewable energies to supply power to some production sites. The Group has installed solar photovoltaic panels on several of its buildings (for example, CSTJF in Pau, Lacq, and Provence refinery in France) and certain isolated wellheads, as well as a number of service station canopies in Europe and Africa.

### Climate change

**i. Greenhouse gas emissions:** TOTAL has made reducing greenhouse gas emissions one of its priorities. It has set the objective of reducing greenhouse gas emissions by its operations by 15% from 2008 to 2015. Quantified targets have also been defined in an attempt to reduce flaring (50% reduction between 2005 and 2014) and improve the energy efficiency (1.5% per year between 2012 and 2017). These targets are annually published and tracked.

	2013	2012	2011
Daily volumes of gas flared (million m <sup>3</sup> per day)	10.8	10.8	10.0
Operated direct greenhouse gas emissions (Mt CO <sub>2</sub> equivalent, 100% of emissions from sites operated by the Group)	46	47	46
Group share of direct greenhouse gas emissions (Mt CO <sub>2</sub> equivalent, from sites in which TOTAL has a stake)	51	53 <sup>(a)</sup>	53

<sup>(a)</sup> The 2 Mt CO<sub>2</sub> eq correction of the 2012 figure is the result of an error in interpreting the information received from our Novatek partner.

Flaring of associated gas remained stable in 2013 and still includes 2 Mm<sup>3</sup> per day from the start-up phase of the Usan site, which is expected to begin its reinjection of associated gas only in 2014 due to the geological structure of the reservoir. Excluding volumes related to the start-up of facilities, the volume of flared associated gas totaled 8.8 Mm<sup>3</sup>/d, a 40% decrease compared with the baseline year (2005). The Group's target is a 50% reduction by 2014, excluding start-up phases of new facilities.

The drop in operated direct greenhouse gas emissions is mainly linked to the sale of Fertilizers, which accounted for 1 Mt CO<sub>2</sub> eq in 2012.

To ensure that investment projects can withstand the general emergence of a cost of CO<sub>2</sub> emissions, investments have been valued since 2008 based on a cost of CO<sub>2</sub> emissions of €25 per metric ton of CO<sub>2</sub> emitted.

TOTAL invests in R&D to reduce direct greenhouse gas emissions into the atmosphere by other means. The Group especially intends to develop CO<sub>2</sub> capture, transport and storage technologies. For several years now, it has been working on CCS (carbon capture and storage), so that it can be used on its industrial sites

## Edgar Filing: TOTAL S.A. - Form 20-F

when permitted by economic and regulatory conditions. Currently, two production sites in which TOTAL has a stake, the Sleipner and Snøhvit fields in Norway, are using these technologies. The research program is ongoing, notably through a pilot project at the Lacq complex in France, where CO<sub>2</sub> is being captured by oxy-fuel combustion, transported and stored in a depleted natural gas field. The CO<sub>2</sub> pumping phase was stopped in 2013, but the Group will continue to monitor the behavior of the CO<sub>2</sub> storage conditions until March 2016.

**ii. Adapting to climate change:** The Group assesses the vulnerability of its existing and future facilities to predicted climate change.

Climate conditions are factored into the design of industrial facilities, which are not only built to withstand extreme events observed in the past, but also to include additional safety margins.

In addition to adapting to climate change and limiting the effects of human activity on the climate, TOTAL advocates concerted action, particularly the emergence of a balanced, progressive international agreement that prevents the distortion of competition between industries or regions of the world.

### ***Protecting biodiversity***

Due to the nature of its business, and particularly because new exploration and production projects are located in potentially sensitive natural environments, TOTAL's operations are likely to have an impact on biodiversity. More specifically:

impacts related to, for example, construction sites, access roads and linear infrastructures, that can result in habitat fragmentation; physicochemical impacts leading to changes in environments and habitats, or that might affect or interfere with certain species; and contribution to the propagation of invasive species in terrestrial and marine environments.

TOTAL is aware of these challenges and takes biodiversity into account in its guidelines at a number of levels:

the Safety Health Environment Quality Charter (refer to Health Safety Environment Quality Charter, above), Article 10 of which specifies: TOTAL ( ) monitors and controls ( ) (its) impact on biodiversity ; and

## Table of Contents

### Item 4 - Other Matters

a biodiversity policy that details the Group's principles for action in this area:

- i minimizing the impact of operations on biodiversity throughout the facility life cycle;
- i incorporating biodiversity protection into the environmental management system, particularly initial analyses, and social and environmental impact studies;
- i paying specific attention to operations in regions with particularly rich or vulnerable biodiversity; and
- i informing and raising the awareness of employees, customers and the public, helping to improve understanding of ecosystems.

This policy is implemented by means of a number of tools and rules. In Exploration & Production, rules and specifications govern the performance of baseline surveys and environmental impact assessments on land or at sea. Since 2011, all Group business units have had access to a detailed mapping tool detailing the world's protected areas based on regularly updated data from UNEP-WCMC (World Conservation Monitoring Center). The Group has renewed its partnership with UNEP-WCMC for 2013-2015.

In 2012, TOTAL acquired acreage near Lake Albert in Uganda in partnership with CNOOC and Tullow (33% each). TOTAL is the operator of Block 1 of this license, most of which is located in Murchison Falls National Park and the Ramsar zone of the Albert Nile Delta. This IUCN II-classified park was created in particular to protect its fauna, which includes such iconic species as large mammals (for example, elephants and Rothschild's giraffes), reptiles and numerous birds (including the shoebill). In light of this site's unique biodiversity, and in addition to applying the general principles of the Group's biodiversity policy, Total E&P Uganda set as its objective a net increase in biodiversity. To this end, Total E&P Uganda has adopted specific operating rules, such as using wireless geophone systems for seismic campaigns, limiting the size of drilling pads to 1 hectare (100 m x 100 m) and mapping biodiversity hotspots to prevent interference with areas sensitive for fauna (*e.g.*, breeding grounds) during the current seismic campaign, especially in the Albert Nile Delta. A dedicated social and environmental team, whose members include biodiversity specialists, has been created. A Biodiversity and Livelihood Advisory Committee has been set up with external stakeholders from national and international organizations specializing in nature conservation and relations between communities and wildlife. Its role is to ensure that Total E&P Uganda is aware of and implements best practices for its operations inside the park in order to help it meet its objective of a net increase in biodiversity.

TOTAL classifies protected areas around the world according to the categories defined by IUCN (International Union for the Conservation of Nature). TOTAL consistently aims to launch biodiversity action plans leveraging industry best practices for projects at new facilities and production sites (excluding exploration, storage and distribution operations) in the most sensitive protected areas corresponding to IUCN categories I to IV, such as national parks. In-depth studies are carried out prior to each new field development project and may lead to a series of preventive measures. For instance, in January 2012, the authorities of the Democratic Republic of Congo awarded TOTAL an oil exploration license (Block III), 30% of which is located in the Virunga national park, which is listed among the UNESCO natural World Heritage sites. TOTAL made a public commitment not to work within the zone currently defined as a national park. This commitment was reiterated during the Shareholders' Meeting in

May 2013. More generally, TOTAL has undertaken to refrain from prospecting or exploiting oil and gas in natural sites inscribed on the World Heritage List as at June 4, 2013.

Finally, TOTAL is involved in sector-specific initiatives, such as those spearheaded by IPIECA, which in 2010 resulted in the publication of a guide to the issue of invasive species. Recommendations include taking seasons into account when planning work and checking the origin of the equipment used.

### Consumer health and safety

Many of the products that TOTAL markets pose a potential health risk if they are incorrectly used. The Group therefore meets its current and future obligations with regard to information and prevention in order to minimize the risks throughout the product life cycle.

TOTAL uses various guidelines to ensure compliance with the necessary measures to be implemented to promote consumer health and safety:

- the Safety Health Environment Quality Charter (Articles 1 and 5; see Health Safety Environment Quality Charter, above);
- a health policy that sets out the Group's principles for action in relation to incident prevention and protecting the health of people in direct or indirect contact with its products throughout the entire product life cycle, including customers, users and anyone else involved (health and products); and
- a directive stating the minimum requirements for marketing products worldwide in order to avoid or reduce potential risks to consumer health and the environment.

TOTAL identifies and assesses the risks inherent in its products and their use, and then informs customers and users of these risks and the applicable prevention and protection measures. The material safety data sheets (MSDS) that accompany all products marketed by the Group (in at least one of the languages used in the country) and product labels are two key sources of information in this regard. All new products comply fully with the regulatory requirements in the countries and markets for which they are intended.

## Edgar Filing: TOTAL S.A. - Form 20-F

As part of the first phase of the European REACH Regulation (Registration, Evaluation, Authorization and Restriction of Chemicals), the Group has registered a total of 214 chemical substances. This regulation aims to protect the health of consumers and professionals by means of a stringent assessment of the toxicological effects for each substance use scenario and the implementation of appropriate mitigation measures.

### **TOTAL and oil sands**

With the development of several major projects in the Canadian oil sands, TOTAL expects to produce 200 kb/d of bitumen within ten to fifteen years. It is vital that the environmental challenges, and in particular the impact on water, the rehabilitation of the land and the ecosystems affected, together with greenhouse gas emissions, are taken into account. For several years, TOTAL has been actively involved in the various collaborative research initiatives undertaken by Canadian industry into these areas, and invests approximately CAD 30 million each year. In particular, TOTAL is one of the founding members of COSIA (Canadian Oil Sands Innovation Alliance), an initiative launched in 2012 by fourteen producers in Canada to accelerate the improvement in the environmental performance of Canadian oil sands by promoting collaboration and innovation.

*(1) Including nine Upstream, Refining & Chemicals and Marketing & Services companies in France.*

## Table of Contents

### Item 4 - Other Matters

In order to restrict water consumption on the Surmont (50%) in situ project, the Group has been working with the operator to optimize water use and recycling. For phase 2 of the project, which is scheduled to begin production in 2015, the selected option is expected to permit water to be withdrawn only from saline aquifers and not from freshwater aquifers or rivers, which will lead to additional processing costs. On Joslyn North (38.25%, operator), TOTAL has committed to building a freshwater storage facility sufficient for ninety days of production, in order to reduce withdrawals from the Athabasca River in low flow periods.

The Group is also involved in oil industry initiatives to improve management of the waste associated with developing oil sand mines, which has historically been stored in tailing ponds. For Joslyn, TOTAL is planning to use processes to separate waste flows and thicken the finest waste, and even flocculation and centrifuging, in order to significantly reduce the size of the tailing ponds and ensure that they are solidified within a few years.

As open-pit mining of oil sands disturbs land and ecosystems, TOTAL is committed to their sustainable rehabilitation throughout its operations, taking into account the specific features of the boreal forest. Sixty percent of the rehabilitation work at Joslyn is expected to be completed at the end of mining, and the rest in the next seven years.

Over and above Canadian industry's efforts to reduce greenhouse gas emissions from the entire oil sands production chain (which are approximately 10% to 15% higher than the average for conventional crude in a complete well to wheel cycle, according to the Group's estimates), TOTAL plans to install cogeneration units at its mines. The Group is also involved in carbon capture and storage project analyses in Alberta.

Mindful of its responsibilities to its stakeholders and neighbors, and particularly the First Nations, TOTAL opened a permanent office in Fort McMurray in 2006. Since that time, the Group has entered into socioeconomic agreements with the Fort McKay, Athabasca Chipewyan and Mikisew Cree First Nations, and with the Regional Municipality of Wood Buffalo. These reflect TOTAL's commitment to engaging in dialogue with the communities living near its facilities and allowing them to benefit from the economic impact of its activities.

### TOTAL and shale gas

TOTAL has stakes either as operator or as partner in several shale gas exploration and production licenses in the United Kingdom, Poland, Denmark, United States, Argentina, Uruguay, China and Australia.

In every country where the Group has operations, its Environmental charter and the Societal directive, backed by its compliance with local legislation, provide the framework for its operations.

The environmental challenges associated with shale gas development include reducing the quantity and impact of chemical additives, optimizing water management, and reducing the visual impact and disturbance caused by the operations. TOTAL's operational and R&D teams are working to find appropriate technological solutions.

In Europe, where TOTAL has stakes in Denmark and Poland as operator, and in the United Kingdom where it has stakes since January 2014, the Group is focusing its efforts on listening to the various contacts so that the operations can proceed in a way that is acceptable to all stakeholders. TOTAL has also made a commitment to be more transparent, whether by providing

information about projects or by supporting the initiative of the Oil and Gas Producers association, which entails publishing information about fracturing fluids (ngsfacts.org). TOTAL believes that shale gas will have a place in the European energy mix, if the exploration campaigns confirm the economic viability of this resource in Europe.

In the United States, TOTAL is a partner in the appraisal, development and production of shale gas with licenses in the Barnett (Texas) and Utica (Ohio) plays.

In Argentina, TOTAL has stakes either as operator or partner in several shale gas licenses in the Neuquén basin.

In Uruguay, TOTAL is present as operator in two exploration licenses located primarily in the Artigas province in the northwest

of the country. The work planned includes geological, geochemical and environmental surveys.

In Australia, TOTAL is present in four shale gas exploration licenses in the South Georgina basin in the center of the country. TOTAL can increase its stake to 68% and become the operator in the event of development.

## Edgar Filing: TOTAL S.A. - Form 20-F

In China, TOTAL signed an agreement in 2013 to study the shale gas potential in the Xuancheng license, 300 km to the west of Shanghai.

### TOTAL and the Arctic

According to a survey published by the USGS (United States Geological Survey) in 2012, the Arctic might hold 13% of the world's undiscovered conventional oil resources and 30% of its undiscovered gas resources. These substantial resources could help to meet the rise in demand for energy in the coming decades.

For exploration and production in the Arctic, major challenges must be overcome given the difficult weather and oceanographic conditions, logistical constraints and the nature of the technologies to be deployed in a particularly sensitive ecosystem.

TOTAL currently does not conduct any exploration activities in oil fields under the ice cap.

At the same time, TOTAL is involved in research into the specific issues in the Arctic, in particular through its *Grands froids* (deep cold) R&D program. TOTAL is also taking part in the Joint Industry Program that brings together oil companies and scientific organizations in research into the means of preventing, detecting and responding to accidental pollution by hydrocarbons.

The Group is involved in various projects, including in Norway (Snøhvit, active exploration in the Barents sea) and in Russia (Kharyaga, Yamal LNG, Termokarstovoye).

### TOTAL and the Western Sahara

Off the coast of Western Sahara, Morocco awarded an authorization of reconnaissance for the Anzarane Offshore block in December 2011 to the Office National Marocain des Hydrocarbures et des Mines (ONHYM - National Moroccan Bureau of Petroleum and Mines) and Total E&P Maroc. This authorization was extended for another year, first in December 2012 and then again in December 2013. The authorization of reconnaissance for the Anzarane Offshore block is not an oil contract given that it covers only geological and geophysical studies.

To date, preliminary geological studies have been carried out and a 3D seismic survey over an area of 5,900 km<sup>2</sup> was conducted by

## Table of Contents

### Item 4 - Other Matters

ONHYM between November 2012 and July 2013. At this stage, the oil and gas potential of the area has not yet been assessed. Several more months will be needed to process and interpret the seismic data, which had led to the extension of the authorization of reconnaissance.

At the time of the extension of the authorization of reconnaissance in December 2013, Total E&P Maroc signed with ONHYM a joint public declaration and a memorandum of understanding. In the joint declaration, the Moroccan party emphasizes its commitment to comply with the principles of the Charter of the United Nations,

particularly as regards consultation with the local populations and the benefit they will derive from the exploration and mining of natural resources. The memorandum of understanding outlines corporate social responsibility principles for the prospecting period and for any subsequent phases.

In the Western Sahara region where the Anzarane Offshore block is located, as in other places where it operates, TOTAL complies with the applicable laws and international standards mentioned in the Group's Code of Conduct, particularly those related to human rights.

### Social information

#### Organization of work

The average work week is determined by applicable local law. It is less than forty hours in most of the subsidiaries in Europe and Japan, and forty hours in most of the Asian and African countries. It is longer in the United States and India.

Depending on current local law, there are several programs that aim to create a better balance between work and private life and/or to encourage equal career opportunities. In France, teleworking was introduced in 2012. As of December 31, 2013, there were 255 teleworkers in the oil and petrochemicals perimeter<sup>(1)</sup>, 45% of whom were managers and 30% men.

	WHRS 2013	WHRS 2012	WHRS 2011
% of companies offering the option of working part-time	63%(a)	69%	63%
% of employees working part-time of those given the option	5.2%	5%	5%
% of companies offering the option of teleworking	22%	19%	15%
% of employees involved in teleworking of those given the option	2.3%	2%	3%

(a) The reduction in this percentage from 2012 to 2013 is due to the differences in the scope of the WHRS.

The sickness absenteeism rate is one of the indicators monitored in the WHRS:

	WHRS 2013	WHRS 2012	WHRS 2011
Sickness absenteeism rate	2.5%	2.6%	2.7%

#### Dialogue with employees

TOTAL's employees and their representatives have a privileged position and role among the numerous stakeholders with which the Group has and intends to develop regular dialogue. In countries where employee representation is not required by law, TOTAL strives to set up such representation (for example in Myanmar and Nigeria). There are therefore employee representatives in the majority of Group companies, most of whom are elected. The subjects covered by dialogue with employees vary from company to company, but there are common major themes such as work time, health and safety, compensation, training and equal opportunity.



## Edgar Filing: TOTAL S.A. - Form 20-F

Organizational changes were carried out in the Group in 2013 in consultation with employee representatives and paved the way for a constructive social dialogue, leading to agreements such as the one on commitments in the context of the disposal of TIGF and the one relating to the mechanism of providing labor support measures for the future of the petrochemical platform in Carling.

In France, thirty-two agreements were signed with employee representatives in 2012, covering in particular retirement conditions, compensation systems, geographical relocations and teleworking.

	WHRS	WHRS	WHRS
	2013	2012	2011
Percentage of companies with employee representation	71.6%(a)	79.9%	77.4%
Percentage of employees covered by collective agreements	67%	67.7%	70.3%

(a) The reduction in this percentage from 2012 to 2013 is due to the differences in the scope of the WHRS.

TOTAL continues to develop dialogue with employees on a European scale through negotiations with European trade union federations.

Several agreements have been signed, including, for example, the convention on labor relations and equal opportunities that aims to set up a common social platform applicable to all the Group's European entities.

A single Work Committee representing European personnel has been set up at the Group-wide level in order to inform employees and hold discussions on the Group's strategy, its social, economic and financial situation, as well as questions of sustainable development, CSR and safety on a European scale. It also examines any significant proposed organizational change concerning at least two companies in two European countries, to express its opinion, in addition to the procedures initiated before the national representative bodies.

In addition, every other year TOTAL carries out an internal survey amongst its employees to gather their views and expectations with regard to their work situation and perception of the Company, locally and as a Group. The results of the survey conducted in 2013 amongst 70% of the Group employees show that they have a commitment rate of 73% and that 85% of them are proud to work for TOTAL.

### **Training**

The Group has four priority goals in the field of training:

sharing TOTAL's Corporate values, in particular with respect to ethics and corporate HSE;  
increasing key skills in all business areas and maintaining a high level of operating performance;

(1) Including nine Upstream, Refining & Chemicals and Marketing & Services companies in France.

**Table of Contents****Item 4 - Other Matters**

promoting employees' integration and career development through induction, management and personal development training; and supporting the policy of diversity and mobility within the Group through language and intercultural training.

The Group's efforts in the field of training continued in 2013: 87% of employees followed at least one training course and, within the scope of the WHRS, 454,000 days of training were offered for a total training budget of about €290 million (mentoring represents approximately 23%). Priorities for technical training or training that meets the specific needs of the activities are implemented

by the operational business divisions in order to better meet the needs of the personnel.

In 2013, the Group continued its effort to provide HSE training, with programs focusing on HSE Culture. This year also marked an acceleration in the development of managerial programs abroad, particularly to strengthen equal career opportunities in the Group. Moreover, TOTAL has continued the large-scale deployment of business-specific e-learning modules and programs on such cross-functional topics as diversity, compliance, competition law, the oil and gas chain, etc. In 2013, 33,000 people attended at least one module.

Average number of days training/year per employee (including mentoring, excluding e-learning)	WHRs 2013	WHRs 2012	WHRs 2011
<b>Group average</b>	<b>5.2</b>	<b>5.5</b>	<b>5.8</b>
<b>By segment</b>			
Upstream	9.6	8.9	9.5
Exploration & Production	9.9	9.2	9.8
Gas & Power	2.4	5.1	5.3
Refining & Chemicals	4.6	4.9	5.0
Refining & Chemicals	4.6	4.9	5.0
Trading & Shipping	1.8	1.9	2.1
Marketing & Services	3.4	4.2	4.4
Marketing & Services	3.6	4.7	4.4
New Energies	2.7	2.0	6.2
Corporate	3.3	2.9	2.4
<b>By region</b>			
Africa	9.4	9.2	8.3
North America	5.0	8.3	7.9
Latin America	6.9	4.1	6.2
Asia-Pacific	5.1	6.0	9.4
Europe	4.1	4.6	4.5
Middle East	9.4	11.6	13.9
Oceania	2.6	3.4	1.5
French Overseas Departments and Territories	2.3	2.4	1.5
<b>Breakdown by type of training given (including mentoring, excluding e-learning)</b>			
Technical	41%	42%	42%
Safety	25%	27%	29%
Language	12%	11%	8%
Other <sup>(a)</sup>	22%	20%	21%

<sup>(a)</sup> Other: management, personal development, intercultural.

**Equal opportunity**

TOTAL strives to offer equal opportunities to all its employees throughout their professional careers. An action plan was launched in 2004 to ensure that not only recruiters and career managers, but also business unit managers comply with the principle of equal opportunities.

Since 2004, the Group's Diversity Council, chaired by a member of the Executive Committee, has been overseeing activities with a view to increasing the number of women employees, international employees and local employees up to the highest levels of management. Promoting diversity goes hand-in-hand with combating all forms of discrimination within the Group, whether in relation to openness to different social background, equal opportunities for men and women or the hiring and retaining of employees with disabilities.

## Edgar Filing: TOTAL S.A. - Form 20-F

### *Equal treatment for men and women*

In addition to the various collective agreements embodying its commitment to equal treatment of men and women, TOTAL signed in 2010 the Women's Empowerment Principles – Equality Means Business (unglobalcompact.org), set out by the United Nations Global Compact.

The Group intends to continue to foster gender diversity in all the Group's professions and to enable women to gain access to all levels of responsibility on equal terms with their male counterparts. In this regard, the Diversity Council monitors the following indicators:

% of women	2013	2012	2011
In recruitment on open-ended contracts	36%	31%	29%
Employees in management recruitment/JL <sup>(1)</sup> 310	29%	27%	28%
Employees	31%	30%	30%
Employees in management/JL 310	24%	24%	23%
Employees in senior management	17%	16%	15%

*(1) JL: the level of the job position according to the Hay method. The Hay method is a unique reference framework used to classify and assess jobs. JL10 corresponds to junior managers.*

## Table of Contents

### Item 4 - Other Matters

TOTAL also participates in the BoardWomen Partners program, which aims to significantly increase the proportion of women in the boards of large companies throughout Europe. Following the 2012 Shareholders' Meeting, 33% of TOTAL S.A.'s Board of Directors were women, compared with 26% before the meeting.

The Group also shows its commitment through agreements or provisions relating to access to employment, maternity and paternity leave, child care facilities, working conditions, balancing work and family responsibilities, and managing dual careers.

In addition, the Group offers women the opportunity to share and discuss through TWICE (Total Women's Initiative for Communication and Exchange), created in 2006 and restarted in 2009. The aim of this network is to promote career development for women in line with TOTAL's gender diversity strategy. This initiative is currently in place in France and around the world (Germany, Angola, Belgium, Cameroon, Canada, China, Congo, United Arab Emirates, Gabon, Indonesia, Italy, Nigeria and Singapore) and has over 3,000 members. TWICE offers a mentoring program that supports women in their professional development by helping them better negotiate the key phases of their career, deepen their self-exploration and expand their network.

#### *Internationalization of management*

With employees representing over 130 nationalities, TOTAL enjoys great cultural diversity, and it is important that this be reflected at all levels of the Company and across all business segments.

The Group's companies recruit for a highly varied portfolio of business segments, usually with a large technical component, and strive to prioritize local recruitment.

In 2013, 73% of managers recruited were non-French, representing more than eighty different nationalities. Several measures have been put in place so that the internationalization of management reflects this diversity, including harmonizing human resources practices (for example with regard to hiring and annual appraisals), increasing the number of foreign postings for non-French employees, and decentralizing training.

% of non-French	2013	2012	2011
In recruitment on open-ended contracts	90%	88%	87%
Employees in management recruitment/JL <sup>310</sup>	73%	71%	75%
Employees	67%	64%	64%
Employees in management/JL <sup>310</sup>	61%	59%	59%
Employees in senior management	26%	25%	23%

#### *Measures promoting the employment and integration of people with disabilities*

For over twenty years, TOTAL has set out its disability policy in France through successive agreements signed with employee representatives to promote the employment of workers with disabilities.

While promoting the direct recruitment of disabled people and cooperation with the sector for disabled workers, TOTAL also takes various types of action:

- i in-house: integration, professional training, job retention, advertising, awareness sessions organized for managers and teams, Human Resources managers, etc.; and
- i externally: cooperation with recruitment agencies, information and advertising aimed at students, attendance at specialized recruitment forums, etc.

In continuation of the work already undertaken, three new 3-year framework agreements (2013-2015) with the French representative unions set out TOTAL's policy in France with regard to integrating people with disabilities into the work world.

## Edgar Filing: TOTAL S.A. - Form 20-F

### *Measures promoting non-discrimination and diversity*

In addition to basing its recruitment policy on the principle of non-discrimination, TOTAL is involved in a number of initiatives to promote diversity. In France, the Group is in particular a partner in the action taken by IMS-Entreprendre pour la Cité (Institut Mécénat-Solidarité), with a view to facilitating the integration of young graduates into the workplace.

The TOTAL Foundation also works alongside several associations that help young graduates from disadvantaged backgrounds to find jobs or support them in further education.

### **Community development information**

TOTAL's aim is to be known, both by host governments and by its partners, as an operator that strives for excellence. Wherever it operates and in line with the values and principles set out in its Code of Conduct, Ethics Charter and Safety Health Environment Quality Charter, TOTAL places its commitment to community development at the heart of its corporate responsibility to create value that is shared with those residing near its facilities, its suppliers and its employees. This approach, which is deployed within most of the Group's business units directly linked to operations, encompasses the action taken to improve the Group's integration into the countries where it operates.

Managing risks, facilitating operations and creating opportunities are the three components of a coherent strategy of reducing negative impacts and promoting socioeconomic development through close cooperation with national authorities and with the support of local populations. To accomplish this, openness, dialogue and engagement are essential for developing constructive and transparent relations with all stakeholders.

In concrete terms, the primary goal is to strengthen the local content (employment and subcontracting) of the Group's activities, foster economic diversification, support educational and skills improvement projects, promote the heritage and cultural wealth of local communities, contribute to human and social development and, in particular, facilitate access to energy for the most disadvantaged populations via innovative and long-term social business solutions.

New societal reporting tools were developed in 2012 and implemented in 2013 to better monitor the community development initiative as a whole, in line with the defined strategic priorities (Group societal policy and directive). The Group's societal reporting on the operated scope now consists of two parts:

A qualitative self-assessment questionnaire of the application of the societal directive. This questionnaire can be used to assess and manage the degree of deployment of the societal directive in the Group.

A quantitative questionnaire listing all the local community development actions taken by the Group's operational divisions.

**Table of Contents****Item 4 - Other Matters**

This new annual reporting aims to improve the measurement of the efforts made by the Group in this field.

In 2013, a cross-functional working group developed eight societal performance indicators with reference to the societal policy: two indicators measure the quality of social dialogue with stakeholders, one indicator concerns the management of the impact of the Group's activities, four others focus on economic and social development projects and the last one on access to energy. These indicators, applicable to all the community development actions consolidated at the Group level from 2014, will allow a more accurate analysis of the societal approach of the subsidiaries and sites and will serve as a tool to monitor the Group's community actions.

The Group's expertise is based on the continuous professionalization of its community development engineers. Tools such as structuring projects, setting goals and monitoring and assessing indicators have enabled TOTAL to progress from an aid-giving approach to one in which communities take charge of their own development. In Exploration & Production, more than 400 people are involved in community development (including experts under contract), with over 360 involved on a full-time basis. Furthermore, TOTAL is one of the only companies to dedicate a person in the Group's Head Office to relationships with NGOs.

***Dialogue and involvement with stakeholders***

For some twenty years, changes in the regulatory framework have promoted the information, consultation and dialogue with stakeholders prior to making decisions that have a significant environmental impact.

In addition to complying with regulations, TOTAL sets up structures for dialogue at every level of the Group. Communities neighboring TOTAL's sites often have questions about the impact of the Group's activities on health, safety and the environment. Establishing a dialogue with the residents and with other local stakeholders helps provide answers to these legitimate concerns.

The number one requirement of the societal directive is that each asset must consult its stakeholders regularly to gain a clearer understanding of their expectations and concerns, measure their level of satisfaction regarding the Group, and identify avenues of improvement for its societal strategy.

**i. Stakeholder consultation processes:** TOTAL strives to develop a continuous dialogue with its stakeholders and to ensure the long-term sustainability of this relationship through various mechanisms and structures. Along these lines, the Group has launched various initiatives in recent years:

Several documents have been created to formalize the societal methodology at TOTAL: Guide to Stakeholder Dialogue, Local Community Guide, Practical guide for Local Development, E&P Societal Guide & Manual.

In the Group's Exploration & Production subsidiaries, and particularly during the project phase, CLOs (Community Liaison Officers) often play a key role. These officers, who come from the local community, speak its language and understand its practices, are employed by TOTAL and trained in the culture and specific characteristics of the oil industry. CLOs promote the company's integration in the local context and are the first link in its community development initiative. For example, in Uganda, the Exploration & Production subsidiary has set up a highly structured process to select eight CLOs and prepare them for their tasks. All of them come from the voluntary and NGO sectors and have a good knowledge of the social fabric. Each of them speaks a local language and can therefore speak to the concerned people in their language. Similarly, in Yemen, a department is dedicated to relations with stakeholders.

A Memorandum of Understanding (MoU) can be signed with the communities to formalize an agreement. For example, in Indonesia, working committees signed an MoU with the communities, local authorities and Total E&P Indonesia in 2013. Other MoUs have been signed in Nigeria and Canada.

Open houses have been created in Yemen and the Republic of South Sudan. Public consultations are also organized, as well as meetings with stakeholders (Australia, Brunei, Democratic Republic of Congo), consultations and media campaigns.

The signature of Responsible Care®, a voluntary commitment of the global chemicals industry, led to the creation of Community Advisory Panels in the United States, developed at the initiative of the American Chemistry Council. The Terrains d'entente (common ground) initiative was launched in France in 2002 within TOTAL's Chemicals business segment (now integrated into the Refining & Chemicals segment) with the objective to strengthen dialogue between industrial sites and their environment.

Initiated by TOTAL, the Safety and Environment Commission of the Feluy industrial park in Belgium is a voluntary forum for dialogue among industrial players, authorities and residents on the effects of companies' operations in the areas of safety, health and environmental protection. The Conférence Riveraine (residents' conference) was set up in 2007 by the Feyzin refinery in France, in partnership with the Feyzin town council. This residents' dialogue forum improves the living conditions of the neighboring population and its relationship with the site. It was recognized by the authorities as a consultation partner under the technological risk prevention plan.

Site monitoring commissions, which succeeded the local information and consultation committees in France, pursuant to the French technological risk prevention act, have been created.

## Edgar Filing: TOTAL S.A. - Form 20-F

In 2011, a collective consultation process was introduced in the Lorraine region of France involving stakeholders from all the Group's business segments operating in this region.

**ii. SRM+ dialogue tool:** To put its approach to community development at its sites and subsidiaries on a professional footing, TOTAL implemented the internal SRM+ (Stakeholder Relationship Management) tool in 2006. It is used to identify and map the main stakeholders, schedule meetings with them and understand their perception and challenges, and then draw up an action plan for building a long-term relationship.

SRM+ was deployed by Exploration & Production in Qatar and Kenya in 2013.

The Marketing & Services segment carried out further deployments of SRM+ in 2013, including:

India (Namakkal): seventeen stakeholders were interviewed and concurred that the subsidiary's team maintained a good relationship with its environment.

2013 Form 20-F TOTAL S.A. 63

## Table of Contents

### Item 4 - Other Matters

Some issues, such as power cuts, public information and economic development of the community, were raised. An action plan was built by the community development team and validated by the executive committee. It includes twenty-two actions, some of which have already been carried out, such as renovating the roof of the village community center using recycled materials. The building was then inaugurated along with the villagers. Jamaica: twenty-nine stakeholders were identified, of whom fourteen were interviewed. The action plan features eleven priority actions to be implemented. This exercise helped identify areas for improvement such as distributing HSEQ documents (*e.g.*, HSE charter, best practices, check lists) to customers, but also some medium/long term actions such as organizing a forum of local small and medium enterprises (*e.g.*, on accounting, energy savings, finance), developing the skills of fuel attendants or setting up partnerships on environmental matters. The Africa/Middle East division is in an active phase of development: about ten subsidiaries launched an SRM+ approach in 2013 (Ethiopia, Eritrea, Gambia, Mali, Sierra Leone, Togo, Congo, Gabon, Uganda, Tanzania, Malawi, Reunion Island). These deployments took place either at depots, around certain service stations or at the Head Office depending on the specific issues faced by each subsidiary. The progress varies from one subsidiary to another, but the actions plans identified will be implemented.

**iii. Dialogue with indigenous and tribal peoples:** TOTAL is aware of the specificities of indigenous and tribal peoples (as identified in the International Labor Organization's Convention No. 169), and has introduced a Charter of principles and guidelines regarding indigenous and tribal peoples in contact with its subsidiaries. Under this Charter and in compliance with its Code of Conduct, the Group strives to get to know and understand the legitimate needs of the communities neighboring its subsidiaries. In particular, this Charter encourages the subsidiaries to call on experts to identify and understand the expectations and specificities of indigenous peoples, to consult them through dialogue before starting industrial projects and to make a positive contribution to their socioeconomic development.

Further, CDA or Collaborative Learning Project, an American non-profit organization specialized in handling conflicts with local communities, helps the Group to assess the local communities' perception of the social impact of its projects in high risk regions. The Nigeria Oil & Gas Corporate Social Responsibility 2012 prize was awarded to Total E&P Nigeria for its commitment to local communities.

Respect for human rights is a factor of social recognition: the Group is recognized today (notably by the Nobel Peace Prize laureate, Ms. Aung San Suu Kyi) as a responsible investor in Myanmar.

Fully aware that taking human rights into consideration is one of the cornerstones of its industrial projects with respect to local populations, TOTAL participated in 2012 in the work of the IPIECA (global oil and gas industry association for environmental and social issues) to develop the guide entitled "Indigenous Peoples and the oil and gas industry: context, issues and emerging good practices". The Group also contributed to the Oxfam America's Community Consent Index, a collection of best practices in terms

of FPIC (Free Prior Informed Consent). The Group thus shared its experience with the Guarani people in Bolivia. The subsidiary Total E&P Bolivia has embarked on an exemplary partnership with the Guarani communities in the Santa Cruz department. The subsidiary has launched a number of socioeconomic development initiatives, by striving to rectify discriminations, especially, gender discrimination.

### Example: dialogue with indigenous and tribal peoples in Bolivia

Since 2011, Total E&P Bolivia has been developing a gas deposit discovered in 2004 in the eastern lowlands of Bolivia. This project to construct a gas plant and a pipeline of over 100 km falls within a stringent legal framework that protects the rights of indigenous people. The consultation process, undertaken by the government, helps identify the economic and sociocultural impacts of the project and, where appropriate, opens the door to the negotiation of financial compensation between the concerned company and the stakeholders, for the impacts that cannot be mitigated.

The consultation process initiated by the subsidiary in 2011 to obtain the environmental permit was suspended in the wake of opposition from an indigenous organization that owns a part of the project area regarding rights of use and passage.

Consultation with the indigenous peoples resumed from May to September 2013 and the negotiations on rights of use resulted in an agreement. The Group's societal directive and its implementation in Exploration & Production helped the subsidiary to manage the community development component of the project. Open-mindedness, dialogue and perseverance enabled to forge ties with the communities and notably to discuss with several contacts from different groups of stakeholders, formal but also informal leaders, to send across the same message to all in a process of direct dialogue with the concerned communities and not just with their representatives.

Internally, the subsidiary's community development team became stronger and more professional and also acquired the necessary tools (community development plan and procedures). Externally, the team strives to foster dialogue, relies on the government as the mediator and reaches out to a number of contacts. It strives to inform the project's neighbors about the status of the negotiations, the reasons for its position and the challenges faced by the project. A participatory approach also aims to involve the communities.



## Edgar Filing: TOTAL S.A. - Form 20-F

**iv. Grievance handling:** An increasing number of Exploration & Production subsidiaries are setting up a grievance mechanism for local communities impacted by industrial projects. In line with the United Nations Guiding Principles on Business and Human Rights, a guide related to this complaints procedure was developed and published in August 2013. This procedure forms an integral part of the societal management plan and embodies the first requirement of the Group's societal directive. For example, a specific mechanism has been introduced in Uganda as part of the societal management plan.

To improve the management of relationships and dialogue with stakeholders, the IPIECA has launched a pilot project to promote the introduction of international standards and best practices in the industry. Total E&P Congo was selected as the pilot to implement this grievance mechanism. This process is consistent with a willingness to dialogue with the stakeholders to strengthen the ties

**Table of Contents****Item 4 - Other Matters**

with the Djeno community, to avert societal risks and foster a proactive and responsible management of the subsidiary's operations. In 2012, IPIECA engaged the firm Triple R Alliance and several missions were carried out at Total E&P Congo in 2012 and 2013 to complete and improve the efficiency of the already existing procedures for receiving and handling grievances.

***Controlling the impact of the Group's activities***

**i. Integration of a societal approach into operational processes:** In order to better control the impact of the Group's operations, the societal approach is integrated into the operational processes.

Since 2012, societal issues have been integrated into Exploration & Production's HSE management system known as MAESTRO (Management and Expectations Standards Towards Robust Operations). Seven audits were conducted in 2013 in the United Arab Emirates, Yemen, Uganda, Bolivia, Argentina, the UK and Malaysia.

Since 2012, the MOST tool (Management Operational Societal Tool) has been employed to steer and coordinate societal projects. It was set up in 2012 in the Group's subsidiaries in Congo, Gabon, Angola, Nigeria, Uganda, Democratic Republic of Congo, Myanmar and Yemen. In 2013, it was implemented in Italy, Indonesia, Bolivia and Venezuela. This system brings together such modules as dialogue with stakeholders, grievance handling, land compensation and contributions to development (with a local employment module in Uganda), with functionality that has been further improved in 2013. The use of these tools is part of the process to help the local teams monitor and manage the societal approach with a higher degree of professionalism.

In 2013, impact assessments were notably conducted in Uganda and the Democratic Republic of Congo.

In the Democratic Republic of Congo, Total E&P Congo became an operator in Block III in Lake Albert. TOTAL made the commitment not to carry out any exploration activity in the Virunga national park, partly located in Block III. With the consent of the Congolese national authorities and in compliance with internal rules, an Environmental and social impact assessment (ESIA) was conducted from September 2012 to June 2013 with two visits to the block. About 170 stakeholders were consulted. Two days were devoted to reporting the assessment findings, on the spot, to the stakeholders. A formal presentation followed by a discussion and a question-answer session was organized for the local and regional administrative authorities. One day was also organized for the stakeholders, who were invited to review the assessment findings and to discuss with TOTAL's management and technical team.

In Uganda, Total E&P Uganda operates in certain blocks in partnership with the companies Tullow and CNOOC. According to Ugandan law, TOTAL is not required to carry out any impact assessment until the government has approved the project. However, given the need to gather and integrate a wealth of information about the societal context and potential impacts on the communities, Total E&P Uganda chose to engage a team of international and national experts to conduct a social screening. About twenty communities were consulted using recognized methods including interviews, focus groups, inventory of communities and direct observation on the field. The results of the social screening led to significant changes in the project to avoid and minimize the impact on the communities living close to future facilities.

In Nigeria, research has been entrusted since 2008 to ESSEC/IRENE (Advanced High School of Economic and Commercial Sciences/ Institute for Research and Education in Negotiation in Europe) on the impact of oil production activities on people living in the Niger Delta with field surveys and interviews with 2,000 people (Onelga and Eastern Obolo). The aim of this research is to determine a set of impact indicators capable of measuring the direct effect of the Group's activities on the living conditions of the impacted populations. The results are expected to be consolidated in 2014 and will serve as a basis for a study involving the creation of simplified indicators for other subsidiaries.

In addition, the Group regularly calls on CDA to assess the impact of its operations and socioeconomic programs in host countries. For example, CDA has undertaken several assignments in Myanmar in recent years, the reports of which are available on the organization's website.

**ii. Road safety awareness initiatives in Africa:** Over the years, the Group has developed a major project to raise road safety awareness among all categories of road users. Given its distribution activity on the African continent, the Africa/Middle East division is particularly sensitive to these issues. It deployed a road transport improvement program, PATROM, which it has continued to develop over the years.

In 2013, the Africa/Middle East division launched a large number of transporter assessments, carried out by transport professionals, in order to check safety management in these companies: 273 transporters were audited at year-end 2013, which represented 73% of the area's transporters. In addition to these audits, five regional agreements were signed among all the transporters to strengthen the sharing of experience, dialogue and best practices. Such actions broaden those carried out by the subsidiaries with local authorities to enhance transport safety and driver training.

At the same time, the Group continues to partner with the World Bank, within the framework of the United Nations resolution on the decade of action for road safety. NGOs in Kenya, Uganda and Cameroon have been created to bring the stakeholders together. This collaboration, called ARSCI (African Road Safety

## Edgar Filing: TOTAL S.A. - Form 20-F

Corridors Initiatives), has helped share and step up societal actions aimed at reducing road accidents, considered to be a major public health problem.

Studies conducted in partnership with universities have drawn up a map of these roads and identify risk areas to target priority actions. Using this information displayed on the onboard computers of trucks, drivers can take extra care when they cross these identified points and appropriate road signs can also be installed. Awareness-raising caravans were also organized in cooperation with the police during the road safety week on these roads to inform drivers as well as pedestrians about the dangers of the road. A number of events were organized to attract a large audience during these operations. Private partners are gradually drawing up common charters guided by principles that they undertake to defend and adopt, such as joint road safety actions for the community, technical standards for vehicles, driver training and exchanges of information.

In its endeavor to sensitize the most vulnerable of populations, the Group called upon the expertise of GRSP (Global Road Safety Program) in 2012 to launch safety cubes , an extensive educational campaign targeting children. This tool, rolled out in schools by the subsidiaries, helps students learn the rules and behaviors to adopt to avoid road hazards in a playful and educational way. The objective is to reach one million children in three years.

2013 Form 20-F TOTAL S.A. 65

## Table of Contents

### Item 4 - Other Matters

#### *Optimizing the Group's contribution to the socioeconomic development of host communities and countries*

While ensuring the competitiveness of operations, the community development approach should give rise to new opportunities, both for the countries in question and to strengthen the positive impact of the operations. Wherever it operates, TOTAL carries a particular responsibility for the socioeconomic development of the communities living near its facilities. This aim is embodied in a variety of ways:

the Group's commitment to local employment (local content);  
educational partnerships for training and education; and  
support for the implementation of socioeconomic programs.

**i. The Group's commitment to local content:** In Africa, the Group works particularly in favor of the development of the industrial fabric and local content (local production, local personnel in the subsidiaries, pre-qualification of local contractors, development of domestic infrastructures, diversification of the local economy).

In Angola, more than 3 million hours of work have been completed locally as part of the Pazflor project. In cooperation with the educational projects supported by Total E&P Angola, some fifty candidates have been recruited and trained by the national oil institute since 2007 in order to become production operators on the project. For the CLOV project, slated to start production in 2014, more than 10 million hours of work have been completed in Angola. Through CLOV, Total E&P Angola has also trained nearly forty students holding an operator's diploma, who are now working in the FPSOs in Block 17 in Angola. This is the first time in Angola that a project is conducted with so many local man-hours and with such a high level of production carried out inside the country.

In Nigeria, over 80% of the subsidiary's employees are locals and more than 100 new local recruits are expected each year. Twenty-eight percent of the construction work to develop Akpo was entrusted to local contractors, which represents approximately 10 million hours worked. For the Egina project, the goal is to complete about 21 million hours of work locally.

In the Congo, Total E&P Congo set up an organization in 2012 dedicated to the development of local content. This department's task is to expand the use of Congolese enterprises, notably by identifying and assessing local companies likely to become Total E&P Congo's subcontractors and then by providing them programs to develop their capacities (e.g., managerial, industrial, HSE). An in-depth study to identify the potential to increase the local content in Total E&P Congo revealed business areas where this potential was the highest. To strengthen local capacities in these key areas, the Moho North project instituted a mandatory local content plan with respect to its international contractors, cascaded down to lower-level local contractors. Due to these joint efforts, Total E&P Congo has set the objective of increasing the local content level of its purchasing from its current 22% to 32% by 2022.

For several years, the Marketing & Services segment has organized the Young Dealers' program in Africa/Middle East, aimed at

promoting young service station employees who have business and managerial skills. The aim is to help employees with potential to eventually become a service station manager. Due to this program, young people unable to provide a guarantee can benefit from a financial loan along with training and substantial technical assistance. A number of them thus have the opportunity to create and succeed in their own business in the distribution of petroleum products. With this management mode, the Group develops skills and boosts the motivation of its service station employees. Out of the 3,500 service stations in Africa/Middle East, 1,300 are managed by young dealers, that is, 29% of TOTAL's network.

TOTAL's activities generate hundreds of thousands of direct and indirect jobs worldwide. The Group's purchasing activities alone represented about €31 billion worldwide in 2013. This presents numerous challenges with regard to TOTAL's impact on the environment, society and community development, all of which the Group takes into account in its relationships with suppliers (see Fair operating practices Contractors and suppliers, below).

#### **A major component: developing the regional economic fabric in France**

Since the 2000s, the participation of local service providers in industrial projects has steadily increased. In addition to the jobs generated by its activities, the Group, as a responsible company, supports small and medium-sized enterprises (SME) in France, particularly through Total Développement Régional (TDR). The aim of this structure is to promote the creation of SMEs with a view to developing the local economic fabric.

TDR has set up a program to pre-qualify and certify French small and medium-sized companies, in line with the standards required by the Group, in order to work with more local suppliers.

## Edgar Filing: TOTAL S.A. - Form 20-F

The *Total Emploi Local* (Total Local Employment) initiative has been implemented on the Normandy platform with the following aims, in the context of major investments (exceeding €1 billion, aimed at adapting the production facility to market demand and future environmental requirements by improving energy efficiency, safety and reliability):

promote the development of local content by training and professionalizing unqualified people or job-seekers; and  
enable local companies to work on TOTAL projects.

TOTAL has thus initiated a partnership approach with all the economic, employment and training, and inspection stakeholders. This innovative initiative has proved to be very encouraging, with nearly 1,200 jobs created in the Le Havre region, more than half under open-ended contracts. Local companies have recruited qualified staff and can thus meet the needs of future projects in the region. Local players in integration, employment and training are equipped with tools and a methodology to anticipate future recruitment and training requirements. Candidates can showcase their aptitudes to future recruiters with their skills passport. TOTAL has thus successfully completed its major projects by entrusting 70% of the services to local companies. This initiative has moreover achieved sustainability, with Le Havre Chamber of Commerce and Industry taking over this project, renamed *Compétences totalement estuaire*.

## Table of Contents

### Item 4 - Other Matters

TDR can also support planned employment area regeneration schemes alongside the redeployment of the Group's activities, as illustrated by the reconversion of the Lacq industrial basin.

The support provided forms a major component of TOTAL's economic and industrial policy and takes a number of forms:

- financial backing for the creation, buy-out and expansion of SMEs, and support for regeneration along with local development players;
- support for export and international expansion; and
- aid for innovative SMEs.

In the last three years, TDR has provided €12.5 million in financial assistance for 386 SMEs, supporting 6,964 jobs.

**ii. Educational partnerships:** TOTAL promotes the internationalization of its management and therefore encourages the recruitment of local personnel and their access to positions of responsibility, particularly within their local subsidiaries. As part of its social programs, the Group therefore offers local and international scholarships to create skilled local workforces for future hiring. Thousands of students are thus given the opportunity to pursue their studies in their country of origin or at the world's leading universities. TOTAL's international scholarship program has also enabled over 700 students from thirty countries to study in France for qualifications (bachelor's degrees, engineering and master's degrees, MBAs and doctorates).

Moreover, in July 2012, TOTAL signed a partnership agreement with the French Foreign Ministry as part of the program for co-funding international grants known as *Quai d'Orsay Entreprises*, in addition to the existing partnership. The master-level courses in French universities are open to students from six countries.

With support from other major groups, TOTAL, Paris Tech and the École polytechnique introduced the Renewable Energy Science and Technology Master II postgraduate degree program in the fall of 2011. Forty students from eighteen countries enrolled for this program in the fall of 2013.

TOTAL is particularly active in supporting research chairs in thirty-five establishments, half of which are in France. One of the latest examples is the *Enterprise Architecture* chair at the École Centrale de Lille.

Another of the Group's flagship initiatives in favor of education was the fourth Total Energy and Education Seminar, which took place in Paris. This seminar is organized every eighteen months and brings together nearly 100 academics from forty countries. The academics and TOTAL managers and external experts discuss issues such as the future of energy, climate change, relationships between universities and businesses, and the impact of globalization on education and human resources management.

The eighth Total Summer School took place in Paris in July 2013, welcoming more than 100 students from thirty countries to debate energy challenges.

The university partnership program launched in Africa in 2010 has been extended to all of Europe, Asia and Middle East. Only the Americas are yet to be covered. Apart from their societal aspects, these partnerships, more than 50 in number at the moment, aim to hone the talents required to achieve the Group's international ambitions.

In Africa, the Group continues to support the pilot secondary education programs launched in 2008 in the Eiffel (Angola) and

Augagneur (Congo) high schools to provide free, world-class education in regions where educational opportunities are still limited. TOTAL also funds the development of preparatory courses for prestigious universities at the Léon Mba high school in Gabon. In the field of higher education, TOTAL has entered into partnerships with the oil institutes and science faculties in several countries: IST-AC (Congo/Cameroon), Institut du Pétrole et du Gaz (Gabon), University of Port Harcourt (Nigeria).

**iii. Supporting the implementation of socioeconomic programs:** TOTAL's contribution to the socioeconomic and human development of the countries where the Group operates is reflected in its involvement in local development programs.

The Group's expenditure on community development has increased regularly over the last three years: €305 million in 2011, €316 million in 2012, and €357 million in 2013. About 90% of the expenditure on community development is made outside OECD countries. In 2013, around 3,400 community development actions were identified, spread evenly among the business segments (Upstream, Refining & Chemicals and Marketing & Services).

These programs support or serve local communities by contributing to their cultural, socioeconomic and human development. These communities are usually impacted by the Group's presence or activities. These programs fall into three main categories: good citizenship, human and social development, and local economic development.

### **The importance of partnerships**

TOTAL's approach is moving away from a purely donation-based model to a partnership model. Its commitment should be reflected in long-term partnerships in all the countries where the Group operates. Built on attentive listening, constructive dialogue and the firm determination to forge relationships of trust with the stakeholders, these partnerships with local institutions and organizations guarantee the long-term success of the projects. One of the eight indicators selected by the Group for monitoring its community development performance is therefore the number of actions carried out in partnership.

TOTAL takes care not to substitute the local authorities in all its actions. In this regard, TOTAL teams up with NGOs specializing in social action, which have a solid field experience. These organizations help the Group increase the effectiveness of the socioeconomic development programs it supports, particularly by encouraging it to take into account the entire life cycle of its programs, from the design phase to shutdown.

In Congo, a 2-year partnership agreement was signed in June 2012 with the Fishing and Aquaculture Ministry and the association Renatura to launch the Fishing Practices Support Program in Congo. The objectives are to support those involved in fishing, apply regulations in force, suggest alternatives in terms of fishing practices likely to minimize marine turtle by-catch and ensure a better regeneration of fisheries resources.

Moreover, as part of its drive to support the diversification of local economies, in Congo, TOTAL has stepped up its commitment to the Pointe-Noire Industrial Association (APNI), a platform launched in 2000 for developing small and medium-sized companies. APNI offers the services of an Approved Management Center (CGA), which helps SMEs with fiscal monitoring and account keeping. APNI also provides a Market observatory with theme-based conferences (*e.g.*, SMEs and banking, Being a young entrepreneur, Business and energy).

## Table of Contents

### Item 4 - Other Matters

In Nigeria, TOTAL is committed to foster the local economic development of the Egi region, in the heart of the Niger Delta where it has been operating since 1964. In partnership with local communities, TOTAL has set up the Small & Medium Enterprises-Development Network (SME-DN), a training center that aims to stimulate and sustain entrepreneurship in the region. In 2011, TOTAL sought the technical assistance of the European Institute for Economic Development (IECD) requesting it to implement its methodology of supporting small businesses within SME-DN. Since 2011, SME-DN has hosted three courses, training a total of seventy-seven entrepreneurs in the Egi region. The results are positive: six months after the training, the entrepreneurs increased their turnover (+25% on average), thereby improving their standards of living.

#### *The access to energy program*

For more than ten years, certain subsidiaries have been occasionally and independently engaged in various community development projects focusing on access to energy, in three main areas:

the electrification of rural areas that are not connected to the electric power network, thanks to photovoltaic solutions. 20,000 households have been electrified in South Africa using photovoltaic kits, plus a further 25,000 in Morocco; aid for LPG supplies through the Shesha program in South Africa, in which gas cylinders are sold to the residents of townships in order to improve their security and health; and the use of associated gases to produce electricity in certain countries where TOTAL's Exploration & Production has operations. The project developed on OML 58 in Nigeria caters to almost 100,000 people. In Yemen, a project was carried out in cooperation with the state-owned electricity company to supply electricity generated using associated gas to neighboring communities (approximately 500,000 people served). In 2013, a study was conducted to assess the possibility of increasing the capacity. In Congo, TOTAL contributed to the funding of the extension of the electricity network in certain districts of Pointe Noire, supplying electric power to about 10,000 people.

These projects were usually developed in cooperation with the communities neighboring the Group's sites or as part of programs launched by the authorities in the host countries and sometimes without any goals to achieve economic viability and, therefore, sustainability.

To improve its societal performance and structure its approach, TOTAL aims to develop programs that are both profitable and sustainable. For this reason, the Group has developed Total Access to Energy, which proposes energy solutions adapted to underprivileged populations. The Group relies on feedback from experiments conducted in recent years to implement these programs in a social business context, with a view to deploying sustainable energy access solutions that can be reproduced on a large scale.

As of today, Total Access to Energy covers two areas in line with TOTAL's core business:

the development of photovoltaic solar energy in non-OECD countries (the Awango by Total trademark was launched in 2012); and the fight against fuel poverty in OECD countries (mobility and heating).

**i. Awango by Total program:** This program is in line with a social business strategy: the project's profitability target ensures its sustainability, while at the same time satisfying certain expectations of host countries, thereby strengthening TOTAL's presence and making its activities more visible. It also contributes to enabling access to energy for as many people as possible, a mission set by the Group.

At the United Nations Rio Conference in June 2012 (Rio+20), TOTAL committed to enabling five million people on low incomes to have access to lighting thanks to reliable photovoltaic products by 2015, while offering a broad selection of services, ranging from after-sales to options for the collection of end-of-life products and recycling.

TOTAL was the leading sponsor of Lighting Africa, the worldwide conference on energy access organized in Dakar in November 2012 by the World Bank and the International Finance Corporation (IFC). At this conference, TOTAL launched its new Awango by Total brand to market a range of products and services that meet the lighting and mobile phone charging needs of people without access to electricity. By the end of 2013, 460,000 solar lamps were sold since the launch of this brand in twelve countries, including Cameroon, Kenya, Senegal, Burkina Faso, Uganda, Nigeria, Cambodia, Indonesia, Myanmar and Haiti.

The Awango by Total brand is expected to be deployed in five more countries by mid 2014: Tanzania, Zambia, Pakistan, Congo, and Niger. The distribution networks used to market solar solutions are both existing TOTAL networks and so-called last mile networks built with local partners with a view to bringing these



solutions as close as possible to where people live.

**ii. Fighting fuel poverty in OECD countries:** The fuel poverty project is the Group's global response to the challenge of access to heating as well as mobility in Europe and in emerging countries. It may be recalled some 15% to 20% of the population in Europe is considered fuel poor.

In 2013, the fuel poverty issue sparked off a number of exchanges between all the concerned players (public, private, civil society) all over the Europe area. The challenges have been more or less clearly identified depending on the countries and the solutions implemented focus more on heating/housing than on mobility.

In 2013, TOTAL pursued and expanded its fuel poverty project launched in 2012 in France. In the heating/housing component, the Group continued pilot projects aimed at testing solutions for the fuel poor at all the links in the chain:

With the associations PIMMS and Unis Cité for identifying those living in fuel poverty through a project in the French Meurthe et Moselle department.  
With Fondation FACE for identifying and supporting customers using fuel oil for heating, primarily in peri-urban and rural areas in two French pilot departments: Bas-Rhin and Sarthe.

With the association Parcours Confiance to test the relevance of housing micro-credit for carrying out thermal renovation.

As part of the Living Better public program, the Group has contributed to 20% of thermal renovations in seventeen French departments carried out at the national level for the fuel poor.

**Table of Contents****Item 4 - Other Matters**

Between 2011 and year-end 2013, 4,773 thermal renovations were carried out with TOTAL's support.

At the end of 2013, under an agreement signed with the French Ministry for Sports and Youth, Voluntary Associations and Popular Education, the Group committed to an additional amount of €2 million to implement the public program on thermal renovation known as *Habiter Mieux* (Living Better) over two years (end of the program in 2015).

As regards the mobility component, TOTAL's partnership with the *Voiture & Co* association helped open two mobility platforms (supply of low-cost vehicles, personalized advice and support, microlending for the purchase of mobility solutions, etc.) in the French Eure and Hauts-de-Seine departments. In addition, a nation-wide study was conducted and made public in December 2013 on the challenges faced by those with limited transport facilities in accessing employment. Moreover, the above-mentioned agreement with the French Ministry for Sports and Youth, Voluntary Associations and Popular Education also included a mobility component with an additional €2 million to launch a call for projects to identify and support innovative mobility initiatives throughout France.

***Partnerships and philanthropy TOTAL Corporate foundation/TOTAL S.A. philanthropy***

In addition to the community development initiatives that are directly related to the Group's industrial activities, TOTAL has also been committed for many years to taking general-interest measures in the countries where it has operations. At the Head Office, the Group's philanthropic actions are essentially conducted by the TOTAL Corporate Foundation and by the Philanthropy Department of TOTAL S.A.

Founded in 1992 in the wake of the Rio Earth Summit, the TOTAL Foundation celebrated its twentieth anniversary in 2012. Initially dedicated to the environment and marine biodiversity, the Foundation is now active in four fields: (i) marine biodiversity; (ii) culture and heritage; (iii) health; and (iv) solidarity.

At the end of 2012, TOTAL renewed the commitments of its Foundation for a further five years (2013-2017), with a €50 million multi-year action budget.

With regard to the marine biodiversity, the Foundation funds programs aimed at research studies to improve knowledge, protection and enhancement of marine and coastal species and ecosystems. In 2013, the Foundation supported nearly sixty projects (new or ongoing projects). The Foundation continued to support the *Pristine* project whose objective is to redefine the baseline for coral ecosystems in order to assess human impacts in three areas of the Pacific (New Caledonia, Tonga and Polynesia). The project also produced a report on the diversity of the fish identified and the quality of their habitat during the *IMPAC 3* international conference in October 2013 in Marseilles (France).

The Foundation promotes cultural dialogue by supporting exhibitions that showcase the heritage and arts of the Group's host countries. In 2013, the Group supported twelve exhibitions. A great patron of the Paris-based Arab World Institute, the Foundation has supported the *Golden Age of Arab Sciences* exhibition as well as its tours in Qatar, Kuwait and the United Arab Emirates. In 2013, the exhibition was held at the Abu Dhabi Paris Sorbonne University, providing an opportunity to promote French cultural competence, showcase the cultures of the Mediterranean Basin and Arabian Peninsula, and foster intercultural dialogue. In

France, with the heritage association *Fondation du Patrimoine*, TOTAL Corporate Foundation also supports the preservation of traditional crafts and industry and the restoration of heritage sites in France.

In the field of health, the Foundation has partnered with Institut Pasteur since 2005. Professor F. Barré-Sinoussi, 2008 Nobel Prize laureate, is the resource person for this partnership, which focuses on the fight against infectious diseases. The Foundation also contributes to research programs and field actions in partnership with the Group's subsidiaries, mainly in Africa. In 2013, the Foundation supported more than six field projects (new or ongoing projects). After financing the deployment of a program to prevent sexually transmitted diseases such as AIDS among truck drivers in Morocco between 2007 and 2011, a similar program was launched in Burkina Faso in 2013.

Finally, the Foundation encourages Group Employees to engage with the community, through support for projects championed by non-profit organizations with which employees volunteer on a personal basis. In 2013, the Foundation supported more than sixty employee projects in thirty-four countries.

The Group has also forged a number of major institutional partnerships in France. In 2009, TOTAL signed an innovative €50 million partnership agreement with the French Ministry for Youth to promote the social and professional integration of young people. This led to the financing of over 200 social action projects between 2009 and 2013. In line with this partnership, the Group reaffirmed its commitment by supporting the government-sponsored *Priorité Jeunesse* (Priority to Youth) program.

Since 2008, TOTAL has also partnered with the French Society of Sea Rescuers (SNSM). Through its funding and expertise, the Group plays a role in improving the safety of maritime rescue operations and training volunteers.

## Edgar Filing: TOTAL S.A. - Form 20-F

For more than twenty years now, TOTAL Corporate Foundation's ambition has been to foster the development general interest measures, going beyond the Group's industrial responsibility, by encouraging the convergence of expertise and innovation.

### *Fair operating practices*

**i. Preventing corruption:** The amounts of money involved and the diversity of the various regions require the oil industry to be particularly vigilant about corruption and fraud. Around one quarter of TOTAL's employees work in countries considered to be high-risk in this regard (countries in which the Transparency International index of the perception of corruption is less than or equal to fifty). Preventing corruption and fraud is therefore a major challenge for the Group and all its employees.

TOTAL's stance on the issue of corruption is based on clear principles, set out in 2000 in the Code of Conduct: TOTAL rejects bribery and corruption in all forms, whether public or private, active or passive.

The Code of Conduct sets out the principles governing the actions and individual behavior of each person, both in their day-to-day decisions and in their relations with stakeholders. In it, TOTAL reiterates its support for the OECD Guidelines for Multinational Enterprises and the Tenth Principle of the United Nations Global Compact, which urges businesses to work against corruption in all its forms.

The Group's commitment in this area relies on the principle of "zero tolerance" in matters of corruption and is regularly reiterated.

## Table of Contents

### Item 4 - Other Matters

by TOTAL's Chairman and Chief Executive Officer particularly to its employees and to stakeholders. This commitment takes the form of a number of actions:

in 2009, approval by the Executive Committee of a corruption prevention policy and a robust compliance program (e.g., training, communication, due diligence, audits) and the creation of a dedicated compliance structure;  
creation of the Compliance and Social Responsibility Department within the Group Legal Department, which is now backed by a network of more than 350 compliance officers in the Holding and the Group's various business segments; and  
in 2011, the Executive Committee's decision to reinforce the means of preventing fraud and corruption by setting up suitable programs.

This initiative involves actions to raise awareness amongst employees and to train them. Training seminars are organized for all compliance officers, and proposed to any employee exposed to the risk of corruption while performing his or her duties. An e-learning course on the prevention of corruption, available in twelve languages, has been made available internally since 2011. By year-end 2013, more than 45,000 employees had taken the course.

Under the settlements reached in 2013 between TOTAL, the SEC (Securities and Exchange Commission) and the U.S. Department of Justice (DoJ), an independent monitor was appointed to conduct a 3-year review of the anti-corruption compliance and related internal control procedures implemented by the Group and to recommend improvements, when necessary. The monitor's mission started on December 2, 2013.

**ii. Human rights:** Although the ultimate responsibility for human rights lies with governments, the activities of companies can affect the human rights of the employees, partners or communities with which they interact in numerous ways. In addition to being an ethical commitment for TOTAL, adopting a proactive approach to human rights within the Company is vital for its daily business. This approach helps to establish and maintain successful relationships with all stakeholders.

TOTAL's Code of Conduct formally recognizes the Group's support for the principles of the 1948 Universal Declaration of Human Rights, the core conventions of the International Labor Organization, the OECD Guidelines for Multinational Enterprises and the principles of the United Nations Global Compact. Between 2005 and 2011, the Group took part in the consultations organized by the United Nations' special representative, Professor John Ruggie, on the issue of business and human rights. The Group's Chairman and Chief Executive and the General Counsel expressed their support for the protect, respect, remedy framework and for the UN's guiding principles on business and human rights.

Furthermore, the Group is actively involved in numerous initiatives and working groups on human rights that bring together various stakeholders. As part of the Global Compact, TOTAL takes part in the Human Rights Working Group, the Expert Group on Responsible Business in Conflict-Affected and High-Risk Areas and the Anti-Corruption Working Group. Created in 2010, Global Compact LEAD (Initiative for Sustainable Leadership) has fifty-four members, among which TOTAL is the first French company. The Group is also a founding member of the Global Business Initiative on Human Rights and takes part actively in the work of IPIECA,

through the following working groups: Social Responsibility Working Group, Human Rights Task Force, and Responsible Security workshop. Moreover, after having implemented the recommendations of the Voluntary principles on security and human rights (VPSHR) for several years, TOTAL joined this initiative in March 2012. Lastly, since 2012, TOTAL has taken part in the activities of the NGO Shift, created by Professor John Ruggie after his term of office with the UN. TOTAL's General Counsel took part in various workshops organized by Shift in Boston (USA) on the practical implementation of respect for human rights by companies.

Internally, the Executive Committee adopted a roadmap in 2013 for the period 2013-2015, with the view of strengthening TOTAL's compliance with human rights standards in its operations and risk management systems, particularly in sensitive countries where the Group operates. This roadmap is implemented in the various departments and entities concerned by these issues (Sustainable Development, Legal, Ethics, Security, Purchasing, Human resources, Training and Audit Departments).

Moreover, in order to spell out its human rights position and initiatives, TOTAL has created a Human Rights Coordination Committee, managed by the Ethics Committee Chairman. A discussion forum that meets three or four times a year, its members include representatives of the Human Resources, Public Relations, Legal, Finance, Security, Purchasing and Sustainable Development Departments. The Committee coordinates the initiatives taken by the Group's various business units. During these meetings, the participants share their feedback and information on human rights, and particularly on TOTAL's involvement in public or private international initiatives (e.g., VPSHR, EITI, GBI, IPIECA), on human rights tools developed internally or externally, on procedures and internal policies already adopted or under construction, and on civil society projects.

Linked to the United Nations' guiding principles on business and human rights, TOTAL's human rights approach is based on several pillars:

## Edgar Filing: TOTAL S.A. - Form 20-F

*Written principles:* in accordance with its Code of Conduct, the Group has adopted principles appropriate to the operations and countries where it works, some of which are set out in the Human Rights Internal Guide published in 2011 in English, French, Spanish and Chinese.

*Awareness actions:* to ensure that its human rights principles are disseminated in-house, TOTAL raises employee awareness via corporate communications channels such as the Ethics and Security intranet sites, and through specific training programs tailored to the various challenges encountered in the field. These programs are listed in the TOTAL University's Ethical, Environmental and Social Responsibilities catalogues. For example, a new training program called "Responsible Leadership for a sustainable business" targeting the management was created in 2013. The Group has also developed, in collaboration with the NGO Shift, a series of four awareness-raising videos on the Group's human rights standards. These videos highlight three key topics that the Group has identified: Voluntary principles on security and human rights (VPSHR); prevention of societal impacts on local communities; and working conditions, both of TOTAL's employees and in its supply chain. Further, in one of these videos,

**Table of Contents****Item 4 - Other Matters**

TOTAL's Chairman and Chief Executive Officer and Professor John Ruggie discuss TOTAL's roadmap on human rights, as well as the importance of complying with the Group's human rights standards in daily activities.

*Listening and advice bodies:* two dedicated bodies, the Ethics Committee and the Compliance and Social Responsibility Department, are available to advise employees and coordinate efforts to promote human rights. All employees experiencing difficulties in the practical implementation of the Code of Conduct should turn first to their line manager; if necessary, they can contact the Human Resources Department or take their concerns to the Ethics Committee.

The Ethics Committee is a central, independent structure that represents all of TOTAL's business units. Its role is to listen to, support and advise both employees and people outside the Group. The Committee maintains complete confidentiality with regard to referrals; this can only be lifted with the agreement of the person in question.

*Assessment tools:* these are used to regularly assess the subsidiaries' human rights practices and the risks they face. They analyze the local consequences of projects (societal audits in which local communities in certain countries are questioned on their perception of the impact of the Group's activities on their everyday lives) or check that the subsidiaries' ethical practices meet the Group's standards. Most of these tools are designed to prevent or limit the ethical risks or impacts related to the Group's activities. Some of them are used with the assistance of independent experts, such as GoodCorporation, the Danish Institute for Human Rights or the CDA Collaborative Learning Projects. Action and monitoring plans are then implemented on the basis of these assessments.

**iii. Contractors and suppliers:** In its Code of Conduct, TOTAL states that it expects its suppliers to respect equivalent principles to which it abides. A document entitled *Fundamental Principles in Purchasing* sets out the commitments that the Group expects of its suppliers with regard to respecting fundamental rights at work, protecting health and the environment, preventing corruption, complying with the rules of free competition and promoting economic and social development. The rules set out in this document may be made available to TOTAL suppliers in order to obtain a contractual commitment that they will comply with them. In some contracts, such as those covering the oil operations of the Exploration & Production segment, the principles contained in TOTAL's Code of Conduct (e.g., preventing corruption, health, environment, security, safety, societal, right to work) are covered by specific contract clauses.

Questionnaires focused on environmental and social challenges are used to gather more in-depth information from suppliers about their approach to these subjects, either during pre-qualification or as part of an audit. This aspect of supplier relationships can also be examined in ad hoc ethical assessments of Group's subsidiaries or entities performed by GoodCorporation. With the deployment of the anti-corruption policy in 2013, specific questionnaires were sent to a certain number of suppliers and in some cases, external audits were carried out.

A cross-functional working group dedicated to sustainable purchasing, which includes the various segments and the Purchasing and Sustainable Development departments, has been active since

2011. This group is tasked with reinforcing TOTAL's policy in this area by using the initiatives taken in each segment. In 2012, a map of the CSR risks and opportunities in the Group's main purchasing categories was created in order to identify the main issues in three areas: ethics and human rights, environmental impact, and the creation of value with the communities. Pilot projects were implemented in certain categories in order to concretely integrate the monitoring of CSR aspects into the purchasing process (e.g., specific questionnaire focusing on the fundamental procurement principles, drafting of suitable contract clauses, good practices guide for purchases from the sheltered sector).

In February 2013, the Group Purchasing Committee decided to focus on awareness-raising and training on sustainable purchasing, and to develop the integration of sustainable purchasing targets in the annual interviews of buyers (initially central buyers). Seven sustainable purchasing training sessions were organized in 2013 in France and will continue to be offered in 2014. Concrete tools have been developed to support this training and are used in pre- and post-learning: fact sheets on international references (for example, principles of the International Labour Organization); country fact sheets (specifying aspects of local law); internal feedback; and methodology sheets (e.g., total cost of ownership, life cycle analysis, eco-labels).

In France, purchases from the sector for disabled workers continued to rise with the signature of new contracts; Group purchases from the sector for disabled workers tripled, in terms of recipient entities, for the Group's three main sites at the Head Office in Paris between 2012 and 2013.

In March 2014, TOTAL received the *Responsible supplier relationships* label for its Holding and Marketing & Services activities in France. This label, awarded by the French authorities, recognizes companies that maintain sustainable and balanced relationships with their suppliers.

**Reporting scopes and method for social and environmental information*****Reporting guidance***

The Group reporting procedures consist of:

## Edgar Filing: TOTAL S.A. - Form 20-F

for social indicators, a practical handbook titled *Corporate Social Reporting Protocol and Method* ;  
for Industrial Safety indicators, the *Corporate Guidance on Event and Statistical Reporting*; and  
for environmental indicators, a Group reporting procedure, together with specific instructions for the sectors.

### *Scopes*

In 2013, environmental reporting covered all activities, sites and industrial assets in which TOTAL, directly or through one of its subsidiaries, is the operator (either operates or contractually manages the operations) as of December 31, 2013. Equity greenhouse gas (GHG) emissions are the only data which are published on the equity perimeter. This perimeter, which is different from the operated domain mentioned above, includes all the assets in which TOTAL has a financial interest with rights over all or part of the production (financial interest without operational responsibility nor rights on all or part of the production do not lead to the incorporation of GHG emissions).

Safety reporting covers all TOTAL employees, as well as employees of contractors working at Group-operated sites. Each

2013 Form 20-F TOTAL S.A. 71

## Table of Contents

### Item 4 - Other Matters

site submits its safety reporting to the relevant business unit. The data is then consolidated at the business level and every month at the Corporate level. In 2013, the Group safety reporting scope covered 528 million hours worked, equivalent to around 310,000 people.

The occupational diseases reporting covers the Group personnel and diseases are reported according to the regulation applicable in the country of operation of each entity. Each site sends its reporting on occupational diseases to the operational entity it reports to. Statistics are consolidated at sector level and reported to the Group once a year.

Social reporting is based on two resources – the Global Workforce Analysis and the Worldwide Human Resources Survey. The Global Workforce Analysis is conducted twice a year, on June 30 and December 31, in all fully consolidated companies owned 50% or more and consolidated by global integration included in this Annual Report. The survey mainly covers worldwide workforces, hiring under permanent and fixed-term contracts (non-French equivalents of *contrats à durée déterminée ou indéterminée*), nationality, and employee hires and departures. This survey produces a breakdown of the workforce by gender, category (managers and other employees), age and nationality.

The Worldwide Human Resources Survey is an annual survey which comprises approximately 100 indicators in addition to those used in the Global Workforce Analysis. The indicators are selected in cooperation with the businesses and cover major components of the Group Human Resources policy, such as mobility, career management, training, employee dialogue, Code of Conduct application, health, compensation, retirement benefits and insurance. The survey covers a representative sample of the consolidated perimeter. The data published in this Annual Report are extracted from the most recent survey, carried out in December 2013 and January 2014; 149 companies representing 90% of the consolidated Group workforce, operating in 58 countries, replied to the survey. Both surveys are conducted using the same information system introduced at the end of 2003, and undergo similar internal control and validation processes.

*Consolidation method:* In the scopes defined above, industrial safety and social data are fully consolidated. Environmental indicators consolidate 100% of the emissions of Group operated sites for the operated indicators. GHG are also published in equity share, that is the consolidation of the Group part of emissions for all assets in which the Group has a financial interest or rights to production.

*Changes in scope:* For social and environmental indicators, the indicators are calculated on the basis of the perimeter of the Group as of December 31, 2013. For safety indicators, acquisitions are taken into account as soon as possible and at the latest on January 1 of the following year, and divestments are taken into account at the end of quarter preceding their effective date of implementation. Restatement of previous years published data, unless there is a specific statement, is now limited to changes of methodology.

### Principles

*Indicator selection and relevance:* The data published in the Registration Document are intended to inform stakeholders about TOTAL's Corporate Social

Responsibility performance for the year in question. The environmental indicators include Corporate performance indicators in line with the IPIECA reporting guidance, updated in 2010. The indicators have been selected in order to track:

- i TOTAL's commitments and policies, and their effects in the domains of safety, environment, social, etc.);
- i performance relative to TOTAL's principal challenges and impacts; and
- i information required by legislative and regulatory obligations (article L. 225-102-1 of the French Commercial Law, such as modified in 2010 by article 225 of the Grenelle II law).

*Terminology used in social reporting:* Outside of France, management staff (*cadre*) refers to any employee whose job level is the equivalent of 300 or more Hay points. Permanent contracts correspond to *contrats à durée indéterminée* (CDI) and fixed-term contracts to *contrats à durée déterminée* (CDD), according to the terminology used in the social reporting.

Managed Scope: all subsidiaries in which one or more Group companies own a stake of 50% or more, *i.e.*, 496 companies in 124 countries as of December 31, 2013.

Consolidated Scope: all subsidiaries fully consolidated as in the Registration Document, *i.e.*, 355 companies in 101 countries as of December 31, 2013.



## Edgar Filing: TOTAL S.A. - Form 20-F

*Methods:* The methods may be adjusted to reflect the diversity of TOTAL's activities, recent integration of subsidiaries, lack of regulations or standardized international definitions, practical procedures for collecting data, or changes in methods.

*Consolidation and internal controls:* Environmental, social and Industrial Safety data are consolidated and checked by each business unit and business segment, and then at Corporate level. Data pertaining to certain specific indicators are calculated directly by the business segments. These processes undergo regular internal audits.

### *Details of certain environmental indicators*

*Personnel in charge of the environment:* it is a matter of identifying the persons in charge of the environment in the HSE departments of the sites, and if any, the staff of research centers working on this theme, the laboratories of sites (for environmental analysis), effluent liquid and gaseous emission processing departments, the department responsible for the management (and possibly internal processing) of waste, departments and entities charged with rehabilitation of sites.

*ISO sites:* sites covered by an ISO 14001 certificate that is valid, some certificates covering several sites.

*Fresh water:* water with salinity below 1.5 g/l.

*Hydrocarbon spills:* spills with a volume greater than 1 b (159 l) are counted. These are accidental spills of which at least part of the volume spilt reaches the natural environment (including nonwaterproof ground). Spills resulting from sabotage or malicious acts are included. Spills which remain in a confined watertight containment system are excluded.

*Waste:* the contaminated soil excavated and removed from active sites to be treated externally is counted as

**Table of Contents****Item 4 - Other Matters**

waste. But drilling debris, mining cuttings or soil polluted in inactive sites are not counted as waste.

*GHG:* the six gases of the Kyoto protocol are counted, which are CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFCs, PFCs and SF<sub>6</sub>, with their respective GWP (Global Warming Potential) as described by the 1995 GIEC report.

*GHG Scope 2:* the emission factors applied are world averages: 3.2 Mt CO<sub>2</sub>-eq/Mtep for steam and 0.4 t CO<sub>2</sub>-eq/MWh for electricity. This reporting is only applicable to the operated perimeter.

*GHG in equity share:* GHG emissions of non-significant assets are excluded for which the Group equity share is less than 10% and for which emissions in Group share are less than 50 kt CO<sub>2</sub>-eq/year. TOTAL relies on the information provided by its partners who operate its non-operated assets. In cases where this information is not available, estimates are made based on past data, budget data or by *pro rata* with similar assets.

*Material loss rate:* this rate corresponds to the net sum of materials extracted or consumed which are neither auto-consumed energy nor sold to a client, divided by the sum of transformed material. In the case of Exploration & Production, this rate is calculated by the ratio of the sum of identified losses to the sum of extracted materials. Petrochemicals considers that this new indicator is not yet sufficiently reliable to be published.

*Oil spill preparedness:*

- i An oil spill scenario is deemed important as soon as its consequences are on a small scale and with limited impacts on the environment (orders of magnitude of several hundred meters of beaches impacted, and several tons of hydrocarbons, typically).
- i An oil spill preparedness plan is deemed operational if it describes the alert mechanisms, if it is based on pollution scenarios that stem from the risk analyses and if it describes mitigation strategies that are adapted to each scenario, if it defines the technical and organizational means, internal and external, to be implemented and, lastly, if it mentions elements to be taken into account to implement a follow-up of the environmental impacts of the pollution.
- i Oil spill preparedness exercise: only exercises conducted on the basis of one of the scenarios identified in the oil spill preparedness plan and which are played out until the stage of deployment of equipment are counted for this indicator.

**Research & Development**

Certain R&D initiatives of the Group are set forth below. For additional information on the Group's R&D, see Item 5. Research and Development.

**Upstream segment**

**Exploration & Production:** In addition to continuously optimizing the development of deep-offshore projects and gas resources, TOTAL continues to improve its computing, exploration, seismic acquisition and processing tools over the long term as well as those for the initial appraisal of hydrocarbon reservoirs and simulation of field evolution during operations, especially for tight, very deep or carbonated reservoirs.

R&D activity has been intensified in the field of unconventional resources, with a strong focus on water management throughout the production cycle and the search for alternatives to hydraulic fracturing.

A new direction is being taken to carry out deep offshore operations in even deeper waters, on the one hand, and at greater distances for multiphase production transport, on the other hand, which is fully in line with the ambitious goals of Exploration & Production and supports major technology-intensive assets such as Libra in Brazil.

Enhancing oil recovery from mature reservoirs and recovery of heavy oil and bitumen with lesser environmental impacts are also subjects involving very active research. In particular, new technologies for the exploitation of oil shales by pyrolysis are being developed, both *in situ* and *ex situ*.

The oxycombustion CO<sub>2</sub> capture and storage project in the depleted Rousse reservoir in Lacq (France) is now in the monitoring phase following the injection phase, which ended in April 2013. The Group now has a strong command of the methods used to characterize reservoirs for this type of injection. New projects will look into new and more economical capturing solutions.

Finally, water management and the production of hydrocarbons are still the subject of increased R&D activities. This subject is now part of a larger program dedicated to acceptability.

**Gas & Power:** The program to develop new LNG solutions is continuing.

*Refining & Chemicals segment*

**Refining & Chemicals:** The aim of R&D is to support the medium and long-term development of Refining & Chemicals. In doing so, it contributes to the technological differentiation of this business through the development, implementation and promotion of effective R&D programs that pave the way for the industrialization of knowledge, processes and technologies.

In line with the Refining & Chemicals strategy, R&D places special emphasis on the following four major challenges: take advantage of different types of feedstock, optimize the value of assets, continue to develop innovative products, and develop bio-sourced products. The medium-term strategy of the project portfolio and its deployment plan will facilitate Refining & Chemicals technological differentiation.

To take advantage of different types of feedstock, R&D activities related to the processing of more diversified crudes have increased significantly through a better understanding of the effect that feedstocks have on equipment and processes at the molecular level. R&D is launching ambitious new programs to develop various technologies for producing liquid fuels, monomers and intermediates from gas.

R&D is developing know-how and technologies with a view to optimizing the value of assets. Its efforts mainly involve programs focusing on the flexibility and availability of facilities. Advanced modeling of feedstocks and processes helps the units overcome their processing-related constraints and operate in real time with these constraints

## Table of Contents

### Item 4 - Other Matters

in mind. Research conducted on catalysts is helping to increase their resistance to poisons, improve catalytic stability and extend cycle time at a lower cost. Programs are being set up to maximize the value of heavy residues.

In response to concerns related to social and environmental acceptability, R&D focuses its efforts on reducing emissions, with the aim of ensuring that the facilities' environmental impact is limited. In anticipation of problems that arise over the long term and the value of CO<sub>2</sub>, R&D is developing technologies to significantly reduce greenhouse gas emissions through the use of carbon capture and conversion.

Product innovation is a key aspect of research on polymers. R&D draws on its knowledge of metallocenes and bimodality to develop different types of mass consumption polymers which have exceptional properties that allow them to replace heavier materials and compete with technical polymers. Value-added niche polymers are also being developed, whether in the form of blends, compounds or composites. Efforts to diversify into green products are focused mainly on bioproducts endorsed by the market: biomonomers, biointermediates and biopolymers. R&D is banking on polylactic acid for the market launch of new polymers that boast improved properties. In addition, the development of blends, compounds and composites broadens the scope of application of polylactic acid-based polymers.

With regard to biofuels, R&D has focused its efforts on gasification and coprocessing to produce liquid fuels from biomass. R&D is also particularly mindful of issues related to blends and product quality raised by the use of biomolecules.

The efficient use of resources and the management of plastics at the end of their useful life are topics of growing interest. R&D is therefore developing technologies that enable plastics to be used more efficiently as feedstock.

**Specialty Chemicals:** R&D has strategic importance for the Specialty Chemicals. It is closely linked to the needs of subsidiaries and industrial customers.

Hutchinson's R&D is built around two key areas: materials, with the development of next-generation thermoplastic alloys and high-performance rubber formulas, as efforts to protect the environment create new opportunities; and a shift from products to systems, based on advanced functions such as thermal and acoustic management.

Bostik is focusing its research activities on three technology platforms: hot-melt adhesives, reactive elastomers and hydraulic polymer-binder systems. Based on these technologies, R&D is developing practical, sustainable assembly solutions that meet the needs of markets in terms of energy efficiency (construction, transport), material efficiency (health, industry) and environmental impacts throughout their life cycle.

Atotech is one of the world leaders for integrated production systems (chemicals, equipment, know-how and service) for industrial surface finishing and the manufacturing of integrated circuits. Given the environmental challenges related to electroplating, nearly half of Atotech's R&D projects are intended to develop

cleaner technologies and create conditions for the Sustainable Development of these industries.

### *Marketing & Services segment*

**Marketing & Services:** In 2013, in response to the roadmap and the new scope of Marketing & Services, R&D reorganized its business areas. In anticipation of changes in technologies, the main lines of research involve the design of new higher-quality, high-performance products to support the international development of the businesses: fuel economy (fuels, lubricants, additives), energy efficiency (bitumen), anticipation of regulatory changes (marine lubricants) and blending of bio-sourced molecules (aviation fuels and special fluids).

The development of the future range of Excellium fuels, which focus mainly on fuel economy and engine cleanliness, has made it possible to validate and integrate new molecules (friction modifier/anti-lacquering) as well as a new detergent technology developed in-house.

The Fuel Eco lubricant range was expanded with many new products added to comply with the specifications of manufacturers targeted by the Total Lubrifiants business line. New marine lubricants for two-stroke engines are being developed to anticipate changes in fuel (very low sulfur rate in coastal areas) and emissions requirements.

## Edgar Filing: TOTAL S.A. - Form 20-F

To meet energy efficiency requirements by reducing application temperatures, a new bitumen has been developed and released on the European market. The formulation of a sulfur-free specialty bitumen, aimed at reducing users' exposure to  $H_2S$ , is continuing.

New formulations of broader spectrum cold flow properties additives that include an exclusive booster for distillates have been developed and are being sold. The multi-partner CAER (alternative aviation fuels) project certified by the Directorate General for Aviation has been launched. The aim of this project is to understand the behavior of new components, from upstream logistics to downstream turbojet operation.

The conditions related to the hydroprocessing of local feedstocks were determined based on future special fluids production units and the initial tests on renewable feedstock pilot programs.

Finally, researchers have also demonstrated their know-how and expertise in the competitive arena by developing brand new products (fuels and lubricants for racing teams that were again world champions in 2013), products and technologies that are later adapted to consumer products.

**New Energies:** R&D efforts in New Energies cover both the production processes of SunPower cells, which aim to speed up the reduction of production costs, and the future generations of photovoltaic cells, as part of several partnerships with recognized academic research institutes and start-ups. In particular, TOTAL is a partner in the important institutional project, IPVF, launched by the Université Paris-Saclay. Energy production from biomass is the other major R&D challenge in the development of New Energies. Through

**Table of Contents****Item 4 - Other Matters**

its own biotechnology research team, the Group is taking part in a program to develop several production processes using biomass, and in biotechnological projects to transform the biomass into advanced biofuels or molecules that can be used in chemical applications. The Group's main partnership is with Amyris, in which the Group holds a stake.

**Environment**

Environmental issues are important throughout the Group and are taken into account in all R&D projects. R&D's effort is to ensure optimum management of environmental risk, particularly as regards:

- water management, notably by reducing the use of water from natural continental environments and by lowering emissions in compliance with local, national and international regulations;
- reduction of greenhouse gas emissions by improving energy efficiency and the monitoring of carbon capture and storage and the potential effects of CO<sub>2</sub> on the natural environment;
- detection and reduction of emissions into the air and simulation of their dissemination;
- prevention of soil contamination and regulatory compliance with regard to historical aspects and the rehabilitation of sites;
- changes in the Group's different products and management of their life cycle, in particular in compliance with the REACH Directive.

**Insurance and risk management****Organization**

TOTAL has its own reinsurance company, Omnium Reinsurance Company (ORC). ORC is integrated within the Group's insurance management and is used as a centralized global operations tool for covering the Group companies' insurable risks. It allows the Group's worldwide insurance program to be implemented in compliance with the specific requirements of local regulations applicable in the countries where the Group operates.

Some countries may require the purchase of insurance from a local insurance company. If the local insurer accepts to cover the subsidiary of the Group in compliance with its worldwide insurance program, ORC negotiates a retrocession of the covered risks from the local insurer. As a result, ORC enters into reinsurance contracts with the subsidiaries' local insurance companies, which transfer most of the risk to ORC.

At the same time, ORC negotiates a reinsurance program at the Group level with oil industry mutual insurance companies and commercial reinsurance markets. ORC allows the Group to better manage price variations in the insurance market by taking on a greater or lesser amount of risk corresponding to the price trends in the insurance market.

In 2013, the net amount of risk retained by ORC after reinsurance was a maximum of \$54 million per onshore third-party liability insurance claim, \$87 million per offshore third-party liability insurance claim and \$75 million per property damage and/or business interruption insurance claim. Accordingly, in the event of any loss giving rise to an aggregate insurance claim, the effect on ORC would be limited to its maximum retention of \$162 million per occurrence.

**Risk and insurance management policy**

In this context, the Group risk and insurance management policy is to work with the relevant internal department of each subsidiary to:

- define scenarios of major disaster risks (estimated maximum loss);
- assess the potential financial impact on the Group should a catastrophic event occur;
- help to implement measures to limit the probability that a catastrophic event occurs and the financial consequences if such event should occur; and
- manage the level of risk from such events to be either covered internally by the Group or transferred to the insurance market.

**Insurance policy**

The Group has worldwide property insurance and third-party liability coverage for all its subsidiaries. These programs are contracted with first-class insurers (or reinsurers and oil and gas industry mutual insurance companies through ORC).

## Edgar Filing: TOTAL S.A. - Form 20-F

The amounts insured depend on the financial risks defined in the disaster scenarios and the coverage terms offered by the market (available capacities and price conditions).

More specifically for:

Third-party liability insurance: since the maximum financial risk cannot be evaluated by a systematic approach, the amounts insured are based on market conditions and oil and gas industry practice. In 2013, the Group's third-party liability insurance for any liability (including potential accidental environmental liabilities) was capped at \$850 million (onshore) and \$750 million (offshore).

Property damage and business interruption: the amounts insured vary by sector and by site and are based on the estimated cost of and scenarios of reconstruction under maximum loss scenarios and on insurance market conditions. The Group subscribed for business interruption coverage in 2013 for its main refining and petrochemical sites.

For example, for the Group's highest risks (North Sea platforms and main refineries and petrochemical plants), in 2013 the insurance limit for the Group share of the installations was approximately \$1.7 billion for the Refining & Chemicals segment and approximately \$1.6 billion for the Upstream segment.

Deductibles for property damage and third-party liability fluctuate between €0.1 and €10 million depending on the level of risk and liability, and are borne by the relevant subsidiaries. For business interruption, coverage is triggered sixty days after the occurrence giving rise to the interruption. In addition, the main refineries and petrochemical plants bear a combined retention for property damage and business interruption of \$50 million per insurance claim.

Other insurance contracts are bought by the Group in addition to property damage and third-party liability coverage, mainly for car fleets, credit insurance and employee benefits. These risks are mostly underwritten by outside insurance companies.

The above-described policy is given as an example of a situation as of a given date and cannot be considered as representative of future conditions. The Group's insurance policy may be changed at any time depending on the market conditions, specific circumstances and on the General Management's assessment of the risks incurred and the adequacy of their coverage.

## **Table of Contents**

### **Item 4 - Other Matters**

#### **Competition**

TOTAL's competitors are comprised of national oil companies and international oil companies. The evolutions of the energy sector have opened the door to new competitors, increased market price volatility and called the viability of long-term contracts into question.

TOTAL is subject to competition from other oil companies in the acquisition of assets and licenses for the exploration and production of oil and natural gas as well as for the sale of manufactured products based on crude and refined oil. In the gas sector, major producers are becoming interested in the downstream value chain and are competing directly with established distribution companies, including those that belong to the Group. Increased competitive pressure could have a significant negative effect on the sales prices, margins and market shares of the Group's companies.

The pursuit of unconventional gas development, particularly in the United States, has contributed to falling market prices and a marked difference between spot and long-term contract prices. The competitiveness of long-term contracts indexed to oil prices could be affected if this discrepancy persists and if it should prove difficult to invoke price revision clauses.

The major international oil companies in competition with TOTAL are ExxonMobil, Royal Dutch Shell, Chevron and BP. As of December 31, 2013, TOTAL ranked fifth among these companies in terms of market capitalization.<sup>(1)</sup>

#### **Competition law**

Competition laws apply to the Group's companies in the vast majority of countries in which it does business. Violations of competition laws carry fines and expose the Group and its employees to criminal sanctions and civil suits. Furthermore, it is now common for persons or corporations allegedly injured by violations of competition laws to sue for damages.

Some of the Group's business segments have already been implementing competition law conformity plans for a long time. In 2012, a Group policy for compliance with competition law and prevention of violations in this area was adopted. Its deployment is based on a dedicated organization, the involvement of hierarchies and staff, and a warning process.

#### **Cuba, Iran and Syria**

Provided in this section is certain information relating to TOTAL's activities in Cuba and its presence in Iran and Syria. For more information on U.S. and EU restrictions relevant to TOTAL in these jurisdictions, see [Item 3. Key Information - Risk Factors](#).

##### ***Cuba***

In 2013, Marketing & Services had limited marketing activities for the sale of specialty products to non-state entities in Cuba and paid taxes of approximately €425,000 on such activities. Hutchinson, a Refining & Chemicals affiliate, had limited sales in Cuba of transmission belts for agricultural machinery via a government-controlled intermediary that received a commission of approximately €77,000. In addition, Trading & Shipping purchased hydrocarbons pursuant to spot contracts from a state-controlled entity for approximately €101 million and sold energy options to this state-controlled entity for approximately €4 million.

##### ***Iran***

Section 13(r) of the Securities Exchange Act of 1934, as amended, requires the Company to disclose whether it or any of its affiliates

engaged during the 2013 calendar year in certain Iran-related activities. While TOTAL has not engaged in any activity that would be required to be disclosed pursuant to subparagraphs (A), (B), (C), (D)(i) or (D)(ii) of Section 13(r)(1), affiliates of the Company may be deemed to have engaged in certain transactions or dealings with the government of Iran that would require disclosure pursuant to Section 13(r)(1)(D)(iii), as discussed below.

The Group has no exploration and production activities in Iran and maintains a local office in Iran solely for non-operational functions. Some payments are yet to be reimbursed to the Group with respect to past expenditures and remuneration under buyback contracts entered into between 1997 and 1999 with the National Iranian Oil Company (NIOC) for the development of the South Pars 2&3 and Dorood fields. With respect to these contracts, development operations have been completed and the Group is no longer involved in the operation of these fields. In 2013, Total E&P Iran (100%), Elf Petroleum Iran (99.8%), Total Sirri (100%) and Total South Pars (99.8%) collectively made payments of less than €0.5 million to (i) the Iranian administration for taxes and social security



## Edgar Filing: TOTAL S.A. - Form 20-F

contributions concerning the personnel of the aforementioned local office and residual buyback contract-related obligations, and (ii) Iranian public entities for payments with respect to the maintenance of the aforementioned local office (*e.g.*, utilities, telecommunications). TOTAL expects similar payments to be made in 2014, and it did not recognize any revenues or profits from the aforementioned in 2013.

In 2013, as part of its ongoing global strategy for the protection of its intellectual property, TOTAL paid taxes of approximately €1,500 to the Iranian national intellectual property office with respect to patents filed in Iran prior to 2013. The Group anticipates paying similar taxes in the future.

Total E&P UK Limited ( TEP UK ), a wholly-owned affiliate of TOTAL, had limited contacts in 2013 with the Iranian Oil Company UK Ltd ( IOC ), a subsidiary of NIOC. These contacts related to agreements governing certain transportation, processing and operation services formerly provided to a joint venture at the Rhum field in the UK, co-owned by BP (50%, operator) and IOC (50%), by a joint venture at the Bruce field between BP (37%, operator), TEP UK (43.25%), BHP Billiton Petroleum Great Britain Ltd (16%) and Marubeni Oil & Gas (North Sea) Limited (3.75%) and by TEP UK's Frigg UK Association pipeline (100%). To TOTAL's knowledge, no services have been provided under the aforementioned agreements since November 2010, when the Rhum field stopped production following the adoption of EU sanctions, other than critical safety-related services (*i.e.*, monitoring and marine inspection of the Rhum facilities), which are permitted by EU sanctions regulations. These agreements led to the signature in 2005 of an agreement by TEP UK and Naftiran Intertrade Co. ( NICO ) (IOC's parent company and a subsidiary of NIOC) for the purchase by TEP UK of Rhum field natural gas liquids from NICO. This agreement was terminated by TEP UK with effect from December 2013 and, prior to that, there had been no purchases under this agreement since November 2010. TEP UK's contacts with IOC and NICO in 2013 in regard to the aforementioned agreements were limited to exchanging letters and notifications regarding contract administration and declarations of force majeure. TOTAL did not recognize any revenues or profits from the aforementioned in 2013. Furthermore, on October 22, 2013, the UK government notified IOC of its decision to apply a temporary management scheme to IOC's interest in the Rhum field within the meaning of UK Regulations 3 and 5 of the Hydrocarbons (Temporary Management Scheme) Regulations 2013 (the Hydrocarbons Regulations ). On December 6, 2013, the UK government further authorized TEP UK, among others,

<sup>(1)</sup> Source: Reuters.

**Table of Contents****Item 4 - Other Matters**

under Article 43a of EU Regulation 267/2012, as amended by 1263/2012 and under Regulation 9 of the Hydrocarbons Regulations, to carry out activities in relation to the operation and production of the Rhum field. As a result, TEP UK does not anticipate having any contacts with IOC in 2014. In addition, on September 4, 2013, the U.S. Treasury Department issued a license to BP authorizing BP and certain others to engage in various activities relating to the operation and production of the Rhum field. The Rhum field remains shut down, but it is anticipated that production could restart at some point in 2014.

The Group does not purchase Iranian hydrocarbons or own or operate any refineries or chemicals plants in Iran.

Until December 2012, at which time it sold its entire interest, the Group held a 50% interest in the company Beh Total (now named Beh Tam) along with Behran Oil (50%), a company controlled by entities with ties to the government of Iran. As part of the sale of the Group's interest in Beh Tam, TOTAL S.A. agreed to license the trademark Total to Beh Tam for an initial 3-year period for the sale by Beh Tam of lubricants to domestic consumers in Iran. Total E&P Iran (TEPI), a wholly-owned affiliate of TOTAL S.A., expects to receive, on behalf of TOTAL S.A., annual royalty payments in Rials from Beh Tam during the period 2014-2016 for such license. Each payment will be based on Beh Tam's sales of lubricants during the previous calendar year. Representatives of the Group and Beh Tam met twice in 2013 to discuss the local lubricants market and further discussions are expected to take place in the future. TEPI received payments in 2013 from Beh Tam in Rials of approximately €2.6 million that corresponded to an outstanding 2011 Beh Total dividend payment and the settling of debts related to the Group's prior ownership. Similar payments, in addition to the royalty payments described above, are expected to be received from Beh Tam in 2014.

Total Marketing Middle East FZE (TMME), a wholly-owned affiliate of the Group, which had stopped sales of lubricants to Beh Total at the end of 2012, decided in 2013 to resume such sales to Beh Tam in Iran. The sale in 2013 of approximately 188 t of lubricants generated gross revenue of approximately €1.0 million and a net profit of approximately €0.2 million. TMME expects to continue such activity in 2014.

Total Oil Turkiye A.S. (TOT A.S.), a company wholly-owned by the Group and three Group employees, sold in 2013 approximately 81 t of additives to a privately-held Turkish company not affiliated with the Group, which subsequently sold such additives to Beh Tam for the manufacture of lubricants. This activity generated for TOT A.S. gross revenue of approximately €296,000 and a net profit of approximately €54,000. TOT A.S. does not expect to continue this activity in 2014.

Total Ethiopia Ltd (TEL), an Ethiopian company held 99.99% by the Group and the rest by three Group employees, paid approximately €63,000 in 2013 to Merific Iran Gas Co, an Ethiopian company majority-owned by entities affiliated with the government of Iran, pursuant to a contract for the transport and storage of LPG in Ethiopia purchased by TEL from international markets. TEL expects to stop pursuing this activity in 2014.

Total Belgium NV (Total Belgium), a company held 99.99% by the Group and the rest by an individual, provided in early 2013 fuel payment cards to Iranian diplomatic missions in Belgium for use in the Group's service stations. In 2013, these activities generated gross revenue of approximately €27,500 and net income of approximately €550. The company terminated this contractual agreement in 2013. In addition, Total Belgium supplied approximately 11,000 liters of heating fuel (gasoil) to the Iranian Embassy in Brussels. In 2013, this activity generated gross

revenue of approximately €9,500 and net income of approximately €1,500. Such supply arrangements ceased in December 2013 and there are no plans to resume such supply.

Total Deutschland GmbH (Total Deutschland), a German company wholly-owned by the Group, provided in 2013 fuel payment cards to Iranian diplomatic missions in Germany for use in the Group's service stations. In 2013, these activities generated gross revenue of approximately €4,400 and a net profit of approximately €50. Total Deutschland is in the process of terminating this arrangement.

In addition, the Group holds a 50% interest in, but does not operate, Samsung Total Petrochemicals Co. Ltd (STC), a South Korean incorporated joint venture with Samsung General Chemicals Co., Ltd. (50%). In reliance on the exemption provided in Section 1245(d)(4)(D) of the National Defense Authorization Act (NDAA) announced on December 7, 2012, STC purchased approximately 150,000 t of condensates in early 2013 directly or indirectly from companies affiliated with the Iranian government for approximately €94 million. As such condensates are used by STC as inputs for its manufacturing processes, it is not possible to estimate the revenues from sales or net income attributable to such purchases. STC stopped such purchases in March 2013.

**Syria**

Since early December 2011, TOTAL has ceased its activities that contribute to oil and gas production in Syria and maintains a local office solely for non-operational functions. In 2013, TOTAL made payments of approximately €0.5 million to Syrian government agencies in the form of taxes and contributions for services rendered by the Syrian public sector in relation to the maintenance of the aforementioned office and its personnel.

**Organizational Structure**

## Edgar Filing: TOTAL S.A. - Form 20-F

TOTAL S.A. is the parent company of the TOTAL Group. As of December 31, 2013, there were 898 consolidated subsidiaries, of which 809 were fully consolidated and 89 were accounted for under the equity method. For a list of the principal consolidated subsidiaries of the Company, see Note 35 to the Consolidated Financial Statements.

TOTAL S.A.'s scope of consolidation includes at least all companies in which the Company holds a direct or indirect interest, the book value of which on that date is at least equal to 10% of the amount of TOTAL S.A.'s equity or of the consolidated net assets of the Group, or which has generated at least 10% of the TOTAL S.A.'s net income or of the Group's consolidated net income during the last year.

### Significant changes in the Group's interests in listed companies in 2011, 2012 and 2013

#### *TOTAL's interest in Novatek*

In March 2011, TOTAL signed an agreement in principle to acquire a 12.09% capital interest in Novatek, a Russian company listed on the Moscow Interbank Currency Exchange and the London Stock Exchange, with both parties intending TOTAL to increase its stake to 15% within 12 months and to 19.40% within 36 months.

TOTAL acquired its 12.09% capital interest in Novatek in April 2011 by purchasing shares from Novatek's two major shareholders. Further to this transaction, TOTAL is now represented on the Novatek Board of Directors.

TOTAL raised its stake to 14.09% in December 2011, by acquiring an additional 2% capital interest in Novatek from its two major shareholders, in the framework of the agreement concluded in March 2011.

## Table of Contents

### Items 4 - 5

In 2012 and 2013, TOTAL proceeded to the acquisition of shares in Novatek on a gradual basis. As of December 31, 2013, TOTAL held, through its subsidiary Total E&P Arctic Russia, 515,067,590 shares out of a total of 3,036,306,000 outstanding shares, representing 16.96% of Novatek's share capital and voting rights.

#### ***TOTAL's interest in SunPower***

In April 2011, SunPower, an American company listed on the NASDAQ, and TOTAL signed a strategic agreement for the acquisition by TOTAL, through a friendly takeover bid, of 60% of SunPower's outstanding shares for a price of \$23.25 per share, totaling around \$1.4 billion. The friendly takeover bid was concluded successfully in June 2011.

TOTAL also signed in 2011 a 5-year financial guarantee agreement with SunPower for a maximum amount of \$1 billion, as well as a liquidity support agreement for a maximum amount of \$600 million for a maximum 5-year term.

In January 2012, TOTAL's interest in SunPower increased to 66% as the result of capital increase coinciding with the Tenesol transaction.

As of December 31, 2013, TOTAL held, through its subsidiary Total Gas & Power USA, 78,576,682 shares out of a total of 121,535,913 outstanding shares, representing 64.65% of SunPower's share capital and voting rights.

#### ***TOTAL's interest in Sanofi***

In fiscal year 2012, TOTAL sold the remainder of its holding in Sanofi, held indirectly through its subsidiary Elf Aquitaine.

Over the years 2010 and 2011, TOTAL's interest in Sanofi successively changed from 7.33% of the outstanding shares and 12.29% of the voting rights on December 31, 2009, to 5.51% of the outstanding shares and 9.15% of the voting rights on December 31, 2010, and then to 3.22% of the outstanding shares and 5.46% of the voting rights on December 31, 2011.

### Property, Plant and Equipment

TOTAL has freehold and leasehold interests in numerous countries throughout the world, none of which is material to TOTAL. See [Business Overview Upstream](#) for a description of TOTAL's reserves and sources of oil and gas.

## ITEM 4A. UNRESOLVED STAFF COMMENTS

None.

## ITEM 5. OPERATING AND FINANCIAL REVIEW AND PROSPECTS

*This section is the Company's analysis of its financial performance and of significant trends that may affect its future performance. It should be read in conjunction with the Consolidated Financial Statements included elsewhere in this Annual Report. The Consolidated Financial Statements are prepared in accordance with IFRS as issued by the IASB and IFRS as adopted by the EU.*

*This section contains forward-looking statements which are subject to risks and uncertainties. For a list of important factors that could cause actual results to differ materially from those expressed in the forward-looking statements, see [Cautionary Statement Concerning Forward-Looking Statements](#) on page iv.*

## OVERVIEW

TOTAL's results are affected by a variety of factors, including changes in crude oil and natural gas prices as well as refining and marketing margins, which are all generally expressed in dollars, and changes in exchange rates, particularly the value of the euro compared to the dollar. Higher crude oil and natural gas prices generally have a positive effect on the income of TOTAL, since its Upstream oil and gas business benefits from the resulting increase in revenues realized from production. Lower crude oil and natural gas prices generally have a corresponding negative effect. The effect of changes in crude oil prices on TOTAL's Refining & Chemicals and Marketing & Services activities depends upon the speed at which the prices of refined petroleum products adjust to reflect such changes. As TOTAL reports its results in euros, but conducts its operations mainly in dollars, the effect of an increase in crude oil and natural gas prices is partly offset by the effect of the variation in exchange rates during periods of weakening of the dollar relative to the euro and strengthened during periods of strengthening of the dollar relative to the euro. TOTAL's results are also significantly affected by the costs of its activities, in particular those related to exploration and production, and by the outcome of its strategic decisions with respect to cost reduction efforts. TOTAL's results are also affected by general economic and political conditions and changes in governmental laws and regulations, as well as by the impact of decisions by OPEC on production levels. For more information, see Item 3. Key Information Risk Factors and Item 4. Information on the Company Other Matters.

The year 2013 was marked by the end of the recession in the euro zone in the second quarter and the stability of emerging countries. This improvement was mitigated in the third quarter by the impacts of significant exchange rate fluctuations in emerging markets and the budget debate in the United States.

In this context, global oil demand rose sharply by +1.1 Mb/d<sup>(1)</sup>, compared to +0.8 Mb/d in 2012, driven by demand in Asia and the Middle East. Global oil supplies were up moderately in 2013 by +0.4 Mb/d after an increase of +2.3 Mb/d in 2012. Market supplies remained adequate mainly due to the increase in non-conventional oil production in North America, whereas the persistence of geopolitical factors, particularly in Libya, Nigeria and Iraq, put a strain on OPEC production. The oil market environment in 2013 therefore remained relatively stable with a Brent price of \$108.7/b compared to \$111.7/b in 2012.

Gas spot prices remained stable in Asia in 2013, sustained by demand, and averaged \$16/Mbtu. In Europe, gas spot prices increased by more than 20% from \$9/Mbtu in 2012 to \$11/Mbtu in 2013. Similarly, after a sharp drop due to the abundant supply of natural gas following the development of shale gas, gas spot prices in the United States rose by more than 30% in 2013, averaging \$4/Mbtu compared to \$3/Mbtu in 2012.

In the downstream, 2013 saw a sharp decline in European refining margins, which was partly offset by a more favorable petrochemicals environment. Given the effect of over-capacities, the continued high Brent price and sluggish demand, the

<sup>(1)</sup> IEA data, excluding biofuels and refining gains.

**Table of Contents****Item 5 - Operating and Financial Review and Prospects**

European Refining Margin Indicator ( ERMI<sup>(1)</sup>) was \$17.9/t in 2013, compared to \$36.0/t in 2012. For their part, petrochemical margins in Europe and the United States increased during the year by approximately 25% on average as a result of lower raw material prices (naphtha in Europe and Asia, ethane and LPG in the United States).

In this environment, TOTAL's net income (Group share) amounted to €8.4 billion, down 20% from 2012. This result essentially reflects the decrease in net income of the Upstream segment, which was partly offset by the increase in net income of Marketing & Services.

The Upstream segment's adjusted net operating income reached €9.4 billion in 2013, a 16% decrease from the previous year, impacted by a less favorable production mix, an increase in technical costs, especially exploration expenses, and an increase in the effective tax rate. In 2013, the Refining & Chemicals segment benefited from the concrete effects of the synergy and operational efficiency plans and a more favorable petrochemicals environment. This helped offset the sharp decline in refining margins in Europe and allowed adjusted net operating income to remain stable compared with 2012. Finally, the Marketing & Services segment recorded a 39% increase in adjusted net operating income compared with 2012, thanks in particular to improved performance in New Energies, which posted significant losses in 2012, and overall growth in marketing of petroleum products, driven mainly by emerging markets.

Acquisitions were €3.4 billion in 2013, comprised essentially of the acquisition of a 20% stake in the Libra field in Brazil, an additional 6% stake in the Ichthys project in Australia, an additional 1.6% stake in Novatek<sup>(2)</sup>, the carry agreement in the Utica shale gas and condensates field in the United States and the bonus for exploration licenses in South Africa, Mozambique and Brazil. Asset sales totaled €3.6 billion, comprised essentially of the sale of TIGF, a 25% stake in the Tempa Rossa field in Italy, the 49% interest in the Voyager upgrader project in Canada, fertilizer operations and all the Exploration & Production assets in Trinidad and Tobago. Thus, of the \$15-20 billion (approximately €12-15 billion) in sales targeted for the 2012-2014 period, the Group had already sold \$13 billion<sup>(3)</sup> (approximately €10 billion) in assets at the end of 2013<sup>(4)</sup>.

As announced, the intensive investment phase aimed at transforming the Group's production profile by 2017 reached a peak of \$28 billion (€21.3 billion) in 2013. TOTAL financed its investments and dividends while maintaining a sound balance sheet and ended 2013 with a ratio of net debt to equity of 23%. On the strength of this financial soundness and in keeping with its competitive shareholder return policy, the Board of Directors decided to propose at the May 16, 2014 Shareholders' Meeting a dividend of €2.38/share for 2013, which represents a 3.4% increase for the remaining dividend.

In terms of operations, the Group's production was impacted by safety issues in Libya and Nigeria, the effects of which were partly offset by the improved situation in Yemen and by the restart of Elgin-Franklin in the North Sea and OML 58 in Nigeria.

With responsibility and transparency, TOTAL reasserts the utmost priority it gives to the safety of operations and its commitment to environmental protection. Thus, the Group further improved its

safety performance, with a 14% drop in TRIR<sup>(5)</sup> compared with 2012. For all of its projects conducted in a large number of countries, the Group also places emphasis on Corporate Social Responsibility (CSR) challenges and the development of local economies.

In the Upstream segment, 2013 saw the launch of major projects in Congo, Nigeria, Canada and Russia and the acquisition of interests in high-potential assets, particularly in Brazil with the acquisition of a 20% stake in the Libra field. TOTAL has therefore confirmed its production growth targets and strengthened its prospects beyond 2017. The Group also pursued its ambitious exploration program and made large discoveries in Iraq and Argentina. In 2013, the Group continued to extend its oil and gas acreage by obtaining licenses in promising exploration areas, particularly in Iraq, Brazil, Bolivia and South Africa.

In the Refining & Chemicals segment, the synergy and operational efficiency plans yielded concrete results that, together with a more favorable petrochemicals environment, enabled this segment to record stable income despite an extremely weak refining environment in Europe. The year 2013 was also marked by the start of production at the SATORP refinery in Saudi Arabia and by the announcement of the launch of a major investment program to upgrade the Antwerp platform in Belgium and a project to adapt the petrochemicals platform in Carling, France, in order to restore its competitiveness.

In the Marketing & Services segment, the Group's strategy is to optimize its operations in Europe, strengthen its leading positions on the African continent and in the Middle East and expand its presence in the global lubricants market, while at the same time maintaining a profitability target of over 17%. Thus, in 2013, the Group strengthened its leadership in Europe by increasing its network market share with 600 Total Access service stations now deployed in France. TOTAL also continued its expansion in high-growth markets and developed its positions in Egypt and Pakistan. In 2013, the photovoltaic solar energy sector stabilized after two years of sharp price decreases. Against this backdrop, New Energies improved its competitiveness and TOTAL and SunPower (64.65%) announced a number of successful initiatives, including the start-up of the California Valley Solar Ranch solar power plant and the launch of new solar power plant projects in Chile and South Africa.

The process initiated in 2004 to increase R&D budgets continued with expenditures of €949 million in 2013, up nearly 20% compared to 2012, with the aim, in particular, of the continued improvement of the Group's technological expertise in the development of oil and gas resources and the development of solar, biomass, carbon capture and storage technologies in order to contribute to changes in the global energy mix.

## Outlook

After reaching a peak of \$28 billion (approximately €21 billion) in 2013, the organic investment budget was reduced to \$26 billion (approximately €20 billion) in 2014, more than 80% of which will be dedicated to Upstream. Moreover, all the Group's segments are making efforts to control their investments and reduce their operating costs while continuing to make safety an absolute priority.

<sup>(1)</sup> TOTAL's margin indicator.

<sup>(2)</sup> The Group's interest in Novatek was 16.96% at December 31, 2013.

<sup>(3)</sup> Dollar amounts represent euro amounts converted at the average exchange rate of \$1.3281/€1 for the full year 2013.

<sup>(4)</sup> Including other transactions with minority interests.

<sup>(5)</sup> Total Recordable Injury Rate.

## **Table of Contents**

### **Item 5 - Operating and Financial Review and Prospects**

As discussed above, of the \$15-20 billion (approximately €12-15 billion) in sales targeted for the 2012-2014 period, the Group had already sold \$13 billion (approximately €10 billion) in assets at the end of 2013<sup>(4)</sup>. The proposed sales being negotiated and reviewed should enable TOTAL to reach, and possibly exceed, the announced target.

In the Upstream segment, TOTAL confirmed its production growth targets of 2.6 Mboe/d by 2015 and the potential for 3 Mboe/d by 2017. Nearly all the projects needed to achieve these targets are now either in production or in the development phase. In 2014, after the expiration of the ADCO license, production will benefit from a ramp-up of recently started projects and from the start-up of TOTAL-operated projects CLOV in Angola, Laggan-Tormore in the UK and Ofon Phase 2 in Nigeria.

TOTAL is pursuing its ambitious exploration program with a stable budget of \$2.8 billion (approximately €2.2 billion). This program includes, in particular, high-potential drilling in Brazil, the Kwanza Basin in Angola, Ivory Coast and South Africa.

In the Refining & Chemicals segment, the productivity gains and synergies resulting from the ongoing restructuring should continue in 2014 and contribute, in a constant environment, to the improvement in the segment's profitability. Also in 2014, the start-up of the last units of the SATORP refinery in Jubail, Saudi Arabia will make this new integrated platform fully operational.

The Marketing & Services segment will develop its positions in the most high-growth markets and continue to optimize its positions in Europe. New Energies, at breakeven in 2013, should continue to benefit from ongoing efforts at SunPower focusing on productivity, development and innovation.

Since the start of the year 2014, the environment has remained favorable in the upstream, while refining margins have continued to deteriorate significantly in Europe.

The Group confirms its commitment in favor of a competitive policy for returns to shareholders, in keeping with its objective of sustainable growth.

## **CRITICAL ACCOUNTING POLICIES**

A summary of the Group's accounting policies is included in Note 1 to the Consolidated Financial Statements. Management believes that the application of these policies on a consistent basis enables the Group to report useful and reliable information about the Group's financial condition and results of operations.

The preparation of financial statements in accordance with IFRS requires management to make estimates and assumptions that affect the reported amounts of assets, liabilities and contingent liabilities at the date of preparation of the financial statements and reported income and expenses for the period. Management reviews these estimates and assumptions on an ongoing basis, by reference to past experience and various other factors considered as reasonable which form the basis for assessing the carrying amount of assets and liabilities. Actual results may differ significantly from these estimates, if different assumptions or circumstances apply.

Lastly, where the accounting treatment of a specific transaction is not addressed by any accounting standards or interpretation, management applies its judgment to define and apply accounting policies that provide information consistent with the general IFRS concepts: faithful representation, relevance and materiality.

The following summary provides further information about the critical accounting policies that involve significant elements of management judgment, and which could have a significant impact on the results of the Group. It should be read in conjunction with Note 1 to the Consolidated Financial Statements.



## Edgar Filing: TOTAL S.A. - Form 20-F

The assessment of critical accounting policies below is not meant to be an all-inclusive discussion of the uncertainties in financial results that can occur from the application of the full range of the Company's accounting policies. Materially different financial results could occur in the application of other accounting policies as well. Likewise, materially different results can occur upon the adoption of new accounting standards promulgated by the various rule-making bodies.

### Successful efforts method of oil and gas accounting

The Group follows the successful efforts method of accounting for its oil and gas activities. The Group's oil and gas reserves are

estimated by the Group's petroleum engineers in accordance with industry standards and SEC regulations. Proved oil and gas reserves are those quantities of oil and gas, which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically producible from a given date forward, from known reservoirs, and under existing economic conditions, operating methods, and government regulations, prior to the time at which contracts providing the right to operate expire, unless evidence indicates that renewal is reasonably certain, regardless of whether deterministic or probabilistic methods are used for the estimation. These estimates do not include probable or possible reserves. Estimated oil and gas reserves are based on available reservoir data and prices and costs in the accounting period during which the estimate is made and are subject to future revision. The Group reassesses its oil and gas reserves at least once a year on all its properties.

Exploration leasehold acquisition costs are capitalized when acquired. During the exploration phase, management exercises judgment on the probability that prospects ultimately would partially or fully fail to find proved oil and gas reserves. Based on this judgmental approach, a leasehold impairment charge may be recorded. This position is assessed and adjusted throughout the contractual period of the leasehold based in particular on the results of exploratory activity and any impairment is adjusted prospectively.

When a discovery is made, exploratory drilling costs continue to be capitalized pending determination of whether potentially economic oil and gas reserves have been discovered by the drilling effort. The length of time necessary for this determination depends on the specific technical or economic difficulties in assessing the recoverability of the reserves. If a determination is made that the well did not encounter oil and gas in economically viable quantities, the well costs are expensed and are reported in exploration expense.

Exploratory drilling costs are temporarily capitalized pending determination of whether the well has found proved reserves if both of the following conditions are met:

the well has found a sufficient quantity of reserves to justify, if appropriate, its completion as a producing well, assuming that the required capital expenditure is made; and

*(1) Including other transactions with minority interests (sale of minority equity interests in Total E&P Congo and Block 14 in Angola).*

## Table of Contents

### Item 5 - Operating and Financial Review and Prospects

satisfactory progress toward ultimate development of the reserves is being achieved, with the Company making sufficient progress assessing the reserves and the economic and operating viability of the project.

The Company evaluates the progress made on the basis of regular project reviews which take into account the following factors:

First, if additional exploratory drilling or other exploratory activities (such as seismic work or other significant studies) are either underway or firmly planned, the Company deems there is satisfactory progress. For these purposes, exploratory activities are considered firmly planned only if they are included in the Company's 3-year exploration plan/budget.

In cases where exploratory activity has been completed, the evaluation of satisfactory progress takes into account indicators such as the fact that costs for development studies are incurred in the current period, or that governmental or other third-party authorizations are pending or that the availability of capacity on an existing transport or processing facility awaits confirmation.

The successful efforts method requires, among other things, that the capitalized costs for proved oil and gas properties (which include the costs of drilling successful wells) be amortized on the basis of reserves that are produced in a period as a percentage of the total estimated proved reserves. The impact of changes in estimated proved reserves is dealt with prospectively by amortizing the remaining book value of the asset over the expected future production. If proved reserve estimates are revised downward, earnings could be affected by higher depreciation expense or an immediate write-down of the property's book value. Conversely, if the oil and gas quantities were revised upwards, future per-barrel depreciation and depletion expense would be lower.

#### Valuation of long-lived assets

In addition to oil and gas assets that could become impaired under the application of successful efforts accounting, other assets could become impaired and require write-down if circumstances warrant. Conditions that could cause an asset to become impaired include lower-than-expected commodity sales prices, changes in the Group's business plans or a significant adverse change in the local or national business climate. The amount of an impairment charge would be based on estimates of the higher of the value in use or the fair value minus cost to sell compared with its book value. The value in use is based on the present value of expected future cash flow using assumptions commensurate with the risks involved in the asset group. The expected future cash flow used for impairment reviews is based on judgmental assessments of future production volumes, prices and costs, considering information available at the date of review.

#### Asset retirement obligations and environmental remediation

When the Group has a present obligation (legal or constructive), upon application of International Accounting Standard (IAS) 37 and IAS 16, it records provisions for the future decommissioning of production facilities at the end of their economic lives. Management makes judgments and estimates in recording liabilities. Most of these removal obligations are many years in the future and the precise requirements that will have to be met when the removal event actually occurs are uncertain. Asset removal technologies and costs are constantly changing, as well as political, environmental, safety and public expectations.

The Group also makes judgments and estimates in recording costs and establishing provisions for environmental clean-up and remediation costs, which are based on current information on costs and expected plans for remediation. For environmental provisions, actual costs can differ from estimates because of changes in laws and regulations, public expectations, discovery and analysis of site conditions and changes in clean-up technology.

#### Pensions and post-retirement benefits

Accounting for pensions and other post-retirement benefits involves judgments about uncertain events, including estimated retirement dates, salary levels at retirement, mortality rates, determination of discount rates for measuring plan obligations, healthcare cost-trend rates and rates of utilization of healthcare services by retirees. These assumptions are based on the environment in each country. The assumptions used are reviewed at the end of each year and may vary from year-to-year, based on the evolution of the situation, which will affect future results of operations. Any differences between these assumptions and the actual outcome will also impact future results of operations.

The significant assumptions used to account for pensions and other post-retirement benefits are determined as follows.

Discount rates primarily reflect the high quality rates of AA-rated corporate bonds of a duration equivalent to that of the plan obligations. Inflation rates reflect market conditions observed on a country-by-country basis.

## Edgar Filing: TOTAL S.A. - Form 20-F

Salary increase assumptions (when relevant) are determined by each entity. They reflect an estimate of the actual future salary levels of the individual employees involved, including future changes attributed to general price levels (consistent with inflation rate assumptions), productivity, seniority, promotion and other factors.

Healthcare cost trend assumptions (when relevant) reflect an estimate of the actual future changes in the cost of the healthcare-related benefits provided to the plan participants and are based on past and current healthcare cost trends including healthcare inflation, changes in healthcare utilization, and changes in health status of the participants.

Demographic assumptions such as mortality, disability and turnover reflect the best estimate of these future events for the individual employees involved, based principally on available actuarial data.

The effect pensions had on results of operations, cash flow and liquidity is fully set out in Note 18 to the Consolidated Financial Statements. Net employee benefit expense in 2013 amounted to €297 million and the Company's contributions to pension plans were €224 million.

Differences between projected and actual costs and between the normative return and the actual return on plan assets routinely occur and are recognized in the statement of comprehensive income, with no possibility to subsequently recycle them to the income statement.

The past service cost in respect of defined benefit plans is recorded immediately in the statement of income, whether vested or unvested.

For defined contribution plans, expenses correspond to the contributions paid.

The revised standard IAS 19 "Employee benefits" applicable retrospectively from January 1, 2013, led in particular to the full

**Table of Contents****Item 5 - Operating and Financial Review and Prospects**

recognition of the net position in respect of employee benefits obligations (liabilities net of assets) in the balance sheet, the elimination of the corridor approach previously used by the Group, the end of the amortization of past services costs, and the obligation to evaluate the expected return on plan assets on a normative basis (via the discount rate used to value the debt).

The application of this standard had an impact on January 1, 2013, January 1, 2012 and January 1, 2011 of an increase in employee benefit provisions of €2.8 billion, €1.8 billion and €1.3 billion, respectively, and a respective decrease in equity of €2.8 billion, €1.8 billion and €1.3 billion before tax (€1.7 billion, €1.1 billion and €0.8 billion after tax), respectively. The impact on

the net income (Group share) for 2012 and 2011 is not significant. In accordance with the transitional rules of revised standard IAS 19, the comparative periods were restated to take into account the retrospective application of the standard.

**Income tax computation**

The computation of the Group's income tax expense requires the interpretation of complex tax laws and regulations in many taxing jurisdictions around the world, the determination of expected outcomes from pending litigation, and the assessment of audit findings that are performed by numerous taxing authorities. Actual income tax expense may differ from management's estimates.

**RESULTS 2011-2013**

As of and for the year ended December 31, (M€, except per share data)	2013	2012	2011
Non-Group sales	189,542	200,061	184,693
Net income (Group share)	8,440	10,609	12,309
Diluted earnings per share	3.72	4.68	5.45

In October 2011, the Group announced a proposed reorganization of its Downstream and Chemicals segments. The procedure for informing and consulting with employee representatives took place and the reorganization became effective on January 1, 2012. This led to organizational changes, with the creation of: a Refining & Chemicals segment, a major production hub combining TOTAL's refining, petrochemicals, fertilizers and specialty chemicals operations, as well as oil trading and shipping activities; and a Supply & Marketing segment (renamed the Marketing & Services segment on November 13, 2012), which is dedicated to the global supply and marketing activities of oil products. A further reorganization of the Group's Upstream and Marketing & Services segments became effective as of July 1, 2012, with the Upstream segment now consisting of the activities of Gas & Power in addition to the exploration and production of hydrocarbons, and the Marketing & Services segment now consisting of the activities of New Energies in addition to the Group's worldwide businesses of supplying and marketing petroleum products. Historical numbers and related qualitative commentary contained herein have been restated on this basis.

In addition, following the application of revised accounting standard IAS 19 effective January 1, 2013, the information for 2012, 2011, 2010 and 2009 has been restated; however, the impact on such restated results is not significant (for further information concerning this restatement, see the introduction to the Notes to the Consolidated Financial Statements).

**Group results 2013 vs. 2012**

## Edgar Filing: TOTAL S.A. - Form 20-F

On average, the upstream environment remained stable compared to the previous year with a Brent price of \$108.7/b compared to \$111.7/b in 2012. In 2013, TOTAL's average liquids price realization<sup>(1)</sup> decreased by 4% to \$103.3/b from \$107.7/b in 2012. TOTAL's average natural gas price realization for the Group's consolidated subsidiaries increased in 2013 by 6% to \$7.12/Mbtu from \$6.74/Mbtu in 2012. In the downstream, the ERMI (European refining margin indicator) decreased sharply to \$17.9/t on average compared to \$36.0/t in 2012.

The euro-dollar exchange rate averaged \$1.33/€ in 2013 compared to \$1.28/€ in 2012.

In this context, non-Group sales in 2013 were €189,542 million, a decrease of 5% compared to €200,061 million for 2012, with non-Group sales decreasing 10% for the Upstream segment, 5% for the Refining & Chemicals segment and 4% for the Marketing & Services segment.

Net income (Group share) in 2013 decreased by 20% to €8,440 million from €10,609 million in 2012, mainly due to a lower contribution from the Upstream segment, which was partially offset by a higher contribution from Marketing & Services. The after-tax inventory valuation effect (as defined below under Analysis of business segment results) had a negative impact on net income (Group share) of €549 million in 2013 and a negative impact of €157 million in 2012. The changes in fair value of trading inventories and storage contracts (as defined below under Analysis of business segment results) had a negative impact on net income (Group share) of €44 million in 2013 and a negative impact of €7 million in 2012. Special items had a negative impact on net income (Group share) of €1,712 million in 2013, comprised mainly of the loss on the sale of the Voyageur upgrader project in Canada, the impairment of Upstream assets in the Barnett field in the United States and in Syria, charges and write-offs related to the restructuring of downstream activities in France, partially offset by the gain on the sales of TIGF and Upstream assets in Italy. Special items had a negative impact on net income (Group share) of €1,503 million in 2012, as described in Group results 2012 vs. 2011, below.

Income taxes in 2013 amounted to €11,110 million, a decrease of 15% compared to €13,035 million in 2012, primarily as a result of the decrease in taxable income.

In 2013, TOTAL bought back 4.4 million of its own shares (*i.e.* 0.19% of the share capital as of December 31, 2013) under the authorization granted by the shareholders at the meeting of May 17, 2013 (see Item 10. Share buybacks in 2013). The number of fully-diluted shares at December 31, 2013, was 2,276 million compared to 2,270 million at December 31, 2012.

Fully-diluted earnings per share, based on 2,272 million weighted-average shares, was €3.72 in 2013 compared to €4.68 in 2012, a decrease of 21%.

<sup>(1)</sup> Consolidated subsidiaries, excluding fixed margins. Effective first quarter 2012, over/under-lifting valued at market prices.

## Table of Contents

### Item 5 - Operating and Financial Review and Prospects

Investments, excluding acquisitions of €3.4 billion and including changes in non-current loans of €946 million, were €21.3 billion in 2013 compared to €18.5 billion in 2012, an increase reflecting the investments for the large number of Upstream projects under development.

Acquisitions in 2013 were €3.4 billion, comprised essentially of the acquisition of an interest in the Libra field in Brazil, an additional 6% stake in the Ichthys project in Australia, an additional 1.6% stake in Novatek<sup>(1)</sup>, the carry on the Utica gas and condensate field in the United States, and the bonuses for exploration permits in South Africa, Mozambique and Brazil. Acquisitions in 2012 were €3.1 billion.

Asset sales in 2013 were €3.6 billion, comprised essentially of the sale of TIGF in France, a 25% interest in the Tempa Rossa field in Italy, the interest in the Voyageur upgrader project in Canada, TOTAL's fertilizer activities in Europe and exploration and production assets in Trinidad & Tobago. Asset sales in 2012 were €4.6 billion.

Net investments<sup>(2)</sup> were €19.5 billion in 2013, an increase of 14% compared to €17.1 billion in 2012, mainly due to an increase in organic investments in the Upstream segment. Included in 2013 is €1.6 billion related to the sale of minority equity interests in Total E&P Congo and Block 14 in Angola, which are shown in the financing section of the cash flow statement of the Consolidated Financial Statements.

See also Liquidity and Capital Resources, below.

### Group results 2012 vs. 2011

On average, the oil market environment was stable in 2012 compared to the previous year. For 2012, the average Brent price was \$111.7/b compared to \$111.3/b in 2011, the average liquids price realization increased by 3% to \$107.7/b from \$105.0/b in 2011 and the average natural gas price realization the Group's consolidated subsidiaries increased by 3% to \$6.74/MBtu compared to \$6.53/MBtu in 2011. In the downstream, the ERMI increased to \$36.0/t on average in 2012 compared to \$17.4/t in 2011. The euro-dollar exchange rate in 2012 averaged \$1.28/€ compared to \$1.39/€ in 2011.

In this context, non-Group sales of TOTAL were €200.1 billion in 2012, an increase of 8% from €184.7 billion in 2011, essentially due to an increase in non-Group sales of the Refining & Chemicals segment of 18%.

Net income (Group share) in 2012 decreased by 14% to €10,609 million from €12,309 million in 2011, mainly due to the impacts of the after-tax inventory valuation effect and special items. The after-tax inventory valuation effect (as defined below under Analysis of business segment results) had a negative impact on net income (Group share) of €157 million in 2012, and a positive impact of €834 million in 2011. The changes in fair value of trading inventories and storage contracts (as defined below under Analysis of business segment results) had a negative impact on net income (Group share) of €7 million in 2012 and a positive impact of €32 million in 2011. Special items had a negative impact on net income (Group share) of €1,503 million in 2012, comprised essentially of an impairment of assets in the Barnett in the United States, provisions for abandonment costs relating to Elgin

in the UK, a one-off tax of 4% on petroleum stocks in France, an impairment of chemicals assets in Europe and a provision related to the progress of discussions between the Department of Justice, the SEC and TOTAL to resolve issues arising from an investigation concerning gas contracts awarded in Iran in the 1990s, which were partially offset by gains on asset sales. Special items had a negative impact on net income (Group share) of €14 million in 2011, comprised mainly of €1,014 million of impairments and €1,538 million of gains on asset sales.

In 2012, income taxes amounted to €13,035 million, a decrease of 7% compared to €14,091 million in 2011, primarily as a result of the decrease in taxable income.

In 2012, TOTAL bought back 1.8 million of its own shares (*i.e.*, 0.08% of the share capital as of December 31, 2012) under the authorization granted by the shareholders at the meeting of May 11, 2012 (see Item 10. Share buybacks in 2012). The number of fully-diluted shares at December 31, 2012, was 2,270.4 million compared to 2,263.8 million at December 31, 2011.

Fully-diluted earnings per share, based on 2,267 million weighted-average shares, was €4.68 in 2012 compared to €5.45 in 2011, a decrease of 14%.

Investments, excluding acquisitions of €3.1 billion and including changes in non-current loans of €664 million, were €18.5 billion in 2012 compared to €14.8 billion in 2011, due to an increase in investments relating to new Upstream projects under development.

Acquisitions in 2012 were €3.1 billion, comprised essentially of the acquisition of interests in exploration and production licenses in Uganda, an additional 1.3% stake in Novatek<sup>(3)</sup>, various exploration licenses, the minority interest in Fina Antwerp Olefins and the carry agreement in the Utica shale gas and condensates field in the United States. Acquisitions in 2011 were €8.8 billion.

## Edgar Filing: TOTAL S.A. - Form 20-F

Asset sales in 2012 were €4.6 billion, comprised essentially of sales of the remainder of the Group's shares of Sanofi, a stake in the Gassled pipeline in Norway, Upstream assets in Nigeria, the UK, Colombia and France, as well as interests in Pec-Rhin and Geostock in France and in Composites One in the United States. Asset sales in 2011 were €7.7 billion.

Net investments were €17.1 billion in 2012 compared to €16.0 billion in 2011, an increase of 7%.

See also Liquidity and Capital Resources, below.

### Business segment reporting

The financial information for each business segment is reported on the same basis as that used internally by the chief operating decision maker in assessing segment performance and the allocation of segment resources. Due to their particular nature or significance, certain transactions qualified as special items are excluded from the business segment figures. In general, special items relate to transactions that are significant, infrequent or unusual. However, in certain instances, certain transactions such as restructuring costs or asset disposals, which are not considered to be representative of the normal course of business, may be qualified as special items although they may have occurred in prior years or are likely to recur in following years.

*(1) The Group's interest in Novatek was 17% at December 31, 2013.*

*(2) Net investments = investments including acquisitions and changes in non-current loans asset sales other transactions with minority interests.*

*(3) The Group's interest in Novatek was 15.3% at December 31, 2012.*

## Table of Contents

### Item 5 - Operating and Financial Review and Prospects

In accordance with IAS 2, the Group values inventories of petroleum products in the financial statements according to the First-In, First-Out (FIFO) method and other inventories using the weighted-average cost method. Under the FIFO method, the cost of inventory is based on the historic cost of acquisition or manufacture rather than the current replacement cost. In volatile energy markets, this can have a significant distorting effect on the reported income. Accordingly, the adjusted results of the Refining & Chemicals and Marketing & Services segments are presented according to the replacement cost method in order to facilitate the comparability of the Group's results with those of its competitors and to help illustrate the operating performance of these segments excluding the impact of oil price changes on the replacement of inventories. In the replacement cost method, which approximates the Last-In, First-Out (LIFO) method, the variation of inventory values in the statement of income is, depending on the nature of the inventory, determined using either the month-end prices differential between one period and another or the average prices of the period. The inventory valuation effect is the difference between the results under the FIFO and replacement cost methods.

As from January 1, 2011, the effect of changes in fair value presented as an adjustment item reflects, for trading inventories and storage contracts, differences between internal measures of performance used by TOTAL's management and the accounting for these transactions under IFRS. IFRS requires that trading inventories be recorded at their fair value using period-end spot prices. In order to best reflect the management of economic exposure through derivative transactions, internal indicators used to measure performance include valuations of trading inventories recorded at their fair value based on forward prices. Furthermore, TOTAL, in its trading activities, enters into storage contracts, the future effects of which are recorded at fair value in the Group's internal economic performance. IFRS, by requiring accounting for storage contracts on an accrual basis, precludes recognition of this fair value effect.

The adjusted business segment results (adjusted operating income and adjusted net operating income) are defined as replacement cost results, adjusted for special items, excluding (as from January 1, 2011) the effect of changes in fair value. For further information on the adjustments affecting operating income on a segment-by-segment basis, and for a reconciliation of segment figures to figures reported in the Company's audited consolidated financial statements, see Note 4 to the Consolidated Financial Statements.

The Group measures performance at the segment level on the basis of net operating income and adjusted net operating income. Net operating income comprises operating income of the relevant segment after deducting the amortization and the depreciation of intangible assets other than leasehold rights, translation adjustments and gains or losses on the sale of assets, as well as all other income and expenses related to capital employed (dividends from non-consolidated companies, income from equity affiliates and capitalized interest expenses) and after income taxes applicable to the above. The income and expenses not included in net operating income that are included in net income are interest expenses related to long-term liabilities net of interest earned on cash and cash equivalents, after applicable income taxes (net cost of net debt and non-controlling interests). Adjusted net operating income excludes the effect of the adjustments (special items and the inventory valuation effect) described above. For further

discussion of the calculation of net operating income and the calculation of return on average capital employed (ROACE<sup>(1)</sup>), see Note 2 to the Consolidated Financial Statements.

### Upstream segment results

(M€)	2013	2012	2011
Non-Group sales	19,855	22,143	22,211
Operating income <sup>(a)</sup>	17,061	20,261	22,618
Equity in income (loss) of affiliates and other items	2,027	2,325	2,198
Tax on net operating income	(10,321)	(12,359)	(13,576)
Net operating income <sup>(a)</sup>	8,767	10,227	11,240
Adjustments affecting net operating income	603	918	(609)
Adjusted net operating income <sup>(b)</sup>	9,370	11,145	10,631
Investments	22,396	19,618	20,662
Divestments	4,353	2,798	2,591
ROACE	14%	18%	21%

<sup>(a)</sup> For the definition of operating income and net operating income, see Note 2 to the Consolidated Financial Statements.

<sup>(b)</sup> Adjusted for special items. See Notes 2 and 4 to the Consolidated Financial Statements.

#### 2013 vs. 2012

Upstream segment sales (excluding sales to other segments) were €19,855 million in 2013 compared to €22,143 million in 2012, a decrease of 10%.



## Edgar Filing: TOTAL S.A. - Form 20-F

Hydrocarbon production averaged 2,299 kboe/d in 2013, stable compared to 2012, essentially as a result of:

- +2.5% for start-ups and growth from new projects;

- 1% for normal decline, partially offset by lower maintenance, the restart of production from Elgin/Franklin in the UK North Sea and OML 58 in Nigeria;

- 0.5% for portfolio changes, including mainly the sale of interests in Nigeria, the UK, Colombia, and Trinidad & Tobago, net of higher production corresponding to the increased stake in Novatek; and

- 1% for security issues in Nigeria and Libya, partially offset by improved security conditions in Yemen.

Proved reserves based on SEC rules were 11,526 Mboe at December 31, 2013 (Brent at \$108.02/b), compared to 11,368 Mboe at December 31, 2012 (Brent at \$111.13/b). Based on the 2013 average rate of production, reserve life is more than thirteen years.

See Item 4. Information on the Company Exploration & Production Reserves for a discussion of proved reserves and Supplemental Oil and Gas Information (Unaudited) contained elsewhere herein for additional information on proved reserves, including tables showing changes in proved reserves by region.

Upstream net operating income in 2013 amounted to €8,767 million (for 2012, €10,227 million) from operating income of €17,061 million (for 2012, €20,261 million), with the difference between net operating income and operating income resulting primarily from taxes on net operating income of €10,321 million (for 2012, tax charge of €12,359 million), partially offset by income from equity affiliates and other items of €2,027 million (for 2012, income of €2,325 million).

<sup>(1)</sup> *ROACE = adjusted net operating income divided by average capital employed.*

## Table of Contents

### Item 5 - Operating and Financial Review and Prospects

Adjusted net operating income for the Upstream segment was €9,370 million in 2013 compared to €11,145 million in 2012, a decrease of 16% mainly due to a less favorable production mix, higher technical costs, particularly for exploration, and a higher tax rate for the Upstream segment.

Adjusted net operating income for the Upstream segment excludes special items. The exclusion of special items had a positive impact on Upstream adjusted net operating income in 2013 of €603 million, comprised mainly of the loss on the sale of the Voyageur upgrader project in Canada (€1,247 million) and the impairment of Upstream assets (€442 million), principally in the Barnett field in the United States and in Syria, partially offset by the gain on the sales of TIGF and Upstream assets in Italy, and a positive impact of €918 million in 2012, consisting essentially of an impairment of assets in the Barnett in the United States and provisions for abandonment costs relating to Elgin in the UK.

The effective tax rate for the Upstream segment in 2013 was 60.1% in 2013 compared to 58.4% in 2012. The year 2012 was marked by favorable one-off items, such as year-end tax adjustments and the reversal of a non-deductible loss.

Technical costs for consolidated subsidiaries, in accordance with ASC 932<sup>(1)</sup> were \$26.1/boe in 2013 compared to \$22.8/boe in 2012, notably due to increased depreciation of tangible assets relating to major project start-ups as well as increased exploration expenses.

The Upstream segment's total capital expenditures increased by 14% to €22,396 million in 2013 from €19,618 million in 2012, essentially due to the large number of Upstream projects under development. The Group's consolidated Exploration & Production subsidiaries' development investments amounted to €16 billion in 2013, primarily in Norway, Angola, Australia, Nigeria, Canada, United Kingdom, the Republic of the Congo, Gabon, Indonesia, Russia, the United States and Kazakhstan. Divestments by the Upstream segment were €4,353 million in 2013 compared to €2,798 million in 2012, an increase of 56%.

ROACE for the Upstream segment was 14% for the full-year 2013 compared to 18% for the full-year 2012, due to lower operating results and an increase in capital employed.

#### 2012 vs. 2011

Upstream segment sales (excluding sales to other segments) were €22,143 million in 2012 compared to €22,211 million in 2011.

Hydrocarbon production averaged 2,300 kboe/d in 2012 compared to 2,346 kboe/d in 2011. This 2% decrease was essentially a result of:

- +4.5% for start-ups and ramp-ups from new projects;
- 4% for normal decline;
- +1.5% for changes in the portfolio, comprised essentially of an increased share of Novatek production and the impact of the sale of CEPSC and assets in the UK, France, Nigeria and Cameroon;
- 2% for incidents at Elgin in the UK North Sea and Ibewa in Nigeria;
- 1.5% for disruptions related to security conditions in Yemen and the production shut-down in Syria, net of the positive effect of the return of production in Libya; and
- 0.5% for the price effect<sup>(2)</sup>.

Proved reserves based on SEC rules were 11,368 Mboe at December 31, 2012 (Brent at \$111.13/b), compared to 11,423 Mboe at December 31, 2011 (Brent at \$110.96/b). Based on the 2012 average rate of production, reserve life is more than thirteen years.

See Item 4. Information on the Company Exploration & Production Reserves for a discussion of proved reserves and Supplemental Oil and Gas Information (Unaudited) contained

elsewhere herein for additional information on proved reserves, including tables showing changes in proved reserves by region.

Upstream net operating income in 2012 amounted to €10,227 million (for 2011, €11,240 million) from operating income of €20,261 million (for 2011, €22,618 million), with the difference between net operating income and operating income resulting primarily from taxes on net operating income of €12,359 million (for 2011, tax charge of €13,576 million), partially offset by income from equity affiliates and other items of €2,325 million (for 2011, income of €2,198 million).

Adjusted net operating income for the Upstream segment was €11,145 million in 2012 compared to €10,631 million in 2011, an increase of 5% essentially due to the more favorable euro/dollar exchange rate and the decrease in the effective tax rate for the Upstream segment partially mitigated by the decrease in hydrocarbon production and increased technical costs.

## Edgar Filing: TOTAL S.A. - Form 20-F

Adjusted net operating income for the Upstream segment excludes special items. The exclusion of special items had a positive impact on Upstream adjusted net operating income in 2012 of €918 million, consisting essentially of an impairment of assets in the Barnett in the United States (€737 million) and provisions for abandonment costs relating to Elgin in the UK (€217 million), and a negative impact of €609 million in 2011, consisting essentially of gains on the sales of the Group's interests in CEPSA, the Orensa pipeline in Colombia and the Gassled pipeline in Norway.

The effective tax rate for the Upstream segment in 2012 was 58.4% in 2012 compared to 60.4% in 2011. The year 2012 was marked by favorable one-off items, such as year-end tax adjustments and the reversal of a non-deductible loss.

Technical costs for consolidated subsidiaries, in accordance with ASC 932<sup>(1)</sup> were \$22.8/boe<sup>(3)</sup> in 2012, compared to \$18.9/boe in 2011, mainly due to increased depreciations of tangible assets relating to Pazflor, Halfaya, and Usan, as well as increased exploration expenses.

The Upstream segment's total capital expenditures decreased by 5% to €19,618 million in 2012 from €20,662 million in 2011, mainly due to lower acquisitions. The Group's consolidated Exploration & Production subsidiaries' development investments amounted to €14 billion in 2012, primarily in Angola, Norway, Canada, Australia, Nigeria, the United Kingdom, Gabon, Kazakhstan, Indonesia, the Republic of the Congo, the United States and Russia. Divestments by the Upstream segment were €2,798 million in 2012 compared to €2,591 million in 2011, an increase of 8%.

ROACE for the Upstream segment was 18% for the full-year 2012 compared to 21% for the full-year 2011, due essentially to higher average capital employed in 2012.

<sup>(1)</sup> Financial Accounting Standards Board (FASB) Accounting Standards Codification Topic 932, Extractive industries – Oil and Gas.

<sup>(2)</sup> The price effect refers to the impact of changing hydrocarbon prices on entitlement volumes from production sharing and buyback contracts. For example, as the price of oil or gas increases above certain pre-determined levels, TOTAL's share of production normally decreases.

<sup>(3)</sup> Excluding IAS 36 (impairment of assets).

**Table of Contents****Item 5 - Operating and Financial Review and Prospects****Refining & Chemicals segment results**

(M€)	2013	2012	2011
Non-Group sales	86,204	91,117	77,146
Operating income <sup>(a)</sup>	132	1,050	756
Equity in income (loss) of affiliates and other items	143	213	647
Tax on net operating income	(460)	(263)	(138)
Net operating income <sup>(a)</sup>	(185)	1,000	1,265
Adjustments affecting net operating income	1,589	376	(423)
Adjusted net operating income <sup>(b)</sup>	1,404	1,376	842
Investments	2,039	1,944	1,910
Divestments	275	304	2,509
ROACE	9%	9%	5%

<sup>(a)</sup> For the definition of operating income and net operating income, see Note 2 to the Consolidated Financial Statements.

<sup>(b)</sup> Adjusted for special items and the inventory valuation effect. See Notes 2 and 4 to the Consolidated Financial Statements.

**2013 vs. 2012**

Refining & Chemicals segment sales (excluding sales to other segments) were €86,204 million in 2013 compared to €91,117 million in 2012, a decrease of 5%.

For the full-year 2013, the ERMI was \$17.9/t, a decrease of 50% compared to 2012. Petrochemical margins remained at high levels, particularly in the United States.

Refinery throughput for the full-year 2013 decreased by 4% compared to the previous year, reflecting essentially a turnaround at the Antwerp refinery, higher maintenance at the Donges refinery, voluntary shutdowns in response to weak refining margins in late 2013 and the closure of the Rome refinery at the end of the third quarter 2012.

The net operating income of the Refining & Chemicals segment in 2013 decreased to €(185) million (for 2012, €1,000 million) from operating income of €132 million (for 2012, €1,050 million), with the difference between net operating income and operating income resulting primarily from taxes on net operating income of €460 million (for 2012, tax charge of €263 million), offset by income from equity affiliates and other items of €143 million (for 2012, income of €213 million).

Adjusted net operating income for the Refining & Chemicals segment in 2013 was €1,404 million, an increase of 2% compared to €1,376 million in 2012 despite the 50% decrease in refining margins. The increase was due in part to the tangible results realized from the implementation of planned synergies and operational efficiencies and to a more favorable environment for petrochemicals, which offset the sharp decline in European refining margins.

Adjusted net operating income for the Refining & Chemicals segment excludes any after-tax inventory valuation effect and special items. The exclusion of the inventory valuation effect had a positive impact on Refining & Chemicals adjusted net operating income in 2013 of €495 million and a positive impact of €116 million in 2012. The exclusion of special items had a positive impact on Refining & Chemicals adjusted net operating income in 2013 of €1,094 million, reflecting mainly charges and write-offs related to the restructuring of downstream activities in France, and a positive impact of €260 million in 2012, reflecting mainly an impairment on European chemicals assets.

In addition, the SATORP integrated refinery in Saudi Arabia has begun to export refined products after the successful start-up of its first units.

Investments by the Refining & Chemicals segment were €2,039 million in 2013 compared to €1,944 million in 2012, an increase of 5%. Divestments by the Refining & Chemicals segment were €275 million in 2013 compared to €304 million in 2012, a decrease of 10%.

ROACE for the Refining & Chemicals segment was 9% for the full-year 2013, stable compared to the full-year 2012.

## Edgar Filing: TOTAL S.A. - Form 20-F

### **2012 vs. 2011**

Refining & Chemicals segment sales (excluding sales to other segments) were €91,117 million in 2012 compared to €77,146 million in 2011, an increase of 18%.

For the full-year 2012, the ERMI was \$36.0/t, more than double the average during 2011. This increase in 2012 was mainly due to high levels of planned maintenance in the refining sector, particularly in Europe during the 2012 summer.

Refinery throughput in 2012 was 1,786 kb/d, a 4% decrease compared to 1,863 kb/d in 2011, reflecting essentially the portfolio effect relating to the sale of the Group's interest in CEPSA at the end of July 2011 and the closure of the Rome refinery at the end of the third quarter 2012. Excluding these portfolio effects, throughput increased by 4% due to increased availability of the Group's refineries. For the full-year 2012, the refinery utilization rate based on crude throughput was 82% (86% for crude and other feedstock) compared to 78% in 2011 (83% for crude and other feedstock). As in 2011, 2012 was marked by high levels of planned maintenance at European refineries, in particular the temporary shut-down of the Normandy refinery during the upgrading project at the end of 2012, as well as scheduled maintenance at the Provence and Feyzin refineries in France.

The net operating income of the Refining & Chemicals segment in 2012 decreased to €1,000 million (for 2011, €1,265 million) from operating income of €1,050 million (for 2011, €756 million), with the difference between net operating income and operating income resulting primarily from taxes on net operating income of €263 million (for 2011, tax charge of €138 million), substantially offset by income from equity affiliates and other items of €213 million (for 2011, income of €647 million).

Adjusted net operating income for the Refining & Chemicals segment in 2012 was €1,376 million, an increase of 63% compared to €842 million in 2011. This increase was mainly due to the positive effect of improved refining margins in Europe, noting that throughput at the Group's refineries decreased on a global basis by 4% between the two periods, and the petrochemical environment weakened, particularly in Europe and in polymers. The 10% decrease in adjusted net operating income for Specialty Chemicals from €424 million in 2011 to €383 million in 2012 is attributable entirely to the sale of the resins business in mid-2011. Excluding this portfolio effect, the adjusted net operating income for the Specialty Chemicals would have increased slightly.

Adjusted net operating income for the Refining & Chemicals segment excludes any after-tax inventory valuation effect and special items. The exclusion of the inventory valuation effect had a positive impact on Refining & Chemicals adjusted net operating income in 2012 of €116 million compared to a negative impact of €669 million in 2011. The exclusion of special items had a positive impact on Refining & Chemicals adjusted net operating income in

**Table of Contents****Item 5 - Operating and Financial Review and Prospects**

2012 of €260 million, reflecting mainly an impairment on European chemicals assets, and a positive impact of €246 million in 2011, reflecting mainly impairments on European refining assets.

Investments by the Refining & Chemicals segment were €1,944 million in 2012 compared to €1,910 million in 2011, an increase of 2%. Divestments by the Refining & Chemicals segment were €304 million in 2012 compared to €2,509 million in 2011, a decrease of 88%.

ROACE for the Refining & Chemicals segment was 9% for 2012 compared to 5% for 2011, due essentially to higher adjusted net operating income in 2012.

**Marketing & Services segment results**

(M€)	2013	2012	2011
Non-Group sales	83,481	86,614	85,325
Operating income <sup>(a)</sup>	1,491	1,058	1,469
Equity in income (loss) of affiliates and other items	39	(198)	(377)
Tax on net operating income	(413)	(380)	(441)
Net operating income <sup>(a)</sup>	1,117	480	651
Adjustments affecting net operating income	34	350	171
Adjusted net operating income <sup>(b)</sup>	1,151	830	822
Investments	1,365	1,301	1,834
Divestments	141	152	1,955
ROACE	16%	12%	13%

<sup>(a)</sup> For the definition of operating income and net operating income, see Note 2 to the Consolidated Financial Statements.

<sup>(b)</sup> Adjusted for special items and the inventory valuation effect. See Notes 2 and 4 to the Consolidated Financial Statements.

**2013 vs. 2012**

For the full-year 2013, the Marketing & Services segment's sales, excluding intra-Group sales, were €83,481 million, a decrease of 4% compared to 2012.

Refined product sales<sup>(1)</sup> were 1,749 kb/d in 2013 compared to 1,710 kb/d in 2012, an increase of 2% due to growth in Africa and the Americas, partially offset by a decrease in Europe.

Net operating income for the Marketing & Services segment in 2013 was €1,117 million (for 2012, €480 million) from an operating income of €1,491 million (for 2012, €1,058 million), with the difference between net operating income and operating income resulting primarily from taxes on net operating income of €413 million (for 2012, tax charge of €380 million) and income from equity affiliates and other items of €39 million (for 2011, loss of €198 million).

Adjusted net operating income from the Marketing & Services segment in 2013 was €1,151 million compared to €830 million in 2012, an increase of 39% reflecting essentially the improvement in the performance of the New Energies, which had particularly negative results in 2012, as well as the overall improvement made in refined products marketing, particularly in emerging markets.

Adjusted net operating income for the Marketing & Services segment excludes any after-tax inventory valuation effect and special items. The exclusion of the inventory valuation effect had a positive impact on Marketing & Services adjusted net operating

income of €47 million in 2013 and a positive impact of €39 million in 2012. The exclusion of special items had a negative impact on Marketing & Services adjusted net operating income in 2013 of €13 million compared to a positive impact in 2012 of €311 million, reflecting mainly impairments and restructuring charges in New Energies.

Investments by the Marketing & Services segment increased 5% to €1,365 million in 2013 compared to €1,301 million in 2012. Divestments by the Marketing & Services segment were €141 million in 2013 compared to €152 million in 2012, a decrease of 7%.

ROACE for the Marketing & Services segment was 16% for the full-year 2013 compared to 12% for the full-year 2012.

**2012 vs. 2011**

For the full-year 2012, the Marketing & Services segment's sales, excluding intra-Group sales, were €86,614 million, an increase of 2% compared to €85,325 million for 2011.

Refined product sales<sup>(2)</sup> were 1,710 kb/d in 2012 compared to 1,987 kb/d in 2011, a decrease of 14% almost entirely attributable to the sale of the Group's interest in CEP SA and the sale of marketing activities in the UK. Excluding these portfolio effects, sales would have decreased by 1% on an annual basis with a notable decrease in Europe (3%) partially offset by increased sales in Asia and the Middle East.

Net operating income for the Marketing & Services segment in 2012 was €480 million (for 2011, €651 million) from an operating income of €1,058 million (for 2011, €1,469 million), with the difference between net operating income and operating income resulting primarily from taxes on net operating income of

€380 million (for 2011, tax charge of €441 million) and income from equity affiliates and other items of negative €198 million (for 2011, loss of €377 million).

Adjusted net operating income from the Marketing & Services segment was €830 million in 2012, an increase of 1% compared to €822 million in 2011. This increase is explained principally by the improved performance of New Energies. Marketing activities continued to provide stable results despite sales volumes generally decreasing, due to, in particular, improved results from activities in the Asia-Pacific and Eastern European regions.

Adjusted net operating income for the Marketing & Services segment excludes any after-tax inventory valuation effect and special items. The exclusion of the inventory valuation effect had a positive impact on Marketing & Services adjusted net operating income of €39 million in 2012 compared to a negative impact of €200 million in 2011. The exclusion of special items had a positive impact on Marketing & Services adjusted net operating income in 2012 of €311 million and a positive impact in 2011 of €371 million, in both cases reflecting mainly impairments and restructuring charges in New Energies.

Investments by the Marketing & Services segment decreased 29% to €1,301 million in 2012 compared to €1,834 million in 2011, reflecting essentially the acquisition of a majority interest in SunPower in 2011. Divestments by the Marketing & Services segment were €152 million in 2012 compared to €1,955 million in 2011, comprised essentially of the sale of the Group's stake in CEP SA.

<sup>(1)</sup> Excludes trading and bulk refining sales, which are reported under the Refining & Chemicals segment.

<sup>(2)</sup> Excludes trading and bulk refining sales, which are reported under the Refining & Chemicals segment; includes share of TotalErg.

**Table of Contents****Item 5 - Operating and Financial Review and Prospects**

ROACE for the Marketing & Services segment was 12% for 2012 compared to 13% for 2011.

**LIQUIDITY AND CAPITAL RESOURCES**

(M€)	2013	2012	2011
<b>Cash flow from operating activities</b>	<b>21,473</b>	<b>22,462</b>	<b>19,536</b>
Including (increase) decrease in working capital	1,930	1,084	(1,739)
<b>Cash flow used in investing activities</b>	<b>(21,108)</b>	<b>(17,072)</b>	<b>(15,963)</b>
Total expenditures	(25,922)	(22,943)	(24,541)
Total divestments	4,814	5,871	8,578
<b>Cash flow used in financing activities</b>	<b>(1,145)</b>	<b>(3,745)</b>	<b>(4,309)</b>
<b>Net increase (decrease) in cash and cash equivalents</b>	<b>(780)</b>	<b>1,645</b>	<b>(736)</b>
Effect of exchange rates	(42)	(201)	272
Cash and cash equivalents at the beginning of the period	15,469	14,025	14,489
<b>Cash and cash equivalents at the end of the period</b>	<b>14,647</b>	<b>15,469</b>	<b>14,025</b>

TOTAL's cash requirements for working capital, capital expenditures, acquisitions and dividend payments over the past three years were financed primarily by a combination of funds generated from operations, borrowings and divestments of non-core assets. In the current environment, TOTAL expects its external debt to be principally financed from the international debt capital markets. The Group continually monitors the balance between cash flow from operating activities and net expenditures. In the Company's opinion, its working capital is sufficient for its present requirements.

**Capital expenditures**

The largest part of TOTAL's capital expenditures in 2013 was made up of additions to intangible assets and property, plant and equipment (approximately 86%), with the remainder attributable to equity-method affiliates and to acquisitions of subsidiaries. In the Upstream segment, as described in more detail under

Supplemental Oil and Gas Information (Unaudited) Costs incurred in oil and gas property acquisition, exploration and development activities, capital expenditures in 2013 were principally development costs (approximately 75%, mainly for construction of new production facilities), exploration expenditures (successful or unsuccessful, approximately 6%) and acquisitions of proved and unproved properties (approximately 14%). In the Refining & Chemicals segment, about 85% of capital expenditures in 2013 were related to refining and petrochemical activities (essentially 40% for existing units including maintenance and major turnarounds and 60% for new construction), the balance being related to Specialty Chemicals. In the Marketing & Services segment, capital expenditures were split between marketing/retail activities (approximately 80%) and New Energies (approximately 20%). For information on expenditures by business segment, please refer to the discussion of TOTAL's results for each segment above.

**Cash flow**

Cash flow from operating activities in 2013 was €21,473 million in compared to €22,462 million in 2012 and €19,536 million in 2011.

The €989 million decrease in cash flow from operating activities from 2012 to 2013 was due essentially to lower net income (Group share), a decrease in gains on disposal of fixed assets and a reduction in depreciation and amortization charges, largely offset by a reduction in working capital. The Group's working capital requirement was affected by the effect of changes in oil and oil product prices. As IFRS rules require TOTAL to account for inventories of petroleum products according to the FIFO method, an increase in oil and oil product prices at the end of the relevant period compared to the beginning of the same period generates, all other factors remaining equal, an increase in inventories and accounts receivable net of an increase in accounts payable, resulting in an increase in working capital requirements. Similarly, a decrease in oil and oil products prices generates a decrease in working capital requirements. In 2013, the Group's working capital requirement decreased by €1,930 million, due in part to reductions in inventory and receivables. In 2012, the Group's working capital requirement decreased by €1,084 million.



## Edgar Filing: TOTAL S.A. - Form 20-F

Cash flow used in investing activities in 2013 was €21,108 million compared to €17,072 million in 2012 and €15,963 million in 2011. The increase from 2012 to 2013 was due to the lower level of proceeds from disposals of non-current investments in 2013 as well as to the larger portfolio of Upstream projects that were under development in 2013. Total expenditures in 2013 were €25,922 million compared to €22,943 million in 2012 and €24,541 million in 2011. During 2013, 87% of the expenditures were made by the Upstream segment (as compared to 86% in 2012 and 84% in 2011), 8% by the Refining & Chemicals segment (as compared to 8% in 2012 and 2011) and 5% by the Marketing & Services segment (as compared to 6% in 2012 and 7% in 2011). The main source of funding for these expenditures has been cash from operating activities. For additional information on expenditures, please refer to the discussions in [Overview](#) and [Results 2011-2013](#).

Divestments, based on selling price and net of cash sold, in 2013 were €4,814 million compared to €5,871 million in 2012 and €8,578 million in 2011. In 2013, the Group's principal divestments were asset sales of €3,572 million, consisting mainly of sales of assets in the Upstream segment in Canada, Italy and Trinidad & Tobago, and the sale of its subsidiary Transport et Infrastructures Gaz France (TIGF). In 2012, the Group's principal divestments were asset sales of €4,586 million, consisting mainly of Sanofi shares and sales of assets in the Upstream segment in Great Britain, Norway, Nigeria and Colombia. In 2011, the Group's principal divestments were asset sales of €7,705 million, consisting mainly of the Group's interests in CEPSA, of its Marketing assets in the United Kingdom, of its photocure and coatings resins businesses, of its interests in Total E&P Cameroun and of Sanofi shares.

Cash flow used in financing activities in 2013 was €1,145 million compared to €3,745 million in 2012 and €4,309 million in 2011. The decrease in cash flow used in financing activities in 2013 compared to 2012 was due primarily to higher issuance of non-current financial debt (€8,359 million in 2013 compared to €5,279 million in 2012), an increase in current financial assets and liabilities (€978 million in 2013 compared to €(947) million in 2012), an increase in other transactions with non-controlling interests (€1,621 million in 2013 compared to €1 million in 2012), largely offset by a higher decrease in current borrowings (€(6,804) million in 2013 compared to €(2,754) million in 2012).

## Table of Contents

### Item 5 - Operating and Financial Review and Prospects

#### Indebtedness

TOTAL's non-current financial debt at year-end 2013 was €25,069 million compared to €22,274 million at year-end 2012 and €22,557 million at year-end 2011. For further information on the Company's level of borrowing and the type of financial instruments, including maturity profile of debt and currency and interest rate structure, see Note 20 to the Consolidated Financial Statements. For further information on the Company's treasury policies, including the use of instruments for hedging purposes and the currencies in which cash and cash equivalents are held, see Item 11. Quantitative and Qualitative Disclosures About Market Risk.

Cash and cash equivalents at year-end 2013 were €14,647 million compared to €15,469 million at year-end 2012 and €14,025 million at year-end 2011.

#### Shareholders' equity

Shareholders' equity at year-end 2013 was €74,910 million compared to €72,465 million at year-end 2012 and €68,297 million at year-end 2011. Changes in shareholders' equity in 2013 were primarily due to the addition of net income and other operations with non-controlling interests, partially offset by translation adjustments and the payment of dividends. Changes in shareholders' equity in 2012 were primarily due to the addition of net income, partially offset by translation adjustments and the payment of dividends. Changes in shareholders' equity in 2011 were primarily due to the addition of net income and translation

adjustments, which were only partially offset by the payment of dividends. In 2013, TOTAL bought back 4.4 million of its own shares (*i.e.* 0.19% of the share capital as of December 31, 2013) under the authorization granted by the shareholders at the meeting of May 17, 2013 (see Item 10. Share buybacks in 2013). In 2012, TOTAL bought back 1.8 million of its own shares (*i.e.*, 0.08% of the share capital as of December 31, 2012) under the previous authorization granted by the shareholders at the meeting of May 11, 2012. TOTAL did not repurchase any of its own shares during the year 2011.

#### Net-debt-to-equity

As of December 31, 2013, TOTAL's net-debt-to-equity ratio<sup>(3)</sup> was 23% compared to 22% and 23% at year-ends 2012 and 2011, respectively. Over the 2011-2013 period, TOTAL used its net cash flow<sup>(4)</sup> to maintain this ratio generally in its targeted range of around 20% to 30%, primarily by managing net debt, while net income increased shareholders' equity and dividends paid throughout the period decreased shareholders' equity. As of December 31, 2013, TOTAL S.A. had \$11,031 million of long-term confirmed lines of credit, of which \$11,031 million were unused.

In 2014, based on the Group's capital expenditures budget and after payment of dividends, the Company expects to maintain its net debt-to-equity ratio in the target range of around 20% to 30% in a \$100 per barrel market environment. For information on the Group's capital expenditures budget, please refer to the discussion in Overview, above.

## GUARANTEES AND OTHER OFF-BALANCE SHEET ARRANGEMENTS

As part of certain project financing arrangements, Total S.A. provided in 2008 guarantees in connection with the financing of the Yemen LNG project for an amount of €528 million, presented under Guarantees given against borrowings in Note 23 to the Consolidated Financial Statements. Guarantees given against borrowings also include the guarantees provided in 2010 by Total S.A. in connection with the financing of the Jubail project (operated by SAUDI ARAMCO TOTAL Refining and Petrochemical Company (SATORP)) of up to €2,311 million, proportional to TOTAL's share in the project (37.5%). In addition, Total S.A. provided in 2010 a guarantee in favor of its partner in the Jubail project (Saudi Arabian Oil Company) with respect to Total Refining Saudi Arabia SAS's

## Edgar Filing: TOTAL S.A. - Form 20-F

obligations under the shareholders agreement with respect to SATORP. As of December 31, 2013, this guarantee is of up to €892 million and has been presented under

Other operating commitments in Note 23 to the Consolidated Financial Statements. In 2013, TOTAL S.A. provided guarantees in connection with the financing of the Ichthys LNG project for an amount of €2,218 million, presented under Guarantees given against borrowings in Note 23 to the Consolidated Financial Statements.

These guarantees and other information on the Company's commitments and contingencies are presented in Note 23 to the Consolidated Financial Statements. The Group does not currently consider that these guarantees, or any other off-balance sheet arrangements of TOTAL S.A. nor any other members of the Group, have or are reasonably likely to have, currently or in the future, a material effect on the Group's financial condition, changes in financial condition, revenues or expenses, results of operation, liquidity, capital expenditures or capital resources.

*(1) Excludes net current financial debt of €(130) million as of December 31, 2013 (€756 million as of December 31, 2012 and €0 million as of as of December 31, 2011), related to assets classified in accordance with IFRS 5 – non-current assets held for sale and discontinued operations .*

*(2) Figures for 2012 and 2011 have been restated pursuant to the retrospective application of the revised accounting standard IAS 19 from January 1, 2013.*

*(3) Net-debt-to-equity ratio = net debt (i.e., the sum of current borrowings, other current financial liabilities and non-current financial debt, net of current financial assets, net financial assets and liabilities related to assets classified in accordance with IFRS 5 as non-current assets held for sale, hedging instruments on non-current financial debt and cash and cash equivalents) divided by the sum of shareholders' equity and non-controlling interests after expected dividends payable.*

*(4) Net cash flow = cash flow from operating activities less investments plus divestments.*

**Table of Contents**

## Item 5 - Operating and Financial Review and Prospects

**CONTRACTUAL OBLIGATIONS**

Payment due by period (M€)	Less than 1 year	1-3 years	3-5 years	More than 5 years	Total
Non-current debt obligations <sup>(a)</sup>		6,572	6,149	11,040	23,761
Current portion of non-current debt obligations <sup>(b)</sup>	3,784				3,784
Finance lease obligations <sup>(c)</sup>	29	82	28	170	309
Asset retirement obligations <sup>(d)</sup>	533	1,067	650	7,037	9,287
Operating lease obligations <sup>(c)</sup>	807	1,257	820	1,174	4,058
Purchase obligations <sup>(e)</sup>	14,546	14,867	9,796	47,066	86,275
<b>Total</b>	<b>19,699</b>	<b>23,845</b>	<b>17,443</b>	<b>66,487</b>	<b>127,474</b>

<sup>(a)</sup> Non-current debt obligations are included in the items Non-current financial debt and Hedging instruments of non-current financial debt of the Consolidated Balance Sheet. The figures in this table are net of the non-current portion of issue swaps and swaps hedging bonds, and exclude non-current finance lease obligations of €280 million and net current financial debt of €(130) million related to assets classified in accordance with IFRS 5 non-current assets held for sale and discontinued operations.

<sup>(b)</sup> The current portion of non-current debt is included in the items Current borrowings, Current financial assets and Other current financial liabilities of the balance sheet. The figures in this table are net of the current portion of issue swaps and swaps hedging bonds and exclude the current portion of finance lease obligations of €29 million.

<sup>(c)</sup> Finance lease obligations and operating lease obligations: the Group leases real estate, retail stations, ships, and other equipment through non-cancelable capital and operating leases. These amounts represent the future minimum lease payments on non-cancelable leases to which the Group is committed as of December 31, 2013, less the financial expense due on finance lease obligations for €82 million.

<sup>(d)</sup> The discounted present value of Upstream asset retirement obligations, primarily asset removal costs at the completion date.

<sup>(e)</sup> Purchase obligations are obligations under contractual agreements to purchase goods or services, including capital projects. These obligations are enforceable and legally binding on TOTAL and specify all significant terms, including the amount and the timing of the payments. These obligations mainly include: hydrocarbon unconditional purchase contracts (except where an active, highly liquid market exists and when the hydrocarbons are expected to be re-sold shortly after purchase), reservation of transport capacities in pipelines, unconditional exploration works and development works in Upstream, and contracts for capital investment projects in Downstream. This disclosure does not include contractual exploration obligations with host states where a monetary value is not attributed and purchases of booking capacities in pipelines where the Group has a participation superior to the capacity used.

For additional information on the Group's contractual obligations, see Note 23 to the Consolidated Financial Statements. The Group has other obligations in connection with pension plans which are described in Note 18 to the Consolidated Financial Statements. As these obligations are not contractually fixed as to timing and amount, they have not been included in this disclosure. Other non-

current liabilities, detailed in Note 19 to the Consolidated Financial Statements, are liabilities related to risks that are probable and amounts that can be reasonably estimated. However, no contractual agreements exist related to the settlement of such liabilities, and the timing of the settlement is not known.

## RESEARCH AND DEVELOPMENT

In 2013, Research & Development (R&D) expenses amounted to €949 million, compared with €805 million in 2012 and €776 million in 2011. The process initiated in 2004 to increase R&D budgets continued in 2013.

In 2013, 4,684 people were dedicated to R&D activities, compared with 4,110 in 2012 and 3,946 in 2011. This is mainly due to changes in the scope of the Group's activities.

There are six major R&D focuses at TOTAL:

- developing knowledge, tools and technological mastery to discover and profitably operate complex oil and gas resources to help meet the global demand for energy;
- developing and industrializing solar, biomass and carbon capture and storage technologies to help prepare for future energy needs;
- developing practical, innovative and competitive materials and products that meet customers' specific needs, contribute to the emergence of new features and systems, enable current materials to be replaced by materials showing higher performance for users, and address the challenges of improved energy efficiency, lower environmental impact and toxicity, better management of their life cycle and waste recovery;
- developing, industrializing and improving first-level competitive processes for the conversion of oil, coal and biomass resources to adapt to changes in resources and markets, improve reliability and safety, achieve better energy efficiency, reduce the environmental footprint and maintain the Group's economic margins in the long term;
- understanding and measuring the impacts of the Group's operations and products on ecosystems (water, soil, air, biodiversity) and recovering waste to improve environmental safety, as part of the regulation in place, and reduce their environmental footprint to achieve sustainability in the Group's operations; and
- mastering and using innovative technologies such as biotechnologies, materials sciences, nanotechnologies, high-performance computing, information and communications technologies and new analytic techniques.

These issues are addressed synergistically within a portfolio of projects. Different aspects may be looked at independently by different divisions.

The portfolio managed by the entity tasked with developing SMEs specialized in innovative energy technologies and cleantechs has grown regularly since 2009.

The Group intends to increase R&D in all of its sectors through cross-functional themes and technologies. Attention is paid to synergies of R&D efforts between business units.

The Group has twenty-one R&D sites worldwide and has developed approximately 600 partnerships with other industrial groups and academic or highly specialized research institutes. TOTAL also has a permanently renewed network of scientific advisors worldwide that monitor and advise on matters of interest

**Table of Contents**

Items 5 - 6

to the Group's R&D activities. Long-term partnerships with universities and academic laboratories, deemed strategic in Europe, the United States, Japan and China, as well as innovative small businesses are part of the Group's approach.

Each segment is developing an active intellectual property activity, aimed at protecting its innovations, allowing its activity to develop without constraints as well as facilitating its partnerships. In 2013, more than 250 new patent applications were issued by the Group.

**ITEM 6. DIRECTORS, SENIOR MANAGEMENT AND EMPLOYEES**

**DIRECTORS AND SENIOR MANAGEMENT**

**Composition of the Board of Directors**

Directors are appointed by the shareholders for a 3-year term (Article 11 of the Company's bylaws).

In case of the resignation or death of a director between two Shareholders' Meetings, the Board may temporarily appoint a replacement director. This appointment must be ratified by the next Shareholders' Meeting. The terms of office of the members of the Board are staggered to more evenly space the renewal of appointments and to ensure the continuity of the work of the Board of Directors and its Committees.

The Board of Directors appoints the Chairman of the Board from among its members. The Board of Directors also appoints the Chief Executive Officer, who may or may not be a member of the Board.

As of December 31, 2013, the Board of Directors had fifteen members, including one director appointed by the shareholders to represent employee shareholders. Twelve of the members of the Board were independent (see "Director independence", below).

The following individuals were members of the Board of Directors of TOTAL S.A. (information as of December 31, 2013):

***Christophe de Margerie***

Born on August 6, 1951 (French).

## Edgar Filing: TOTAL S.A. - Form 20-F

Mr. de Margerie joined the Group after graduating from the École Supérieure de Commerce in Paris in 1974. He served in several positions in the Group's Finance Department and Exploration & Production division. In 1995, he was appointed President of Total Middle East. In May 1999, he joined the Executive Committee as President of the Exploration & Production division. He then became Senior Executive Vice President of Exploration & Production of the new TotalFinaElf group in 2000.

In January 2002, he became President of the Exploration & Production division of TOTAL. He was appointed a member of the Board of Directors by the Shareholders' Meeting held on May 12, 2006 and became Chief Executive Officer of TOTAL on

February 14, 2007. On May 21, 2010, he was named Chairman and Chief Executive Officer of TOTAL. Mr. de Margerie is also a Director of the Institut du monde arabe.

Director of TOTAL S.A. since 2006. Last renewal: May 11, 2012 until 2015.

Chairman of the Strategic Committee.

Holds 121,556 TOTAL shares and 65,242 shares of the TOTAL ACTIONNARIAT FRANCE collective investment fund.

### *Principal other directorships*

Director of Shtokman Development AG (Switzerland)  
Director of BNP Paribas\* since May 15, 2013  
Manager of CDM Patrimonial SARL

### ***Thierry Desmarest***

Born on December 18, 1945 (French).

A graduate of the École Polytechnique and an Engineer of the French Corps des Mines, Mr. Desmarest served as Director of Mines and Geology in New Caledonia, then as technical advisor at the Offices of the Minister of Industry and the Minister of Economy. He joined TOTAL in 1981, where he held various management positions, then served as President of Exploration & Production until 1995. He served as Chairman and Chief Executive Officer of TOTAL from May 1995 until February 2007, and then as Chairman of the Board of TOTAL until May 21, 2010. He was appointed Honorary Chairman and remains a director of TOTAL and Chairman of the TOTAL Foundation.

Director of TOTAL S.A. since 1995. Last renewal: May 17, 2013 until 2016.

Chairman of the Governance & Ethics Committee, member of the Compensation Committee and the Strategic Committee.

Holds 186,576 shares.

### *Principal other directorships*

Director of Sanofi\*(1)  
Director of L'Air Liquide\*  
Director of Renault S.A.\*  
Director of Renault S.A.S.  
Director of Bombardier Inc. (Canada)\*

*(1) Non-consolidated company which was removed from the Company's scope of consolidation on July 1, 2010.*

*\* Company names marked with an asterisk are publicly listed companies.*

*Underlined companies are companies that do not belong to the group in which the director has his or her main duties.*

2013 Form 20-F TOTAL S.A. 91



## **Table of Contents**

### **Item 6 - Directors and Senior Management**

#### ***Patrick Artus***

Born on October 14, 1951 (French).

Independent director.

A graduate of the École Polytechnique, the École Nationale de la Statistique et de l'Administration Économique (ENSAE) and the Institut d'études politiques de Paris, Mr. Artus began his career at the INSEE (French National Institute for Statistics and Economic Studies) where his work included economic forecasting and modeling. He then worked at the Economics Department of the OECD (1980), later becoming the Head of Research at the ENSAE from 1982 to 1985. He was scientific adviser at the research department of the Banque de France, before joining the Natixis Group as the head of the research department, and has been a

member of its Executive Committee since May 2013. He is an associate professor at the University of Paris I, Sorbonne. He is also a member of the council of economic advisors to the French Prime Minister and of the Cercle des Économistes.

Director of TOTAL S.A. since 2009. Last renewal: May 11, 2012 until 2015.

Member of the Compensation Committee and the Governance & Ethics Committee.

Holds 1,000 shares.

#### ***Principal other directorships***

Director of IPSOS\*

#### ***Patricia Barbizet***

Born on April 17, 1955 (French).

Independent director.

A graduate of the École Supérieure de Commerce of Paris in 1976, Ms. Barbizet started her career in the Renault Group as the Treasurer of Renault Véhicules Industriels and then Chief Financial Officer of Renault Crédit International. She joined the Pinault group in 1989 as the Chief Financial Officer. In 1992, she became Chief Executive Officer of Artémis, then in 2004 Chief Executive Officer of Financière Pinault. She was the President of the Supervisory Board of the Pinault Printemps Redoute group until May 2005 and became Vice-President of the Board of Directors of PPR (now Kering) in May 2005. Patricia Barbizet is also a member of the Board of Directors of TOTAL and Peugeot S.A.

Director of TOTAL S.A. since 2008. Last renewal: May 13, 2011 until 2014.

Chairperson of the Audit Committee and member of the Strategic Committee.

Holds 1,000 shares.

*Principal other directorships*

Director of Peugeot S.A.\* since April 24, 2013  
 Director and Vice Chairman of the Board of Directors of Kering S.A.\*  
 Director and Chief Executive Officer of Artémis (S.A.)  
 Chief Executive Officer (non-Director) of Financière Pinault (S.C.A.)  
 Member of the Supervisory Board of Financière Pinault (S.C.A.)  
 Director of Groupe Fnac \* (S.A.) since April 17, 2013  
 Director of Société Nouvelle du Théâtre Marigny (S.A.)  
 Permanent representative of Artémis, member of the Board of Directors of Agefi (S.A.)  
 Permanent representative of Artémis, member of the Board of Directors of Sebdo le Point (S.A.)  
 Member of the Management Board of Société Civile du Vignoble de Château Latour (société civile)  
 Member of the Supervisory Board of Yves Saint Laurent (S.A.S.)  
*Administratore Delagato & amministratore* of Palazzo Grazi (Italy)  
*Chairman of the Board of Directors & Board member* of Christie's International Plc (England)  
*Non-Executive Director* of Kering Holland, formerly Gucci (Netherlands), since April 9, 2013

**Gunnar Brock**

Born on April 12, 1950 (Swedish).

Independent director.

A graduate of the Stockholm School of Economics with an MBA in Economics and Business Administration, Mr. Brock held various international positions at Tetra Pak. He served as Chief Executive Officer of Alfa Laval from 1992 to 1994 and as Chief Executive Officer of Tetra Pak from 1994 to 2000. After serving as Chief Executive Officer of Thule International, he was appointed Chief Executive Officer of Atlas Copco AB from 2002 to 2009. He is currently Chairman of the Board of Stora Enso Oy. Mr. Brock is also a member of the Royal Swedish Academy of Engineering Sciences and of the Board of Directors of the Stockholm School of Economics.

Director of TOTAL S.A. since 2010. Last renewal: May 17, 2013 until 2016.

Member of the Compensation Committee, the Governance & Ethics Committee and the Strategic Committee.

Holds 1,000 shares.

*Principal other directorships*

Chairman of the Board of Stora Enso Oy\*  
 Member of the Board of Investor AB\*  
 Member of the Board of Syngenta AG\*  
 Chairman of the Board of Mölnlycke Health Care Group  
 Chairman of the Board of Rolling Optics  
 Member of the Board of Stena AB

## Edgar Filing: TOTAL S.A. - Form 20-F

\* *Company names marked with an asterisk are publicly listed companies.*

*Underlined companies are companies that do not belong to the group in which the director has his or her main duties.*

92 TOTAL S.A. Form 20-F 2013

## **Table of Contents**

### **Item 6 - Directors and Senior Management**

#### ***Marie-Christine Coisne-Roquette***

Born on November 4, 1956 (French).

Independent director.

A graduate of the University of Paris X Nanterre (law and English) and holder of a Specialized Law Certificate from the New York Bar Association, Ms. Coisne-Roquette worked as an attorney until 1988, when she joined the family-owned Sonepar group. From 1988 to 1998, while also serving as Chief Executive Officer of the family-owned Colam Entreprendre holding company, she held several consecutive directorships at Sonepar S.A., where she was appointed Chairman of the Board in 1998. She was Chairman and Chief Executive Officer of Sonepar from 2002 to 2012, and has been Chairman of the Board of Directors since January 1, 2013. A member of the Executive Board of MEDEF from 2000 to 2013, where she chaired that organization's Tax Commission from 2005 to 2013, Ms. Coisne-Roquette is a member of the Economic, Social and Environmental Council. She is also a director of the Association nationale des sociétés par actions (ANSA).

Director of TOTAL S.A. since May 13, 2011 and until 2014.

Member of the Audit Committee.

Holds 1,260 shares.

#### ***Principal other directorships***

Chairperson of the Board of Directors of Sonepar S.A.  
 Chairperson and Chief Executive Officer of Colam Entreprendre  
 Permanent representative of Colam Entreprendre, member of the Board of Directors at Cabus & Raulot (S.A.S)  
 Permanent representative of Colam Entreprendre, co-manager of Sonedis (société civile)  
 Permanent representative of Colam Entreprendre, Director of Sovemarco Europe (S.A.)  
 Permanent representative of Sonepar, Director of Sonepar France  
 Co-manager of Développement Mobilier & Industriel (D.M.I.) (société civile)  
 Manager of Ker Coro (société civile immobilière)

#### ***Bertrand Collomb***

Born on August 14, 1942 (French).

Independent director.

A graduate of the École Polytechnique and a member of France's engineering Corps des Mines, Mr. Collomb held a number of positions within the Ministry of Industry and other cabinet positions from 1966 to 1975. He joined the Lafarge group in 1975, where he served in various management positions. He served as Chairman and Chief Executive Officer of Lafarge from 1989 to 2003, then as Chairman of the Lafarge Board of Directors from 2003 to 2007, and has been the Honorary Chairman since 2007. He is also Chairman of the Institut des Hautes Études pour la Science et la Technologie (IHEST).

## Edgar Filing: TOTAL S.A. - Form 20-F

Director of TOTAL S.A. since 2000. Last renewal: May 11, 2012 until 2015.

Member of the Governance & Ethics Committee.

Holds 4,932 shares.

### *Principal other directorships*

Director of DuPont\* (United States of America)

Director of Atco\* (Canada)

\* *Company names marked with an asterisk are publicly listed companies.*

*Underlined companies are companies that do not belong to the group in which the director has his or her main duties.*

## Table of Contents

### Item 6 - Directors and Senior Management

#### *Paul Desmarais, jr(1)*

Born on July 3, 1954 (Canadian).

Independent director.

A graduate of McGill University in Montreal and of the Institut européen d'administration des affaires (INSEAD) in Fontainebleau, Mr. Desmarais was elected Vice Chairman (1984) and then Chairman of the Board (1990) of Corporation Financière Power, a company he helped found. Since 1996, he has served as Chairman of the Board and Co-Chief Executive Officer of Power Corporation of Canada.

Director of TOTAL S.A. since 2002. Last renewal: May 13, 2011 until 2014.

Holds 2,000 ADRs (corresponding to 2,000 shares).

#### *Principal other directorships*

Chairman of the Board – Co-Chief Executive Officer of Power Corporation of Canada\*  
 Co-Chairman of the Board of Corporation Financière Power\* (Canada)  
 Vice Chairman and Acting Managing Director of Pargesa Holding SA\* (Switzerland)  
 Director and member of the Executive Committee of La Great-West, compagnie d'assurance-vie (Canada)  
 Director and member of the Executive Committee of Great-West Life & Annuity Insurance Company (United States of America)  
 Director and member of the Executive Committee of Great-West Lifeco Inc.\* (Canada)  
 Director of Great-West Financial (Canada) Inc. (Canada)  
 Vice Chairman, Director and member of the Permanent Committee of Groupe Bruxelles Lambert SA\* (Belgium)  
 Director and member of the Executive Committee of Groupe Investors Inc. (Canada)  
 Director and member of the Executive Committee of Groupe d'assurance London Inc. (Canada)  
 Director and member of the Executive Committee of London Life, compagnie d'assurance-vie (Canada)  
 Director and member of the Executive Committee of Mackenzie Inc.  
 Director and Deputy Chairman of the Board of La Presse, ltée (Canada)  
 Director and Deputy Chairman of Gesca ltée (Canada)  
 Director of Lafarge\* (S.A.) (France)  
 Director and member of the Executive Committee of Compagnie d'Assurance du Canada sur la Vie (Canada)  
 Director and member of the Executive Committee of the Corporation Financière Canada-Vie (Canada)  
 Director and member of the Executive Committee of IGM Inc.\* (Canada)  
 Director and Chairman of the Board of 171263 Canada Inc. (Canada)  
 Director of 152245 Canada Inc. (Canada)  
 Director of GWL&A Financial Inc. (United States of America)  
 Director of Great-West Financial (Nova Scotia) Co. (Canada)  
 Director of Great-West Life & Annuity Insurance Company of New York (United States of America)  
 Director of Power Communications Inc. (Canada)  
 Director and Vice Chairman of the Board of Power Corporation International (Canada)  
 Director and member of the Executive Committee of Putnam Investments LLC (United States of America)  
 Member of the Supervisory Board of Power Financial Europe B.V. (Netherlands)  
 Director of Canada Life Capital Corporation Inc. (Canada)  
 Director and member of the Executive Committee of The Canada Life Insurance Company of Canada (Canada)  
 Director and Deputy Chairman of the Board of Groupe de Communications Square Victoria Inc. (Canada)  
 Member of the Supervisory Board of Parjointco N.V. (Netherlands)  
 Director of SGS SA\* (Switzerland)

**Anne-Marie Idrac**

Born on July 27, 1951 (French).

Independent director.

A graduate of the Institut d'Études Politiques de Paris and formerly a student at the École Nationale d'Administration (ENA - 1974), Ms. Idrac began her career holding various positions as a senior civil servant at the Ministry of Infrastructure (Ministère de l'Équipement) in the fields of environment, housing, urban planning and transportation. She served as Executive Director of the public development authority of Cergy-Pontoise from 1990 to 1993 and Director of land transport from 1993 to 1995. Ms. Idrac was State Secretary for Transport from May 1995 to June 1997, elected member of Parliament for Yvelines from 1997 to 2002, regional

councilor for Ile-de-France from 1998 to 2002, and State Secretary for Foreign Trade from March 2008 to November 2010. She also served as Chairperson and Chief Executive Officer of RATP from 2002 to 2006 and then as Chairperson of SNCF from 2006 to 2008.

Director of TOTAL S.A. since May 11, 2012 and until 2015.

Holds 1,195 shares.

*Principal other directorships*

Director of Bouygues\*

Director of Saint Gobain\*

Member of the Supervisory Board of Vallourec\*

Director of Mediobanca S.p.A.\* (Italy)

<sup>(1)</sup> Mr. Desmarais, jr is a director of Groupe Bruxelles Lambert, which acting in concert with Compagnie Nationale à Portefeuille, to the Company's knowledge, owns 4.8% of the Company's shares and 4.8% of the voting rights. Mr. Demarais, jr disclaims beneficial ownership of such shares.

\* Company names marked with an asterisk are publicly listed companies.

*Underlined companies are companies that do not belong to the group in which the director has his or her main duties.*

## **Table of Contents**

### **Item 6 - Directors and Senior Management**

#### ***Charles Keller***

Born on November 15, 1980 (French).

Director representing employee shareholders.

A graduate of the École Polytechnique and the École des Hautes Etudes Commerciales (HEC), Charles Keller joined the Group in 2005 at the refinery in Normandy as a performance auditor. In 2008, he was named Project Manager at the Grandpuits refinery to improve the site's energy efficiency and oversee its reliability plan. In 2010, he joined Exploration & Production and Yemen LNG as a *reliability engineer* and then became head of the Production

Support department in charge of optimizing the plant. Charles Keller has been an elected member, representing holders of fund units, of the Supervisory Board of the TOTAL ACTIONNARIAT FRANCE collective investment fund since November 2012. He is also an elected member of the Supervisory Board of the TOTAL DIVERSIFIÉ A DOMINANTE ACTIONS, TOTAL ACTIONS EUROPÉENNES and TOTAL EPARGNE SOLIDAIRE collective investment funds.

Director of TOTAL S.A. since May 17, 2013 and until 2016.

Holds 430 TOTAL shares and 54 shares of the TOTAL ACTIONNARIAT FRANCE collective investment fund.

#### ***Barbara Kux***

Born on February 26, 1954 (Swiss).

Independent director.

Holder of an MBA (with honors) from INSEAD in Fontainebleau, Ms. Kux joined McKinsey & Company in 1984 as a Management Consultant, where she was responsible for strategic assignments for international groups. After serving as manager for development of emerging markets at ABB and then at Nestlé between 1989 and 1999, she was appointed Executive Director of Ford in Europe from 1999 to 2003. In 2003, Ms. Kux became a member of the Management Committee of the Philips group and, starting in 2005, was in charge of sustainable development. From 2008 to 2013, she was a member of the Management Board of Siemens AG.

She has been responsible for sustainable development at the Group and in charge of the Group's supply chain. Since 2013, she has been a member of the Supervisory Board of Henkel and a member of the Board of Directors of Firmenich S.A.

Director of TOTAL S.A. since May 13, 2011 and until 2014.

Member of the Strategic Committee.

Holds 1,000 shares.

*Principal other directorships*



## Edgar Filing: TOTAL S.A. - Form 20-F

Member of the Supervisory Board of Henkel\* since 2013  
Member of the Board of Directors of Firmenich S.A. since 2013  
Director of Umicore\* as of January 1, 2014

### **Gérard Lamarche**(1)

Born July 15, 1961 (Belgian).

Independent director.

Mr. Lamarche graduated in economic science from Louvain-la-Neuve University and the INSEAD business school (Advanced Management Program for Suez Group Executives). He also followed the Global Leadership Series course of training at the Wharton International Forum in 1998-99. He started his career in 1983 at Deloitte Haskins & Sells in Belgium, before becoming a consultant in mergers and acquisitions in Holland in 1987. In 1988, Mr. Lamarche joined Société Générale de Belgique as an investment manager and management controller between 1989 and 1991, then as a consultant in strategic operations from 1992 to 1995. He joined Compagnie Financière de Suez as a project manager for the Chairman and Secretary of the Executive Committee (1995-1997), before taking part in the merger between Compagnie de Suez and Lyonnaise des Eaux, which became Suez Lyonnaise des Eaux (1997), and then being appointed as the acting Managing Director in charge of Planning, Management Control and Accounts. In 2000, Mr. Lamarche pursued his career in industry by joining NALCO (the American subsidiary of the Suez

group and the world leader in the treatment of industrial water) as the Director and Chief Executive Officer. In March 2004, he was appointed Chief Financial Officer of the Suez group. In April 2011, Mr. Lamarche became a director on the Board of Directors of Groupe Bruxelles Lambert (GBL). He has been the acting Managing Director since January 2012. Mr. Lamarche is currently a director of Lafarge, Legrand, TOTAL S.A. and SGS SA. He is also a non-voting member (censeur) on the Board of Directors of GDF Suez.

Director of TOTAL S.A. since 2012. Last renewal: May 17, 2013 until 2016.

Member of the Audit Committee and the Strategic Committee.

Holds 2,775 shares.

### *Principal other directorships*

Acting Managing Director and Director of Groupe Bruxelles Lambert\*  
Director and Chairman of the Audit Committee of Legrand\*  
Director of Lafarge\*  
Director of SGS SA\* (Switzerland)  
Non-voting member (censeur) of GDF Suez\*

(1) Mr. Lamarche is the Acting Managing Director and a Director of Groupe Bruxelles Lambert, which acting in concert with Compagnie Nationale à Portefeuille, to the Company's knowledge, owns 4.8% of the Company's shares and 4.8% of the voting rights. Mr. Lamarche disclaims beneficial ownership of such shares.

\* Company names marked with an asterisk are publicly listed companies.

Underlined companies are companies that do not belong to the group in which the director has his or her main duties.



## **Table of Contents**

### **Item 6 - Directors and Senior Management**

#### ***Anne Lauvergeon***

Born on August 2, 1959 (French).

Independent director.

Chief Mining Engineer and a graduate of the École Normale Supérieure with a doctorate in physical sciences, Ms. Lauvergeon held various positions in industry before becoming Deputy Chief of Staff in the Office of the President of the Republic in 1990. She joined Lazard Frères et Cie as Managing Partner in 1995. From 1997 to 1999, she was Executive Vice President and member of the Executive Committee of Alcatel, in charge of industrial partnerships and international affairs. Ms. Lauvergeon served as Chairperson of the Management Board of Areva from July 2001 to June 2011 and as Chairperson and Chief Executive Officer of

Areva NC (formerly Cogema) from June 1999 to June 2011. She has been Chairperson and Chief Executive Officer of ALP S.A. since 2011.

Director of TOTAL S.A. since 2000. Last renewal: May 11, 2012 until 2015.

Member of the Strategic Committee.

Holds 2,000 shares.

#### ***Principal other directorships***

Chairperson and Chief Executive Officer of ALP S.A.

Director of Vodafone Group Plc\*

Director of Airbus Group NV\* (formerly EADS)

Director of American Express\*

Chairperson of the Supervisory Board of Libération

#### ***Claude Mandil***

Born on January 9, 1942 (French).

Independent director.

A graduate of the École Polytechnique and a General Engineer from France's engineering school Corps des Mines, Mr. Mandil served as a Mining Engineer in the Lorraine and Bretagne regions. He then served as Project Manager at the Délégation de l'Aménagement du Territoire et de l'Action Régionale (City and Department planning - DATAR) and as Interdepartmental Head of Industry and Research and regional delegate of the Agence nationale de valorisation de la recherche (State technology transfer agency - ANVAR). From 1981 to 1982, he served as technical advisor on the staff of the Prime Minister, in charge of the industry, energy and research sectors. He was appointed Chief Executive Officer, then Chairman and Chief Executive Officer of the Institut de Développement Industriel (Industry Development Institute - IDI) until 1988. He was Chief Executive Officer of the Bureau de

Recherches Géologiques et Minières (BRGM) from 1988 to 1990. From 1990 to 1998, Mr. Mandil served as Chief Executive Officer for Energy and Commodities at the French Industry Ministry and became France's first representative to the Management Board of the International Energy Agency (IEA). He served as Chairman of the IEA from 1997 to 1998. In 1998, he was appointed Deputy Chief Executive Officer of Gaz de France and, in April 2000, Chairman of the Institut Français du Pétrole (French Institute for Oil). From 2003 to 2007, he was the Executive Director of the IEA. Mr. Mandil is also director of the Institut Veolia Environnement and of Schlumberger SBC Energy Institute.

## Edgar Filing: TOTAL S.A. - Form 20-F

Director of TOTAL S.A. since 2008. Last renewal: May 13, 2011 until 2014.

Member of the Strategic Committee, the Compensation Committee and the Governance & Ethics Committee.

Holds 1,000 shares.

### **Michel Pébereau**<sup>(1)</sup>

Born on January 23, 1942 (French).

Independent director.

Honorary Inspector General of Finance, Mr. Pébereau held various positions in the Ministry of Economy and Finance, before serving, from 1982 to 1993, as Chief Executive Officer and then as Chairman and Chief Executive Officer of Crédit Commercial de France (CCF). He was Chairman and Chief Executive Officer of BNP then BNP Paribas from 1993 to 2003, Chairman of the Board of Directors from 2003 to 2011, and is currently Honorary Chairman of BNP Paribas and Chairman of the BNP Paribas foundation. He is also a member of the Académie des Sciences Morales et Politiques, member of the Executive Board of the Mouvement des entreprises de France, member of the Policy Board of the Institut de l'Entreprise, Honorary Chairman of the Supervisory Board of the Institut Aspen, Chairman of the

Governing Board of the Institut d'études politiques de Paris, and director of the ARC foundation.

Director of TOTAL S.A. since 2000 Last renewal: May 11, 2012 until 2015.

Chairman of the Compensation Committee and, until February 9, 2012, member of the Nominating & Governance Committee.

Holds 2,356 shares.

### *Principal other directorships*

Director of BNP Paribas\*

Director of Airbus Group NV\* (formerly EADS)

Director of Pargesa Holding S.A.\* (Switzerland)

Director of BNP Paribas SA (Switzerland)

Member of the Supervisory Board of Banque Marocaine pour le Commerce et l'Industrie\*

Non-voting member (*censeur*) of Galleries Lafayette

<sup>(1)</sup> Mr. Pébereau is a director of Pargesa Holding SA, part of Group Bruxelles Lambert, which acting in concert with Compagnie Nationale à Portefeuille, to the Company's knowledge, owns 4.8% of the Company's shares and 4.8% of the voting rights. Mr. Pébereau disclaims beneficial ownership of such shares.

\* Company names marked with an asterisk are publicly listed companies.

## Edgar Filing: TOTAL S.A. - Form 20-F

*Underlined companies are companies that do not belong to the group in which the director has his or her main duties.*

96 TOTAL S.A. Form 20-F 2013

## **Table of Contents**

### **Item 6 - Directors and Senior Management**

#### ***Changes in the composition of the Board of Directors in 2013***

At the Shareholders' Meeting held on May 17, 2013, the directorships of Messrs. Desmarest, Brock and Lamarche were renewed for a 3-year term expiring at the end of the Shareholders' Meeting held in 2016 to approve the 2015 financial statements. Mr. Keller was appointed director representing employee shareholders, also for a 3-year term, replacing Mr. Clément, whose term was due to expire.

As of February 11, 2014, the Board of Directors had fifteen members, including one director appointed by the shareholders to represent employee shareholders. Twelve of the Board members, which represents 85%<sup>(1)</sup> of the directors, are independent (see "Director independence", below). The number of independent members of the Board of Directors is therefore higher than the number recommended by the AFEP-MEDEF Corporate Governance Code, to which the Company refers and which specifies that at least one half of the members of the Board at widely held companies with no controlling shareholders must be independent.

#### ***Board of Directors diversity policy***

The Board of Directors places a great deal of importance on its composition and that of its Committees. In particular, it relies on the work of the Governance & Ethics Committee, which reviews annually and proposes, as circumstances may require, desirable changes in the composition of the Board of Directors and Committees based on the Group's strategy.

The Governance & Ethics Committee conducts its work within the context of a formal procedure so as to ensure the complementarity of the Directors' competencies and the diversity of their profiles, maintain a rate of independence for the Board as a whole that is relevant to the Company's governance structure and the structure of its shareholder base, strive for a balanced representation of men and women on the Board, and promote an appropriate representation of directors of different nationalities.

As part of an effort that began several years ago, the composition of the Board of Directors has changed significantly since 2010 to achieve a more balanced representation of men and women and an openness to more international profiles.

As of February 11, 2014, the Board of Directors had four members of foreign nationality (27% of the directors) and five women (one-third of the directors, *i.e.*, a higher proportion of women than recommended in the AFEP-MEDEF Code).

According to the recommendations introduced in April 2010 in the AFEP-MEDEF Code regarding balanced representation of men and women on boards, the proportion of women on boards of directors was supposed to be at least 20% within three years of the 2010 Shareholders' Meeting and should be at least 40% within six years of that same Shareholders' Meeting. These requirements were also stipulated in the French law of January 27, 2011 regarding balanced representation of men and women on Boards of Directors and Supervisory Boards and equal opportunity. Pursuant to this law, the 20% target must be reached by the end of the 2014 Shareholders' Meeting and the 40% target must be reached by the end of the 2017 Shareholders' Meeting.

The Board of Directors will continue its reflections on diversifying its composition in the years to come, with the aim of having

women represent more than 40% of the members of the Board of Directors as set out in the law and in the AFEP-MEDEF Code and maintaining an international representation.

#### ***Renewals of directorships proposed at the 2014 Shareholders' Meeting***

At its meeting held on February 11, 2014, the Board of Directors decided to propose at the May 16, 2014 Shareholders' Meeting the renewal of the directorships of Mmes. Barbizet, Coisne-Roquette and Kux and Mr. Desmarais, jr. for a 3-year term that will expire at the end of the Shareholders' Meeting held to approve the financial statements for the 2016 financial year.

If the proposed resolutions are approved, the Board of Directors would have fourteen members at the end of the May 16, 2014 Shareholders' Meeting (compared with fifteen previously), as Mr. Mandil has not requested the renewal of his directorship, which is due to expire.

#### ***Absence of conflicts of interest***

The Board also noted the absence of potential conflicts between the Directors' duties in the best interests of the Company and the private interests of its directors. To the Company's knowledge, the members of the Board of TOTAL S.A. are not related by close family ties, there are no arrangements or agreements with clients

## Edgar Filing: TOTAL S.A. - Form 20-F

or suppliers that facilitated their appointment, and there is no service agreement binding a director of TOTAL S.A. to one of its subsidiaries and providing for special benefits upon termination of such agreement.

### ***Absence of a conviction***

The current members of the Board of Directors of the Company have informed the Company that they have not been convicted, have not been associated with a bankruptcy, receivership or liquidation, and have not been incriminated or publicly sanctioned or disqualified, as stipulated in item 14.1 of Annex I of EC Regulation 809/2004 of April 29, 2004.

### ***Other information***

At its meeting on September 15, 2009, the Board of Directors appointed Mr. Paris de Bollardi re Secretary of the Board.

Representatives of the Worker's Council: pursuant to Article L. 2323-62 of the French Labor Code, members of the Worker's Council attend, with consultative rights, all meetings of the Board. In compliance with the second paragraph of such article, since July 7, 2010 four members of the Worker's Council attend Board meetings as of February 11, 2014.

### **Director independence**

At its meeting on February 11, 2014, the Board of Directors, on the recommendation of the Governance & Ethics Committee, reviewed the independence of the Company's directors as of December 31, 2013. At the Committee's suggestion, the Board considered that, pursuant to the AFEP-MEDEF Code, a director is independent when he or she has no relationship of any kind with the Company, its Group or its Management, that may compromise the exercise of his or her freedom of judgment.

*(1) Not including the director representing employee shareholders, according to the recommendations made in the AFEP-MEDEF Code.*

## **Table of Contents**

### **Item 6 - Directors and Senior Management**

For each director, this assessment relies on the independence criteria set forth in the AFEP-MEDEF Code, revised in June 2013, as outlined below:

- not be an employee or executive director of the Company, or an employee or director of its parent company or of a company consolidated by its parent company, and not having been in such a position for the previous five years;
- not be an executive director of a company in which the Company holds, directly or indirectly, a directorship or in which an employee designated as such or an executive director of the Company (currently in office or having held such office for less than five years) is a director;
- not to be a material customer, supplier, investment banker or commercial banker of the Company or Group, and for which the Company or the Group represents a material part of their business (the assessment of the materiality or non-materiality of the relationship must be discussed by the Board and the criteria on which this assessment was based must be explained in the annual report);
- not to be related by close family ties to a corporate executive director;
- not to have been a statutory auditor of the Company within the previous five years;
- not to have been a director of the Company for more than twelve years (upon expiry of the term of office during which the 12-year limit was reached).

The AFEP-MEDEF Code expressly stipulates that the Board can decide that the implementation of certain defined criteria is not relevant or induces an interpretation that is particular to the Company.

At its meeting on February 11, 2014, pursuant to the report of the Governance & Ethics Committee, the Board of Directors observed that Mr. Desmarest, Chairman of the Board of Directors until May 21, 2010, had been an executive director within the meaning of the Code within the five previous years.

With regard to the criterion applicable to twelve years of service, the Board, at its meeting on February 11, 2014, pursuant to the report of the Governance & Ethics Committee, observed that four directors had exceeded twelve years of service on December 31, 2013: Ms. Lauvergeon and Messrs. Collomb, Desmarest and Pébereau. It also observed that Mr. Desmarais, jr. s years of service as director will reach twelve prior to the date of the May 16, 2014 Shareholders Meeting.

In assessing the independence of these directors, the Board disregarded this criterion applicable to twelve years of service based on the opinion that it had no relevance given, on the one hand, the specific characteristics of the oil and gas sector which relies on long-term investment cycles, and, on the other hand, the objectivity that these directors have demonstrated in the Board s activity. In addition, it deemed that the experience acquired on the Board by these directors strengthened their freedom of speech and their independence of judgment and, therefore, benefited the Group. The Board also noted that the criterion related to the length of term of office was not one of the independence criteria required by the New York Stock Exchange (NYSE).

Accordingly, the Board held that Mr. Collomb, Mr. Desmarais, Jr., Ms. Lauvergeon and Mr. Pébereau could be deemed as being independent.

Concerning material relationships, as a customer, supplier, investment banker or finance banker, between a director and the Company, the Board deemed that the level of activity between Group companies and a bank at which Mr. Pébereau is a former corporate executive director, which is less than 0.1% of its net banking income<sup>(1)</sup> and less than 5% of the Group s overall assets, represents neither a material portion of the overall activity of such bank nor a material portion of the Group s external financing. The Board concluded that Mr. Pébereau could be deemed as being independent.

Likewise, the Board of Directors also deemed that the level of activity between Group companies and one of its suppliers, Vallourec, of which Ms. Idrac is a member of the Supervisory Board, which is less than 3.3% of Vallourec s turnover<sup>(2)</sup> and less than 0.5% of the Group s purchasing in 2013, represents neither a material portion of the supplier s overall activity nor a material portion of the Group s purchasing. The Board concluded that Ms. Idrac could be deemed as being independent.

Furthermore, the Board deemed that the level of activity between Group companies and Stena AB of which Mr. Brock is a director, was nil in 2013. The Board concluded that Mr. Brock could be deemed as being independent.

Mmes. Barbizet, Coisne-Roquette, Idrac, Kux and Lauvergeon, and Messrs. Artus, Brock, Collomb, Desmarais, Lamarche, Mandil and Pébereau were deemed to be independent directors.

85%<sup>(3)</sup> of the directors were independent on December 31, 2013.

### **General Management**



### ***Management form***

On the proposal of the Governance & Ethics Committee, the Board of Directors decided, at its meeting of May 11, 2012, to maintain the management form formally adopted at the Board meeting of May 21, 2010, namely the unification of the functions of Chairman of the Board of Directors and Chief Executive Officer, and to confirm Mr. Christophe de Margerie in his function as Chairman and Chief Executive Officer for a period equal to that of his term of office as director, which will expire at the end of the Shareholders Meeting called to approve the accounts for the financial year ending December 31, 2014.

As a result, Mr. de Margerie has served as Chairman and Chief Executive Officer of TOTAL S.A. since May 21, 2010.

The Board of Directors deemed that the unified management form was the most appropriate to the Group's business and to the specificities of the oil and gas sectors. This decision took into account the advantage of unified management and the composition of the Board Committees which include a large proportion of independent directors, thereby ensuring balanced authority (for further information regarding the reasons for selecting the unified management form, see Corporate Governance Board of Directors practices Management form, below).

The management form selected will remain in effect until a decision to the contrary is made by the Board of Directors.

*(1) 2013 net banking income estimated based on BNP Paribas as of September 30, 2013.*

*(2) Based on the 2012 consolidated turnover published by Vallourec.*

*(3) Not including the director representing employee shareholders, according to the recommendations made in the AFEP-MEDEF Code.*

## **Table of Contents**

Item 6

### ***The Executive Committee***

The Executive Committee, under the responsibility of the Chairman and Chief Executive Officer, is the decision-making body of the Group.

It implements the strategy formulated by the Board of Directors and authorizes related investments, subject to the approval of the Board of Directors for investments exceeding 3% of the Group's equity or notification of the Board for investments exceeding 1% of equity.

In 2013, the Executive Committee met at least twice a month, except in August when it met only once.

As of December 31, 2013, the members of TOTAL's Executive Committee were as follows:

Christophe de Margerie, Chairman of the Executive Committee, Chairman and Chief Executive Officer;  
Philippe Boisseau, President of Marketing & Services and New Energies;  
Yves-Louis Darricarrère, President of Upstream (Exploration & Production division and Gas & Power);  
Jean-Jacques Guilbaud, Chief Administrative Officer;  
Patrick de La Chevardière, Chief Financial Officer; and  
Patrick Pouyanné, President of Refining & Chemicals.

### ***The Management Committee***

The Management Committee facilitates coordination among the different entities of the Group and monitors the operating results of the operational divisions and the activity reports of the functional divisions.

In addition to the members of the Executive Committee, the following twenty-three individuals from various operating divisions and non-operating departments served as members of the Management Committee as of December 31, 2013:

*Corporate:* Peter Herbel, Jean-Marc Jaubert, Helle Kristoffersen, Manoelle Lepoutre, Jean-François Minster, Jacques-Emmanuel Saulnier, Jérôme Schmitt, François Viaud;

*Upstream:* Marc Blaizot, Arnaud Breuillac, Olivier Cleret de Langavant, Isabelle Gaildraud, Michel Hourcard, Jacques Marraud des Grottes, Philippe Sauquet;

*Refining & Chemicals:* Pierre Barbé, Bertrand Deroubaix, Jacques Maigné, Jean-Jacques Mosconi, Bernard Pinatel, Bernadette Spinoy; and

*Marketing & Services:* Benoît Luc, Momar Nguer.

In addition, Humbert de Wendel is the Group's Treasurer.

## **COMPENSATION**

### **Approach to overall compensation**

## Edgar Filing: TOTAL S.A. - Form 20-F

TOTAL's approach to overall compensation (salary and employee benefits) is guided by the twin imperatives of external competitiveness, with salaries and social protection schemes positioned relative to local reference markets, and internal fairness. These shared principles are adapted in line with local factors such as labor laws, the economic context and the job market in the various countries where the Group operates.

Most of the subsidiaries that implement annual individual pay reviews attempt to position their compensation at least at the mid-point of the comparative external reference (market average).

General and merit-based increases take place yearly. Group companies may also use tools that reward collective performance (for example, in France, incentives and profit-sharing), together with base salary supplements, such as bonuses or variable portions, to better acknowledge individual contribution. The trend is towards individualized remuneration by strengthening rewards for collective and individual performance.

The HSE (Health, Safety and Environment) aspect is also taken into account when evaluating individual and collective performance. A policy is pursued that recognizes HSE performance by assessing the individual performance of managers and collective team performance. A portion of the managers' variable compensation is based on the achievement of HSE targets set for each business segment. It may also include individual HSE objectives, for which achievement is assessed during the annual performance review. For the managers whose compensation includes a variable portion, HSE criteria can determine up to 10% of the variable portion. For all employees, the annual performance review also includes an HSE target determined with the line manager. In addition, the three-yearly profit-sharing agreement for 2012-2014 applying to the oil and

petrochemicals perimeter<sup>(1)</sup> in France includes for the first time a component of remuneration that is conditional on reaching an HSE target assessed per the business segment.

Moreover, 93% of the employees in the scope of the 2013 WHRS are employed in countries where the law guarantees a minimum wage. In the absence of legislation for the remaining 7%, the Group, at the very least, complies with the local agreements on pay (company agreements or collective conventions) or builds its own structure. The minimum compensation is always set in accordance with the above policy, which is based on external benchmarks, thereby guaranteeing compensation above the locally applicable minimum.

The development of employee shareholding is another cornerstone of the Group's compensation policy. It is used to foster a good understanding of the Company's core values and to create a direct link with company performance. TOTAL thus grants performance shares to a significant number of employees (about 10,000) on the basis of the Group's achievement of overall economic goals.

In July 2013, the Board of Directors of TOTAL S.A. approved a performance share plan. This is the ninth plan implemented by the Group since the granting of free shares to employees has been permitted by French law and it ensures a significant replenishment rate with 39% of employees who were not beneficiaries the previous year.

The Group regularly invites its employees to subscribe to capital increases reserved for employees, the latest of which was launched in 2013. During this operation, 28,000 employees in 96 countries decided to subscribe to this capital increase, which, in addition to a conventional scheme, offered a scheme securing the employee's investment with a guaranteed minimum return.

Moreover, TOTAL places the development of employee savings, wherever possible, at the heart of its Human Resources policy.

<sup>(1)</sup> Including nine Upstream, Refining & Chemicals and Marketing & Services companies in France.

## Table of Contents

### Item 6 - Compensation

The pension and employee benefit programs in the Group's subsidiaries are improved every year (health insurance, life insurance). Since 2011, such improvements include the gradual introduction of a supplementary pension scheme in certain subsidiaries of Refining & Chemicals and Marketing & Services and the benchmarking and introduction of supplementary health and life insurance programs in eight Asian countries and for all employees in the Mexican subsidiaries in 2013. Additional improvements were made in 2013 in other countries regarding the death benefit. A life insurance program paying a minimum of two years' salary in case of death, regardless of the cause, has been set up in a large majority of Group companies. As a result of significant changes in the scope under review (sale of large companies and integration of new, created or acquired companies), the level of coverage under this program at year-end was 86% of the workforce included in the 2013 WHRS.

### Board members' compensation

The conditions applicable to Board members' compensation are defined by the Board of Directors on the proposal of the Compensation Committee, subject to the overall maximum amount of directors' fees authorized by the Shareholders' Meeting.

The overall maximum amount of directors' fees allocated to members of the Board of Directors was set at €1.4 million for each fiscal year by the Shareholders' Meeting on May 17, 2013.

In 2013, the overall amount of directors' fees due to the members of the Board of Directors was €1.25 million, noting that there were fifteen directors as of December 31, 2013.

The allocation of the overall amount of directors' fees for fiscal year 2013 is based on an allocation formula comprised of fixed compensation and variable compensation based on fixed amounts per meeting, which makes it possible to take into account each director's actual attendance at the meetings of the Board of Directors and its Committees, subject to the conditions below:

- a fixed annual amount of €20,000 is to be paid to each director (calculated on a pro rata basis in case of a change during the year), apart from the Chairman of the Audit Committee, who is to be paid €30,000 and the other Audit Committee members, who are to be paid €25,000;
- an amount of €5,000 per director for each Board of Directors' meeting actually attended;
- an amount of €3,500 per director for each Governance and Ethics Committee, Compensation Committee or Strategic Committee meeting actually attended;
- an amount of €7,000 per director for each Audit Committee meeting actually attended;
- a premium of €2,000 for travel from a country outside France to attend a Board of Directors or Committee meeting; and
- the Chairman and Chief Executive Officer does not receive directors' fees as director of TOTAL S.A. or any other company of the Group.

The total amount paid to each director is determined after taking into consideration the director's actual presence at each Board of Directors' or Committee meeting and, if appropriate, after prorating the amount set for each director, such that the overall amount paid remains within the maximum limit set by the Shareholders' Meeting.

These rules for allocating directors' fees, initially defined by the Board of Directors at its meeting on October 27, 2011, were confirmed by the Board of Directors at its meeting on February 9, 2012, during which the Board also decided to prorate the total amounts paid to each director if the maximum amount authorized by the Shareholders' Meeting is exceeded. These rules were again confirmed by the Board of Directors at its meeting on February 12, 2013.

At the same Board meeting, it was decided that the amount of fees paid to directors for a fiscal year will be paid, on the decision of the Board of Directors and following a proposal of the Governance and Ethics Committee, at the beginning of the next fiscal year.

**Table of Contents****Item 6 - Compensation**

The table below presents the total compensation (including in-kind benefits) due and paid to each director in office during the last two fiscal years (Article L. 225-102-1 of the French Commercial Code, 1st and 2nd paragraphs).

**Directors fees and other compensation due and paid to the executive and non-executive directors (*mandataires sociaux*) (AMF Table No. 3):**

(Gross amount €)	Fiscal year ended December 31, 2012		Fiscal year ended December 31, 2013	
	Amounts due	Amounts paid	Amounts due	Amounts paid
<b>Christophe de Margerie</b>				
Directors fees	none	none	none	none
Other compensation	(a)	(a)	(a)	(a)
<b>Thierry Desmarest</b>				
Directors fees	76,014	76,014	89,500	
Other compensation: retirement pension <sup>(b)</sup>	575,290	575,290	578,940	578,940
<b>Patrick Artus</b>				
Directors fees	72,921	72,921	79,500	
Other compensation	none	none	none	
<b>Patricia Barbizet</b>				
Directors fees	118,883	118,883	134,500	
Other compensation	none	none	none	
<b>Daniel Bouton<sup>(c)</sup></b>				
Directors fees	28,472	28,472		
Other compensation	none	none	none	
<b>Gunnar Brock</b>				
Directors fees	79,992	79,992	102,500	
Other compensation	none	none	none	
<b>Claude Clément<sup>(d)</sup></b>				
Directors fees	60,546	60,546	31,000	
Other compensation	102,883	102,883	92,153	92,153
<b>Marie-Christine Coisne-Roquette</b>				
Directors fees	100,763	100,763	129,500	
Other compensation	none	none	none	
<b>Bertrand Collomb</b>				
Directors fees	69,827	69,827	67,500	
Other compensation	none	none	none	
<b>Paul Desmarais, jr.</b>				
Directors fees	64,966	64,966	47,000	
Other compensation	none	none	none	
<b>Anne-Marie Idrac<sup>(e)</sup></b>				
Directors fees	32,075	32,075	75,500	
Other compensation	none	none	none	
<b>Charles Keller<sup>(f)</sup></b>				
Directors fees			36,000	
Other compensation			64,586	64,586
<b>Barbara Kux</b>				
Directors fees	71,153	71,153	79,000	
Other compensation	none	none	none	
<b>Gérard Lamarche</b>				
Directors fees	121,695	121,695	143,500	
Other compensation	none	none	none	
<b>Anne Lauvergeon</b>				
Directors fees	60,546	60,546	65,500	
Other compensation	none	none	none	
<b>Claude Mandil</b>				
Directors fees	69,827	69,827	93,000	
Other compensation	none	none	none	

## Edgar Filing: TOTAL S.A. - Form 20-F

<b>Michel Pébereau</b>				
Directors' fees	65,408	65,408	77,500	
Other compensation	none	none	none	
<b>Thierry de Rudder<sup>(g)</sup></b>				
Directors' fees	6,912	6,912		
Other compensation	none	none	none	
<b>Total</b>	<b>1,778,173</b>	<b>1,778,173</b>	<b>1,986,679</b>	<b>735,679</b>

<sup>(a)</sup> For the Chairman and Chief Executive Officer, see the summary compensation tables in Summary tables (AFEP-MEDEF corporate governance code AMF position-recommendations No. 2009-16) , below. The Chairman and Chief Executive Officer does not receive directors' fees as director of TOTAL S.A. or any other company of the Group.

<sup>(b)</sup> Mr. Desmarest does not receive any compensation for duties related to representing the Group internationally.

<sup>(c)</sup> Director until May 11, 2012.

<sup>(d)</sup> Director representing employee shareholders until May 17, 2013.

<sup>(e)</sup> Director since May 11, 2012.

<sup>(f)</sup> Director representing employee shareholders since May 17, 2013.

<sup>(g)</sup> Director until January 12, 2012.

2013 Form 20-F TOTAL S.A. 101

## **Table of Contents**

### **Item 6 - Compensation**

Over the past two years, the directors currently in office have not received any compensation or in-kind benefits from companies controlled by TOTAL S.A., except for Mr. Clément, who is an employee of Total Raffinage-Chimie.

The compensation indicated in the table above (except for that of the Chairman and Chief Executive Officer, Mr. Clément, Mr. Keller and Mr. Desmarest) consists solely of directors' fees (gross amount) due for the period under review. Moreover, there is no service contract linking a Director to TOTAL S.A. or any companies controlled by it which provides for benefits under such contract.

### **Compensation of the executive directors**

#### ***Compensation policy for the Chairman and Chief Executive Officer***

##### ***General principles***

The policy related to the compensation of the Chairman and Chief Executive Officer is approved by the Board of Directors on the proposal of the Compensation Committee. It is determined in accordance with the Principles and rules for determining the compensation and other benefits of the Chairman and Chief Executive Officer.

These principles and rules, approved by the Board of Directors at its meeting on February 9, 2012, are presented in the Chairman's Report on Corporate Governance. They are based on the fundamental principles for determining the compensation of the executive directors set out in the AFEP-MEDEF Code and ensure the consistency and stability of the compensation policy in line with the Group's strategy.

The Board of Directors and Compensation Committee pay special attention to ensuring that the compensation policy is structured to create long-term value for the company (in particular by introducing non-financial performance indicators) and is proportionate to the responsibility assumed while remaining reasonable and fair, in a context that values teamwork and motivation within the company.

They also ensure a balance among the various components of the Chairman and Chief Executive Officer's compensation (fixed portion, variable portion, long-term performance share compensation plan). The benefit accruing from participation in the pension plans is taken into consideration when determining the compensation policy applicable to the Chairman and Chief Executive Officer in line with the principles of the AFEP-MEDEF Code.

The relative position of the Chairman and Chief Executive Officer's compensation to that of comparable issuers (in particular, CAC 40 companies and issuers operating in the oil and gas sectors) is examined every year, if necessary on the basis of studies undertaken by specialized firms.

The Chairman and Chief Executive Officer does not take part in any discussions or deliberations of the corporate bodies regarding items on the agenda of Board of Directors' meetings related to the assessment of the Chairman and Chief Executive Officer's performance or the determination of the components comprising his compensation.

##### ***Compensation policy for fiscal year 2014***

On February 11, 2014, the Board of Directors, on the proposal of the Compensation Committee, decided that the compensation of

Mr. de Margerie as Chairman and Chief Executive Officer for fiscal year 2014 will consist of a fixed base salary of €1,500,000, unchanged from the amount set by the Board of Directors on May 21, 2010, and a variable portion, to be paid in 2015, not exceeding 180% of the base salary, based in particular on practices at a reference sample of companies operating in the energy sectors.

On the proposal of the Compensation Committee, the Board of Directors also decided to maintain for fiscal year 2014 the various criteria for determining the variable portion defined in 2013, after confirming their appropriateness based on the Group's strategic priorities.

## Edgar Filing: TOTAL S.A. - Form 20-F

Consequently, the various criteria used for determining the Chairman and Chief Executive Officer's variable portion for fiscal year 2014 will be based, for up to 100% of the base salary, on economic parameters that refer to quantitative targets reflecting the Group's performance (with these economic parameters assessed on a linear basis between two performance levels to avoid threshold effects) and, for up to 80% of the base salary, on the Chairman and Chief Executive Officer's personal contribution, which allows a qualitative assessment of management.

The economic criteria include:

- return on equity for up to 50% of the base salary;
- the Company's results, in comparison with the results of four major competing oil companies<sup>(1)</sup>, assessed by reference to the average growth over three years of two indicators, net earnings per share and net income. Each indicator has a weighting of up to 25% of the base salary.

The expected levels of attainment of the quantitative economic parameter targets for determining the Chairman and Chief Executive Officer's variable portion were clearly defined by the Board of Directors at its meeting on February 11, 2014, but have not been made public for reasons of confidentiality.

The Chairman and Chief Executive Officer's personal contribution will be assessed, for up to 80% of the base salary, based on six pre-determined, clearly defined quantitative or qualitative criteria, each with a weighting of up to 13 to 15% of the base salary. These include:

- Health, Safety and Environment performance, measured mainly according to attainment of the annual Total Recordable Injury Rate (TRIR) target;
  - the increase in hydrocarbon production;
  - the increase in hydrocarbon reserves;
  - the performance of the Refining & Chemicals and Marketing & Services segments assessed on the basis of the annual targets of these segments;
  - the success of key negotiations involving the Group's strategy;
- 
- CSR performance, which is measured in particular according to attainment of the CO<sub>2</sub> emissions and energy efficiency targets and the Group's position in the rankings of non-financial rating agencies.

<sup>(1)</sup> ExxonMobil, BP, Royal Dutch-Shell and Chevron.



## Table of Contents

### Item 6 - Compensation

The Chairman and Chief Executive Officer will also continue to have the use of a company car and be covered by a life insurance plan.

#### ***Commitments made to the Chairman and Chief Executive Officer: pension plans, termination payments and other commitments (Article L. 225-102-1, paragraph 3, of the French Commercial Code)***

The commitments made to the Chairman and Chief Executive Officer regarding pension and life insurance plans, retirement benefit and termination payment for removal from office or non-renewal of his term of office, as described below, were approved by the Board of Directors on February 9, 2012 and by the Shareholders Meeting on May 11, 2012, in accordance with Article L. 225-42-1 of the French Commercial Code.

#### *Pension plans*

Pursuant to applicable law, the Chairman and Chief Executive Officer is eligible for the basic French social security pension and for pension benefits under the ARRCO (Association pour le Régime de Retraite Complémentaire des Salariés) and AGIRC (Association Générale des Institutions de Retraite des Cadres) government-sponsored supplementary pension schemes.

He also participates in the internal defined contribution pension plan known as RECOSUP. This pension plan represented a booked expense to the Company in favor of the Chairman and Chief Executive Officer for fiscal year 2013 of €2,222.

The Chairman and Chief Executive Officer also participates in a defined benefit supplementary pension plan set up and financed by the Company. This plan, for which management is outsourced, applies to all employees of the Group whose annual compensation is greater than eight times the ceiling for calculating French social security contributions (€37,548 in 2014). Compensation above this amount does not qualify as pensionable compensation under either government-sponsored or contractual pension schemes.

To be eligible for this supplementary pension plan, participants must meet specific age and length of service (five years) criteria. They must also still be employed by the Group's company upon retirement, unless they retire due to disability or have taken early retirement at the Group's initiative after the age of fifty-five.

The plan provides participants with a pension equal to the sum of 1.8% of the portion of the reference compensation between eight and forty times the annual ceiling for calculating French social security contributions and 1% of the reference compensation between forty and sixty times the annual ceiling for calculating French social security contributions, multiplied by the number of years of service (up to twenty years). The basis for the calculation of this supplementary plan is indexed to changes in the ARRCO pension point. The sum of the supplementary pension plan benefits and external pension plan benefits may not exceed 45% of the compensation used as the calculation basis. In the event this percentage is exceeded, the supplementary pension is reduced accordingly.

The compensation taken into account to calculate the supplementary pension is the retiree's last 3-year average gross compensation (fixed and variable portions).

In the case of Mr. de Margerie, to date, the ceilings applicable for determining the amount of the retirement pension he may benefit from under the terms of this defined benefit supplementary pension plan have been reached, both in terms of seniority (Mr. de Margerie joined the Group in 1974) and compensation (his last 3-year average gross

compensation is more than the threshold of sixty times the annual ceiling for calculating French social security contributions, *i.e.*, €2,221,920 in 2013).

The commitments made to him by TOTAL S.A. under the terms of the defined benefit supplementary pension plans and similar would thus, as of December 31, 2013, represent a gross annual retirement pension estimated at €582,000, *i.e.*, 17.96% of the gross annual compensation paid to the Chairman and Chief Executive Officer in 2013 (fixed portion for 2013 and variable portion for fiscal year 2012).

The Group's commitments related to these defined benefit supplementary pension plans and similar (including the retirement benefit mentionedn Termination payment and retirement benefit , below, is outsourced to an insurance company for almost its entire amount; the not outsourced balance being evaluated on an annual basis and subject to an adjustment through a provision in the accounts. The Group's commitments amount, as of December 31, 2013, to €19.1 million for the Chairman and Chief Executive Officer (€34.8 million for the executive and non executive directors (*mandataires sociaux*) participating in these plans including the Chairman and Chief Executive Officer). These amounts represent the gross value of the Group's commitments to these beneficiaries based on a statistical life expectancy, and include the additional tax contribution for an amount of 30% on pensions that exceed eight annual ceilings for social security, payable by the Company to the French administration in charge of collecting social security contributions (URSSAF) (*i.e.*, €4.0 million for the Chairman and Chief Executive Officer and €7.6 million for the concerned executive and non executive directors including the Chairman and Chief Executive Officer).

## Edgar Filing: TOTAL S.A. - Form 20-F

The sum of all the pension plans in which Mr. de Margerie participates would, as of December 31, 2013, represent a gross annual retirement pension estimated to €718,500, *i.e.*, 22.17% of his gross annual compensation paid in 2013 (fixed portion for 2013 and variable portion for fiscal year 2012).

In line with the principles used to determine the compensation of the Chairman and Chief Executive Officer as set out in the AFEP-MEDEF Code to which the Company refers, the Board of Directors has taken account of the benefit conferred through participation in the pension plans when determining the Chairman and Chief Executive Officer's compensation.

### *Termination payment and retirement benefit*

◦ **Retirement benefit:** The Chairman and Chief Executive Officer is entitled to a retirement benefit equal to that available to eligible members of the Group under the French National Collective Bargaining Agreement for the Petroleum Industry. This benefit amounts to 25% of the gross annual compensation (fixed and variable portions) received during the 12-month period preceding the executive director's retirement. Pursuant to the provisions of Article L. 225-42-1 of the French Commercial Code, entitlement to this benefit is subject to the performance conditions detailed below.

The retirement benefit cannot be combined with the termination payment described below.

◦ **Termination payment:** If the Chairman and Chief Executive Officer is removed from office or his term of office is not renewed by the Company, he is entitled to termination payment equal to two years' gross compensation. The calculation will be based on the gross compensation (including both fixed and variable

## Table of Contents

### Item 6 - Compensation

portions) of the 12-month period preceding the date of termination or non-renewal of his term of office. This termination payment will be paid in the event of a change of control or strategy. It will not be due in cases of gross negligence or willful misconduct or if the Chairman and Chief Executive Officer leaves the Company of his own volition, accepts new responsibilities within the Group, or may claim full retirement benefits within a short time period.

Pursuant to the provisions of Article L. 225-42-1 of the French Commercial Code, entitlement to this benefit is subject to the performance conditions detailed below.

- **Performance condition:** In accordance with Article L. 225-42-1 of the French Commercial Code, the Board of Directors decided, at its meeting on February 9, 2012, to make entitlement to termination payment and retirement benefit contingent upon a performance condition which is considered to be fulfilled if at least two of the three criteria set out below are met:

the average ROE (return on equity) over the three years preceding the year in which the Chairman and Chief Executive Officer retires is at least 12%;  
the average ROACE (return on average capital employed) over the three years preceding the year in which the Chairman and Chief Executive Officer retires is at least 10%;  
TOTAL's oil and gas production growth over the three years preceding the year in which the Chairman and Chief Executive Officer retires is greater than or equal to the average production growth rate of the four other major competing oil companies: ExxonMobil, Royal Dutch Shell, BP and Chevron.

These criteria were selected to take into account the Company's general interest, shareholder interests and standard market practices, especially in the oil and gas industry.

More specifically, the ROE performance criterion allows the termination payment and retirement benefit to be tied to the Company's overall shareholder return. Shareholders can use ROE to gauge the Company's ability to generate profit from the capital they invested and from prior year earnings reinvested in the Company.

ROACE is used by most oil and gas companies to assess the operational performance of average capital employed, regardless of whether it is funded by equity or debt. ROACE is an indicator of the return on capital employed by the company for operational activities and, as a result, makes it possible to tie the payment of termination payment and retirement benefit to the value created for the company.

The third and last criterion used by the Board of Directors is the Group's oil and gas production growth compared with that of its competitors. This indicator is widely used in the industry to measure operational performance and the ability to ensure the sustainable development of the Group, most of whose capital expenditure is allocated to Upstream activities.

#### *Life insurance plan*

In accordance with the decisions made by the Board of Directors on February 11, 2009, confirmed by the Board of Directors' decision on February 9, 2012 and May 11, 2012, the Chairman and Chief Executive Officer is covered by a life insurance plan paid by the Company. This plan guarantees, upon death, a payment equal to two years' gross compensation (fixed and variable portions), increased to three years in case of accidental death and, in the event of permanent disability due to an accident, a payment proportional to the degree of disability.

**Summary table (AFEP-MEDEF corporate governance code – AMF position-recommendations No. 2009-16) (AMF Table No. 11):**

Executive directors

Supplementary pension plans

## Edgar Filing: TOTAL S.A. - Form 20-F

	Employment contract		Payments or benefits due or likely to be due upon termination or change in duties	Benefits related to a non-compete agreement
	NO	YES	YES	NO
Christophe de Margerie	NO	YES	YES	NO
<i>Chairman and Chief Executive Officer</i> Start of term of office: February 2007 <sup>(a)</sup>		Internal defined benefit supplementary pension plan <sup>(c)</sup> and defined contribution pension plan known as RECOSUP <sup>(d)</sup> which is also applicable to certain Group employees	Termination payment <sup>(b)</sup>	
End of current term of office: Shareholders Meeting held in 2015 to approve the financial statements for the year ended December 31, 2014			Retirement benefit <sup>(b)</sup>	

<sup>(a)</sup> *Chairman and Chief Executive Officer since May 21, 2010; Chief Executive Officer since February 14, 2007*

<sup>(b)</sup> *Payment subject to a performance condition in accordance with the decision of the Board of Directors on February 9, 2012. Details of these commitments are set out above. The retirement benefit cannot be combined with the termination payment described above.*

<sup>(c)</sup> *An annual pension that would be equivalent, as of December 31, 2013, to 17.96% of the annual compensation received in 2013.*

<sup>(d)</sup> *Mr. de Margerie's pension benefit represented a booked expense of €2,222 for fiscal year 2013.*

### ***Compensation due or granted to the Chairman and Chief Executive Officer for fiscal year 2013***

#### ***Fixed and variable elements of compensation***

The compensation paid to Mr. de Margerie as Chairman and Chief Executive Officer for fiscal year 2013 was approved by the Board of Directors at its meeting on February 11, 2014, further to the proposal of the Compensation Committee, in accordance with the compensation policy defined by the Board of Directors at its meeting on February 12, 2013.

This compensation consists of a base salary (fixed portion) of €1,500,000, unchanged from the amount set by the Board of Directors on May 21, 2010, together with a variable portion (paid in 2014) amounting to €1,987,200, which corresponds to 132.48% of his fixed annual compensation which was determined as follows.

At its meeting on February 12, 2013, the Board of Directors, further to the proposal of the Compensation Committee, decided that the compensation of Mr. de Margerie as Chairman and Chief

**Table of Contents****Item 6 - Compensation**

Executive Officer for fiscal year 2013 would consist of a fixed base salary of €1,500,000, unchanged from the amount set by the Board of Directors on May 21, 2010, and a variable portion, to be paid in 2014, not exceeding 180% (instead of 165% in 2012) of the base salary, based in particular on practices at a reference sample of companies operating in the energy sectors.

The Board of Directors, at this same meeting on February 12, 2013, also decided that the various criteria used for determining the Chairman and Chief Executive Officer's variable portion should be based, for up to 100% of the base salary, on economic parameters that refer to quantitative targets reflecting the Group's performance (with these economic parameters assessed on a linear basis between two levels of performance to avoid threshold effects) and, for up to 80% of the base salary, on the Chairman and Chief Executive Officer's personal contribution, which allows a qualitative assessment of management based on six pre-determined, clearly defined criteria (each criterion can have a weighting of up to 13 to 15% of the base salary).

At its meeting on February 11, 2014, the Board of Directors, after reviewing the attainment of the economic parameters as well as the Chairman and Chief Executive Officer's personal contribution for fiscal year 2013, set the variable portion of the Chairman and Chief Executive Officer's compensation for fiscal year 2013 at 132.48% of his annual fixed compensation, *i.e.*, €1,987,200 (compared to 116.11%, *i.e.*, €1,741,000 for fiscal year 2012). 77.48% relates to the share for the different selected economic parameters and 55% relates to the share for the personal contribution of the Chairman and Chief Executive Officer determined on the basis of a detailed evaluation of six pre-determined, clearly defined criteria.

Concerning the economic parameters, the return on equity of the Group was lower in 2013 than in 2012, but the Group's performance, in comparison to its main competitors (in terms of earnings per share and net income), were considerably higher in 2013 than in 2012, which led to an increase of the part allocated for the different economic parameters compared to the previous fiscal year (77.48% of the fixed compensation for fiscal year 2013 compared to 64.11% for fiscal year 2012).

Concerning the personal contribution, the Board of Directors considered that most of the objectives were achieved, particularly the targets in terms of Safety, Corporate Social Responsibility (CSR) and concerning the success of strategic negotiations in producing countries. The personal contribution was then set to 55% (against a maximum of 80%) for fiscal year 2013 compared to 52% (against a maximum of 65%) for fiscal year 2012.

Consequently, the amount of the variable portion of Mr. de Margerie's compensation for fiscal year 2013 (paid in 2014) was €1,987,200, which corresponds to 132.48% of his fixed annual compensation.

In 2013, Mr. de Margerie also continued to have the use of a company car and be covered by a life insurance plan paid by the Company. These benefits were booked in the amount of €56,472 in the Consolidated Financial Statements at December 31, 2013.

#### *Grant of performance shares or stock options in 2013*

Pursuant to the authorization of the Company's Combined Shareholders' Meeting of May 13, 2011 (eleventh resolution) and further to the proposal of the Compensation Committee, the Board of Directors decided, at its meeting on July 25, 2013, to grant

Mr. de Margerie 53,000 outstanding performance shares of the Company (corresponding to 0.0022% of the share capital on the grant date). The shares were awarded as part of a broader share grant plan approved by the Board of Directors on July 25, 2013 related to 0.19% of the share capital for nearly 10,000 beneficiaries.

The number of shares granted (53,000 performance shares) was stable compared to the previous year. As in 2012, no stock options were awarded to the Chairman and Chief Executive Officer in 2013.

The definitive grant of all the performance shares is subject to the beneficiary's continued presence at the Group during the vesting period and to performance conditions related to the Group's return on equity (ROE) and return on average capital employed (ROACE) for fiscal years 2013, 2014 and 2015.

- For 50% of the shares granted, the performance condition states that the final number of shares granted is based on the average ROE of the Group, as published by the Group according to its consolidated balance sheet and statement of income for fiscal years 2013, 2014 and 2015. The acquisition rate is equal to zero if the average ROE is less than or equal to 8%, varies linearly between 0% and 100% if the average ROE is more than 8% and less than 16%, and is equal to 100% if the average ROE is more than or equal to 16%.
- For 50% of the shares granted, the performance condition states that the final number of shares granted is based on the average ROACE of the Group, as published by the Group according to its consolidated balance sheet and statement of income for fiscal years 2013, 2014 and 2015. The acquisition

## Edgar Filing: TOTAL S.A. - Form 20-F

rate is equal to zero if the average ROACE is less than or equal to 7%, varies linearly between 0% and 100% if the average ROACE is more than 7% and less than 15%, and is equal to 100% if the average ROACE is more than or equal to 15%.

The ROE and ROACE values used to assess the performance conditions will be those published by the Group in the first quarters of 2014, 2015 and 2016, respectively, based on the Group's consolidated balance sheet and statement of income for fiscal years 2013, 2014 and 2015.

Pursuant to the provisions of the French Commercial Code, the Chairman and Chief Executive Officer will be required to hold in registered form, for as long as he remains in office, 50% of the capital gains, net of tax and related contributions, on the shares granted. When the Chairman and Chief Executive Officer holds a number of shares<sup>(1)</sup> corresponding to five times his gross annual fixed compensation at that time, this holding requirement will be equal to 10%. If in the future this condition is no longer met, the previous 50% holding requirement will once again apply. Given this holding requirement and given the share holding requirements that the Board of Directors impose on the executive directors whereby such directors must hold a number of shares of the Company equivalent in value to two years of the fixed portion of their annual compensation, and given the number of TOTAL shares and shares of the TOTAL ACTIONNARIAT FRANCE collective investment fund (invested exclusively in TOTAL shares) effectively held by the Chairman and Chief Executive Officer, the Board of Directors decided not to make the grant of performance shares contingent

<sup>(1)</sup> Directly or through collective investment funds invested in Company stock.

**Table of Contents****Item 6 - Compensation**

upon the purchase of a quantity of shares once the awarded shares become transferable, thus disregarding one of the recommendations of the AFEP-MEDEF Code to which the Company adheres.

Furthermore, the Board of Directors noted that, pursuant to the Board's rules of procedure applicable to each director, the Chairman and Chief Executive Officer cannot hedge the shares of the Company and any financial instruments related to them, and has taken note of the Chairman and Chief Executive Officer's commitment to not use such hedging transactions, including on the performance shares awarded.

Subject to the specific provisions set out above, the grant of performance shares to the Chairman and Chief Executive Officer is governed by the same provisions that apply to other beneficiaries of the performance share grant plan approved by the Board of Directors at its meeting on July 25, 2013. In particular, these provisions state that shares definitively awarded at the end of the 3-year vesting period will, following validation of the presence and performance conditions, be automatically registered on the first day of the 2-year holding period and will be non-transferable until the end of the holding period.

*Other forms of compensation due or granted for fiscal year 2013*

The Chairman and Chief Executive Officer did not benefit from any other forms of compensation due or granted for fiscal year 2013. The Board of Directors has not awarded any multi-year or deferred variable compensation or any extraordinary compensation for fiscal year 2013.

It should also be noted that the Chairman and Chief Executive Officer does not receive directors' fees as director of TOTAL S.A. or any other company of the Group.

*Summary tables (AFEP-MEDEF corporate governance code – AMF position-recommendations No. 2009-16)*

**Summary of compensation of the Chairman and Chief Executive Officer (AMF Table No. 2):**

Fiscal year ended December 31, (€)	2012		2013	
	Amount due for the fiscal year	Amount paid during the fiscal year <sup>(a)</sup>	Amount due for the fiscal year	Amount paid during the fiscal year <sup>(a)</sup>
<b>Christophe de Margerie</b>				
Chairman and Chief Executive Officer (since May 21, 2010)				
Fixed compensation	1,500,000	1,500,000	1,500,000	1,500,000
Annual variable compensation <sup>(b)</sup>	1,741,000 <sup>(b)</sup>	1,530,000	1,987,200	1,741,000
Extraordinary compensation				
Directors' fees				
In-kind benefits <sup>(c)</sup>	7,409	7,409	56,472	56,472
<b>Total</b>	<b>3,248,409</b>	<b>3,037,409</b>	<b>3,543,672</b>	<b>3,297,472</b>

<sup>(a)</sup> Variable portion paid for prior fiscal year.

<sup>(b)</sup> The variable portion of the Chairman and Chief Executive Officer's compensation is calculated by taking into account the Group's return on equity, changes in earnings compared with those of the other major competing oil companies, and the Chairman and Chief Executive Officer's personal contribution based on objective and, for the most part, operational target criteria. The variable portion paid to the Chairman and Chief Executive Officer for fiscal year 2012 could reach a maximum amount of 165% of his base salary. The variable portion due for 2012, determined by the Board of Directors on February 12, 2013 based on attainment of the economic performance criteria and an assessment of the Chairman and Chief Executive Officer's personal contribution, represents 116.11% of his base salary (i.e., €1,741,000 rounded down to the nearest thousand euros).

<sup>(c)</sup> Mr. de Margerie has the use of a company car and is covered by a life insurance plan paid by the Company. For 2013, the benefit corresponding to the life insurance plan by which the Chairman and Chief Executive Officer is covered was itemized and estimated at €48,360.

**Summary of compensation, stock options and performance shares awarded to the Chairman and Chief Executive Officer (AMF Table No. 1):**

# Edgar Filing: TOTAL S.A. - Form 20-F

Fiscal year	2012	2013
<b>Christophe de Margerie</b>		
Chairman and Chief Executive Officer (since May 21, 2010)		
Compensation <u>due</u> in respect of the fiscal year (€ <sup>y</sup> ) (detailed in AMF Table No. 2 above)	3,248,409	3,543,672
Valuation of multi-year variable compensation awarded during the fiscal year (€)		
Accounting valuation of the stock options awarded during the fiscal year (€ <sup>y</sup> ) (see AMF Table No. 4 below)		
Number of options awarded		
Accounting valuation of performance shares awarded during the fiscal year (€ <sup>y</sup> ) (see AMF Table No. 6 below)	1,664,730	1,729,920
Number of performance shares awarded	53,000	53,000
<b>Total</b>	<b>4,913,139</b>	<b>5,273,592</b>

*Note: The valuation of options and performance shares awarded corresponds to a valuation performed in accordance with IFRS 2 (see Notes 1E and 25 to the Consolidated Financial Statements) and not to any compensation actually received during the fiscal year. Entitlement to options and performance shares is subject to fulfillment of performance conditions assessed over a period of two or three years depending on the plans.*

*(a) Including in-kind benefits. Mr. de Margerie has the use of a company car and is covered by a life insurance plan paid by the Company.*

*(b) The valuation of options awarded is calculated on the day they were awarded using the Black-Scholes model based on the assumptions used for the Consolidated Financial Statements (see Note 25 to the Consolidated Financial Statements).*

*(c) The valuation of performance shares awarded was calculated on the day they were awarded (see Note 1E to the Consolidated Financial Statements).*



**Table of Contents****Item 6 - Compensation****Performance shares awarded in 2013 to each executive director by the issuer and by any Group company (Extract from AMF Table No. 6):**

	Plan date and No.	Number of shares awarded during fiscal year	Valuation of shares (€ <sup>(a)</sup> )	Acquisition date	Dat of transferability	Performance condition
<b>Christophe de Margerie</b> Chairman and Chief Executive Officer	2013 Plan 07/25/2013	53,000	1,729,920	07/26/2016	07/26/2018	For 50% of the shares, the condition is based on the Group's average ROE in 2013, 2014 and 2015. For 50% of the shares, the condition is based on the Group's average ROACE in 2013, 2014 and 2015

*(a) The valuation of performance shares was calculated on the day they were awarded, according to the method used for the Consolidated Financial Statements.*

**Stock options awarded in 2013 to each executive director by the issuer and by any Group company (AMF Table No. 4):**

	Plan date and No.	Nature of options (purchase or subscription)	Valuation of options (€ <sup>(a)</sup> )	Number of options awarded during fiscal year	Exercise price	Exercise period
<b>Christophe de Margerie</b>  Chairman and Chief Executive Officer						

*(a) According to the method used for the Consolidated Financial Statements.*

**Executive officers' compensation**

In 2013, the aggregate amount paid directly or indirectly by the French and foreign Group companies as compensation to the executive officers<sup>(1)</sup> of TOTAL in office at December 31, 2013 (members of the Management Committee and the Treasurer) was €22.1 million (thirty individuals), including €9.3 million paid to the six members of the Executive Committee. Variable compensation accounted for 45% of the aggregate amount of €22.1 million paid to executive officers.

**Stock option and performance share grants policy****General policy**

In addition to its policy to develop employee shareholding, TOTAL S.A. is also pursuing a policy to associate employees and executive officers with the Group's future results. This policy consists in awarding free performance shares each year. TOTAL S.A. may also award stock options despite the fact that no plan has been put in place since September 14, 2011.

Stock options and performance share grants put in place by TOTAL S.A. concern only TOTAL shares. No options for or grants of performance shares of any of the Group's listed subsidiaries are awarded by TOTAL S.A.

## Edgar Filing: TOTAL S.A. - Form 20-F

All grants are approved by the Board of Directors, based on the proposal of the Compensation Committee. For each plan, the Compensation Committee recommends a list of beneficiaries, the conditions and the number of options or shares awarded to each beneficiary. The Board of Directors then gives final approval for this list and the grant conditions.

Grants of performance shares under selective plans become definitive at the end of a vesting period which has been extended to three years for shares granted as of July 25, 2013. However,

such grants only become definitive subject to a presence condition and a performance condition based on the Group's return on equity (ROE). At the end of this vesting period, and provided that the conditions set are met, the performance shares are definitively awarded to the beneficiaries, who must then hold them for at least two years (holding period). For beneficiaries employed by non-French subsidiaries on the grant date, the vesting period for performance shares may be increased to four years; in such cases, there is no mandatory holding period. As of 2011, all performance shares granted to executive officers are subject to performance conditions.

Stock options have a term of eight years, with an exercise price set at the average of the closing TOTAL share prices on Euronext Paris during the twenty trading days prior to the grant date, without any discount. The exercise of the options is subject to a presence condition and performance conditions, based on the return on equity (ROE) of the Group, which vary depending on the plan and beneficiary category. As of 2011, all options granted are subject to performance conditions. For options that may be awarded pursuant to the authorization given by the Extraordinary Shareholders' Meeting of May 17, 2013 (1<sup>st</sup> resolution), performance conditions will be assessed over a minimum period of three consecutive fiscal years. For earlier option plans, and subject to the applicable presence and performance conditions being met, options may be exercised only at the end of an initial 2-year vesting period and the shares resulting from the exercise may only be disposed of at the end of a second 2-year holding period. Moreover, for the 2007 to 2011 option plans, the shares resulting from the exercise of options by beneficiaries employed by non-French subsidiaries on the grant date may be disposed of or converted to bearer form at the end of the first 2-year vesting period.

Performance share and stock option grants to the Chairman and Chief Executive Officer are subject to a presence condition within

*(1) Executive officers who are not directors (with the exception of the Chairman and Chief Executive Officer).*

## **Table of Contents**

### **Item 6 - Compensation**

the Group and specific performance conditions related to the Group's return on equity (ROE) and return on average capital employed (ROACE) set by the Board of Directors, on the proposal of the Compensation Committee.

The award of performance shares or stock options is used to extend, based on individual performance assessments at the time of each plan, the Group-wide policy of developing employee shareholding.

#### ***Follow up of the grants to the Chairman and Chief Executive Officer***

##### ***Stock options***

No stock options were awarded in 2012 or 2013.

Until 2011, the Chairman and Chief Executive Officer was awarded stock options as part of broader share grant plans approved by the Board of Directors for certain Group employees and executive officers. Subject to certain specific provisions set out below, options granted to the Chairman and Chief Executive Officer are governed by the same provisions that apply to other beneficiaries of grant plans.

As of 2007, the Board of Directors has made the exercise of options awarded to the Chairman and Chief Executive Officer contingent upon a presence condition and performance conditions based on the Group's ROE and ROACE. The conditions are set out below for the 2010 and 2011 plans. The acquisition rate of performance-related options under the 2009, 2010 and 2011 plans was 100%. It had been 60% for the 2008 plan.

Pursuant to Article L. 225-185 of the French Commercial Code, the Board of Directors decided that, for the 2007 to 2011 share subscription option plans, the executive directors (the Chairman of the Board and the Chief Executive Officer, and then from May 21, 2010 the Chairman and Chief Executive Officer) would be required to hold in registered form, for as long as they remain in office, a number of TOTAL shares representing 50% of the capital gains, net of tax and related contributions, resulting from the exercise of stock options under these plans. When the executive directors hold a number of shares (directly or through collective investment funds invested in Company stock) corresponding to five times his gross annual fixed compensation at that time, this holding requirement will be reduced to 10%. If in the future this condition is no longer met, the previous 50% holding requirement will once again apply.

The Chairman and Chief Executive Officer has undertaken not to hedge the shares of the Company and any financial instruments related to them. This provision is now included in the rules of procedure of the Board of Directors.

All the options awarded to the Chairman and Chief Executive Officer and outstanding at December 31, 2013 represented 0.047%<sup>(1)</sup> of the potential share capital of the Company on that date.

**i. 2011 share subscription option plan:** the Board of Directors decided that, provided the presence condition within the Group is met, the number of options definitively granted to the Chairman and Chief Executive Officer will be subject to two performance conditions:

- For 50% of the share subscription options granted, the performance condition states that the final number of options granted is based on the average ROE of the Group, as published by the Group according to its consolidated balance sheet and statement of income for fiscal years 2011 and 2012. The acquisition rate is equal to zero if the average ROE is less than or equal to 7%, varies linearly between 0% and 100% if the average ROE is more than 7% and less than 18%, and is equal to 100% if the average ROE is more than or equal to 18%.
- For 50% of the share subscription options granted, the performance condition states that the final number of options granted is based on the average ROACE of the Group, as published by the Group according to its consolidated balance sheet and statement of income for fiscal years 2011 and 2012. The acquisition rate is equal to zero if the average ROACE is less than or equal to 6%, varies linearly between 0% and 100% if the average ROACE is more than 6% and less than 15%, and is equal to 100% if the average ROACE is more than or equal to 15%.

**ii. 2010 share subscription option plan:** the Board of Directors decided that, provided the presence condition within the Group is met, the number of options definitively granted to the Chairman and Chief Executive Officer will be subject to two performance conditions:

◦

## Edgar Filing: TOTAL S.A. - Form 20-F

For 50% of the share subscription options granted, the performance condition states that the final number of options granted is based on the average ROE of the Group, as published by the Group according to its consolidated balance sheet and statement of income for fiscal years 2010 and 2011. The acquisition rate is equal to zero if the average ROE is less than or equal to 7%, varies linearly between 0% and 100% if the average ROE is more than 7% and less than 18%, and is equal to 100% if the average ROE is more than or equal to 18%.

- For 50% of the share subscription options granted, the performance condition states that the final number of options granted is based on the average ROACE of the Group, as published by the Group according to its consolidated balance sheet and statement of income for fiscal years 2010 and 2011. The acquisition rate is equal to zero if the average ROACE is less than or equal to 6%, varies linearly between 0% and 100% if the average ROACE is more than 6% and less than 15%, and is equal to 100% if the average ROACE is more than or equal to 15%.

*(1) Based on a potential capital of 2,403,907,748 shares.*

**Table of Contents****Item 6 - Compensation****iii. Follow up table of TOTAL stock options awarded to Mr. de Margerie, Chairman and Chief Executive Officer of TOTAL S.A., outstanding in 2013:**

Type of options	2005 Plan Subscription options	2006 Plan Subscription options	2007 Plan Subscription options	2008 Plan Subscription options	2009 Plan Subscription options	2010 Plan Subscription options	2011 Plan Subscription options	Total
Expiry date	07/19/2013	07/18/2014	07/17/2015	10/09/2016	09/15/2017	09/14/2018	09/14/2019	
Exercise price (€ <sup>(a)</sup> )	49.04	50.60	60.10	42.90	39.90	38.20	33.00	
Options awarded by the Board <sup>(b)</sup>	130,000	160,000	200,000	200,000	200,000	240,000	160,000	1,290,000
Adjustments related to the spin-off of Arkema <sup>(c)</sup>	1,828							1,828
Outstanding options as of January 1, 2013	131,828	160,000	200,000	176,667	200,000	240,000	160,000	1,268,495
Options awarded in 2013								
Options exercised in 2013								
Options canceled in 2013	(131,828)							(131,828)
Options outstanding as of December 31, 2013		160,000	200,000	176,667	200,000	240,000	160,000	1,136,667

<sup>(a)</sup> Exercise price as of May 24, 2006. The exercise prices of TOTAL stock options under the plans in force on that date were multiplied by 0.25 to take into account the four-for-one stock split on May 18, 2006. Moreover, following the spin-off of Arkema, the exercise prices of TOTAL stock options under these plans were multiplied by an adjustment factor equal to 0.986147 effective as of May 24, 2006. The exercise prices effective before May 24, 2006 are given in Note 25, point A to the Consolidated Financial Statements.

<sup>(b)</sup> The number of options granted on or before May 23, 2006 was multiplied by four to take into account the four-for-one stock split approved by the Shareholders Meeting on May 12, 2006.

<sup>(c)</sup> Adjustments approved by the Board at its meeting on March 14, 2006 pursuant to the provisions in effect at the time of the Board meeting and of the Shareholders Meeting on May 12, 2006 related to the spin-off of Arkema. These adjustments were made on May 22, 2006, effective as of May 24, 2006.

**iv. Stock options exercised in 2013 by each executive director (AMF Table No. 5):**

	Plan date and No.	Nature of options exercised during fiscal year	Exercise price
--	-------------------------	---	----------------

**Christophe de Margerie**

Chairman and Chief Executive Officer

*Grant of performance shares*

Since 2011, the Chairman and Chief Executive Officer has been awarded performance shares as part of the broader share grant plans approved by the Board of Directors for certain Group employees. Subject to certain specific provisions set out below, performance shares granted to the Chairman and Chief Executive Officer are governed by the same provisions that apply to other beneficiaries of grant plans.

In case of a definitive grant to the Chairman and Chief Executive Officer of all the performance shares outstanding at December 31, 2013, these shares would represent 0.0044%<sup>(1)</sup> of the potential share capital of the Company on that date.

As of 2011, the Board of Directors has made the definitive grant of performance shares to the Chairman and Chief Executive Officer contingent upon specific presence and performance conditions as described below. As of 2013, these performance conditions are assessed over a 3-year vesting period.

For performance share grant plans awarded to the Chairman and Chief Executive Officer, the Board of Directors decided that the Chairman and Chief Executive Officer will be required to hold in registered form, for as long as he remains in office, 50% of the capital gains, net of tax and contributions related to the shares granted under such plans. When the Chairman and Chief Executive Officer holds a number of shares (directly or through collective investment funds invested in

## Edgar Filing: TOTAL S.A. - Form 20-F

Company stock) corresponding to five times his gross annual fixed compensation at that time, this holding requirement will be equal to 10%. If in the future this condition is no longer met, the previous 50% holding requirement will once again apply.

Given this holding requirement and given the share holding requirements that the Board of Directors impose on the executive directors, the Board of Directors decided not to make the grant of performance shares contingent upon the purchase of a quantity of shares once the awarded shares become transferable, thus disregarding one of the recommendations of the AFEP-MEDEF Code to which the Company adheres.

*(1) Based on a potential capital of 2,403,907,748 shares.*

2013 Form 20-F TOTAL S.A. 109

## **Table of Contents**

### **Item 6 - Compensation**

The Chairman and Chief Executive Officer has undertaken not to hedge the shares of the Company and any financial instruments related to them. This provision is now included in the rules of procedure of the Board of Directors.

**i. 2013 performance share plan:** the Board of Directors decided that, provided the presence condition within the Group is met, the number of shares definitively granted to the Chairman and Chief Executive Officer will be subject to two performance conditions:

- For 50% of the shares granted, the performance condition states that the final number of shares granted is based on the average ROE of the Group, as published by the Group according to its consolidated balance sheet and statement of income for fiscal years 2013, 2014 and 2015. The acquisition rate is equal to zero if the average ROE is less than or equal to 8%, varies linearly between 0% and 100% if the average ROE is more than 8% and less than 16%, and is equal to 100% if the average ROE is more than or equal to 16%.
- For 50% of the shares granted, the performance condition states that the final number of shares granted is based on the average ROACE of the Group, as published by the Group according to its consolidated balance sheet and statement of income for fiscal years 2013, 2014 and 2015. The acquisition rate is equal to zero if the average ROACE is less than or equal to 7%, varies linearly between 0% and 100% if the average ROACE is more than 7% and less than 15%, and is equal to 100% if the average ROACE is more than or equal to 15%.

**ii. 2012 performance share plan:** the Board of Directors decided that, provided the presence condition within the Group is met, the number of shares definitively granted to the Chairman and Chief Executive Officer will be subject to two performance conditions:

- For 50% of the shares granted, the performance condition states that the final number of shares granted is based on the average ROE of the Group, as published by the Group according to its consolidated balance sheet and statement of income for fiscal years 2012 and 2013. The acquisition rate is equal to zero if the average ROE is less than or equal to 8%, varies linearly between 0% and 100% if the average ROE is more than 8% and less than 16%, and is equal to 100% if the average ROE is more than or equal to 16%.
- For 50% of the share granted, the performance condition states that the final number of shares granted is based on the average ROACE of the Group, as published by the Group according to its consolidated balance sheet and statement of income for fiscal years 2012 and 2013. The acquisition rate is equal to zero if the average ROACE is less than or equal to 7%, varies linearly between 0% and 100% if the average ROACE is more than 7% and less than 15%, and is equal to 100% if the average ROACE is more than or equal to 15%.

**iii. 2011 performance share plan:** the Board of Directors decided that, provided the presence condition within the Group is met, the number of shares definitively granted to the Chairman and Chief Executive Officer will be subject to two performance conditions:

- For 50% of the shares granted, the performance condition states that the final number of shares granted is based on the average ROE of the Group, as published by the Group according to its consolidated balance sheet and statement of income for fiscal years 2011 and 2012. The acquisition rate is equal to zero if the average ROE is less than or equal to 7%, varies linearly between 0% and 100% if the average ROE is more than 7% and less than 18%, and is equal to 100% if the average ROE is more than or equal to 18%.
- For 50% of the share granted, the performance condition states that the final number of shares granted is based on the average ROACE of the Group, as published by the Group according to its consolidated balance sheet and statement of income for fiscal years 2011 and 2012. The acquisition rate is equal to zero if the average ROACE is less than or equal to 6%, varies linearly between 0% and 100% if the average ROACE is more than 6% and less than 15%, and is equal to 100% if the average ROACE is more than or equal to 15%.

The Chairman and Chief Executive Officer was not awarded any performance shares under the 2006 to 2010 plans.

**iv. Follow up table of TOTAL performance shares awarded to Mr. de Margerie, Chairman and Chief Executive Officer of TOTAL S.A.:**

# Edgar Filing: TOTAL S.A. - Form 20-F

	2011 Plan	2012 Plan	2013 Plan	Total
<b>Date of the Shareholders Meeting</b>	<b>05/13/2011</b>	<b>05/13/2011</b>	<b>05/13/2011</b>	
<b>Grant date</b>	<b>09/14/2011</b>	<b>07/26/2012</b>	<b>07/25/2013</b>	
Closing price on grant date	€32.690	€36.120	€40.005	
Average repurchase price per share paid by the Company	€39.580	€38.810	€40.560	
Shares awarded by the Board	16,000	53,000	53,000	122,000
Start of the vesting period	09/14/2011	07/26/2012	07/25/2013	
Definitive grant date, subject to the conditions set out (end of the vesting period)	09/15/2013	07/27/2014	07/26/2016	
Availability date (end of the mandatory holding period)	09/15/2015	07/27/2016	07/26/2018	
Definitively granted in 2013	16,000			16,000

110 TOTAL S.A. Form 20-F 2013



**Table of Contents****Item 6 - Compensation****v. Performance shares awarded to each executive and non executive director in 2013 by the issuer and by any Group company (AMF Table No. 6):**

	Plan date and No.	Number of shares awarded during fiscal year	Valuation of shares (€ <sup>(a)</sup> )	Acquisition date	Availability date	Performance conditions
<b>Christophe de Margerie</b>	2013 Plan 07/25/2013	53,000	1,729,920	07/26/2016	07/26/2018	For 50% of the shares, the condition is based on the Group's average ROE in 2013, 2014 and 2015. For 50% of the shares, the condition is based on the Group's average ROACE in 2013, 2014 and 2015.
Chairman and Chief Executive Officer						
<b>Charles Keller</b>	2013 Plan 07/25/2013	400	13,056	07/26/2016	07/26/2018	Shares in excess of the first 100 shares are subject to a condition based on the Group's average ROE in 2013, 2014 and 2015.
Director representing employee shareholders since May 17, 2013						
<b>Claude Clément</b>						
Director representing employee shareholders until May 17, 2013						
<b>Total</b>		<b>53,400</b>	<b>1,742,976</b>			

<sup>(a)</sup> The valuation of performance shares was calculated on the day they were awarded, according to the method used for the Consolidated Financial Statements.

**vi. Performance shares that have become available for each executive and non executive director (AMF Table No. 7):**

	Plan date and No.	Number of shares that have become available during the fiscal year	Vesting conditions
<b>Christophe de Margerie</b>			
Chairman and Chief Executive Officer			
<b>Charles Keller</b>	2009 Plan	150	n/a
Director representing employee shareholders since May 17, 2013	09/15/2009		
<b>Claude Clément</b>			n/a
Director representing employee shareholders until May 17, 2013			

*Grants to employees**Share subscription option plan*

In 2013, as in 2012, the Board of Directors decided not to award any stock options.

**i. 2011 share subscription option plan:** the Board of Directors decided that, provided the presence condition within the Group is met, for each beneficiary other than the Chairman and Chief Executive Officer, options will be subject to a performance condition based on the Group's average ROE, as published by the Group according to its consolidated balance sheet and statement of income for fiscal years 2011 and 2012.

The acquisition rate:

- i is equal to zero if the average ROE is less than or equal to 7%;
- i varies linearly between 0% and 100% if the average ROE is greater than 7% and less than 18%; and
- i is equal to 100% if the average ROE is greater than or equal to 18%.

The acquisition rate applicable to the subscription options subject to the performance condition under the 2011 plan was 100%.

*Performance share plan*

**ii. 2013 performance share plan:** the Board of Directors decided that for executive officers<sup>(1)</sup> (other than the Chairman and Chief Executive Officer), the definitive award of all shares granted is contingent upon a presence condition and a performance condition. The performance condition states that the number of shares definitively awarded is based on the

<sup>(1)</sup> The executive officers (aside from the Chairman and Chief Executive Officer) are employees who are not directors.

## Table of Contents

### Item 6 - Compensation

Group's average ROE as published by the Group according to its consolidated balance sheet and statement of income for fiscal years 2013, 2014 and 2015.

The acquisition rate:

- i is equal to zero if the average ROE is less than or equal to 8%;
- i varies linearly between 0% and 100% if the average ROE is greater than 8% and less than 16%; and
- i is equal to 100% if the average ROE is greater than or equal to 16%.

The Board of Directors also decided that, provided the presence condition within the Group is met, for each beneficiary (other than the Chairman and Chief Executive Officer and the executive officers) of more than 100 shares, the shares in excess of that number will be definitively granted subject to the above performance condition being met.

**iii. 2012 performance share plan:** the Board of Directors decided that for executive officers (other than the Chairman and Chief Executive Officer), the definitive award of all shares granted is contingent upon a presence condition and a performance condition. The performance condition states that the number of shares definitively awarded is based on the Group's average ROE, as published by the Group according to its consolidated balance sheet and statement of income for fiscal years 2012 and 2013.

The acquisition rate:

- i is equal to zero if the average ROE is less than or equal to 8%;
- i varies linearly between 0% and 100% if the average ROE is greater than 8% and less than 16%; and
- i is equal to 100% if the average ROE is greater than or equal to 16%.

The Board of Directors also decided that, provided the presence condition within the Group is met, for each beneficiary (other than the Chairman and Chief Executive Officer and the executive officers) of more than 100 shares, the shares in excess of that number will be definitively granted subject to the above performance condition being met.

**iv. 2011 performance share plan:** the Board of Directors decided that for executive officers (other than the Chairman and Chief Executive Officer), the definitive award of all shares granted is contingent upon a presence condition and a performance condition. The performance condition states that the number of shares definitively awarded is based on the Group's average ROE as published by the Group according to its consolidated balance sheet and statement of income for fiscal years 2011 and 2012.

The acquisition rate:

- i is equal to zero if the average ROE is less than or equal to 7%;
- i varies linearly between 0% and 100% if the average ROE is greater than 7% and less than 18%; and
- i is equal to 100% if the average ROE is greater than or equal to 18%.

The Board of Directors also decided that, provided the presence condition within the Group is met, for each beneficiary (other than the Chairman and Chief Executive Officer and the executive officers) of more than 100 shares, the shares in excess of that number will be definitively granted subject to the above performance condition being met.

The acquisition rate applicable to the shares subject to the performance condition under the 2011 plan was 100%.

**Table of Contents****Item 6 - Compensation****Follow up of TOTAL stock option plans as of December 31, 2013***Breakdown of TOTAL stock option grants by category of beneficiary*

The following table gives a breakdown of TOTAL stock options awarded by category of beneficiary (main executive officers, other executive officers and other employees) for each of the plans in effect during 2013 (for more information concerning the TOTAL stock option plans, see Note 25 to the Consolidated Financial Statements):

		Average			
		Number of beneficiaries	Number of notified options <sup>(a)</sup>	Percentage	number of options per beneficiary <sup>(a)</sup>
<b>2005 Plan: Subscription options</b>					
Decision of the Board on July 19, 2005	Main executive officers <sup>(b)</sup>	30	370,040	24.3%	12,335
Exercise price: €198.90; discount: 0.0%	Other executive officers	330	574,140	37.6%	1,740
Exercise price as of May 24, 2006: €49.04 <sup>(a)</sup>	Other employees	2,361	581,940	38.1%	246
	<b>Total</b>	<b>2,721</b>	<b>1,526,120</b>	<b>100%</b>	<b>561</b>
<b>2006 Plan: Subscription options</b>					
Decision of the Board on July 18, 2006	Main executive officers <sup>(b)</sup>	28	1,447,000	25.3%	51,679
Exercise price: €50.60; discount: 0.0%	Other executive officers	304	2,120,640	37.0%	6,976
	Other employees	2,253	2,159,600	37.7%	959
	<b>Total</b>	<b>2,585</b>	<b>5,727,240</b>	<b>100%</b>	<b>2,216</b>
<b>2007 Plan: Subscription options</b>					
Decision of the Board on July 17, 2007	Main executive officers <sup>(b)</sup>	27	1,329,360	22.8%	49,236
Exercise price: €60.10; discount: 0.0%	Other executive officers	298	2,162,270	37.1%	7,256
	Other employees	2,401	2,335,600	40.1%	973
	<b>Total</b>	<b>2,726</b>	<b>5,827,230</b>	<b>100%</b>	<b>2,138</b>
<b>2008 Plan<sup>(c)</sup>: Subscription options</b>					
Awarded on October 9, 2008, by decision of the Board of Directors on September 9, 2008	Main executive officers <sup>(b)</sup>	26	1,227,500	27.6%	47,212
Exercise price: €42.90; discount: 0.0%	Other executive officers	298	1,988,420	44.7%	6,673
	Other employees	1,690	1,233,890	27.7%	730
	<b>Total</b>	<b>2,014</b>	<b>4,449,810</b>	<b>100%</b>	<b>2,209</b>
<b>2009 Plan<sup>(c)</sup>: Subscription options</b>					
Decision of the Board on September 15, 2009	Main executive officers <sup>(b)</sup>	26	1,201,500	27.4%	46,212
Exercise price: €39.90; discount: 0.0%	Other executive officers	284	1,825,540	41.6%	6,428
	Other employees	1,742	1,360,460	31.0%	781
	<b>Total</b>	<b>2,052</b>	<b>4,387,500</b>	<b>100%</b>	<b>2,138</b>
<b>2010 Plan<sup>(c)</sup>: Subscription options</b>					
Decision of the Board on September 14, 2010	Main executive officers <sup>(b)</sup>	25	1,348,100	28.2%	53,924
Exercise price: €38.20; discount: 0.0%	Other executive officers	282	2,047,600	42.8%	7,261
	Other employees	1,790	1,392,720	29.0%	778
	<b>Total</b>	<b>2,097</b>	<b>4,788,420</b>	<b>100%</b>	<b>2,283</b>
<b>2011 Plan<sup>(c)</sup>: Subscription options</b>					
Decision of the Board on September 14, 2011	Main executive officers <sup>(b)</sup>	29	846,600	55.7%	29,193
Exercise price: €33.00; discount: 0.0%	Other executive officers	177	672,240	44.3%	3,798
	Other employees				
	<b>Total</b>	<b>206</b>	<b>1,518,840</b>	<b>100%</b>	<b>7,373</b>

<sup>(a)</sup> To take into account the spin-off of Arkema, pursuant to the provisions in effect on the date of the Shareholders' Meeting on May 12, 2006, at its meeting of March 14, 2006 the Board of Directors resolved to adjust the rights of TOTAL stock options holders. For each plan and each beneficiary, the exercise prices for TOTAL stock options were multiplied by an adjustment factor of 0.986147 and the number of unexercised stock options was multiplied by an adjustment factor of 1.014048 (and then rounded up), effective as of May 24, 2006. In addition, to take into account the four-for-one stock split approved by the Shareholders' Meeting on May 12, 2006, the number of options awarded before May 23, 2006 was multiplied by four and the exercise price of these options was multiplied by 0.25. The presentation in this table of the number of notified options has not been adjusted to reflect the four-for-one stock split.

<sup>(b)</sup> Members of the Management Committee and the Treasurer as of the date of the Board meeting awarding the options. Mr. Desmarest has not been a member of the Management Committee since February 14, 2007. Mr. Desmarest was awarded 110,000 options under the 2007 plan and no options since 2008.

<sup>(c)</sup> The acquisition rate of performance condition-related shares was 60% for the 2008 plan and 100% for the 2009, 2010 and 2011 plans.

## Edgar Filing: TOTAL S.A. - Form 20-F

For the 2007, 2008 and 2009 share subscription option plans, the Board of Directors decided that for each beneficiary of more than 25,000 options, one-third of the options awarded in excess of that number should be subject to a performance condition.

For the 2010 share subscription option plan, a portion of the options granted to beneficiaries of more than 3,000 options are subject to a performance condition.  
For the 2011 share subscription option plan, all of the options are subject to a performance condition.

In 2013, as in 2012, the Board of Directors decided not to award any stock options.

2013 Form 20-F TOTAL S.A. 113

**Table of Contents****Item 6 - Compensation**

*Historic overview of outstanding TOTAL stock option plans*

**Past awards of subscription or purchase options Information on the subscription or purchase options (AMF Table No. 8):**

Type of options	2005 Plan Subscription options	2006 Plan Subscription options	2007 Plan Subscription options	2008 Plan Subscription options	2009 Plan Subscription options	2010 Plan Subscription options	2011 Plan Subscription options	Total
Date of the Shareholders Meeting	05/14/2004	05/14/2004	05/11/2007	05/11/2007	05/11/2007	05/21/2010	05/21/2010	
Date of Board meeting / grant date <sup>(a)</sup>	07/19/2005	07/18/2006	07/17/2007	10/09/2008	09/15/2009	09/14/2010	09/14/2011	
<b>Total number of options awarded by the Board, including<sup>(b)</sup>:</b>	<b>6,104,480</b>	<b>5,727,240</b>	<b>5,937,230</b>	<b>4,449,810</b>	<b>4,387,620</b>	<b>4,788,420</b>	<b>1,518,840</b>	<b>32,913,640</b>
Executive and non executive directors <sup>(c)</sup>	240,000	400,000	310,000	200,000	200,000	240,000	160,000	1,750,000
<i>C. de Margerie</i>	<i>n/a</i>	<i>160,000</i>	<i>200,000</i>	<i>200,000</i>	<i>200,000</i>	<i>240,000</i>	<i>160,000</i>	<i>1,160,000</i>
<i>C. Keller</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	
<i>C. Clément</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>	<i>n/a</i>			
<i>T. Desmarest</i>	<i>240,000</i>	<i>240,000</i>	<i>110,000</i>					<i>590,000</i>
<b>Additional grants</b>	<b>134,400</b>							<b>134,400</b>
<b>Adjustments related to the spin-off of Arkema<sup>(d)</sup></b>	<b>90,280</b>							<b>90,280</b>
Date as of which the options may be exercised	07/20/2007	07/19/2008	07/18/2009	10/10/2010	09/16/2011	09/15/2012	09/15/2013	
Expiry date	07/19/2013	07/18/2014	07/17/2015	10/09/2016	09/15/2017	09/14/2018	09/14/2019	
Exercise price (in € <sup>(f)</sup> )	49.04	50.60	60.10	42.90	39.90	38.20	33.00	
<b>Cumulative number of options exercised as of December 31, 2013</b>	<b>39,127</b>	<b>8,620</b>		<b>112,740</b>	<b>365,722</b>	<b>159,371</b>	<b>373,346</b>	<b>1,058,926</b>
<b>Cumulative number of options canceled as of December 31, 2013</b>	<b>6,290,033</b>	<b>97,994</b>	<b>89,265</b>	<b>117,872</b>	<b>32,520</b>	<b>91,197</b>	<b>4,400</b>	<b>6,723,281</b>
Number of options:								
outstanding as of January 1, 2013	6,160,020	5,621,526	5,848,985	4,330,468	4,334,900	4,661,443	1,505,040	32,462,382
awarded in 2013								
canceled in 2013 <sup>(e)</sup>	(6,159,390)	(900)	(1,020)	(360)	(1,080)	(720)		(6,163,470)
exercised in 2013	(630)			(110,910)	(344,442)	(122,871)	(363,946)	(942,799)
<b>Outstanding as of December 31, 2013</b>		<b>5,620,626</b>	<b>5,847,965</b>	<b>4,219,198</b>	<b>3,989,378</b>	<b>4,537,852</b>	<b>1,141,094</b>	<b>25,356,113</b>

<sup>(a)</sup> The grant date is the date of the Board meeting awarding the options, except for the share subscription option plan of October 9, 2008, approved by the Board on September 9, 2008.

<sup>(b)</sup> To take into account the four-for-one stock split approved by the Shareholders Meeting of May 12, 2006, the number of options awarded before May 23, 2006 has been multiplied by four.

<sup>(c)</sup> List of executive and non executive directors who had this status during the fiscal year 2013.

<sup>(d)</sup> To take into account the spin-off of Arkema, at its meeting of March 14, 2006 the Board of Directors resolved to adjust the rights of TOTAL stock options holders, pursuant to the provisions in effect on the date of its meeting and at the time of the Shareholders Meeting on May 12, 2006. These adjustments were made on May 22, 2006, effective as of May 24, 2006.

<sup>(e)</sup> The exercise price is the average closing price of TOTAL's share on Euronext Paris during the twenty trading days prior to the grant date, without any discount.

Exercise price as of May 24, 2006. To take into account the four-for-one stock split approved by the Shareholders Meeting on May 12, 2006, the exercise prices of options granted before May 23, 2006 were multiplied by 0.25. Moreover, following the spin-off of Arkema, the exercise prices of TOTAL stock options under these plans were multiplied by an adjustment factor equal to 0.986147 effective as of May 24, 2006. The exercise prices applicable before May 24, 2006 are indicated in Note 25, point A to the Consolidated Financial Statements.

<sup>(f)</sup> Of the 6,163,470 options canceled in 2013, 6,158,662 unexercised options expired on July 19, 2013 due to the expiration of the 2005 subscription option plan. In the event of the exercise all share subscription options outstanding as of December 31, 2013, the corresponding shares would represent 1.05%<sup>(1)</sup> of the Company's potential share capital on that date.

*(1) Based on a potential capital of 2,403,907,748 shares.*

114 TOTAL S.A. Form 20-F 2013

**Table of Contents****Item 6 - Compensation**

*Stock options awarded to the ten employees (other than executive or non executive directors) receiving the largest number of options / Stock options exercised by the ten employees (other than executive or non executive directors) exercising the largest number of options (AMF Table No. 9)*

	Total number of options awarded/exercised	Average weighted exercise price (€)	2008 Plan 10/09/2008 <sup>(a)</sup>	2009 Plan 09/15/2009	2010 Plan 09/14/2010	2011 Plan 09/14/2011
Options awarded in 2013 by TOTAL S.A. and its affiliates(b) to the ten TOTAL S.A. employees (other than executive or non executive directors) receiving the largest number of options (aggregate not individual information)						
Options held on TOTAL S.A. and its affiliates(b) and exercised in 2013 by the ten TOTAL S.A. employees (other than executive or non executive directors) with the largest number of options purchased or subscribed (aggregate not individual information)	248,142	35.43	18,600	45,200	20,500	163,842

<sup>(a)</sup> The grant date is the date of the Board meeting awarding the options, except for the share subscription option plan of October 9, 2008, approved by the Board on September 9, 2008.

<sup>(b)</sup> Pursuant to the conditions of Article L. 225-180 of the French Commercial Code.

**Follow up of TOTAL performance share grants as of December 31, 2013**

*Breakdown of TOTAL stock option grants by category of beneficiary*

The following table gives a breakdown of TOTAL performance share grants by category of beneficiary (main executive officers, other executive officers and other employees):

		Number of notified shares <sup>(a)</sup>	Percentage	Average number of shares per beneficiary
<b>2009 Plan<sup>(b)</sup></b>	Main executive officers <sup>(c)</sup>	25	1.6%	1,948
Decision of the Board on September 15, 2009	Other executive officers	284	11.1%	1,162
	Other employees <sup>(d)</sup>	9,693	87.3%	268
	Total	10,002	100%	297
<b>2010 Plan<sup>(b)(e)</sup></b>	Main executive officers <sup>(c)</sup>	24	1.6%	1,949
Decision of the Board on September 14, 2010	Other executive officers	283	11.4%	1,212
	Other employees <sup>(d)</sup>	10,074	87.0%	260
	Total	10,381	100%	290
<b>2011 Plan<sup>(b)</sup></b>	Main executive officers <sup>(c)</sup>	29	5.1%	6,376
Decision of the Board on September 14, 2011	Other executive officers	274	17.1%	2,277
	Other employees <sup>(d)</sup>	9,658	77.8%	294
	Total	9,961	100%	366
<b>2012 Plan</b>	Main executive officers <sup>(c)</sup>	33	9.7%	12,609
Decision of the Board on July 26, 2012	Other executive officers	274	20.3%	3,186
	Other employees <sup>(d)</sup>	9,698	70.0%	310
	Total	10,005	100%	429



## Edgar Filing: TOTAL S.A. - Form 20-F

<b>2013 Plan</b>	Main executive officers <sup>(c)</sup>	32	422,600	9.5%	13,206
Decision of the Board on July 25, 2013	Other executive officers	277	934,500	20.9%	3,374
	Other employees <sup>(d)</sup>	9,625	3,107,100	69.6%	323
	Total	9,934	4,464,200	100%	449

<sup>(a)</sup> The number of notified performance shares shown in this table has not been adjusted to take into account the four-for-one stock split approved by the Shareholders Meeting on May 12, 2006.

<sup>(b)</sup> For the 2009, 2010 and 2011 plans, the acquisition rate of the performance-related shares awarded was 100%.

<sup>(c)</sup> Members of the Management Committee and the Treasurer as of the date of the Board meeting granting the performance shares. The executive directors were not awarded any performance shares, with the exception of the 2011, 2012 and 2013 plans. The Board of Directors of TOTAL S.A. decided to award Mr. de Margerie 16,000 performance shares under the 2011 plan, 53,000 performance shares under the 2012 plan and 53,000 performance shares under the 2013 plan.

<sup>(d)</sup> Mr. Clément, an employee of Total Raffinage-Chimie (subsidiary of TOTAL S.A.) and director of TOTAL S.A. who represented employee shareholders until May 17, 2013, was awarded 240 performance shares under the 2010 plan, 240 shares under the 2011 plan and 260 shares under the 2012 plan. Mr. Keller, an employee of TOTAL S.A. and director of TOTAL S.A. who has represented employee shareholders since May 17, 2013, was awarded 400 performance shares under the 2013 plan.

<sup>(e)</sup> Excluding shares granted under the 2010 global free share plan.

2013 Form 20-F TOTAL S.A. 115

**Table of Contents****Item 6 - Compensation**

These performance shares, which were previously bought back by the Company on the market, are definitively awarded at the end of a 2-year vesting period. For the 2013 plan, the vesting period has been extended to three years. This definitive grant is subject to a presence condition and a performance condition. Moreover, the disposal of performance shares that have been definitively awarded cannot occur until the end of a 2-year mandatory holding period.

*Historic overview of TOTAL performance share plans***i. Past award of TOTAL performance shares Information on granted performance shares (AMF Table No. 10):**

	2009 Plan	2010 Plan	2011 Plan	2012 Plan	2013 Plan
<b>Date of the Shareholders Meeting</b>	<b>05/16/2008</b>	<b>05/16/2008</b>	<b>05/13/2011</b>	<b>05/13/2011</b>	<b>05/13/2011</b>
<b>Date of Board meeting / grant date</b>	<b>09/15/2009</b>	<b>09/14/2010</b>	<b>09/14/2011</b>	<b>07/26/2012</b>	<b>07/25/2013</b>
Closing price on grant date	€41.615	€39.425	€32.690	€36.120	€40.005
Average repurchase price per share paid by the Company	€38.540	€39.110	€39.580	€38.810	€40.560
Total number of performance shares awarded, including to:	2,972,018	3,010,011	3,649,770	4,295,930	4,464,200
Executive and non executive directors <sup>(a)</sup>		240	16,240	53,260	53,400
C. de Margerie			16,000	53,000	53,000
C. Keller	n/a	n/a	n/a	n/a	400
C. Clément	n/a	240	240	260	
Start of the vesting period	09/15/2009	09/14/2010	09/14/2011	07/26/2012	07/25/2013
Definitive grant date, subject to the conditions set out (end of the vesting period)	09/16/2011	09/15/2012	09/15/2013	07/27/2014	07/26/2016
Disposal possible from (end of the mandatory holding period)	09/16/2013	09/15/2014	09/15/2015	07/27/2016	07/26/2018
<b>Number of performance shares:</b>					
Outstanding as of January 1, 2013			3,605,806	4,295,930	
Notified in 2013					4,464,200
Canceled in 2013			(14,970)	(17,340)	(3,810)
Definitively awarded in 2013 <sup>(b)</sup>			(3,590,836)	(180)	
Outstanding as of December 31, 2013				4,278,410	4,460,390

<sup>(a)</sup> List of executive and non executive directors who had this status during the fiscal year 2013.

<sup>(b)</sup> Definitive grants following the death of their beneficiaries (2012 plan for fiscal year 2013).

In case of a definitive grant of all the performance shares outstanding at December 31, 2013, these shares would represent 0.36%<sup>(1)</sup> of the potential share capital of the Company on that date.

**ii. TOTAL global free share plan:**

In addition to the restricted shares granted, on May 21, 2010 the Board of Directors decided to implement a global free share plan intended for all the Group's employees, i.e. more than 100,000 employees. On June 30, 2010, rights to 25 free shares were granted to every employee.

The definitive grant is subject to a presence condition during the plan's vesting period. Depending on the countries in which the Group's companies are located, the vesting period is either two years followed by a 2-year holding period in countries with a 2+2 structure, or four years without a holding period in countries with a 4+0 structure. Moreover, the granted shares are not subject to any performance condition.

At the end of the vesting period, the granted shares will become new shares resulting from a TOTAL S.A. capital increase by capitalization of reserves or issue premiums.

<sup>(1)</sup> Based on a potential capital of 2,403,907,748 shares.



**Table of Contents****Item 6 - Compensation**

On July 2, 2012, the Chairman and Chief Executive Officer acknowledged the creation and definitive grant of 1,366,950 shares to the designated beneficiaries at the end the 2-year vesting period.

	2010 Plan (2+2)	2010 Plan (4+0)	Total
<b>Date of the Shareholders Meeting</b>	<b>05/16/2008</b>	<b>05/16/2008</b>	
<b>Date of Board meeting / grant date<sup>(a)</sup></b>	<b>06/30/2010</b>	<b>06/30/2010</b>	
Total number of shares awarded, including to:	1,506,575	1,070,650	2,577,225
Executive and non executive directors <sup>(b)</sup>	50		50
C. Keller	25		25
C. Clément	25		25
Definitive grant date (end of the vesting period)	07/01/2012	07/01/2014	
Disposal possible from	07/01/2014	07/01/2014	
<b>Number of restricted shares</b>			
<b>Outstanding as of January 1, 2011</b>	<b>1,508,650</b>	<b>1,070,575</b>	<b>2,579,225</b>
Notified			
Canceled	(29,175)	(54,625)	(83,800)
Definitively granted	(475)	(425)	(900)
<b>Outstanding as of January 1, 2012</b>	<b>1,479,000</b>	<b>1,015,525</b>	<b>2,494,525</b>
Notified			
Canceled	(111,725)	(40,275)	(152,000)
Definitively granted <sup>(c)</sup>	(1,367,275)	(350)	(1,367,625)
<b>Outstanding as of January 1, 2013</b>		<b>974,900</b>	<b>974,900</b>
Notified			
Canceled	100	(101,150)	(101,050)
Definitively granted	(100)	(275)	(375)
<b>Outstanding as of December 31, 2013</b>		<b>873,475</b>	<b>873,475</b>

<sup>(a)</sup> The June 30, 2010 grant was approved by the Board of Directors on May 21, 2010.

<sup>(b)</sup> List of executive and non executive directors who had this status during the fiscal year 2013.

<sup>(c)</sup> Definitive grant of 1,366,950 shares to the designated beneficiaries at the end of the 2-year vesting period.

In case of a definitive grant of all the restricted shares outstanding at December 31, 2013, these shares would represent 0.036%<sup>(1)</sup> of the potential share capital of the Company on that date.

*Performance share grants to the ten employees (other than executive and non executive directors) receiving the largest number of performance shares*

	Number of performance shares notified/definitively awarded	Grant date	Definitive grant date (end of the vesting period)	Availability date (end of holding period)
Performance share grants approved by the Board of Directors at its meeting on July 25, 2013 to the ten TOTAL S.A. employees (other than executive and non executive directors) receiving the largest number of performance shares <sup>(a)</sup>	193,100	07/25/2013	07/26/2016	07/26/2018
Performance shares definitively awarded in 2013, under the performance share grant plan approved by the Board of Directors on September 14, 2011, to the ten TOTAL S.A. employees (who were not executive and non executive directors at the time of the approval) receiving the largest number of performance shares <sup>(b)</sup>	84,500	09/14/2011	09/15/2013	09/15/2015

## Edgar Filing: TOTAL S.A. - Form 20-F

- (a) These shares will be definitively awarded at the end of a 3-year vesting period, i.e., on July 26, 2016, subject to a performance condition being met. Moreover, the disposal of shares that have been definitively awarded cannot occur until the end of a 2-year holding period, i.e., from July 26, 2018.*
- (b) This definitive grant is subject to a performance condition. The acquisition rate of the performance-related shares awarded was 100%. Moreover, the disposal of shares that have been definitively awarded cannot occur until the end of a 2-year holding period, i.e., from September 15, 2015.*

*(1) Based on a potential capital of 2,403,907,748 shares.*

2013 Form 20-F TOTAL S.A. 117

## Table of Contents

### Item 6 - Corporate Governance

## CORPORATE GOVERNANCE

For several years, TOTAL has been actively examining corporate governance matters. At its meeting on November 4, 2008, the Board of Directors confirmed its decision to refer to the Corporate Governance Code for Listed Companies published by the principal French business confederations, the Association Française des Entreprises Privées (AFEP) and the Mouvement des Entreprises de France (MEDEF) ( AFEP-MEDEF Code ) for corporate governance matters.

The AFEP-MEDEF Code was revised in June 2013 to introduce new changes regarding, in particular, a consultation procedure in which shareholders can express an opinion on the individual compensation of the executive directors (*dirigeants mandataires sociaux*) (say on pay), as well as the establishment of a High Committee for corporate governance, an independent structure in charge of monitoring implementation of the Code.

Pursuant to Article L. 225-37 of the French Commercial Code, the following table sets forth the recommendations made in the AFEP-MEDEF Code that the Company has not followed and the reasons for such decision.

Recommendations not followed	Explanations Practice followed by TOTAL
<b>Director independence criteria (paragraph 9 of the Code)</b>  Criteria to be examined for a director to be considered as independent:  Has not been a director of the Company for more than twelve years.	In assessing the independence of four directors, the Board has disregarded the criterion of a maximum term of office of twelve years. The Board was of the opinion that this criterion had no relevance given, on the one hand, the specific characteristics of the oil and gas sector, which relies on long-term investment cycles on one hand, and, on the other hand, the objectivity that these four directors have demonstrated in the Board's activity on the other hand. In addition, it deemed that the experience acquired on the Board by these four directors strengthened their freedom of speech and their independence of judgment and, therefore, benefited the Group. The Board also noted that the criterion related to the length of term of office was not one of the independence criteria required by the New York Stock Exchange (NYSE). See Directors and Senior Management Director independence , above.
<b>The Board's assessment (paragraph 10.4 of the Code)</b>  It is recommended that non-executive directors meet periodically without the participation of the executive or in house directors. The rules of procedure of the Board of Directors should provide for one meeting of this kind per year, during which the performance of the Chairman, the Chief Executive Officer and the Deputy Chief Executive Officer(s) would be evaluated, and which would be an opportunity to reflect periodically on the future of the Company's management.	Although the rules of procedure of the Board of Directors do not expressly provide that one meeting of the non-executive directors be held per year without the participation of the executive or in house directors, the Board of Directors' practice constitutes a mechanism which has the same effect as the recommendation made in the AFEP-MEDEF Code.  At its meeting held each year in February, the Board of Directors indeed evaluates the performances of the Chairman and Chief Executive Officer and, where applicable, reflects on the future of the Company's management. When these particular matters are reviewed, the Chairman and Chief Executive Officer, as well as the members of the Executive Committee present at the meeting (that are not executive and non-executive directors), leave the Board meeting. The Honorary Chairman then serves as Chairman of the Board with

regard to these matters.

**Grant of performance shares (paragraph 23.2.4 of the Code)**

In accordance with terms determined by the Board and announced upon the award, the performance shares awarded to executive directors are conditional upon the acquisition of a defined quantity of shares once the awarded shares are available.

Given the share holding requirements that the Board of Directors impose on the executive directors whereby such directors must hold a number of shares of the Company equivalent in value to two years of the fixed portion of their annual compensation, and given the number of TOTAL shares and shares of the Total Actionnariat France collective investment fund (invested exclusively in TOTAL shares) effectively held by the Chairman and Chief Executive Officer<sup>(1)</sup>, the Board of Directors, upon the Compensation Committee's proposal, deemed that it was not necessary, at the time of grant, to make the performance shares awarded to the Chairman and Chief Executive Officer subject to the purchase of a quantity of shares at the time of availability of the performance shares. The share holding requirements to which the Chairman and Chief Executive Officer is subject constitute a mechanism that has the same effect as the recommendation made in the AFEP-MEDEF Code.

<sup>(1)</sup> As of December 31, 2013, Mr. de Margerie held 121,556 shares of TOTAL, including 16,000 performance shares that had been definitively granted to him on September 15, 2013 within the scope of the performance share plan dated September 14, 2011, as well as 65,242 shares of the Total Actionnariat France collective investment fund.

**Table of Contents**

## Item 6 - Corporate Governance

Recommendations not followed	Explanations Practice followed by TOTAL
<b>Additional pension schemes (paragraph 23.2.6 of the Code)</b>	It appeared justified not to deprive the concerned beneficiaries of the benefit of the pension commitments made by the Company in special cases of the disability or departure of a beneficiary over 55 years of age at the initiative of the Group.

Supplementary pension schemes with defined benefits must be subject to the condition that the beneficiary must be a director or employee of the company when claiming his or her pension rights pursuant to the applicable rules.

**Board of Directors practices*****Management form***

On May 21, 2010, the Board of Directors decided to reunify the positions of Chairman and Chief Executive Officer and appoint the Chief Executive Officer as Chairman of the Board. This decision was made further to the work done by the Governance & Ethics Committee (formerly the Nominating & Governance Committee) and in the best interests of the Company, taking into account the advantage of the unified management and the majority of independent directors appointed at the Committees, which ensures balanced authority.

The Board of Directors deemed that the unified management form was the most appropriate to the Group's organization, modus operandi and business, and the specificities of the oil and gas sector. It respects the respective prerogatives of the various Company corporate bodies (Shareholders' Meeting, Board of Directors, general management).

It was confirmed during the Board of Directors' meeting held on May 11, 2012, at which Mr. Christophe de Margerie was reappointed as Chairman and Chief Executive Officer.

Moreover, the Company bylaws and the respective rules of procedure of the Board of Directors and its Committees provide the guarantees required to implement best governance practices within a unified management framework. In particular, the bylaws allow the Board to nominate one or two Vice-Chairmen. They also state that the Board of Directors can be summoned by any means, even verbally, or at short notice in the event of an emergency, by the Chairman, a Vice-Chairman, or one-third of the members, at any time and whenever the Company's interest so requires. The rules of procedure of the Board of Directors also state that each director is required to inform the Board of Directors of any conflicts of interest, actual or potential, with the Company or with any other company in the Group, and to abstain from voting on the resolution in question, and even to refrain from taking part in the debate preceding the vote.

In addition, the current composition of the Board of Directors and its Committees ensures a balance of power within the Company's bodies given the high proportion of independent directors serving on the Board and Committees, the full involvement of the directors in the activity of the Board and its Committees, and the diversity of their profiles, skills and expertise.

***Performance and evaluation***

At its meeting on February 12, 2013, the Board of Directors discussed its practices on the basis of a formal evaluation

organized by an external consultant. This evaluation was carried out in the form of interviews conducted by the external consultant with each Director based on a detailed questionnaire.

The evaluation showed that the Directors were satisfied with the workings of the Board of Directors and its Committees and that the Directors noted an improvement. Suggestions for progress were made in the conclusions of the report. At the recommendation of the Governance & Ethics Committee (then the Nominating & Governance Committee), the Board of Directors approved the proposed guidelines, which mainly entail increasing the number of Strategic Committee meetings and holding a Board meeting at an industrial site.



## Edgar Filing: TOTAL S.A. - Form 20-F

At its meeting on February 11, 2014, the Board of Directors discussed its practices on the basis of a formal evaluation carried out by means of a detailed questionnaire to which all the Directors responded. The responses given by the Directors were then presented to the Governance & Ethics Committee for review and summarized. This summary was then discussed by the Board of Directors. This process made it possible to confirm each Director's good contribution to the work of the Board and its Committees.

The formal evaluation showed a generally positive opinion of the practices of the Board of Directors and the Committees, which highlighted that the improvements requested by the Directors in 2013 had been generally made. To continue the improvement of its functioning, the Board took into account the main suggestions made by the Directors in the 2014 self-assessment, which mainly concerned a review at the outset of the meeting of the major points (*e.g.*, financial statements, large-scale investments and divestments projects) and a presentation of new topics at the meetings of the Strategic Committee (*e.g.*, monitoring of significant development projects, analysis of major risks that may affect the strategy of the Group).

### Rules of procedure of the Board of Directors

At its meeting on February 13, 2007, the Board of Directors adopted rules of procedure to replace the Directors' Charter.

The Board's rules of procedure specify the obligations of each director and set forth the mission and working procedures of the Board of Directors. They also define the respective responsibilities and authority of the Chairman and the Chief Executive Officer. They are reviewed on a regular basis to match the changes in rules and practices related to governance.

The unabridged version of these rules of procedure is available herein in its latest version dated October 30, 2012:

2013 Form 20-F TOTAL S.A. 119

## Table of Contents

### Item 6 - Corporate Governance

The Board of Directors of TOTAL S.A.<sup>(1)</sup> approved the rules of procedure.

**I. Mission of the Board of Directors:** The mission of the Board of Directors is to determine the strategic direction of the Company and supervise the implementation of this vision. With the exception of the powers and authority expressly reserved for shareholders and within the limits of the Company's legal purpose, the Board may address any issue related to the operation of the Company and take any decision concerning the matters falling within its purview. Within this framework, the Board's duties and responsibilities include, but are not limited to, the following:

- ° appointing the executive directors<sup>(2)</sup> and supervising the handling of their responsibilities;
- ° defining the Company's strategic orientation and, more generally, that of the Group;
- ° approving investments or divestments under study by the Group that concern amounts greater than 3% of shareholders' equity;
- ° reviewing information on significant events related to the Company's affairs, in particular for investments or divestments that are greater than 1% of shareholders' equity;
- ° conducting audits and investigations as it may deem appropriate. The Board, with the assistance of the Audit Committee where appropriate, ensures that:
  - the proper definition of authority within the Company and the proper exercise of duties and responsibilities by the bodies of the Company are in place;
  - no individual is authorized to contract on behalf of the Company or to commit to pay, or to make payments, on behalf of the Company, without proper supervision and control;
  - the internal control function operates properly and that the statutory auditors are able to conduct their audits under appropriate circumstances;
  - the committees it has created duly perform their responsibilities;
- ° monitoring the quality of the information provided to the shareholders and the financial markets through the financial statements that it approves and the annual reports, or when major transactions are conducted;
- ° convening and setting the agenda for Shareholders' Meetings or meetings of bond holders;
- ° preparing, for each year, a list of the directors it deems to be independent under generally recognized corporate governance criteria.

**II. Obligations of the Directors of TOTAL S.A.:** Before accepting a directorship, every candidate receives a copy of TOTAL S.A.'s bylaws and these rules of procedure. He ensures that he has broad knowledge of the general and particular commitments related to his duty, especially the laws and regulations governing directorships in French limited liability companies (*société anonyme*) whose shares are listed in one or several regulated markets. Accepting a directorship involves upholding the Directors' ethical rules as described in the Code of Corporate Governance to which the Company refers. It also involves upholding the rules of procedure and the Group's values as described in its Code of Conduct.

When directors participate in and vote at Board meetings, they are required to represent the interest of the shareholders and the Company as a whole.

- ° *Independence of judgment:* Directors undertake, under any circumstance, to maintain the independence of their analysis, judgment, decision-making and actions as well as not to be unduly influenced, directly or indirectly, by other directors, particular groups of shareholders, creditors, suppliers and, more generally, any third party.
- ° *Participation in the Board's work:* Directors undertake to devote the amount of time required to consider the information they are given and otherwise prepare for meetings of the Board and of the committees on which they sit. Directors may request any additional information that they feel is necessary or useful from the executive directors. Directors, if they consider it necessary, may request training on the Company's specificities, businesses and activities, and any other training that is of use in the exercise of their duties as Directors.

Directors attend all Board meetings and all committees or Shareholders' Meetings, unless they have previously contacted the Chairman of the Board to inform him of scheduling conflicts.

Files reviewed at each meeting of the Board as well as the information collected before or during the meetings are confidential. Directors cannot use them for or share them with a third party whatever the reason. Directors take any necessary measures to keep them confidential. Confidentiality and privacy are lifted when such information is made publicly available by the Company.

## Edgar Filing: TOTAL S.A. - Form 20-F

The Chairman of the Board makes sure that the Company provides the directors with the relevant information, including criticisms, in particular financial statement reports and press releases, and the main press articles about the Company.

- ° *Duty of loyalty:* Directors cannot take advantage of their office or duties to ensure, for themselves or a third party, any monetary or non-monetary benefit.

They notify the Board of Directors of any potential conflicts of interest with the Company or any other company of the Group. They refrain from participating in the vote relating to the corresponding resolution or even to the debate preceding the vote.

*(1) TOTAL S.A. is referred to in the rules of procedure as the Company and collectively with all its direct and indirect subsidiaries as the Group .*

*(2) Executive directors means the Chairman and Chief Executive Officer if the Chairman of the Board of Directors is the Chief Executive Officer of the Company, and otherwise the Chairman of the Board of Directors and the Chief Executive Officer, as well as, where applicable, any Deputy Chief Executive Officer, based on the organization adopted by the Board of Directors.*

## Table of Contents

### Item 6 - Corporate Governance

Directors must inform the Board of Directors of their entering into a transaction that involves directly the Company or any other company of the Group before such transaction is closed.

Directors cannot take any responsibility in a personal capacity in companies or businesses that are competing with the Company or any other company of the Group without previously informing the Board.

Directors are committed not to seek or accept directly or indirectly from the Company or any other company of the Group benefits that may be considered as compromising their independence.

- ° *Duty of expression:* Directors are committed to clearly expressing their opposition if they deem that a decision made by the Board of Directors is contrary to the Company's corporate interest and should strive to convince the Board of the relevancy of their position.
- ° *Transactions in the Company's securities and stock exchange rules:* While in office, directors are required to hold the minimum number of registered shares of the Company as set by the bylaws.

In general, directors must act with the highest degree of prudence and vigilance when completing any personal transaction involving the financial instruments of the Company, its subsidiaries and affiliates which are listed or issue listed financial instruments.

To this purpose, directors act in compliance with the following procedures:

Any shares and ADRs of TOTAL S.A. and its publicly-traded subsidiaries are to be held in registered form, either with the Company or its agent, or administered registered shares with a French broker (or U.S. broker for ADRs) whose contact details are communicated to the Board's Secretary by the director.

Directors refrain from directly or indirectly completing (or recommending the completion of) any transaction involving the financial instruments (shares, ADRs or any other financial instruments related to such financial instruments) of the Company, its publicly-traded subsidiaries or affiliates or listed financial instruments for which the director has inside information.

Inside information is specific information which has not yet been made public and which directly or indirectly concerns one or more issuers of financial instruments or one or more financial instruments and which, if it were made public, could have a significant impact on the price of the financial instruments concerned or on the price of financial instruments related to them.

Any transaction on the Company's financial instruments (share, ADR or related financial instruments) is strictly prohibited on the day when the Company discloses its periodic earnings (quarterly, interim and annual) as well as the thirty calendar days preceding such date.

Moreover, directors comply, where applicable, with the provisions of Article L. 225-197-1 of the French Commercial Code, which stipulates that free shares may not be sold:

during the ten trading days preceding and the three trading days following the date on which the consolidated financial statements or, failing that, the annual financial statements, are made public;  
 during the period between the date on which the Company's corporate bodies have knowledge of information which, if it were made public, could have a significant impact on the price of the shares of the Company, and ten trading days following the date on which such information is made public.

## Edgar Filing: TOTAL S.A. - Form 20-F

Directors are prohibited from carrying out any transaction on financial instruments related to the Company's share (Paris option market (MONEP), warrants, exchangeable bonds, etc.) and from buying on margin or short selling such financial instruments.

Directors are also prohibited from hedging the shares of the Company and any financial instruments related to them, and in particular:

all shares of the Company which they hold, and, where applicable,  
Company share subscription or purchase options,  
rights to the shares of the company which may be awarded free of charge,  
shares of the Company from the exercise of options or granted free of charge.

Directors make all necessary arrangements to declare to the French Financial Markets Authority (Autorité des marchés financiers) and inform the Board's secretary, under the form and timeframe provided for by applicable laws, of any transaction on the company's securities entered into by himself or any other individual with whom he is closely related.

**III. Workings of the Board of Directors:** The Board of Directors meets at least four times a year and as often as circumstances may require. Before each meeting of the Board, the agenda is sent out to directors and, whenever possible, it is sent together with the documents that are necessary to consider. Directors can delegate their authority to another director at the meetings of the Board, within the limit of one delegation per director per meeting. Each director may represent only one of his/her colleagues during the same Board meeting.

Whenever authorized by the law, those directors attending the meeting of the Board via video conference (in compliance with the technical requirements set by applicable regulations) are considered present for the calculation of the quorum and majority.

The Board allocates directors' fees to, and may allocate additional directors' fees to, directors who participate on specialized committees within the total amount established by the Shareholders' Meeting. The executive directors are not awarded directors' fees for their work on the Board and Committees.

## **Table of Contents**

### **Item 6 - Corporate Governance**

The Board of Directors, based on the recommendation of its Chairman, appoints a Secretary. Every member of the Board of Directors can refer to the Secretary and benefit from his assistance. The Secretary is responsible for the working procedures of the Board of Directors. The Board shall review such procedures periodically.

The Board conducts, at regular intervals not to exceed three years, an assessment of its practices. Such assessment is carried out possibly under the supervision of an independent director with the contribution of an outside counsel. In addition, the Board of Directors conducts an annual discussion of its methods.

**IV. Responsibility and authority of the Chairman:** The Chairman represents the Board, and, except under exceptional circumstances, is the sole member authorized to act and speak on behalf of the Board. He is responsible for organizing and presiding over the Board's activities and monitors corporate bodies to ensure that they are functioning effectively and respecting corporate governance principles. He coordinates the activity of the Board and its committees. He sets the agenda for the meeting by including the issues proposed by the Chief Executive Officer.

He ensures that directors have in due course clear and appropriate information that is necessary to carry out their duties.

He is responsible, with the Group's general management, for maintaining relations between the Board and the Company's shareholders. He monitors the quality of the information disclosed by the Company.

In close cooperation with the Group's general management, he may represent the Group in high-level discussions with government authorities and the Group's important partners, on both a national and international level.

He is regularly informed by the Chief Executive Officer of events and situations that are important for the Group relating to the strategy, organization, monthly financial reporting, major investment and divestment projects and major financial operations. He may request that the Chief Executive Officer or other Company officers, provided the Chief Executive Officer is informed, provide any useful information for the Board or its committees to carry out their duties.

He may meet with the statutory auditors in order to prepare the work of the Board of Directors and the Audit Committee.

He presents every year in a report to the Shareholders' Meeting on the conditions surrounding the preparation and organization of the Board's work, the potential limits set by the Board of Directors concerning the powers of the Chief Executive Officer, and the internal control procedures implemented by the Company. For this purpose, he receives from the Chief Executive Officer the relevant information.

**V. Authority of the Chief Executive Officer:** The Chief Executive Officer is responsible for the general management of the Company. He chairs the Group's Executive Committee and Management Committee. Subject to the Company's corporate governance rules and in particular the rules of procedure of the Board of Directors, he has the full extent of authority to act on behalf of the Company in all instances, with the exception of actions that are, by law, reserved to the Board of Directors or to Shareholders' meetings.

The Chief Executive Officer is responsible for periodic reporting of the Group's results and outlook to shareholders and the financial community.

At each meeting of the Board, the Chief Executive Officer reports the highlights of the Group's activity.

**VI. Committees of the Board of Directors:** The Board of Directors approved the creation of:

- an Audit Committee;
- a Nominating & Governance Committee;
- a Compensation Committee; and
- a Strategic Committee.

The missions and composition of these committees are defined in their relevant rules of procedure approved by the Board of Directors.

The Committees carry out their duty for and report to the Board of Directors.

Each committee reports on its activities to the Board of Directors.

### **Committees of the Board of Directors**

The Committees of the Board of Directors are: the Audit Committee; the Compensation Committee; the Governance & Ethics Committee (formerly Nominating & Governance Committee); and the Strategic Committee. The unabridged version of the rules of procedure of the Committees of the Board of Directors is available herein, followed by the composition of each Committee.

#### ***Audit Committee***

The unabridged version of the rules of procedure of the Audit Committee, as approved by the Board of Directors on February 12, 2013, is available herein:

#### ***Rules of procedure (unabridged version)***

The Board of Directors of TOTAL S.A. (hereafter referred to as the *Company* and, collectively with all its direct and indirect subsidiaries, as the *Group* ) has approved the following rules of procedure of the *Company* 's Audit Committee (hereafter, the *Committee* ).

The members of the Committee are directors of the *Company* and therefore uphold the rules of procedure of the Board of Directors of TOTAL S.A.

## Table of Contents

### Item 6 - Corporate Governance

**I. Duties:** To allow the Board of Directors of TOTAL S.A. to ensure that internal control is effective and that published information available to shareholders and financial markets is reliable, the duties of the Committee include:

- recommending the appointment of statutory auditors and their compensation, ensuring their independence and monitoring their work;
- establishing the rules for the use of statutory auditors for non-audit services and verifying their implementation;
- supervising the audit by the statutory auditors of the Company's statutory financial statements and consolidated financial statements;
- examining the assumptions used to prepare the financial statements, assessing the validity of the methods used to handle significant transactions and examining the Company's statutory financial statements and consolidated annual, semi-annual, and quarterly financial statements prior to their examination by the Board of Directors, after regularly monitoring the financial situation, cash position and commitments included in the annual financial statements of the Company;
- supervising the implementation of internal control and risk management procedures and their effective application, with the assistance of the internal audit department;
- supervising procedures for preparing financial information;
- monitoring the implementation and activities of the disclosure committee, including reviewing the conclusions of this committee;
- reviewing the annual work program of internal and external auditors;
- receiving information periodically on completed audits and examining annual internal audit reports and other reports (statutory auditors, annual report, etc.);
- reviewing the choice of appropriate accounting principles and methods used to prepare the company's consolidated and statutory financial statements and ensuring the continuity of the methods;
- reviewing the Group's policy for the use of derivative instruments;
- reviewing, if requested by the Board of Directors, major transactions contemplated by the Group;
- reviewing significant litigation annually;
- implementing and monitoring compliance with the financial code of ethics;
- proposing to the Board of Directors, for implementation, a procedure for complaints or concerns of employees, shareholders and others, related to accounting, internal accounting controls or auditing matters, and monitoring the implementation of this procedure;
- where applicable, reviewing significant transactions of the Group during which a conflict of interest may have occurred; and
- reviewing the procedure for booking the Group's proved reserves.

**II. Composition:** The Committee is made up of at least three directors designated by the Board of Directors. Members must be independent directors. In selecting the members of the Committee, the Board of Directors pays particular attention to their independence and their financial and accounting qualifications.

The Board of Directors appoints one of the members of the Committee to serve as the financial expert on the Committee.

Members of the Committee may not be executive directors of the Company or one of its subsidiaries, nor own more than 10% of the Company's shares, whether directly or indirectly, individually or acting together with another party.

Members of the Committee may not receive from the Company and its subsidiaries, either directly or indirectly, any compensation other than: (i) directors' fees paid for their services as directors or as members of the committee, or, if applicable, as members of another committee of the Company's Board; and (ii) compensation and pension benefits related to prior employment by the Company, or another Group company, which are not dependent upon future work or activities.

The term of office of the members of the Committee coincides with the term of their appointment as director. The term of office as a member of the Committee may be renewed at the same time as the appointment as director.

However, the Board of Directors can change the composition of the Committee at any time.

**III. Organization of activities:** The Committee appoints its own Chairman. The Chairman appoints the Committee secretary, who may be the Chief Financial Officer of the Company.

The Committee deliberates when at least one-half of its members are present. A member of the Committee cannot be represented.



## Edgar Filing: TOTAL S.A. - Form 20-F

The Committee meets at least seven times a year: each quarter to review the statutory financial statements of TOTAL S.A., the annual and quarterly consolidated financial statements, and at least three other times a year to review matters not directly related to the review of the quarterly financial statements.

The Committee may also meet at the request of its Chairman, at least one half of its members, the Chairman and Chief Executive Officer, and, if the functions of Chairman of the Board of Directors and Chief Executive Officer are separate, the Chairman of the Board of Directors or the Chief Executive Officer.

The Committee Chairman prepares the schedule of its meetings.

At each committee meeting where the quarterly financial statements are reviewed, the Group's Chief Financial Officer presents the consolidated and statutory financial statements of TOTAL S.A. as well as the Group's financial position and, in particular, its liquidity, cash flow and debt situation. A memo describing the company's risk exposure and off-balance sheet commitments is communicated to the Audit Committee. This review of the financial statements includes a presentation by the statutory auditors underscoring the key points observed during their work.

2013 Form 20-F TOTAL S.A. 123

## **Table of Contents**

### **Item 6 - Corporate Governance**

As part of monitoring the efficiency of the internal control and risk management systems, the Committee is informed of the work program of the Group Internal Control and Audit Department and its organization, on which it may issue an opinion. The Committee also receives a summary of the internal audit reports, which is presented at each committee meeting where the quarterly financial statements are reviewed. The risk management processes implemented within the Group and updates to them are presented regularly to the Audit Committee.

The Committee may meet with the Chairman and Chief Executive Officer and, if the functions of Chairman of the Board of Directors and Chief Executive Officer are separate, the Chairman of the Board of Directors, the Chief Executive Officer and, if applicable, any Deputy Chief Executive Officer of the Company, and perform inspections and consult with managers of operating or non-operating departments, as may be useful in performing its duties. The Chairman of the committee gives prior notice of such meeting to the Chairman and Chief Executive Officer and, if the functions of Chairman of the Board of Directors and Chief Executive Officer are separate, both the Chairman of the Board of Directors and the Chief Executive Officer. In particular, the Committee is authorized to consult with those involved in preparing or auditing the financial statements (Chief Financial Officer and principal Finance Department managers, Audit Department, Legal Department) by asking the Company's Chief Financial Officer to call them to a meeting.

The Committee consults with the statutory auditors and, at least once a year, without any Company representative being present. If it is informed of a substantial irregularity, it recommends that the Board of Directors take all appropriate action.

If it deems it necessary to accomplish its duties, the Committee may request from the Board of Directors the resources to engage external consultants.

The proposals made by the Committee to the Board of Directors are adopted by a majority of the members present at the Committee meeting. The Chairman of the Committee casts the deciding vote if an even number of members is present at the meeting.

The Committee can adopt proposals intended for the Board of Directors without meeting if all the members of the Committee so agree and sign each proposal.

A written summary of Committee meetings is drawn up.

**IV. Report:** The Committee submits written reports to the Board of Directors regarding its work. It periodically evaluates its performance based on these rules of procedure and, if applicable, offers suggestions for improving its performance.

#### *Members of the Audit Committee in 2013*

The Committee is made up of three members: Mmes. Barbizet and Coisne-Roquette and Mr. Lamarche.

All of the members of the Committee are independent directors (see Directors and Senior Management Director independence, above) and have recognized experience in the financial and accounting fields, as illustrated in their summary professional background (see Directors and Senior Management Composition of the Board of Directors, above).

The Committee is chaired by Ms. Barbizet. At its meeting on July 28, 2011, the Board of Directors decided to appoint Ms. Barbizet to serve as the Audit Committee financial expert based on a recommendation by the Audit Committee.

#### ***Compensation Committee***

The unabridged version of the rules of procedure of the Compensation Committee, as approved by the Board of Directors on February 9, 2012, is available herein:

*Rules of procedure (unabridged version)*

## Edgar Filing: TOTAL S.A. - Form 20-F

The Board of Directors of TOTAL S.A. (hereafter referred to as the **Company** and, collectively with all its direct and indirect subsidiaries, as the **Group** ) has approved the following rules of procedure of the Company's Compensation Committee (hereafter, the **Committee** ).

The members of the Committee are directors of the Company and therefore uphold the rules of procedure of the Board of Directors of TOTAL S.A.

The Committee is focused on:

- examining the executive compensation policies implemented by the Group and the compensation of members of the Executive Committee;
- evaluating the performance and recommending the compensation of each executive director; and
- preparing reports which the Company must present in these areas.

**I. Duties:** The Committee's duties include:

- examining the main objectives proposed by the Company's general management regarding compensation of the Group's executive officers, including stock option and restricted share grant plans and equity-based plans, and advising on this subject;
- presenting recommendations and proposals to the Board of Directors concerning:
  - compensation, pension and life insurance plans, in-kind benefits and other compensation (including severance benefits) for the executive directors of the Company; in particular, the Committee proposes compensation structures that take into account the Company's strategy, objectives and earnings and market practices;
  - stock option and restricted share grants, particularly grants of restricted shares to the executive directors;
- examining the compensation of the members of the Executive Committee, including stock option and restricted share grant plans and equity-based plans, pension and insurance plans and in-kind benefits;

## **Table of Contents**

### Item 6 - Corporate Governance

- preparing and presenting reports in accordance with these rules of procedure;
- examining, for the parts within its remit, reports to be sent by the Board of Directors or its Chairman to the shareholders;
- preparing recommendations requested at any time by the Chairman of the Board of Directors or the general management of the Company regarding compensation.

**II. Composition:** The Committee is made up of at least three directors designated by the Board of Directors. A majority of the members must be independent directors.

Members of the Compensation Committee may not receive from the Company and its subsidiaries, either directly or indirectly, any compensation other than:

- (i) directors' fees paid for their services as directors or as members of the committee, or, if applicable, as members of another committee of the Company's Board;
- (ii) compensation and pension benefits related to prior employment by the Company, or another Group company, which are not dependent upon future work or activities.

The term of office of the members of the Committee coincides with the term of their appointment as director. The term of office as a member of the Committee may be renewed at the same time as the appointment as director.

However, the Board of Directors can change the composition of the Committee at any time.

**III. Organization of activities:** The Committee appoints its Chairman and its secretary. The secretary is a Company senior executive. The Committee deliberates when at least one-half of its members are present. A member of the Committee cannot be represented.

The Committee meets at least twice a year. It meets on an as-needed basis through notice by its Chairman or by one-half of its members.

The Committee invites the Chairman of the Board or the Chief Executive Officer of the Company, as applicable, to present recommendations. Neither the Chairman nor the Chief Executive Officer may be present during the Committee's deliberations regarding his own situation. If the Chairman of the Board is not the Chief Executive Officer of the Company, the Chief Executive Officer may not be present during the Committee's deliberations regarding the situation of the Chairman of the Board.

While maintaining the appropriate level of confidentiality for its discussions, the Committee may request from the Chief Executive Officer to be assisted by any senior executive of the Company whose skills and qualifications could facilitate the handling of an agenda item.

If it deems it necessary to accomplish its duties, the Committee may request from the Board of Directors the resources to engage external consultants.

The proposals made by the Committee to the Board of Directors are adopted by a majority of the members present at the Committee meeting. The Chairman of the Committee casts the deciding vote if an even number of Committee members is present at the meeting.

The Committee can adopt proposals intended for the Board of Directors without meeting if all the members of the Committee so agree and sign each proposal.

A written summary of Committee meetings is drawn up.

**IV. Report:** The Committee reports on its activities to the Board of Directors. At the request of the Chairman of the Board, the Committee examines all draft reports of the Company regarding compensation of the executive officers or any other issues relevant to its area of expertise.

#### *Members of the Compensation Committee in 2013*

The Compensation Committee is made up of five members: Messrs. Artus, Brock, Desmarest, Mandil and Pébereau. The Committee is chaired by Mr. Pébereau.

## Edgar Filing: TOTAL S.A. - Form 20-F

80% of the Committee members are independent directors, given that the Board of Directors considers Messrs. Artus, Brock, Mandil and Pébureau to be independent (see Directors and Senior Management Director independence , above).

### ***Governance & Ethics Committee***

The unabridged version of the rules of procedure of the Governance & Ethics Committee (formerly Nominating & Governance Committee), as approved by the Board of Directors on March 27, 2013, is available herein:

#### *Rules of procedure (unabridged version)*

The Board of Directors of TOTAL S.A. (hereafter referred to as the Company and, collectively with all its direct and indirect subsidiaries, as the Group ) has approved the following rules of procedure of the Company's Governance & Ethics Committee (hereafter, the Committee ).

The members of the Committee are directors of the Company and therefore uphold the rules of procedure of the Board of Directors of TOTAL S.A.

The Committee is focused on:

- recommending to the Board of Directors the persons that are qualified to be appointed as directors, so as to guarantee the scope of coverage of the Directors' competencies and the diversity of their profiles;
- recommending to the Board of Directors the persons that are qualified to be appointed as executive directors;

2013 Form 20-F TOTAL S.A. 125

## Table of Contents

### Item 6 - Corporate Governance

- preparing the Company's corporate governance rules and supervising their implementation; and
- ensuring compliance with ethics rules and examining any questions related to ethics and situations of conflicting interests.

#### I. Duties: The Committee's duties include:

- presenting recommendations to the Board for its membership and the membership of its committees, and the qualification in terms of independence of each candidate for Directors' positions on the Board of Directors;
- proposing annually to the Board of Directors the list of directors who may be considered as independent directors;
- examining, for the parts within its remit, reports to be sent by the Board of Directors or its Chairman to the shareholders;
- assisting the Board of Directors in the selection and evaluation of the executive directors and examining the preparation of their possible successors, including cases of unforeseeable absence;
- recommending to the Board of Directors the persons that are qualified to be appointed as directors;
- recommending to the Board of Directors the persons that are qualified to be appointed as members of a Committee of the Board of Directors;
- proposing methods for the Board of Directors to evaluate its performance, and in particular preparing means of regular self-assessment of the workings of the Board of Directors, and the possible assessment thereof by an external consultant;
- proposing to the Board of Directors the terms and conditions for allocating directors' fees and the conditions under which expenses incurred by the directors are reimbursed;
- developing and recommending to the Board of Directors the corporate governance principles applicable to the Company;
- preparing recommendations requested at any time by the Board of Directors or the general management of the Company regarding appointments or governance;
- examining the conformity of the Company's governance practices with the recommendations of the Code of Corporate Governance adopted by the Company;
- supervising and monitoring implementation of the Company's ethics and compliance program and, in this respect, ensuring that the necessary procedures for updating the Group's Code of Conduct are put in place and that this code is disseminated and applied; and
- examining any questions related to ethics and situations of conflicting interests; and
- examining changes in the duties of the Board of Directors.

#### II. Composition: The Committee is made up of at least three directors designated by the Board of Directors. At least one half of the members must be independent directors.

Members of the Governance & Ethics Committee, other than the Company's executive directors, may not receive from the Company and its subsidiaries any compensation other than: (i) directors' fees paid for their services as directors or as members of the committee, or, if applicable, as members of another committee of the Company's Board; (ii) compensation and pension benefits related to prior employment by the Company, or another Group company, which are not dependent upon future work or activities.

The term of office of the members of the Committee coincides with the term of their appointment as director. The term of office as a member of the Committee may be renewed at the same time as the appointment as director.

However, the Board of Directors can change the composition of the Committee at any time.

#### III. Organization of activities: The Committee appoints its Chairman and its secretary. The secretary is a Company senior executive. The Committee deliberates when at least one-half of its members are present. A member of the Committee cannot be represented.

The Committee meets at least twice a year. It meets on an as-needed basis through notice by its Chairman or by one-half of its members.

The Committee invites the Chairman of the Board or the Chief Executive Officer of the Company, as applicable, to present recommendations. The executive directors, whether they are members of the Committee or invited to its meetings, may not be present at deliberations concerning their own situation.

While maintaining the appropriate level of confidentiality for its discussions, the Committee may request from the Chief Executive Officer to be assisted by any senior executive of the Company whose skills and qualifications could facilitate the handling of an agenda item.

## Edgar Filing: TOTAL S.A. - Form 20-F

The Chairman of the Group Ethics Committee, who reports to the Chief Executive Officer, may appear before the Governance & Ethics Committee at any time. He reports to this Committee each year on his activities and on the results of the ethics program implemented by the Company.

If it deems it necessary to accomplish its duties, the Committee may request from the Board of Directors the resources to engage external consultants.

The proposals made by the Committee to the Board of Directors are adopted by a majority of the members present at the Committee meeting. The Chairman of the Committee casts the deciding vote if an even number of Committee members is present at the meeting.

The Committee can make proposals to the Board of Directors without meeting if all the members of the Committee so agree and sign each proposal.

A written summary of Committee meetings is drawn up.

**IV. Report:** The Committee reports on its activities to the Board of Directors.

## Table of Contents

### Item 6 - Corporate Governance

#### *Members of the Governance & Ethics Committee in 2013*

The Governance & Ethics Committee has five members: Messrs. Artus, Brock, Collomb, Desmarest and Mandil. The Committee is chaired by Mr. Desmarest.

80% of the Committee members are independent directors, given that the Board of Directors considers Messrs. Artus, Brock, Collomb and Mandil to be independent (see Directors and Senior Management Director independence , above).

#### *Strategic Committee*

The unabridged version of the rules of procedure of the Strategic Committee, as approved by the Board of Directors on April 25, 2013, is available herein:

#### *Rules of procedure (unabridged version)*

The members of the Committee are directors of the Company and therefore uphold the rules of procedure of the Board of Directors of TOTAL S.A.

**I. Duties:** To allow the Board of Directors of TOTAL S.A. to ensure the Group's development, the Committee's duties include:

- examining the overall strategy of the Group proposed by the Company's general management;
- examining operations that are of particular strategic importance; and
- reviewing competition and the resulting medium and long-term outlook for the Group.

**II. Composition:** The Committee is made up of at least five directors designated by the Board of Directors.

Members of the Committee may not receive from the Company and its subsidiaries, either directly or indirectly, any compensation other than: (i) directors' fees paid for their services as directors or as members of the committee, or, if applicable, as members of another committee of the Company's Board; (ii) compensation and pension benefits related to prior employment by the Company, or another Group company, which are not dependent upon future work or activities.

The term of office of the members of the Committee coincides with the term of their appointment as director. The term of office as a member of the Committee may be renewed at the same time as the appointment as director.

However, the Board of Directors can change the composition of the Committee at any time.

**III. Organization of activities:** The Chairman of the Board of Directors of the Company chairs the Committee. The Chairman appoints the Committee secretary, who may be the Secretary of the Board of Directors.

The Committee deliberates when at least one-half of its members are present. A member of the Committee cannot be represented.

The Committee meets at least once a year and at the request of its Chairman, at least one-half of its members, or the Chief Executive Officer of the Company. The Committee Chairman prepares the schedule of its meetings.

The Chairman of the Committee may invite other directors to participate in the Committee meetings based on the meeting agenda.



## Edgar Filing: TOTAL S.A. - Form 20-F

The Committee may meet with the Chief Executive Officer, and, if applicable, any Deputy Chief Executive Officer of the Company and consult with managers of operating or non-operating departments, as may be useful in performing its duties. The Chairman of the Committee, if he is not the Chief Executive Officer of the Company, gives prior notice of such meeting to the Chief Executive Officer. In particular, the Committee is authorized to consult with the Vice President Strategy & Business Intelligence of the Company or the person delegated by the latter, by asking the Company's Chief Executive Officer to call them to a meeting.

If it deems it necessary to accomplish its duties, the Committee may request from the Board of Directors the resources to engage external consultants.

A written summary of Committee meetings is drawn up.

**IV. Report:** The Committee submits written reports to the Board of Directors regarding its work. It periodically evaluates its performance based on these rules of procedure and, if applicable, offers suggestions for improving its performance.

### *Members of the Strategic Committee in 2013*

The Strategic Committee is made up of eight members: Mmes. Barbizet, Kux and Lauvergeon and Messrs. Margerie, Brock, Desmarest, Lamarche and Mandil. Mr. de Margerie chairs the Committee.

Three-fourths of the Committee members are independent directors, given that the Board of Directors considers Mmes. Barbizet, Kux and Lauvergeon and Messrs. Brock, Lamarche and Mandil to be independent (see Directors and Senior Management Director independence, above).

2013 Form 20-F TOTAL S.A. 127

**Table of Contents****Item 6 - Employees and Share Ownership****EMPLOYEES AND SHARE OWNERSHIP****Employees**

As of December 31, 2013, the Group had 98,799 employees belonging to 355 companies and subsidiaries located in 101 countries. Table below shows, at year-ends 2011, 2012 and 2013, the breakdown of employees by the following categories: gender, nationality, business segment, region and age bracket:

Group employees as of December 31,	2013	2012	2011
<b>Total number of employees</b>	<b>98,799</b>	<b>97,126</b>	<b>96,104</b>
Women	30.8%	30.0%	29.7%
Men	69.2%	70.0%	70.3%
French	33.4%	35.6%	36.1%
Other nationalities	66.6%	64.4%	63.9%
<b>Breakdown by business segment</b>			
Upstream			
Exploration & Production	17.1%	16.9%	16.7%
Gas & Power	1.1%	1.7%	1.7%
Refining & Chemicals			
Refining & Chemicals	51.5%	52.5%	51.9%
Trading & Shipping	0.6%	0.6%	0.5%
Marketing & Services			
Marketing & Services	21.5%	21.6%	21.6%
New Energies	6.7%	5.2%	6.2%
Corporate	1.5%	1.5%	1.5%
<b>Breakdown by region</b>			
Mainland France	33.6%	36.0%	36.5%
French overseas departments and territories	0.4%	0.4%	0.4%
Rest of Europe	23.4%	23.5%	23.4%
Africa	10.0%	9.6%	9.6%
North America	6.6%	6.4%	6.8%
South America	9.6%	8.9%	7.5%
Asia	14.6%	13.2%	14.1%
Middle East	1.3%	1.3%	1.1%
Oceania	0.5%	0.5%	0.6%
<b>Breakdown by age bracket</b>			
< 25	6.5%	5.7%	5.9%
25 to 34	29.1%	29.2%	30.0%
35 to 44	28.8%	28.5%	28.1%
45 to 54	23.1%	23.7%	24.0%
> 55	12.5%	12.9%	12.0%

Between 2012 and 2013, the workforce increased by 1.7%. At year-end 2013, the country with the most employees after France was the United States, followed by China, Mexico and Germany.

The breakdown by gender and nationality of managers or equivalent positions (<sup>3</sup> 300 Hay points) is as follows:

## Edgar Filing: TOTAL S.A. - Form 20-F

### Breakdown of managers

or equivalent as of December 31,

	2013	2012	2011
<b>Total number of managers</b>	<b>28,527</b>	<b>27,639</b>	<b>26,836</b>
Women	23.9%	23.5%	23.1%
Men	76.1%	76.5%	76.9%
French	39.1%	40.7%	41.1%
Other nationalities	60.9%	59.3%	58.9%

In 2013, the Worldwide Human Resources Survey covered 88,653 employees belonging to 149 subsidiaries:

### Group included in WHRS

	2013	2012	2011
<b>Employees surveyed</b>	<b>88,653</b>	<b>80,003</b>	<b>73,654</b>
% of Group employees	90%	82%	77%

**Table of Contents****Item 6 - Employees and Share Ownership**

The breakdown of employees joining and leaving TOTAL is as follows:

As of December 31,	2013	2012	2011
<b>Total number hired on open-ended contracts</b>	<b>10,649</b>	<b>9,787</b>	<b>9,295</b>
Women	35.9%	31.0%	29.4%
Men	64.1%	69.0%	70.6%
French	10%	11.8%	12.8%
Other nationalities	90%	88.2%	87.2%

The number of employees hired under open-ended contracts in 2013 in the consolidated companies increased by 8.8% compared with 2012. The regions in which the largest number of employees under open-ended contracts were hired were Latin America (30.5%), followed by Asia (26.7%) and Europe (25.1%), and the business segment that hired most was Refining & Chemicals (49.1%).

The consolidated Group companies also hired 4,326 employees on fixed-term contracts. Over 600,000 job applications were received by the subsidiaries covered by the WHRS.

As of December 31,	2013	2012	2011
Departures excluding retirement/transfers/early retirement/ voluntary departures and expiry of short-term contracts	6,779	8,324	6,892
Death	106	155	119
Resignations	4,040	4,946	4,332
Redundancies/negotiated departures <sup>(a)</sup>	2,495	3,006	2,199
Negotiated departures (France)	138	217	242
<b>Total departures/total employees</b>	<b>6.9%</b>	<b>8.6%</b>	<b>7.2%</b>

<sup>(a)</sup> The increase between 2011 and 2012 is principally due to the reduction of employees at SunPower (essentially in the Philippines).

TOTAL believes that the relationship between its management and labor unions is, in general, satisfactory.

**Arrangements for involving employees in the Company's share capital****Employee incentive and profit-sharing agreements**

On June 29, 2012, a new incentive and profit-sharing agreement was signed for fiscal years 2012, 2013 and 2014, concerning TOTAL S.A., Elf Exploration Production, Total Exploration Production France, CDF Énergie, Total Raffinage Marketing (newly named Total Marketing Services), Total Additifs et Carburants Spéciaux, Total Lubrifiants, Total Fluides, Totalgaz, Total Raffinage-Chimie, Total Petrochemicals France and Total Raffinage France. Under the terms of this agreement, the amount available for employee profit-sharing is determined based on the return on equity (ROE) performance of the Group, as well as on the trend of the Total Recordable Injury Rate (TRIR) in view of the objectives and thresholds set out for each business unit.

The amount of the special incentive and profit-sharing reserve to be distributed by all of the companies that signed the Group agreements for fiscal year 2013 would total approximately €135 million.

**Company savings plans**

Pursuant to agreements signed on March 15, 2002 and their amendments, the Group created a TOTAL Group Savings Plan (PEGT) and a Complementary Company Savings Plan (PEC) for employees of the Group's French companies having adhered to these plans. These plans allow investments in a number of mutual funds including one invested in Company shares (TOTAL ACTIONNARIAT FRANCE). A Shareholder Group Savings Plan (PEG-A) has also been in place since November 19, 1999 to facilitate capital increases reserved for employees of the Group's French and foreign subsidiaries covered by these plans.

## Edgar Filing: TOTAL S.A. - Form 20-F

Company savings plans give employees of the Group's French companies that adhere to these plans the ability to make discretionary contributions (which the companies of the Group may, under certain conditions, supplement) to the plans invested in the shares of the

Company. The companies of the Group made gross additional contributions (abondement) to various savings plans that totaled €73.9 million in 2013.

### ***Capital increase reserved for Group employees***

By the seventeenth resolution of the Combined Shareholders' Meeting held on May 11, 2012, the shareholders delegated to the Board of Directors the authority to increase the share capital of the Company in one or more transactions and within a maximum period of twenty-six months from the date of the meeting, reserving subscriptions for such issuance to the Group Employees participating in a company savings plan.

At the same Shareholders' Meeting, the shareholders also delegated to the Board of Directors powers to increase the share capital of the Company in one or more transactions and within a maximum period of eighteen months from the date of the meeting, in view of giving the employees of foreign subsidiaries similar advantages as those granted to employees covered by the seventeenth resolution.

Pursuant to these delegations, the Board of Directors, at its meeting on September 18, 2012 decided to proceed with a capital increase reserved for employees of the Group, including a standard subscription offer and a leveraged offer at the discretion of the employees, within the limit of 18 million shares with dividend rights as of January 1, 2012. This capital increase resulted in the subscription of 10,802,215 shares, each with a par value of €2.50 at the unit price of €30.70, the issuance of which was recognized on April 25, 2013.

The previous capital increase reserved for employees of the Group had been decided by the Board of Directors at its meeting on October 28, 2010 pursuant to the authorization of the Combined Shareholders' Meeting on May 21, 2010 and had resulted in the subscription of 8,902,717 shares, each with a par value of €2.50 at the unit price of €34.80, the issuance of which had been recognized on April 28, 2011.

**Table of Contents****Item 6 - Employees and Share Ownership**

The capital increase reserved for employees approved by the Board of Directors at its meeting of September 18, 2012, was conducted under the PEG-A: (i) for employees of the Group's French subsidiaries, through the TOTAL ACTIONNARIAT FRANCE fund in the case of standard subscription and through the TOTAL FRANCE CAPITAL+ fund in the case of subscription to the leveraged offer; and (ii) for employees of foreign subsidiaries, through the TOTAL ACTIONNARIAT INTERNATIONAL CAPITALISATION fund in the case of standard subscription and through the TOTAL INTERNATIONAL CAPITAL fund in the case of subscription to the leveraged offer. In addition, U.S. employees participated in this operation by directly subscribing to American Depositary Shares (ADS), and Italian and German employees by directly subscribing to new shares at the Group Caisse Autonome (in Belgium). In addition, employees in certain other countries benefited from the leveraged subscription offer by means of a dedicated vehicle.

The previous capital increases reserved for employees were conducted under the PEG-A through the TOTAL ACTIONNARIAT FRANCE fund for employees of the Group's French subsidiaries and through the TOTAL ACTIONNARIAT INTERNATIONAL CAPITALISATION fund for the employees of foreign subsidiaries. In addition, U.S. employees participated in these operations by directly subscribing to American Depositary Shares (ADS), and Italian employees (as well as German employees starting in 2011) by directly subscribing to new shares at the Group Caisse Autonome.

***Capital increase from the global free share plan for employees of the Group***

The Shareholders' Meeting on May 16, 2008 authorized the Board of Directors to proceed with the free grant of Company shares to employees of the Group as well as to executive directors of the Company or Group companies, for a period of thirty-eight months, within the limit of 0.8% of the outstanding share capital at the date of the decision of the Board of Directors to grant such shares.

Pursuant to this authorization, the Board of Directors at its meeting on May 21, 2010 decided on the terms and conditions of the global plan of free TOTAL shares in favor of the employees of the Group and delegated to the Chairman and Chief Executive Officer of the Company all powers necessary for implementing this plan.

To this end, on July 2, 2012, the Chairman and Chief Executive Officer of the Group acknowledged the issue and definitive grant of 1,366,950 common shares, each with a par value of €2.50, to the designated beneficiaries in application of the grant conditions approved by the Board of Directors at its meeting of May 21, 2010.

***Pension savings plan***

The September 29, 2004 Group agreement on the provisions for retirement savings set up a Collective Retirement Savings Plan (PERCO). An amendment to this plan signed on April 15, 2011 provides for the additional contribution of credit transferred from the time-savings scheme to the PERCO (CET-PERCO gateway). An amendment to the plan signed on March 30, 2012 adjusted the management mechanisms of the PERCO in order to better secure retirement savings and extended the scope of the agreement to include Total Petrochemicals France, Total Raffinage-Chimie and Total Raffinage France.

***Employee shareholding***

The total number of TOTAL shares held directly or indirectly by the Group's employees as of December 31, 2013, is as follows:

TOTAL ACTIONNARIAT FRANCE	82,067,730
TOTAL ACTIONNARIAT INTERNATIONAL CAPITALISATION	21,879,234
TOTAL FRANCE CAPITAL+	2,505,002
TOTAL INTERNATIONAL CAPITAL	931,374
ELF PRIVATISATION N°1	817,988
Shares held by U.S. employees	531,615
Group Caisse Autonome (Belgium)	474,490
TOTAL shares from the exercise of the Company's stock options and held as registered shares within a Company Savings Plan	3,122,627
<b>Total shares held by employees</b>	<b>112,330,060</b>

As of December 31, 2013, the employees of the Group held, on the basis of the definition of employee shareholding set forth in Article L. 225-102 of the French Commercial Code, 112,330,060 TOTAL shares, representing 4.72% of the Company's share capital and 8.63% of the voting rights that could be exercised at a Shareholders' Meeting on that date.

## Edgar Filing: TOTAL S.A. - Form 20-F

The management of each of the five FCPEs (Collective investment funds) mentioned above is controlled by a dedicated Supervisory board, two-thirds of its members representing holders of fund units and one-third representing the company. The board is responsible for reviewing the Collective investment fund's management report and annual financial statements, as well as the financial, administrative and accounting management of the fund, exercising voting rights attached to portfolio securities, deciding contribution of securities in case of a public tender offer, deciding mergers, spin-offs or liquidations, and granting its approval prior to changes in the rules and procedures of the Collective investment fund in the conditions provided for by the rules and procedures.

These rules and procedures also stipulate a simple majority vote for decisions, except for decisions requiring a qualified majority vote of two-thirds plus one related to a change in a fund's rules and procedures, its conversion or disposal.

For employees holding shares outside of the employee collective investment funds mentioned in the table above, voting rights are exercised individually.

### Shares held by the administration and management bodies

As of December 31, 2013, based on information from the members of the Board and the share registrar, the members of the Board and the Group's Executive Officers (Management Committee and Treasurer) held a total of less than 0.5% of the share capital:

members of the Board of Directors (including the Chairman and Chief Executive Officer): 330,080 shares;  
Chairman and Chief Executive Officer: 121,556 shares, and 65,242 shares in the TOTAL ACTIONNARIAT FRANCE collective investment fund; and  
Management Committee (including the Chairman and Chief Executive Officer) and Treasurer: 742,544 shares.

**Table of Contents****Item 6 - Employees and Share Ownership**

By decision of the Board of Directors:

the executive directors are required to hold a number of shares of the Company equal in value to two years of the fixed portion of their annual compensation; and  
members of the Executive Committee are required to hold a number of shares of the Company equal in value to two years of the fixed portion of their annual compensation.

These shares have to be acquired within three years from the appointment to the Executive Committee.

The number of TOTAL shares to be considered includes:

directly held shares, whether or not they are subject to transfer restrictions; and  
shares in the collective investment fund invested in TOTAL shares.

**Summary of transactions in the Company's securities**

The following table presents transactions, of which the Company has been informed, in the Company's shares or related financial instruments carried out in 2013 by the individuals concerned under paragraphs a) through c) of Article L. 621-18-2 of the French Monetary and Financial Code:

Year 2013		Acquisition	Subscription	Transfer	Exchange	Exercise of stock options
Christophe de Margerie <sup>(a)</sup>	TOTAL shares					
	Shares in collective investment plans (FCPE), and other related financial instruments <sup>(b)</sup>	5,824.18				
Philippe Boisseau <sup>(a)</sup>	TOTAL shares					9,000.00
	Shares in collective investment plans (FCPE), and other related financial instruments <sup>(b)</sup>	7,438.61	417.88	7,517.69		
Yves-Louis Darricarrère <sup>(a)</sup>	TOTAL shares			9,000.00		29,700.00
	Shares in collective investment plans (FCPE), and other related financial instruments <sup>(b)</sup>	13,305.46		23,799.69		
Patrick de La Chevardièrre <sup>(a)</sup>	TOTAL shares					22,000.00
	Shares in collective investment plans (FCPE), and other related financial instruments <sup>(b)</sup>	9,018.11	2,026.82	18,362.59		
Jean-Jacques Guilbaud <sup>(a)</sup>	TOTAL shares			4,925.00		21,120.00
	Shares in collective investment plans (FCPE), and other related financial instruments <sup>(b)</sup>	9,377.80	353.00	22,406.86		
Patrick Pouyanné <sup>(a)</sup>	TOTAL shares					8,000.00
	Shares in collective investment plans (FCPE), and other related financial instruments <sup>(b)</sup>	7,414.36		6,828.66		

<sup>(a)</sup> Including the related individuals in the meaning of the provisions of the Article R. 621-43-1 of the French Monetary and Financial Code.

<sup>(b)</sup> Collective investment funds (FCPE) primarily invested in Company shares.



**Table of Contents****Item 7 - Major Shareholders and Related Party Transactions****ITEM 7. MAJOR SHAREHOLDERS AND RELATED PARTY TRANSACTIONS****Major shareholders****Holdings of major shareholders**

For the purpose of this paragraph, major shareholders are defined as shareholders whose interest (in the share capital or voting rights) exceeds 5%. TOTAL's major shareholders as of December 31, 2013, 2012 and 2011 were as follows:

	2013			2012		2011	
As of December 31,	% of share capital	% of voting rights	% of theoretical voting rights <sup>(a)</sup>	% of share capital	% of voting rights	% of share capital	% of voting rights
<b>GBL-CNP in concert</b>	<b>4.8</b>	<b>4.8</b>	<b>4.4</b>	5.4	5.4	5.5	5.6
<i>of which Groupe Bruxelles Lambert<sup>(b)</sup></i>	3.6	3.6	3.3	4.0	4.0	4.0	4.0
<i>of which Compagnie Nationale à Portefeuille<sup>(b)</sup></i>	1.2	1.2	1.1	1.4	1.4	1.5	1.6
<b>Group employees<sup>(c)</sup></b>	<b>4.7</b>	<b>8.6</b>	<b>7.9</b>	4.4	8.1	4.4	8.0
<b>Treasury shares</b>	<b>4.6</b>		<b>8.1</b>	4.6		4.6	
<i>of which TOTAL S.A.</i>	0.4		0.3	0.3		0.4	
<i>of which Total Nucléaire</i>	0.1		0.2	0.1		0.1	
<i>of which subsidiaries of Elf Aquitaine<sup>(d)</sup></i>	4.1		7.6	4.2		4.2	
<b>Other shareholders<sup>(e)</sup></b>	<b>85.9</b>	<b>86.6</b>	<b>79.6</b>	85.7	86.6	85.3	86.3
<i>of which holders of ADS<sup>(f)</sup></i>	9.3	9.2	8.5	9.3	9.3	8.7	8.7

<sup>(a)</sup> Pursuant to Article 223-11 of the AMF General Regulation, the number of theoretical voting rights is calculated on the basis of all outstanding shares to which voting rights are attached, including treasury shares that are deprived of voting rights

<sup>(b)</sup> Groupe Bruxelles Lambert is a company controlled jointly by the Desmarais family and Frère-Bourgeois S.A., and for the latter mainly through its direct and indirect interest in Compagnie Nationale à Portefeuille. In addition, Groupe Bruxelles Lambert and Compagnie Nationale à Portefeuille have declared that they act in concert. Moreover, these companies have executive directors who serve on the Board of Directors of TOTAL S.A.

<sup>(c)</sup> Based on the definition of employee shareholding pursuant to Article L. 225-102 of the French Commercial Code. The Amundi Group, the holding company for Amundi Asset Management, which is the manager of the employee collective investment fund TOTAL ACTIONNARIAT FRANCE (see below), filed a Schedule 13G with the SEC on February 11, 2014, declaring beneficial ownership of 184,350,308 Company shares as of December 31, 2013 (i.e., 7.8% of the Company's share capital). The Amundi Group specified that it did not have sole voting or dispositive power over any of these shares, and that it had shared voting power over 73,373,788 of these shares (i.e., 3.1% of the Company's share capital) and shared dispositive power over all of these shares. Moreover, the employee representatives serve on the Board of Directors of TOTAL S.A.

<sup>(d)</sup> Fingestval, Financière Valorgest and Sogapar.

<sup>(e)</sup> Of which 1.53% held by registered shareholders (non-Group) in 2013.

<sup>(f)</sup> American Depositary Shares listed on the New York Stock Exchange.

As of December 31, 2013, the holdings of the major shareholders were calculated based on 2,377,678,160 shares, representing 2,391,533,246 voting rights exercisable at Shareholders' Meetings, or 2,601,078,962 theoretical voting rights<sup>(g)</sup> including:

8,883,180 voting rights attached to the 8,883,180 TOTAL shares held by TOTAL S.A. that are deprived of voting rights; and

200,662,536 voting rights attached to the 100,331,268 TOTAL shares held by TOTAL S.A. subsidiaries that cannot be exercised at Shareholders' Meetings.

For prior years, the holdings of the major shareholders were calculated on the basis of 2,365,933,146 shares to which 2,371,131,871 voting rights exercisable at Shareholders' Meetings were attached as of December 31, 2012, and 2,363,767,313 shares to which 2,368,716,634 voting rights exercisable at Shareholders' Meetings were attached as of December 31, 2011.

## Edgar Filing: TOTAL S.A. - Form 20-F

### ***Identification of the holders of bearer shares***

In accordance with Article 9 of its bylaws, the Company is authorized, to the extent permitted under applicable law, to identify the holders of securities that grant immediate or future voting rights at the Company's Shareholders' Meetings.

### ***Temporary transfer of securities***

Pursuant to legal obligations, any legal entity or individual (with the exception of those described in paragraph IV-3 of Article L. 233-7 of the French Commercial Code) holding alone or in concert a number of shares representing more than 0.5% of the Company's voting rights pursuant to one or more temporary transfers or similar operations as described in Article L. 225-126 of the aforementioned code is required to notify the Company and the French Financial Markets Authority of the number of shares temporarily owned no later than the third business day preceding the Shareholders' Meeting at midnight.

*(1) Pursuant to Article 223-11 of the AMF General Regulation, the number of theoretical voting rights is calculated on the basis of all outstanding shares, including those shares held by the Group that are deprived of voting rights.*

## **Table of Contents**

### **Item 7 - Major Shareholders and Related Party Transactions**

Notifications must be e-mailed to the Company at: holding.df-shareholdingnotification@total.com

If no notification is sent, any shares acquired under any of the above temporary transfer operations will be deprived of voting rights at the relevant Shareholders Meeting and at any Shareholders Meeting that may be held until such shares are transferred again or returned.

#### ***Thresholds notifications***

In addition to the legal obligation to inform the Company and the French Financial Markets Authority within four trading days of the date on which the number of shares (or securities similar to shares or voting rights pursuant to Article L. 233-9 of the French Commercial Code) held represents more than 5%, 10%, 15%, 20%, 25%, 30%, one-third, 50%, two-thirds, 90% or 95% of the share capital or theoretical voting rights<sup>(1)</sup> (Article L. 233-7 of the French Commercial Code), any individual or legal entity who directly or indirectly comes to hold a percentage of the share capital, voting rights or rights giving future access to the Company's share capital which is equal to or greater than 1%, or a multiple of this percentage, is required to notify the Company, within fifteen days of the date on which each of the above thresholds is exceeded, by registered mail with return receipt requested, and indicate the number of shares held.

If notification is not given, the shares held in excess of the threshold for which notification should have been given are deprived of voting rights at Shareholders Meetings if, at a Meeting, the failure to give notification is acknowledged and if one or more shareholders holding collectively at least 3% of the Company's share capital or voting rights so request at that Meeting.

Any individual or legal entity is also required to notify the Company in due form and within the time limits stated above when their direct or indirect holdings fall below each of the aforementioned thresholds.

Notifications must be sent to the Vice President of Investor Relations in Paris.

#### ***Legal threshold notifications in 2013***

In AMF notice No. 213C1748 dated November 18, 2013, CNP and GBL acting in concert stated that they had fallen below, as of November 7, 2013, the 5% share capital and voting rights thresholds and that they held 118,764,036 TOTAL shares representing 119,511,734 voting rights, *i.e.*, 4.99% of the share capital and 4.59% of the theoretical voting rights<sup>(1)</sup> (based on share capital of 2,377,196,179 shares representing 2,606,134,412 voting rights). CNP and GBL acting in concert had exceeded the 5% threshold on August 25, 2009 (AMF notice No. 209C1156).

#### ***Holdings above the legal thresholds***

In accordance with Article L. 233-13 of the French Commercial Code, to TOTAL's knowledge no shareholder held 5% or more of TOTAL's share capital at year-end 2013.

As of December 31, 2012, CNP and GBL acting in concert held 5.36% of the share capital representing 5.37% of the voting rights.

In AMF notice No. 213C1748 dated November 18, 2013, CNP and GBL acting in concert stated that they had fallen below, as of November 7, 2013, the 5% share capital and voting rights thresholds and that they held 118,764,036 TOTAL shares representing 119,511,734 voting rights, *i.e.*, 4.99% of the share capital and 4.59% of the theoretical voting rights<sup>(1)</sup> (based on share capital of 2,377,196,179 shares representing 2,606,134,412 voting rights). CNP and GBL acting in concert held more than 5% of the Group's share capital from August 25, 2009 (AMF notice No. 209C1156 dated September 2, 2009).

To TOTAL's knowledge, one known shareholder held 5% or more of the voting rights exercisable at TOTAL Shareholders Meetings at year-end 2013. As of December 31, 2013, the TOTAL ACTIONNARIAT FRANCE collective investment fund held 3.45% of the share capital representing 6.41% of the voting rights exercisable at Shareholders Meetings and 5.89% of the theoretical voting rights<sup>(3)</sup>.

#### ***Shareholders' agreements***

TOTAL is not aware of any agreements among its shareholders.

## Treasury shares

As of December 31, 2013, the Company held 109,214,448 TOTAL shares either directly or through its indirect subsidiaries, which represented 4.59% of the share capital on that date. By law, these shares are deprived of voting rights.

### *TOTAL shares held directly by the Company (treasury shares)*

The Company held 8,883,180 treasury shares as of December 31, 2013, representing 0.37% of the share capital on that date.

### *TOTAL shares held directly by Group companies*

As of December 31, 2013, Total Nucléaire, a Group company wholly-owned indirectly by TOTAL, held 2,023,672 TOTAL shares. As of December 31, 2013, Financière Valorgest, Sogapar and Fingestval, indirect subsidiaries of Elf Aquitaine, held 22,203,704, 4,104,000 and 71,999,892 TOTAL shares, respectively, representing a total of 98,307,596 shares. As of December 31, 2013, the Company held 4.22% of the share capital through its indirect subsidiaries.

## Related party transactions

The Group's main transactions with related parties (principally all the investments carried under the equity method) and the balances receivable from and payable to them are shown in Note 24 to the Consolidated Financial Statements.

In the ordinary course of its business, TOTAL enters into transactions with various organizations with which certain of its directors or executive officers may be associated, but no such transactions of a material or unusual nature have been entered into during the period commencing on January 1, 2011, and ending on March 27, 2014.

<sup>(1)</sup> Pursuant to Article 223-11 of the AMF General Regulation, the number of theoretical voting rights is calculated on the basis of all outstanding shares to which voting rights are attached, including treasury shares that are deprived of voting rights.

## **Table of Contents**

### **Item 8 - Financial Information**

## **ITEM 8. FINANCIAL INFORMATION**

### **Consolidated Statements and other supplemental information**

See pages F-1 through F-97 for TOTAL's Consolidated Financial Statements and Notes thereto and pages S-1 through S-18 for other supplemental information.

### **Legal or arbitration proceedings**

There are no governmental, legal or arbitration proceedings, including any proceeding that the Company is aware of, threatened with or even pending (including the main legal proceedings described hereafter) that could have, or could have had during the last twelve months, a material impact on the Group's financial situation or profitability. While it is not feasible to predict the outcome of the pending claims, proceedings, and investigations described below with certainty, management is of the opinion that their ultimate disposition should not have a material adverse effect on the Company's financial position, cash flows, or results of operations.

#### ***Antitrust investigations***

The principal antitrust proceedings in which the Group's companies are involved are described below.

#### ***Refining & Chemicals segment:***

As part of the spin-off of Arkema<sup>(1)</sup> in 2006, TOTAL S.A. and certain other Group companies granted to Arkema for a period of ten years a guarantee for potential monetary consequences related to antitrust proceedings arising from events prior to the spin-off. As of December 31, 2013, all public and civil proceedings covered by the guarantee were definitively resolved in Europe and in the United States. Despite the fact that Arkema has implemented since 2001 compliance procedures that are designed to prevent its employees from violating antitrust provisions, it is not possible to exclude the possibility that the relevant authorities could commence additional proceedings involving Arkema regarding events prior to the spin-off.

#### ***Marketing & Services segment:***

- The administrative procedure opened by the European Commission against TOTAL Nederland N.V and TOTAL S.A., as parent company, in relation to practices regarding a product line of the Marketing & Services segment, resulted in a condemnation in 2006 that became definitive in 2012. The resulting fine (€20.25 million) and interest thereon were paid during the first quarter of 2013.
- Following the appeal lodged by the Group's companies against the European Commission's 2008 decision fining Total Marketing Services an amount of €128.2 million, in relation to practices regarding a product line of the Marketing & Services segment, which the company had already paid, and concerning which TOTAL S.A. was declared jointly liable as the parent company, the relevant European court decided during the third quarter of 2013 to reduce the fine imposed on Total Marketing Services to €125.5 million without modifying the liability of TOTAL S.A. as parent company. Appeals have been lodged against this judgment.
- In the United Kingdom, a settlement took place in the third quarter of 2013 putting an end to the civil proceeding initiated against TOTAL S.A., Total Marketing Services and other companies, by third parties alleging damages in connection with practices already sanctioned by the European Commission. A similar civil proceeding is pending in the Netherlands. At this stage, the plaintiffs have not communicated the amount of their claim.
- Finally, in Italy, in 2013, a civil proceeding was initiated against TOTAL S.A. and its subsidiary Total Aviazione Italia Srl before the competent Italian civil court. The plaintiff claims against TOTAL S.A., its subsidiary and other third parties, damages that it estimates to be nearly €908 million. This

## Edgar Filing: TOTAL S.A. - Form 20-F

procedure follows practices that had been sanctioned by the Italian competition authority in 2006. The existence and the assessment of the alleged damages in this procedure involving multiple defendants are strongly contested.

Whatever the evolution of the proceedings described above, the Group believes that their outcome should not have a material adverse effect on the Group's financial situation or consolidated results.

### **Grande Paroisse**

An explosion occurred at the Grande Paroisse industrial site in the city of Toulouse in France on September 21, 2001. Grande Paroisse, a former subsidiary of Atofina which became a subsidiary of Elf Aquitaine Fertilisants on December 31, 2004, as part of the reorganization of the Chemicals segment, was principally engaged in the production and sale of agricultural fertilizers. The explosion, which involved a stockpile of ammonium nitrate pellets, destroyed a portion of the site and caused the death of thirty-one people, including twenty-one workers at the site, and injured many others. The explosion also caused significant damage to certain property in part of the city of Toulouse.

This plant has been closed and individual assistance packages have been provided for employees. The site has been rehabilitated.

On December 14, 2006, Grande Paroisse signed, under the supervision of the city of Toulouse, a deed whereby it donated the former site of the AZF plant to the greater agglomeration of Toulouse (CAGT) and the Caisse des dépôts et consignations and its subsidiary ICADE. Under this deed, TOTAL S.A. guaranteed the site remediation obligations of Grande Paroisse and granted a €10 million endowment to the InNaBioSanté research foundation as part of the setting up of a cancer research center at the site by the city of Toulouse.

After having articulated several hypotheses, the Court-appointed experts did not maintain in their final report filed on May 11, 2006, that the accident was caused by pouring a large quantity of a chlorine compound over ammonium nitrate. Instead, the experts have retained a scenario where a container of chlorine compound sweepings was poured between a layer of wet ammonium nitrate covering the floor and a quantity of dry agricultural nitrate at a location not far from the principal storage site. This is claimed to have caused an explosion which then spread into the main storage site. Grande Paroisse was investigated based on this new

*(1) Arkema is used in this section to designate those companies of the Arkema group whose ultimate parent company is Arkema S.A. Arkema became an independent company after being spun-off from TOTAL S.A. in May 2006.*

## Table of Contents

### Item 8 - Financial Information

hypothesis in 2006; Grande Paroisse is contesting this explanation, which it believes to be based on elements that are not factually accurate.

On July 9, 2007, the investigating magistrate brought charges against Grande Paroisse and the former Plant Manager before the Toulouse Criminal Court. In late 2008, TOTAL S.A. and Mr. Thierry Desmarest, Chairman and CEO at the time of the event, were summoned to appear in Court pursuant to a request by a victims association.

On November 19, 2009, the Toulouse Criminal Court acquitted both the former Plant Manager, and Grande Paroisse due to the lack of reliable evidence for the explosion. The Court also ruled that the summonses against TOTAL S.A. and Mr. Thierry Desmarest were inadmissible.

Due to the presumption of civil liability that applied to Grande Paroisse, the Court declared Grande Paroisse civilly liable for the damages caused by the explosion to the victims in its capacity as custodian and operator of the plant.

The Prosecutor's office, together with certain third parties, appealed the Toulouse Criminal Court verdict. In order to preserve its rights, Grande Paroisse lodged a cross-appeal with respect to civil charges.

By its decision of September 24, 2012, the Court of Appeal of Toulouse (Cour d'appel de Toulouse) upheld the lower court verdict pursuant to which the summonses against TOTAL S.A. and Mr. Thierry Desmarest were determined to be inadmissible. This element of the decision has been appealed by certain third parties before the French Supreme Court (Cour de cassation).

The Court of Appeal considered, however, that the explosion was the result of the chemical accident described by the court-appointed experts. Accordingly, it convicted the former Plant Manager and Grande Paroisse. This element of the decision has been appealed by the former Plant Manager and Grande Paroisse before the French Supreme Court (Cour de cassation), which has the effect of suspending their criminal sentences.

A compensation mechanism for victims was set up immediately following the explosion. €2.3 billion was paid for the compensation of claims and related expenses amounts. A €12.7 million reserve remains booked in the Group's consolidated financial statements as of December 31, 2013.

#### ***Blue Rapid and the Russian Olympic Committee – Russian regions and Interneft***

Blue Rapid, a Panamanian company, and the Russian Olympic Committee filed a claim for damages with the Paris Commercial Court against Elf Aquitaine, alleging a so-called non-completion by a former subsidiary of Elf Aquitaine of a contract related to an exploration and production project in Russia negotiated in the early 1990s. Elf Aquitaine believed this claim to be unfounded and opposed it. On January 12, 2009, the Commercial Court of Paris rejected Blue Rapid's claim against Elf Aquitaine and found that the Russian Olympic Committee did not have standing in the matter. Blue Rapid and the Russian Olympic Committee appealed this decision. On June 30, 2011, the Court of Appeal of Paris dismissed as inadmissible the claim of Blue Rapid and the Russian Olympic Committee against Elf Aquitaine, notably on the grounds of the contract having lapsed. Blue Rapid and the Russian Olympic Committee appealed this decision to the French Supreme Court.

In connection with the same facts, and fifteen years after the termination of the exploration and production contract, a Russian company, which was held not to be the contracting party to the contract, and two regions of the Russian Federation that were not even parties to the contract, launched an arbitration procedure

against the aforementioned former subsidiary of Elf Aquitaine that was liquidated in 2005, claiming alleged damages of U.S.\$22.4 billion. For the same reasons as those successfully adjudicated by Elf Aquitaine against Blue Rapid and the Russian Olympic Committee, the Group considers this claim to be unfounded as a matter of law and fact. The Group has lodged a criminal complaint to denounce the fraudulent claim of which the Group believes it is a victim, and has taken and reserved its rights to take other actions and measures to defend its interests.

#### ***Iran***

In 2003, the United States Securities and Exchange Commission (SEC) followed by the Department of Justice (DoJ) issued a formal order directing an investigation in connection with the pursuit of business in Iran by certain oil companies including, among others, TOTAL. The inquiry concerned an agreement concluded by the Company with consultants concerning gas fields in Iran and aimed at verifying whether certain payments made under this agreement would have benefited Iranian officials in violation of the Foreign Corrupt Practices Act (FCPA) and the Company's accounting obligations.

In late May 2013, and after several years of discussions, TOTAL reached settlements with the U.S. authorities (a Deferred Prosecution Agreement with the DoJ and a Cease and Desist Order with the SEC). These settlements, which put an end to these investigations, were concluded without admission of guilt and in

## Edgar Filing: TOTAL S.A. - Form 20-F

exchange for TOTAL respecting a number of obligations, including the payment of a fine (\$245.2 million) and civil compensation (\$153 million) that occurred during the second quarter of 2013. The reserve of \$398.2 million that was booked in the financial statements as of June 30, 2012, has been fully released. By virtue of these settlements, TOTAL also accepted to appoint a French independent compliance monitor to review the Group's compliance program and to recommend possible improvements.

With respect to the same facts, TOTAL and its Chairman and Chief Executive Officer, who was President of the Middle East at the time of the facts, were placed under formal investigation in France following a judicial inquiry initiated in 2006. In late May 2013, the Prosecutor's office recommended that the case be sent to trial. The investigating magistrate has not yet issued his decision.

At this point, the Company considers that the resolution of these cases is not expected to have a significant impact on the Group's financial situation or consequences for its future planned operations.

### ***Libya***

In June 2011, the United States Securities and Exchange Commission (SEC) issued to certain oil companies – including, among others, TOTAL – a formal request for information related to their operations in Libya. In April 2013, the SEC notified TOTAL of the closure of the investigation while stating that it does not intend to take further action as far as TOTAL is concerned.

### ***Oil-for-Food Program***

Several countries have launched investigations concerning possible violations related to the United Nations (UN) Oil-for-Food Program in Iraq.

Pursuant to a French criminal investigation, certain current or former Group Employees were placed under formal criminal investigation for possible charges as accessories to the misappropriation of Corporate assets and as accessories to the corruption of foreign public agents. The Chairman and Chief Executive Officer of the Company, formerly President of the Group's Exploration & Production division, was also placed under



## **Table of Contents**

### **Item 8 - Financial Information**

formal investigation in October 2006. In 2007, the criminal investigation was closed and the case was transferred to the Prosecutor's office. In 2009, the Prosecutor's office recommended to the investigating magistrate that the case against the Group's current and former employees and TOTAL's Chairman and Chief Executive Officer not be pursued.

In early 2010, despite the recommendation of the Prosecutor's office, a new investigating magistrate, having taken over the case, decided to indict TOTAL S.A. on bribery charges as well as complicity and influence peddling. The indictment was brought eight years after the beginning of the investigation without any new evidence being introduced.

In October 2010, the Prosecutor's office recommended to the investigating magistrate that the case against TOTAL S.A., the Group's former employees and TOTAL's Chairman and Chief Executive Officer not be pursued. However, by ordinance notified in early August 2011, the investigating magistrate on the matter decided to send the case to trial. On July 8, 2013, TOTAL S.A., the Group's former employees and TOTAL's Chairman and Chief Executive Officer were cleared of all charges by the Criminal Court, which found that none of the offenses for which they had been prosecuted were established. On July 18, 2013, the Prosecutor's office appealed the parts of the Criminal Court's decision acquitting TOTAL S.A. and certain of the Group's former employees. TOTAL's Chairman and Chief Executive Officer's acquittal issued on July 8, 2013 is irrevocable since the Prosecutor's office did not appeal this part of the Criminal Court's decision.

#### ***Italy***

As part of an investigation led by the Prosecutor of the Republic of the Potenza Court, Total Italia and certain Group employees were the subject of an investigation related to certain calls for tenders that Total Italia made for the preparation and development of an oil field. On February 16, 2009, as a preliminary measure before the proceedings went before the Court, the preliminary investigation judge of Potenza served notice to Total Italia of a decision that would have suspended the concession for this field for one year. Total Italia appealed the decision by the preliminary investigation judge before the Court of Appeal of Potenza. In a decision dated April 8, 2009, the Court reversed the suspension of the concession and appointed for one year, *i.e.*, until February 16, 2010, a judicial administrator to supervise the operations related to the development of the concession, allowing the Tempa Rossa project to continue.

The criminal investigation was closed in the first half of 2010.

In May 2012, the Judge of the preliminary hearing decided to dismiss the charges against some of the Group's employees and to refer the case for trial on a reduced number of charges. The trial started on September 26, 2012.

#### ***Rivunion***

On July 9, 2012, the Swiss Tribunal Fédéral (Switzerland's Supreme Court) rendered a decision against Rivunion, a wholly-owned subsidiary of Elf Aquitaine, confirming a tax reassessment in the amount of CHF 171 million (excluding interest for late payment). According to the Tribunal, Rivunion was held liable as tax collector of withholding taxes owed by the beneficiaries of taxable services. Rivunion, in liquidation since March 13, 2002 and unable to recover the amounts corresponding to the withholding taxes in order to meet its fiscal obligations, has been subject to insolvency proceedings since November 1, 2012. On August 29, 2013, the Swiss federal tax administration lodged a claim as part

of the insolvency proceedings of Rivunion, for an amount of CHF 284 million, including CHF 171 million of principal as well as interest for late payment.

#### ***Total Gabon***

On February 14, 2014, Total Gabon received a tax re-assessment notice from the *Ministère de l'Économie et de la Prospective* of the Gabonese Republic accompanied by a partial tax collection notice, following the tax audit of Total Gabon in relation to the years 2008 to 2010. The amount referred to in the above tax re-assessment notice is \$805 million.

The partial tax collection procedure was suspended on March 5, 2014.

Total Gabon disputes the grounds for the re-assessment and the associated amounts. Total Gabon intends to take all actions necessary to assert its rights and protect its interests.

### ***Kashagan***

In Kazakhstan, the Atyrau Region Environmental Department (ARED) launched against the consortium developing the Kashagan field, in which TOTAL holds an interest of 16.81%, a procedure alleging non-compliance with environmental legislation related to gas emissions (flaring). ARED issued a claim on March 7, 2014, for an amount of approximately \$737 million (KZT 134 billion), of which TOTAL's share would be approximately \$124 million (KZT 22.5 billion). The Kashagan project's consortium disputes these allegations.

### **Dividend policy**

The Company has paid dividends on its share capital in each year since 1946. Future dividends will depend on the Company's earnings, financial condition and other factors. The payment and amount of dividends are subject to the recommendation of the Board of Directors and resolution by the Company's shareholders at the annual Shareholders' Meeting.

On October 28, 2010, the Board of Directors decided to change its interim dividend policy and to adopt a new policy based on quarterly dividend payments starting in 2011.

TOTAL paid three quarterly interim dividends for fiscal year 2013:

the first quarterly interim dividend of €0.59 per share for fiscal year 2013, approved by the Board of Directors on April 25, 2013, was paid in cash on September 27, 2013 (the ex-dividend date was September 24, 2013);

the second quarterly interim dividend of €0.59 per share for fiscal year 2013, approved by the Board of Directors on July 25, 2013, was paid in cash on December 19, 2013 (the ex-dividend date was December 16, 2013); and

the third quarterly interim dividend of €0.59 per share for fiscal year 2013, approved by the Board of Directors on October 30, 2013, was paid in cash on March 27, 2014 (the ex-dividend date was March 24, 2014).

For fiscal year 2013, TOTAL intends to continue its dividend policy. As a result, the Board of Directors proposes a dividend of €2.38 per share (+1.7% compared to 2012) at the Shareholders' Meeting on May 16, 2014, including a remainder of €0.61 per share (+3.4% compared to the previous quarter), with an ex-dividend date on June 2, 2014 and a payment on June 5, 2014.

Subject to the applicable legislative and regulatory provisions, and pending the approval by the Board of Directors for the interim dividends and by the shareholders at the Shareholders' Meeting for the accounts and the final dividend, the ex-date calendar for the interim quarterly dividends and the final dividend for fiscal year 2014 is expected to be as follows:

1<sup>st</sup> interim dividend: September 23, 2014;

## Table of Contents

Items 8 - 9

2<sup>nd</sup> interim dividend: December 15, 2014;  
3<sup>rd</sup> interim dividend: March 23, 2015; and  
Remainder: June 8, 2015.

The provisional ex-dividend dates above relate to the TOTAL shares traded on the NYSE Euronext Paris.

Dividends paid to holders of ADRs will be subject to a charge by the Depositary for any expenses incurred by the Depositary in the conversion of euros to dollars. See Item 10. Additional Information – Taxation, for a summary of certain U.S. federal and French tax consequences to holders of shares and ADRs.

### Significant changes

On February 4, 2014, TOTAL signed an agreement to sell its 15% interest in the offshore Block 15/06 in Angola to Sonangol E&P. The amount of the transaction was \$750 million and is subject to approval by the authorities.

The accounting effects of this sale, which occurred after the close of the consolidated financial statements for the year ended December 31, 2013 by TOTAL's Board of Directors, will be reflected in TOTAL S.A.'s intermediate consolidated financial statements for the first quarter of 2014.

This information supplements the information provided in Item 4. Business Overview concerning the Group's activities in Angola and in paragraph E) of Note 4 to the Consolidated Financial Statements.

For a description of other significant changes that have occurred since the date of the Company's Consolidated Financial Statements, see Item 4. Business Overview and Item 5. Operating and Financial Review and Prospects, which include descriptions of certain recent 2014 activities.

## ITEM 9. THE OFFER AND LISTING

### Markets

The principal trading market for the shares is the Euronext Paris exchange in France. The shares are also listed on Euronext Brussels and the London Stock Exchange.

### Offer and listing details

#### Trading on Euronext Paris

Official trading of listed securities on Euronext Paris, including the shares, is transacted through French investment service providers that are members of Euronext Paris and takes place continuously on each business day in Paris from 9:00 a.m. to 5:30 p.m. (Paris time), with a fixing of the closing price at 5:35 p.m. Euronext Paris may suspend or resume trading in a security listed on Euronext Paris if the quoted price of the security exceeds certain price limits defined by the regulations of Euronext Paris.

The markets of Euronext Paris currently settle and transfer ownership three trading days after a transaction (T+3). On January 14, 2014, Euronext announced its decision to shorten the standard settlement cycle from T+3 to T+2 for all securities. This migration is expected to take place on October 6, 2014. Highly liquid shares, including those of the Company, are eligible for deferred settlement (*Service de Règlement Différé* – SRD).

Payment and delivery for shares under the SRD occurs on the last trading day of each month. Use of the SRD service requires payment of a commission.

In France, the shares are included in the principal index published by Euronext Paris (the CAC 40 Index). The CAC 40 Index is derived daily by comparing the total market capitalization of forty stocks traded on Euronext Paris to the total market capitalization of the stocks that made up the CAC 40 Index on December 31,

## Edgar Filing: TOTAL S.A. - Form 20-F

1987. Adjustments are made to allow for expansion of the sample due to new issues. The CAC 40 index indicates trends in the French stock market as a whole and is one of the most widely followed stock price indices in France. In the UK, the shares are listed in both the FTSE Eurotop 100 and FTSEurofirst 300 index. As a result of the creation of Euronext, the shares are included in Euronext 100, the index representing Euronext's blue chip companies based on market capitalization. The shares are also included in the Dow Jones Stoxx Europe 50 and Dow Jones Euro Stoxx 50, blue chip indices comprised of the fifty most highly capitalized and most actively traded equities throughout Europe and within the European Monetary Union, respectively. Since June 2000, the shares have been included in the Dow Jones Global Titans 50 Index which consists of fifty global companies selected based on market capitalization, book value, assets, revenue and earnings.

The table below sets forth, for the periods indicated, the reported high and low quoted prices in euros for the currently outstanding shares on Euronext Paris.

Price per share (€)	High	Low
2009	45.785	34.250
2010	46.735	35.655
2011	44.550	29.400
2012	42.970	33.420
First Quarter	42.970	37.020
Second Quarter	39.400	33.420
Third Quarter	41.995	34.505
Fourth Quarter	40.110	36.925
<b>2013</b>	<b>45.670</b>	<b>35.175</b>
First Quarter	40.820	37.040
Second Quarter	40.400	35.175
Third Quarter	43.785	36.615
September	43.785	41.435
Fourth Quarter	45.670	41.050
October	45.670	42.050
November	45.140	43.440
December	44.700	41.050
<b>2014 (through February 28)</b>	<b>47.030</b>	<b>41.310</b>
January	44.745	41.650
February	47.030	41.310

**Table of Contents****Items 9 - 10*****Trading on the New York Stock Exchange***

ADSS evidenced by ADRs have been listed on the New York Stock Exchange since October 25, 1991. The Bank of New York Mellon serves as depositary with respect to the ADSS evidenced by ADRs

traded on the New York Stock Exchange. One ADS corresponds to one TOTAL share. The table below sets forth, for the periods indicated, the reported high and low prices quoted in dollars for the currently outstanding ADSS evidenced by ADRs on the New York Stock Exchange.

Price per ADR (\$)	High	Low
2009	65.98	42.88
2010	67.52	43.07
2011	64.44	40.00
2012	57.06	41.75
First Quarter	57.06	48.82
Second Quarter	52.50	41.75
Third Quarter	55.07	41.85
Fourth Quarter	52.77	46.99
<b>2013</b>	<b>62.45</b>	<b>45.93</b>
First Quarter	55.35	47.50
Second Quarter	52.05	45.93
Third Quarter	59.25	47.69
September	59.25	54.54
Fourth Quarter	62.45	56.17
October	62.45	57.61
November	61.01	58.15
December	61.50	56.17
<b>2014 (through February 28)</b>	<b>64.97</b>	<b>56.03</b>
January	60.49	56.50
February	64.97	56.03

**ITEM 10. ADDITIONAL INFORMATION****Memorandum and Articles of Association*****Register information***

TOTAL S.A. is registered with the Nanterre Trade and Companies Register under the number 542 051 180.

***Objects and purposes***

The Company's purpose can be found in Article 3 of its bylaws (*statuts*). Generally, the Company may engage in all activities relating, directly or indirectly to: (i) the exploration and extraction of mining deposits, and in particular hydrocarbons, and the performance of industrial refining, processing, and trading of these materials, as well as their derivatives and by-products; (ii) the production and distribution of all forms of energy; (iii) the chemicals, rubber and health industries; (iv) the transportation and shipping of hydrocarbons and other products or materials relating to the Company's business purpose; and (v) all financial, commercial, and industrial operations and operations relating to any fixed or unfixed assets and real estate, acquisitions of interests or holdings in any business or company that may relate to any of the above-mentioned purposes or to any similar or related purposes, of such nature as to promote the Company's extension or its development.

***Director issues***

***Compensation***

Directors receive attendance fees, the maximum aggregate amount of which, determined by the shareholders acting at a shareholders' meeting, remains in effect until a new decision is made. The Board apportions attendance fees among its members in whatever way it considers appropriate. In particular, it may apportion to Directors who are members of the committees of the Board a larger share than the amount apportioned to other Directors.

***Retirement***

The number of Directors of TOTAL who are acting in their own capacity or as permanent representatives of a legal entity and are over seventy years old may not exceed one-third of the number of Directors in office at the end of the fiscal year. If such proportion is exceeded, the oldest Board member is automatically deemed to have resigned. Directors who are the permanent representative of a legal person may not continue in office beyond their seventieth birthday.

The Company's bylaws, as updated on December 31, 2013, provide that the duties of the Chairman of the Board automatically cease on his sixty-fifth birthday at the latest. However, the Board may appoint, for a term of office not to exceed two years, an individual from among its members who is older than sixty-five years of age and younger than seventy years of age as Chairman of the Board of Directors.

***Shareholdings***

Each Director must own at least 1,000 shares of TOTAL during his or her term of office, except the Director representing the employee shareholders who must hold, either individually or through an investment fund governed by Article L. 214-40 of the Monetary and Financial Code (French Fonds Commun de Placement d'Entreprise, or FCPE), at least one share or a number of stocks in such investment fund amounting to at least one share.

***Election***

The term of office for Directors is set by the shareholders acting in an ordinary shareholders' meeting and may not exceed three years, subject to applicable law that may allow extension of the duration of a given term until the next ordinary shareholders' meeting held to approve the financial statements.

## Table of Contents

### Item 10 - Additional Information

In 2003, TOTAL amended its bylaws to provide for the election of one Director to represent employee shareholders. This Director was appointed for the first time at the shareholders' meeting held on May 14, 2004.

#### *Description of shares*

The following is a summary of the material rights of holders of fully paid-up shares and is based on the bylaws of the Company and French Company Law as codified in Volume II (*Livre II*) of the French Commercial Code (referred to herein as the "French Company Law"). For more complete information, please read the bylaws of TOTAL S.A., a copy of which has been filed as an exhibit to this Annual Report.

#### *Dividend rights*

The Company may make dividend distributions to its shareholders from net income in each fiscal year, after deduction of the overhead and other social charges, as well as of any amortization of the business assets and of any provisions for commercial and industrial contingencies, as reduced by any loss carried forward from prior years, and less any contributions to reserves or amounts that the shareholders decide to carry forward. These distributions are also subject to the requirements of French Company Law and the Company's bylaws.

Under French Company Law, the Company must allocate 5% of its net profit in each fiscal year to a legal reserve fund until the amount in that fund is equal to 10% of the nominal amount of its share capital.

The Company's bylaws provide that its shareholders may decide to either allocate all or a part of any distributable profits among special or general reserves, carry them forward to the next fiscal year as retained earnings, or allocate them to the shareholders as dividends. The bylaws provide that the shareholders' meeting held to approve the financial statements for the financial year may decide to grant an option to each shareholder between payment of the dividend in cash and payment in shares with respect to all or part of the dividend or interim dividends.

Under French Company Law, and except as otherwise provided by a provision of the bylaws, the Company must distribute dividends to its shareholders *pro rata* according to their shareholdings. Dividends are payable to holders of outstanding shares on the date fixed at the shareholders' meeting approving the distribution of dividends or, in the case of interim dividends, on the date fixed by the Company's Board of Directors at the meeting that approves the distribution of interim dividends. Under French law, dividends not claimed within five years of the date of payment revert to the French State.

#### *Voting rights*

Each shareholder of the Company is entitled to the number of votes corresponding to the number of shares he or she possesses, or for which he or she holds proxies. According to French Company Law, voting rights may not be exercised in respect of fractional shares.

According to the Company's bylaws, each registered share that is fully paid-up and registered in the name of the same shareholder for a continuous period of at least two years is granted a double voting right after such 2-year period. In the event of a capital increase by capitalization of reserves, profits or premiums on shares, a double voting right is granted to each registered share allocated for free to a shareholder in connection with previously existing shares that already carry double voting rights. Any merger of the Company would have no effect on the double voting right,

which may be exercised within the absorbing company, if the latter's articles of association have created a similar right. The double voting right is automatically canceled when the share is converted into a bearer share or when the share is transferred, unless such transfer from registered share to registered share is due to inheritance *ab intestat* or testamentary inheritance, division of community property between spouses, or a donation *inter vivos* during the lifetime of the shareholder to the benefit of a spouse or relatives eligible to inherit.

French Company Law limits a shareholder's right to vote notably in the following circumstances:

## Edgar Filing: TOTAL S.A. - Form 20-F

- shares held by the Company or by entities controlled by the Company under certain conditions, which cannot be voted;
- shares held by shareholders making a contribution in-kind to the Company, which cannot be voted with respect to resolutions relating to such in-kind contributions; and
- shares held by interested parties, which cannot be voted with respect to resolutions relating to such shareholders.

Under the Company's bylaws, the voting rights exercisable by a shareholder, directly, indirectly or by proxy, at any shareholders' meeting are limited to 10% of the total number of voting rights attached to the shares on the date of such shareholders' meeting. This 10% limitation may be increased by taking into account double voting rights held directly or indirectly by the shareholder or by proxy, provided that the voting rights exercisable by a shareholder at any shareholders' meeting may never exceed 20% of the total number of voting rights attached to the shares.

According to the Company's bylaws, the above limitations on voting lapse automatically if any individual or entity acting alone or in concert with an individual or entity, comes to hold at least two-thirds of the total number of Company shares as a result of a public offer for all of the Company shares.

### *Liquidation rights*

In the event the Company is liquidated, any assets remaining after payment of its debts, liquidation expenses and all of its other remaining obligations will first be distributed to repay the nominal value of the shares. After these payments have been made, any surplus will be distributed *pro rata* among the holders of shares based on the nominal value of their shareholdings.

### *Redemption provisions*

The Company's shares are not subject to any redemption provisions.

### *Sinking fund provisions*

The Company's shares are not subject to any sinking fund provisions.

### *Future capital calls*

Shareholders are not liable to the Company for future capital calls on their shares.

### *Preferential subscription rights*

As provided by French Company Law, if the Company issues additional shares, or any equity securities or other specific kinds of additional securities carrying a right, directly or indirectly, to purchase equity securities issued by the Company for cash or cash equivalents, current shareholders will have preferential subscription rights to these securities on a *pro rata* basis. A two-thirds majority of the present and represented shares at an



## **Table of Contents**

### **Item 10 - Additional Information**

extraordinary shareholders' meeting may vote to waive the shareholders' preferential subscription rights with respect to any particular offering. French law requires a company's board of directors and independent auditors to present reports that specifically address any proposal to waive preferential subscription rights. The shareholders may also authorize at an extraordinary shareholders' meeting the allocation to the existing shareholders of a nontransferable priority right to subscribe for the new securities during a limited period of time. Shareholders may also waive their own preferential subscription rights with respect to any particular offering.

During the subscription period relating to a particular offering of shares, shareholders may transfer their preferential subscription rights that they have not previously waived.

#### *Changes in share capital*

Under French Company Law, the Company may increase its share capital only with the approval of its shareholders at an extraordinary shareholders' meeting (or with a delegation of authority from its shareholders). There are two methods to increase share capital: (i) by issuing additional shares, including the creation of a new class of securities and (ii) by increasing the nominal value of existing shares. The Company may issue additional shares for cash or for assets contributed in kind, upon the conversion of debt securities, or other securities giving access to its share capital, that it may have issued, by capitalization of its reserves, profits or issuance premiums.

Under French Company Law, the Company may decrease its share capital only with the approval of its shareholders at an extraordinary shareholders' meeting (or with a delegation of authority from its shareholders). There are two methods to reduce share capital: (i) by reducing the number of shares outstanding, and (ii) by decreasing the nominal value of existing shares. The conditions under which the share capital may be reduced will vary depending upon whether the reduction is attributable to losses. The Company may reduce the number of outstanding shares either by an exchange of shares or by the repurchase and cancellation of its shares. If the reduction is attributable to losses, shares are canceled through offsetting the Company's losses. Any decrease must meet the requirements of French Company Law, which states, among other things, that all the holders of shares in each class of shares must be treated equally, unless the affected shareholders otherwise agree.

#### *Form of shares*

The Company has only one class of shares, with a par value of €2.50 per share. Shares may be held in either bearer or registered form. Shares traded on NYSE Euronext Paris are cleared and settled through Euroclear France. The Company may use any lawful means to identify holders of securities that grant immediate or future voting rights, including a procedure known as *titres au porteur identifiable* according to which Euroclear France will, upon the Company's request, disclose to the Company the name, nationality, address and number of shares held by each shareholder in bearer form. The information may only be requested by the Company and may not be communicated to third parties.

#### *Holding of shares*

Under French Company Law and since the dematerialization of securities, the ownership rights of shareholders are represented by book entries instead of share certificates (other than certificates

representing French securities, which are outstanding exclusively outside the territory of France and are not held by French residents). Registered shares are entered into an account maintained by the Company or by a representative nominated by the Company, while shares in bearer form must be held in an account maintained by an accredited financial intermediary on the shareholder's behalf.

For all shares in registered form, the Company maintains a share account with Euroclear France which is administered by BNP Paribas Securities Services. In addition, the Company maintains accounts in the name of each registered shareholder either directly or, at a shareholder's request, through a shareholder's accredited intermediary, in separate accounts maintained by BNP Paribas Securities Services on behalf of the Company. Each shareholder's account shows the name and number of shares held and, in the case of shares registered through an accredited financial intermediary, the fact that they are so held. BNP Paribas Securities Services, as a matter of course, issues confirmations to each registered shareholder as to shares registered in a shareholder's account, but these confirmations do not constitute documents of title.

Shares held in bearer form are held and registered on the shareholder's behalf in an account maintained by an accredited financial intermediary and are credited to an account at Euroclear France maintained by the intermediary. Each accredited financial intermediary maintains a record of shares held through it and will issue certificates of inscription for the shares that it holds. Transfers of shares held in bearer form only may be made through accredited financial intermediaries and Euroclear France.

*Cancellation of treasury shares*

After receiving shareholders' authorization convened at an extraordinary shareholders' meeting, the Board of Directors of the Company may cancel treasury shares owned by the Company in accordance with French Company Law up to a maximum of 10% of the share capital within any period of twenty-four months.

*Description of TOTAL share certificates*

TOTAL issued stock certificates (*certificats représentatifs d'actions*, CRs) as part of the public exchange offer in 1999 for PetroFina shares. The CR is a stock certificate provided for by French rules that is issued by Euroclear France and intended to circulate exclusively outside of France, and that may not be held by French residents. The CR is issued as a physical certificate or registered in a custody account, and it has the characteristics of a bearer security. The CR is freely convertible from a physical certificate into a security registered on a custody account and conversely. However, in compliance with the Belgian law of December 14, 2005 on the dematerialization of securities in Belgium, CRs may only be delivered in the form of a dematerialized certificate as from January 1, 2008, the effective date of the law. ING Belgique is the bank handling the payment of all coupons detached from outstanding CRs.

No fees are applicable to the payment of coupons detached from CRs, except for any income or withholding taxes. The payment may be received at the teller windows of the following institutions:

ING Belgique, Avenue Marnix 24, 1000 Brussels, Belgium;  
BNP Paribas Fortis, Montagne du Parc 3, 1000 Brussels, Belgium; and  
KBC BANK N.V., Avenue du Port 2, 1080 Brussels, Belgium.

**Table of Contents**

Item 10 - Additional Information

*Share capital**Share capital history since January 1, 2011**For fiscal year 2011*

April 28, 2011	Acknowledgement of the subscription to 8,902,717 new shares, par value €2.50 per share, as part of the capital increase reserved for Group employees approved by the Board of Directors on October 28, 2010, raising the share capital by €22,256,792.50 from €5,874,102,327.50 to €5,896,359,120.
January 12, 2012	Acknowledgement of the issuance of 5,223,665 new shares, par value €2.50 per share, through the exercise of stock options between January 1 and December 31, 2011, raising the share capital by €13,059,162.50 from €5,896,359,120 to €5,909,418,282.50.

*For fiscal year 2012*

July 2, 2012	Acknowledgement of the issuance of 1,366,950 new shares, par value €2.50 per share, as part of the global free TOTAL share plan to Group employees decided by the Board of Directors on May 21, 2010, raising the share capital by €3,417,375 from €5,909,418,282.50 to €5,912,835,657.50.
January 8, 2013	Acknowledgement of the issuance of 798,883 new shares, par value €2.50 per share, through the exercise of stock options between January 1 and December 31, 2012, raising the share capital by €1,997,207.50 from €5,912,835,657.50 to €5,914,832,865.

*For fiscal year 2013*

April 25, 2013	Acknowledgement of the issuance of 10,802,215 new shares, par value €2.50 per share, as part of the capital increase reserved for Group employees approved by the Board of Directors on September 18, 2012, raising the share capital by €27,005,537.50 from €5,914,832,865 to €5,941,838,402.50.
January 8, 2014	Acknowledgement of the issuance of 942,799 new shares, par value €2.50 per share, through the exercise of stock options between January 1 and December 31, 2013, raising the share capital by €2,356,997.50 from €5,941,838,402.50 to €5,944,195,400.

*Authorized share capital not issued as of December 31, 2013*

The following is a summary of the currently valid delegations and authorizations to increase share capital that have been granted by the Shareholders Meeting to the Board of Directors.

° Thirteenth resolution of the Shareholders Meeting held on May 11, 2012:

Delegation of authority granted by the Shareholders Meeting to the Board of Directors to increase the share capital by issuing common shares or other securities granting immediate or future rights to the Company's share capital, maintaining shareholders' pre-emptive subscription rights up to a maximum nominal amount of €2.5 billion, *i.e.*, 1 billion shares (delegation of authority valid for twenty-six months).

Furthermore, the maximum nominal amount of the debt securities granting rights to the Company's share capital that may be issued pursuant to the thirteenth resolution and the fourteenth and sixteenth resolutions (mentioned below) may not exceed €10 billion, or their exchange value, on the date of issuance.

° Fourteenth resolution of the Shareholders Meeting held on May 11, 2012:

Delegation of authority granted by the Shareholders Meeting to the Board of Directors to increase the share capital by issuing common shares or other securities granting immediate or future rights to the Company's share capital, canceling shareholders' pre-emptive subscription rights, including the compensation comprised of securities as part of a public exchange offer, provided that they meet the requirements of Article L. 225-148 of the French Commercial Code. This resolution grants the Board of Directors the authority to grant a priority period for shareholders to subscribe to these securities pursuant to the provisions of Article L. 225-135 of the French Commercial Code. The total amount of the capital increases without pre-emptive subscription rights that may occur immediately or in the future cannot exceed the nominal

## Edgar Filing: TOTAL S.A. - Form 20-F

amount of €850 million, *i.e.*, 340 million shares, par value €2.50 (delegation of authority valid for twenty-six months). Furthermore, under the fifteenth resolution of the Shareholders Meeting held on May 11, 2012, the Board is authorized, for each of the issuances made in connection with the fourteenth resolution, to increase the number of securities to be issued within the limit of the ceiling of 15% of the initial issuance (at the same price as the price fixed for the initial issuance) within the limit of the ceiling fixed under the fourteenth resolution. The nominal amount of the capital increases is counted against the maximum aggregate nominal amount of €2.5 billion authorized by the thirteenth resolution of the Shareholders Meeting held on May 11, 2012.

Furthermore, the maximum nominal amount of the debt securities granting rights to the Company's share capital that may be issued pursuant to the above mentioned thirteenth and fourteenth resolutions and the sixteenth resolution (mentioned below) may not exceed €10 billion, or their exchange value, on the date of issuance.

° Sixteenth resolution of the Shareholders Meeting held on May 11, 2012:

Delegation of power granted by the Shareholders Meeting to the Board of Directors to increase the share capital by issuing new ordinary shares or other securities granting immediate or future rights to the Company's share capital as compensation of in-kind contribution granted to the Company, by an amount not exceeding 10% of the share capital outstanding at the date of the Shareholders Meeting on May 11, 2012 (delegation of authority valid for twenty-six months). The nominal amount of the capital increases is counted against the maximum aggregate nominal amount of €850 million authorized by the fourteenth resolution of the Shareholders Meeting held on May 11, 2012.

Furthermore, the maximum nominal amount of the debt securities granting rights to the Company's share capital that may be issued pursuant to the above mentioned thirteenth, fourteenth and sixteenth resolutions may not exceed €10 billion, or their exchange value, on the date of issuance.

2013 Form 20-F TOTAL S.A. 141

## **Table of Contents**

### **Item 10 - Additional Information**

- Twelfth resolution of the Shareholders Meeting held on May 17, 2013:

Delegation of authority to the Board of Directors to complete capital increases reserved for employees participating in a company savings plan (Plan d'épargne d'entreprise), up to a maximum of 1.5% of the outstanding share capital on the date of the decision of the Board of Directors to proceed with the issue (delegation of authority valid for twenty-six months), it being specified that the amount of the capital increase is counted against the maximum aggregate nominal amount of €2.5 billion authorized by the thirteenth resolution of the Shareholders Meeting on May 11, 2012. This delegation renders ineffective, up to the unused portion, the seventeenth resolution of the Shareholders Meeting held on May 11, 2012.

Given the use of the delegations stipulated in the seventeenth and eighteenth resolutions of the Shareholders Meeting held on May 11, 2012, which resulted in the issuance in 2013 of 10,802,215 shares, and given that the Board of Directors did not make use of the delegations of authority granted by the thirteenth, fourteenth and sixteenth resolutions of the Shareholders Meeting held on May 11, 2012, the authorized capital not issued was €2.47 billion as of December 31, 2013, representing 989 million shares.

- Eleventh resolution of the Shareholders Meeting held on May 13, 2011:

Authority to grant restricted outstanding or new TOTAL shares to employees of the Group and to executive directors up to a maximum of 0.8% of the share capital outstanding on the date of the meeting of the Board of Directors that approves the restricted share grants. In addition, the shares granted to the Company's executive directors cannot exceed 0.01% of the outstanding share capital on the date of the meeting of the Board of Directors that approves the grants (authorization valid for thirty-eight months).

Pursuant to this authorization:

3,700,000 outstanding shares were awarded by the Board of Directors at its meeting on September 14, 2011, including 16,000 outstanding shares awarded to the Chairman and Chief Executive Officer;

4,300,000 outstanding shares were awarded by the Board of Directors on July 26, 2012, including 53,000 outstanding shares awarded to the Chairman and Chief Executive Officer.

4,464,200 outstanding shares were awarded by the Board of Directors on July 25, 2013, including 53,000 outstanding shares awarded to the Chairman and Chief Executive Officer.

As of December 31, 2013, 6,557,225 shares, including 115,767 to the Company's executive directors could therefore still be awarded pursuant to this authorization.

- Eleventh resolution of the Shareholders Meeting held on May 17, 2013:

Authority to grant Company stock options to TOTAL employees and to executive directors up to a maximum of 0.75% of the share capital outstanding on the date of the meeting of the Board of Directors that approves the stock option grant. In addition, the

options granted to the Company's executive directors cannot exceed 0.05% of the outstanding share capital on the date of the meeting of the Board of Directors that approves the grants (authorization valid for thirty-eight months).

Pursuant to this authorization, as of December 31, 2013, 17,832,586 stock options, including 1,188,839 to the Company's executive directors, could still be awarded.

- Nineteenth resolution of the Shareholders Meeting held on May 11, 2012:

Authority to cancel shares up to a maximum of 10% of the share capital of the Company existing as of the date of the operation within a twenty-four-month period. This authorization is effective until the Shareholders Meeting held to approve the financial statements for the year ending December 31, 2016. The Board did not make use of this delegation of authority during fiscal year 2012.

## Edgar Filing: TOTAL S.A. - Form 20-F

Based on 2,377,678,160 shares outstanding on December 31, 2013, the Company may, up until the conclusion of the Shareholders Meeting called to approve the financial statements for the fiscal year ending on December 31, 2016, cancel a maximum of 237,767,816 shares before reaching the cancellation threshold of 10% of share capital canceled during a twenty-four-month period.

### *Potential share capital as of December 31, 2013*

Securities granting rights to TOTAL shares, through exercise or redemption, are TOTAL share subscription options amounting to 25,356,113 share subscription options as of December 31, 2013, divided into:

- 5,620,626 options for the plan awarded by the Board of Directors on July 18, 2006;
- 5,847,965 options for the plan awarded by the Board of Directors on July 17, 2007;
- 4,219,198 options for the plan awarded on October 9, 2008 by decision of the Board of Directors on September 9, 2008;
- 3,989,378 options for the plan awarded by the Board of Directors on September 15, 2009;
- 4,537,852 options for the plan awarded by the Board of Directors on September 14, 2010; and
- 1,141,094 options for the plan awarded by the Board of Directors on September 14, 2011.

In addition, the global free TOTAL share plan intended for all Group employees awarded by the Board of Directors at its meeting on May 21, 2010 is likely to result in the issuance of a maximum of 873,475 shares as of December 31, 2013.

The potential share capital (existing share capital plus rights and securities that could result in the issuance of new TOTAL shares, through exercise or redemption), *i.e.*, 2,403,907,748 shares, represents 101.10% of the share capital as of December 31, 2013, on the basis of 2,377,678,160 TOTAL shares constituting the share capital as of December 31, 2013, 25,356,113 TOTAL shares that could be issued upon the exercise of TOTAL options, and 873,475 TOTAL shares that could be issued under a global free share plan.

**Table of Contents**

Item 10 - Additional Information

*TOTAL shares held by the Company or its subsidiaries***As of December 31, 2013**

<b>Percentage of share capital held by TOTAL S.A.</b>	<b>0.37%</b>
Number of shares held in portfolio	8,883,180
Book value of portfolio (at purchase price) (M€)	353
Market value of portfolio (M€) <sup>(a)</sup>	396
<b>Percentage of capital held by companies<sup>(b)</sup> of the Group</b>	<b>4.59%</b>
Number of shares held in portfolio	109,214,448
Book value of portfolio (at purchase price) (M€)	3,379
Market value of portfolio (M€) <sup>(a)</sup>	4,863

<sup>(a)</sup> Based on a market price of €44.53 per share as of December 31, 2013.<sup>(b)</sup> TOTAL S.A., Total Nucléaire, Financière Valorgest, Sogapar and Fingestval.**Share buybacks**

The Shareholders' Meeting of May 17, 2013, after acknowledging the report of the Board of Directors, authorized the Board of Directors, in accordance with the provisions of Article L. 225-209 of the French Commercial Code and of European Regulation 2273 / 2003 of December 22, 2003, to buy and sell the Company's shares as part of a share buyback program. The maximum purchase price was set at €70 per share. The number of shares acquired may not exceed 10% of the share capital. This authorization was granted for a period of eighteen months and replaced the previous authorization granted by the Shareholders' Meeting of May 11, 2012.

A resolution will be submitted to the Shareholders' Meeting on May 16, 2014 to authorize trading in TOTAL shares through a share buyback program carried out in accordance with Article L. 225-209 of the French Commercial Code and European Regulation 2273 / 2003 of December 22, 2003.

**Share buybacks and cancellations in 2013**

Under the authorization granted by the Shareholders' Meeting of May 17, 2013, 4,414,200 TOTAL shares, each with a par value of €2.50, were bought back by TOTAL S.A. in 2013, i.e., 0.19% of the share capital as of December 31, 2013<sup>(1)</sup>. This buyback was completed at an average price of €40.57 per share, for a total cost of approximately €179.09 million, excluding transaction fees. This buyback is intended to cover the performance share grant plan approved by the Board of Directors on July 25, 2013.

In addition, TOTAL S.A. did not cancel any shares in 2013.

**Shares held in the name of the Company and its subsidiaries as of December 31, 2013**

As of December 31, 2013, the Company held 8,883,180 treasury shares, representing 0.37% of TOTAL's share capital. By law, the voting rights and dividend rights of these shares are suspended.

After taking into account the shares held by Group subsidiaries, which are entitled to a dividend but deprived of voting rights, the total number of TOTAL shares held by the Group as of December 31, 2013 was 109,214,448, representing 4.59% of TOTAL's share capital, comprised of, on the one hand, 8,883,180

treasury shares, including 8,764,020 shares held to cover the performance share grant plans and 119,160 shares to be awarded under new share purchase option plans or new restricted share grant plans and, on the other hand, 100,331,268 shares held by subsidiaries.

## Edgar Filing: TOTAL S.A. - Form 20-F

For shares bought back to be allocated to Company or Group Employees pursuant to the objectives referred to in Article 3 of EC Regulation 2273 / 2003 of December 22, 2003, note that, when such shares are held to cover share purchase option plans that have expired or performance share grants that have not been awarded at the end of the vesting period, they will be allocated to new TOTAL share purchase option plans or restricted share grant plans that may be approved by the Board of Directors.

### *Transfer of shares during fiscal year 2013*

3,591,391 TOTAL shares were transferred in 2013 following the final award of TOTAL shares under the restricted share grant plans.

### *Cancellation of Company shares during fiscal year 2011, 2012 and 2013*

TOTAL S.A. did not cancel any shares in 2011, 2012 and 2013.

The Shareholders Meeting of May 11, 2012 authorized the Board of Directors to reduce the share capital on one or more occasions by canceling shares held by the Company up to a maximum of 10% of the share capital over a 24-month period. As a result, based on 2,377,678,160 shares outstanding on December 31, 2013, the Company may cancel a maximum of 237,767,816 shares before reaching the cancellation threshold of 10% of share capital canceled over a 24-month period.

### *Reallocation for other approved purposes during fiscal year 2013*

Shares purchased by the Company under the authorization granted by the Shareholders Meeting of May 17, 2013, or under previous authorizations, were not reallocated in 2013 to purposes other than those initially specified at the time of purchase.

### *Conditions for the buyback and use of derivative products*

Between January 1, 2013 and February 28, 2014, the Company did not use any derivative products on the financial markets as part of the share buyback programs successively authorized by the Shareholders Meetings of May 11, 2012 and May 17, 2013.

### *Shares held in the name of the Company and its subsidiaries as of February 28, 2014*

As of February 28, 2014, the Company held 8,883,005 treasury shares, representing 0.37% of TOTAL's share capital. By law, the voting rights and dividend rights of these shares are suspended.

After taking into account the shares held by Group subsidiaries, which are entitled to a dividend but deprived of voting rights, the total number of TOTAL shares held by the Group as of February 28, 2014 was 109,214,273, representing 4.59% of TOTAL's share capital, comprised of, on the one hand, 8,883,005 treasury shares, including 8,764,020 shares held to cover the performance share grant plans and 118,985 shares to be awarded under new share purchase option plans or new restricted share grant plans and, on the other hand, 100,331,268 shares held by subsidiaries.

<sup>(1)</sup> Average share capital of year N = (share capital at December 31 N-1 + share capital at December 31 N)/2.



**Table of Contents****Item 10 - Additional Information****Summary table of transactions completed by the Company involving its own shares from March 1, 2013 to February 28, 2014<sup>(a)</sup>:**

	Cumulative gross movements		Open positions as of February 28, 2014			
	Purchases	Sales	Open purchase positions	Purchases	Sold calls	Open sales positions
Number of shares	4,414,200		Bought calls			
Maximum average maturity						
Average transaction price (€)	40.57					
Average exercise price						
Amounts (€)	179,087,553					

<sup>(a)</sup> In compliance with the applicable regulations as of February 28, 2014, the period indicated begins on the day after the date used as a reference for previously published information.

Moreover, 3,591,466 TOTAL shares were transferred between March 1, 2013 and February 28, 2014 following the final award of shares under the performance share grant plans.

**As of February 28, 2014**

<b>Percentage of share capital held by TOTAL S.A.</b>	0.37%
Number of shares held in portfolio <sup>(a)</sup>	8,883,005
Book value of portfolio (at purchase price) (M€)	353
Market value of the portfolio (M€) <sup>(b)</sup>	418
<b>Percentage of capital held by companies<sup>(c)</sup> of the Group</b>	4.59%
Number of shares held in portfolio	109,214,273
Book value of portfolio (at purchase price) (M€)	3,379
Market value of the portfolio (M€) <sup>(b)</sup>	5,136

<sup>(a)</sup> TOTAL S.A. did not buy back any shares during the three trading days preceding February 28, 2014. As a result, TOTAL S.A. owns all the shares held in portfolio as of that date.

<sup>(b)</sup> Based on a closing price of €47.03 per share as of February 28, 2014.

<sup>(c)</sup> TOTAL S.A., Total Nucléaire, Financière Valorgest, Sogapar and Fingestval.

**2014-2015 share buyback program**

Objectives of the share buyback program:

- reduce the Company's capital through the cancellation of shares;
- honor the Company's obligations related to securities convertible or exchangeable into Company shares;
- honor the Company's obligations related to stock option programs or other share grants to the Company's management or to employees of the Company or a Group subsidiary;
- deliver shares (by exchange, payment or otherwise) in connection with external growth operations; and
- stimulate the secondary market or the liquidity of the TOTAL share under a liquidity agreement.

**i. Legal framework:** Implementation of this share buyback program, which is in line with Article L. 225-209 et seq. of the French Commercial Code, Article 241-1 et seq. of the General Regulation of the French Financial Markets Authority, and the provisions of European Regulation 2273 / 2003 of December 22, 2003, is subject to approval by the TOTAL S.A. Shareholders' Meeting of May 16, 2014 through the fourth resolution which reads as follows:

## Edgar Filing: TOTAL S.A. - Form 20-F

Upon presentation of the report of the Board of Directors and certain information contained in the program description prepared in accordance with Article 241-1 et seq. of the General Regulation (règlement général) of the French Financial Markets Authority (*Autorité des marchés financiers*) and pursuant to the provisions of Article L. 225-209 of the French Commercial Code, European Regulation 2273 / 2003 of December 22, 2003, and the General

Regulation of the French Financial Markets Authority, the Shareholders Meeting, voting under conditions for quorum and majority required for ordinary general meetings, hereby authorizes the Board of Directors, with the option to sub-delegate such powers under the conditions provided by law, to buy or sell shares of the Company as part of a share buyback program.

The purchase, sale or transfer of these shares can be completed by any means on regulated markets, multilateral trading facilities or over the counter, including through the purchase or sale of blocks of shares, under the conditions authorized by the relevant market authorities. These means include the use of any financial derivative instrument traded on regulated markets, multilateral trading facilities or over the counter and the implementation of option strategies.

These transactions may be carried out at any time, except during public offerings for the Company's shares, in accordance with applicable rules and regulations.

The maximum purchase price is set at €70 per share.

In case of a capital increase by capitalization of reserves and restricted share grants, and in case of a stock-split or a reverse-stock-split, this maximum price shall be adjusted by applying the ratio of the number of shares outstanding before the transaction to the number of shares outstanding after the transaction.

Pursuant to Article L. 225-209 of the French Commercial Code, the maximum number of shares that may be bought under this authorization may not exceed 10% of the total number of shares outstanding as of the date on which this authorization is used. Purchases made by the Company may under no circumstances result in the Company holding more than 10% of the share capital, either directly or indirectly through indirect subsidiaries.

## Table of Contents

### Item 10 - Additional Information

Of the 2,377,678,160 shares outstanding as of December 31, 2013, the Company held 8,883,180 shares directly and 100,331,268 shares indirectly through its subsidiaries, for a total of 109,214,448. Under these circumstances, the maximum number of shares that the Company could buy back is 128,553,368 shares, and the maximum amount that the Company may spend to acquire such shares is €8,998,735,760.

The purpose of this share buyback program will be to reduce the Company's share capital or to allow the Company to fulfill its obligations related to:

- securities convertible or exchangeable into Company shares,
- share purchase option programs, restricted share grant plans, employee shareholding plans or company savings plans, or other share grants to management or employees of the Company or a Group company.

Share buybacks may also be motivated by any of the market practices allowed by the French Financial Markets Authority, namely, as of December 31, 2013:

- the delivery of shares (by exchange, payment or otherwise) in connection with external growth, merger, spin-off or contribution operations, without exceeding the limit stipulated in Article L. 225-209, paragraph 6, of the French Commercial Code, for merger, spin-off or contribution operations; or
- stimulation of the secondary market or the liquidity of the TOTAL share by an investment service provider under a liquidity agreement that complies with the ethics rules recognized by the French Financial Markets Authority.

This program may also be used by the Company to trade in its own shares, either on or off the market, for any other authorized purpose or permitted market practice, or any practice which may be authorized by applicable laws or regulations or permitted by the French Financial Markets Authority. In case of transactions for purposes other than those mentioned above, the Company will inform its shareholders in a press release.

Based on these purposes, the shares of the Company acquired through this program may be:

- canceled up to the maximum legal limit of 10% of the total number of shares outstanding on the date of the operation, over a 24-month period;
- granted free of charge to the Group's employees and to management of the Company or Group companies;
- delivered to recipients of the Company's share purchase options having exercised such options;
- sold to employees, either directly or through Company savings plans;
- delivered to the holders of securities that grant such rights to receive such shares, either through redemption, conversion, exchange, presentation of a warrant or in any other manner; or
- used in any other manner that is consistent with the purposes stated in this resolution.

While they are held by the Company, such shares will be deprived of voting rights and dividend rights.

This authorization is granted for an 18-month period from the date of this Meeting. It renders ineffective, up to the unused portion, the fourth resolution of the Combined Shareholders' Meeting held on May 17, 2013.

The Board of Directors is hereby granted full powers, with the right to delegate such authority, to undertake all actions necessary or desirable to carry out the program or programs authorized by this resolution.

The Shareholders' Meeting of May 11, 2012 also authorized the Board of Directors to reduce the capital by canceling shares up to a maximum of 10% of the share capital over a 24-month period. This authorization was granted for five years and will expire after the Shareholders' Meeting held to approve the financial statements for the year ending December 31, 2016. This approval was drafted as follows: Upon presentation of the report of the Board of Directors and the auditors' special report, the Shareholders' Meeting, voting under conditions for quorum and majority required for extraordinary general meetings, hereby authorizes the Board of Directors, in accordance with Article L. 225-209 et seq. of the French Commercial Code and Article L. 225-213 of the same Code, to reduce the share capital on one or more occasions by canceling shares within the legal limits.

The maximum number of shares that may be canceled under this authorization may not exceed 10% of the total number of shares outstanding, over a 24-month period, with this limit applying to a number of shares that will be adjusted, if necessary, to include transactions affecting the share capital subsequent to this Meeting.

## Edgar Filing: TOTAL S.A. - Form 20-F

The Shareholders Meeting hereby grants full powers to the Board of Directors, with the option to sub-delegate such powers under the conditions provided by law, to carry out such capital reductions based on its decisions alone, to decide on the number of shares to cancel within the limit of 10% of the total number of shares outstanding as of the transaction date, over a 24-month period, to decide on the conditions of the capital reduction operations and confirm their execution, to apply, where applicable, the difference between the buyback value of the shares and their par value to any reserves or premiums, to amend the by-laws accordingly, and to complete all necessary formalities related thereto.

This authorization is granted for five years and will expire after the Shareholders Meeting held to approve the financial statements for the year ending December 31, 2016.

### ii. Conditions:

- *Maximum share capital to be purchased and maximum funds allocated to the transaction:* The maximum number of shares that may be purchased under the authorization proposed to the Shareholders Meeting of May 16, 2014 may not exceed 10% of the total number of shares outstanding, with this limit applying to an amount of the Company's share capital that will be adjusted, if necessary, to include transactions affecting the share capital subsequent to this Meeting; purchases made by the Company may under no circumstances result in the Company holding more than 10% of the share capital, either directly or indirectly through subsidiaries.

Before any share cancellation under the authorization given by the Shareholders Meeting of May 11, 2012, based on the number of shares

## Table of Contents

### Item 10 - Additional Information

outstanding as of December 31, 2013 (2,377,678,160 shares), and given the 109,214,273 shares held by the Group as of February 28, 2014, *i.e.*, 4.59% of the share capital, the maximum number of shares that may be purchased would be 128,553,543, representing a theoretical maximum investment of €8,998,748,010 based on the maximum purchase price of €70.

- *Conditions for buybacks:* Such shares may be bought back by any means on regulated markets, multilateral trading facilities or over the counter, including through the purchase or sale of blocks of shares, under the conditions authorized by the relevant market authorities. These means include the use of any financial derivative instrument traded on a regulated market or over the counter and the implementation of option strategies, with the Company taking measures, however, to avoid increasing the volatility of its stock. The portion of the program carried out through the purchase of blocks of shares will not be subject to quota allocation, up to the limit set by this resolution. These shares may be bought back at any time in accordance with current regulations, except during public offerings for the Company's shares.
- *Duration and schedule of the share buyback program:* In accordance with the fourth resolution, which will be subject to approval by the Shareholders' Meeting of May 16, 2014, the share buyback program may be implemented over an 18-month period following the date of this Meeting, and therefore expires on November 16, 2015.

*Transactions carried out under the previous program:* Transactions carried out under the previous program are listed in the special report of the Board of Directors on share buybacks.

### Other issues

#### *Shareholders' meetings*

French companies may hold either ordinary or extraordinary shareholders' meetings. Ordinary shareholders' meetings are required for matters that are not specifically reserved by law to extraordinary shareholders' meetings: the election of the members of the Board of Directors, the appointment of statutory auditors, the approval of a management report prepared by the Board of Directors, the approval of the consolidated and statutory annual financial statements, the declaration of dividends and the share purchase programs. Extraordinary shareholders' meetings are required for approval of amendments to a company's bylaws, modification of shareholders' rights, mergers, increases or decreases in share capital, including a waiver of preferential subscription rights, the creation of a new class of shares, the authorization of the issuance of investment certificates or securities convertible, exchangeable or redeemable into shares and for the sale or transfer of substantially all of a company's assets.

The Company's Board of Directors is required to convene an annual shareholders' meeting for approval of the annual financial statements. This meeting must be held within six months of the end of the fiscal year. However, the *Président* of the *Tribunal de Commerce* of Nanterre, the local French commercial court, may grant an extension of this six-month period. The Company may convene other ordinary and extraordinary shareholders' meetings

at any time during the year. Meetings of shareholders may be convened by the Board of Directors or, if it fails to call a meeting, by the Company's statutory auditors or by a court-appointed agent. A shareholder or group of shareholders holding at least 5% of the share capital, the employee committee or another interested party under certain exceptional circumstances, may request that the court appoint an agent. The notice of meeting must state the agenda for the meeting.

French Company Law requires that a preliminary notice of a listed company's shareholders' meeting be published in the *Bulletin des annonces légales obligatoires* (BALO) at least thirty-five days prior to the meeting (or fifteen days if the Company is subject to a tender offer and the Company calls a shareholders' meeting to approve measures, the implementation of which would be likely to cause such tender offer to fail). The preliminary notice must first be sent to the French Financial Markets Authority (*Autorité des marchés financiers*) (AMF) with an indication of the date it is to be published in the BALO.

The preliminary notice must include notably the agenda of the meeting and the proposed resolutions that will be submitted to a shareholders' vote.

One or more shareholders holding a certain percentage of the Company's share capital determined on the basis of a formula related to capitalization may propose to add on the shareholders' meeting's agenda new resolutions to be submitted to a shareholders' vote and/or matters without a shareholders' vote (*points*), provided that the text of the new resolutions or matters (i) be received by the Company no later than the twenty-fifth day preceding the meeting (or at least the tenth day in the event the Company is subject to a tender offer and the Company calls a shareholders' meeting to approve measures, the implementation of which would be likely to cause such tender offer to fail), and (ii) be sent no later than the twentieth day after the publication date of the preliminary notice of the shareholders' meeting.

## Edgar Filing: TOTAL S.A. - Form 20-F

Eligible shareholders' request to add new matters to the meeting's agenda has to be duly motivated.

French Company Law also requires that the preliminary notice of a listed company's shareholders' meeting, as well as the additional resolutions and/or matters presented by the shareholders under the terms and conditions prescribed under French law, be published on the Company's website during a period starting at the latest on the twenty-first day prior to the meeting (or the fifteenth day in the event the Company is subject to a tender offer and the Company calls a shareholders' meeting to approve measures, the implementation of which would be likely to cause such tender offer to fail).

Notice of a shareholders' meeting is sent by postal or electronic mail at least fifteen days (or six days if the Company is subject to a tender offer to approve measures, the implementation of which would likely cause such tender offer to fail) before the meeting to all holders of registered shares who have held their shares for more than one month. However, in the case where the original meeting was adjourned because a quorum was not met, this time period is reduced to ten days (or four days if the Company is subject to a tender offer to approve measures, the implementation of which would be likely to cause such tender offer to fail).

Attendance and the exercise of voting rights at both ordinary and extraordinary shareholders' meetings are subject to certain conditions. Pursuant to French Company Law, participation at shareholders' meetings is subject to the condition that an entry of registration has been made, for the owner of registered shares, in

## Table of Contents

### Item 10 - Additional Information

the records maintained by the Company, or, for the owner of bearer shares, in the records of an authorized intermediary, in each case at 12:00 a.m. (Paris time) on the third trading day preceding the shareholders' meeting. For the owner of bearer shares, the registration is evidenced by a certificate of participation (*attestation de participation*) issued by the authorized intermediary.

Subject to the above restrictions, all of the Company's shareholders have the right to participate in the Company's shareholders' meetings, either in person or by proxy. Each shareholder may delegate voting authority to another shareholder, the shareholder's spouse, or the companion with whom the shareholder has registered a civil partnership (PACS). Every shareholder may also delegate voting authority to any other individual or legal entity he or she may choose, provided, among other things, that a written proxy be provided to the Company. Shareholders may vote, either in person, by proxy, or by postal or electronic mail, and each is entitled to as many votes as he or she possesses or as many shares as he or she holds proxies for, subject to the voting rights limitations provided by the Company's bylaws. If the shareholder is a legal entity, it may be represented by a legal representative. A shareholder may grant a proxy to the Company by returning a blank proxy form. In this last case, the chairman of the shareholders' meeting may vote the shares in favor of all resolutions proposed or agreed to by the Board of Directors and against all others. The Company will send proxy forms to shareholders upon request. In order to be counted, proxies must be received at least three days prior to the shareholders' meeting at the Company's registered office or at another address indicated in the notice convening the meeting, or by 3:00 p.m. on the day prior to the shareholders' meeting for electronic proxy forms. Under French Company Law, shares held by the Company or by entities controlled directly or indirectly by the Company are not entitled to voting rights. There is no requirement that a shareholder have a minimum number of shares in order to be able to attend or be represented at shareholders' meetings.

Under French Company Law, a quorum requires the presence, in person or by proxy, including those voting by mail, of shareholders having at least 20% of the shares entitled to vote in the case of (i) an ordinary shareholders' meeting, (ii) an extraordinary shareholders' meeting where shareholders are voting on a capital increase by capitalization of reserves, profits or share premium, or (iii) an extraordinary shareholders' meeting if the Company is subject to a tender offer in order to approve an issuance of warrants allowing the subscription, at preferential conditions, of shares of the Company and the free allotment of such warrants to existing shareholders of the Company, the implementation of which would be likely to cause such tender offer to fail, or 25% of the shares entitled to vote in the case of any other extraordinary shareholders' meeting. If a quorum is not present at any meeting, the meeting is adjourned. There is no quorum requirement when an ordinary shareholders' meeting is reconvened, but the reconvened meeting may consider only questions that were on the agenda for the adjourned meeting. When an extraordinary shareholders' meeting is reconvened, the quorum required is 20% of the shares entitled to vote, except where the reconvened meeting is considering capital increases through capitalization of reserves, profits or share premium or an issuance of warrants allowing the subscription, at preferential conditions, of shares of the Company and the free allotment of such warrants to existing shareholders of the Company, the implementation of which would

be likely to cause such tender offer to fail. For these matters, no quorum is required at the reconvened meeting. If a quorum is not present at a reconvened meeting requiring a quorum, then the meeting may be adjourned for a maximum of two months.

At an ordinary shareholders' meeting, approval of any resolution requires the affirmative vote of a simple majority of the votes of the shareholders present or represented by proxy. The approval of any resolution at an extraordinary shareholders' meeting requires the affirmative vote of a two-thirds majority of the votes cast, except that (i) any resolution to approve a capital increase by capitalization of reserves profits, or share premium, or (ii) any resolution, if the Company is subject to a tender offer in order to approve an issuance of warrants allowing the subscription, at preferential conditions, of shares of the Company and the free allotment of such warrants to existing shareholders of the Company, the implementation of which would be likely to cause such tender offer to fail, only requires the affirmative vote of a simple majority of the votes cast. Notwithstanding these rules, a unanimous vote is required to increase shareholders' liabilities. Abstention from voting by those present or represented by proxy is counted as a vote against any resolution submitted to a vote.

As set forth in the Company's bylaws, shareholders' meetings are held at the Company's registered office or at any other location specified in the written notice.

#### *Requirements for temporary transfer of securities*

French Company Law provides that any legal entity or individual (with the exception of those described in paragraph IV- 3° of Article L. 233-7 of the French Commercial Code) holding alone or in concert a number of shares representing more than 0.5% of the Company's voting rights as a result of one or several temporary stock transfers or assimilated transactions within the meaning of Article L. 225-126 of the French Commercial Code is required to inform the Company and the AMF of the number of the shares that are temporarily possessed no later than the third business day preceding the shareholders' meeting at midnight.

If such declaration is not made, the shares bought under any of the above described temporary stock transfers or assimilated transactions shall be deprived of their voting rights at the relevant shareholders' meeting and at any shareholders' meeting that would be held until such shares are transferred again or returned.

#### *Ownership of shares by non-French persons*

## Edgar Filing: TOTAL S.A. - Form 20-F

There is no limitation on the right of non-resident or foreign shareholders to own securities of the Company, either under French Company Law or under the bylaws of the Company.

### *Requirement for holdings exceeding certain percentages*

French Company Law provides that any individual or entity, acting alone or in concert with others, that holds, directly or indirectly, more than 5%, 10%, 15%, 20%, 25%, 30%, 1/3, 50%, 2/3, 90% or 95% of the outstanding shares or of the voting rights<sup>(1)</sup> attached to the shares, or that increases or decreases its shareholding or voting rights by any of the above percentages must notify the Company by registered letter, with return receipt, within four trading days of exceeding any of the above-mentioned thresholds, of the number of shares and voting rights it holds. An individual or entity must also notify the AMF within four trading days of exceeding any of the above-mentioned thresholds. When a

<sup>(1)</sup> For the purposes of shareholding threshold declarations, pursuant to Article 223-11 of the General Regulation of the AMF, voting rights are calculated on the basis of all outstanding shares, whether or not these shares would have rights at a shareholders' meeting.



## **Table of Contents**

### **Item 10 - Additional Information**

shareholder exceeds such ownership thresholds, AMF rules also require disclosure of certain information relating to other financial instruments that could increase the shareholding of the individual or entity. In addition, every shareholder who, directly or indirectly, acting alone or in concert with others, acquires ownership or control of shares, French Company Law and AMF regulations impose additional reporting requirements on persons who acquire more than 10%, 15%, 20% or 25% of the outstanding shares or voting rights of a listed company. These persons must file a report with the company and the AMF before the end of the fifth trading day following the date they exceed the threshold. Such report, which the AMF makes public, sets forth the objectives the relevant shareholder intends to pursue during the next six months and shall indicate the requested information listed in Article 223-17 of the AMF General Regulations. Upon any change of intention within the six-month period following the filing of the report, the acquirer must file a new intentions report for the following six-month period. Any shareholder who fails to comply with the above requirements (thresholds and intentions notifications) will have its voting rights in excess of such thresholds suspended for a period of two years from the date such shareholder complies with the notification requirements and may have all or part of its voting rights suspended for up to five years by the commercial court at the request of the Company's Chairman, any of the Company's shareholders or the AMF.

In addition, the Company's bylaws provide that any person, whether a natural person or a legal entity, who comes to hold, directly or indirectly, 1% or more, or any multiple of 1%, of the Company's share capital or voting rights or of securities that may give access to the Company's share capital must notify the Company by registered letter with return receipt requested, within fifteen calendar days of exceeding any such threshold. Failure to comply with these notification provisions will result in the suspension of the voting rights attached to the shares exceeding the threshold held by the shareholder which should have been declared if such failure is acknowledged at a shareholders' meeting and if the deprivation of the exceeding voting rights is requested at such shareholders' meeting by one or more shareholders together holding shares representing at least 3% of the share capital or voting rights of the Company.

Any individual or legal entity whose direct or indirect holding of shares falls below each of the levels mentioned must also notify the Company in the manner and within the time limits set forth above.

Subject to certain limited exemptions, any person, or persons acting in concert, owning in excess of 30% of the share capital or voting rights of the Company must initiate a public tender offer for the balance of the share capital, voting rights and securities giving access to such share capital or voting rights.

### **Material Contracts**

There have been no material contracts (not entered into in the ordinary course of business) entered into by members of the Group since March 26, 2012.

### **Exchange Controls**

Under current French exchange control regulations, no limits exist on the amount of payments that TOTAL may remit to residents of the United States. Laws and regulations concerning foreign exchange controls do require, however, that an accredited intermediary must handle all payments or transfer of funds made by a French resident to a non-resident.

### **Taxation**

#### ***General***

This section generally summarizes the material U.S. federal income tax and French tax consequences of owning and disposing of shares and ADSs of TOTAL to U.S. Holders that hold their shares or ADSs as capital assets for tax purposes. A U.S. Holder is a beneficial owner of shares or ADSs that is (i) a citizen or resident of the United States for U.S. federal income tax purposes, (ii) a domestic corporation or other domestic entity treated as a corporation for U.S. federal income tax purposes, (iii) an estate whose income is subject to U.S. federal income tax regardless of its source, or (iv) a trust if a U.S. court can exercise primary supervision over the trust's administration and one or more U.S. persons are authorized to control all substantial decisions of the trust.

This section does not apply to members of special classes of holders subject to special rules, including:

- dealers in securities;
- traders in securities that elect to use a mark-to-market method of accounting for their securities holdings;
- tax-exempt organizations;
- life insurance companies;
- U.S. pension funds;
- U.S. Regulated Investment Companies (RIC), Real Estate Investment Trusts (REIT), and Real Estate Mortgage Investment Conduits (REMIC);

## Edgar Filing: TOTAL S.A. - Form 20-F

persons liable for alternative minimum tax;  
persons that actually or constructively own 10% or more of the share capital or voting rights in TOTAL;  
persons that purchase or sell shares or ADSs as part of a wash sale for U.S. federal income tax purposes;  
persons that hold the shares or ADSs as part of a straddle or a hedging or conversion transaction; or  
persons whose functional currency is not the U.S. dollar.

If a partnership holds ordinary shares or ADSs, the tax treatment of a partner will generally depend upon the status of the partner and upon the activities of the partnership. Partners of a partnership holding these ordinary shares or ADSs should consult their tax advisors as to the tax consequences of owning or disposing of ordinary shares or ADSs, as applicable.

Under French law, specific rules apply to trusts, in particular specific new tax and filing requirements as well as modifications to wealth, estate and gift taxes as they apply to trusts. Given the complex nature of these new rules and the fact that their application varies depending on the status of the trust, the grantor, the beneficiary and the assets held in the trust, the following summary does not address the tax treatment of ADSs or shares held in a trust. If ADSs or shares are held in trust, the grantor, trustee and beneficiary are urged to consult their own tax adviser regarding the specific tax consequences of acquiring, owning and disposing of ADSs or shares.

In addition, the discussion of the material French tax consequences is limited to U.S. Holders that (i) are residents of the United States for purposes of the Treaty (as defined below), (ii) do not maintain a permanent establishment or fixed base in France to which the shares or ADSs are attributable and through which the respective U.S. Holders carry on, or have carried on, a business (or, if the holder is an individual, performs or has performed independent personal services), and (iii) are otherwise eligible for the benefits of the Treaty in respect of income and gain from the

## Table of Contents

### Item 10 - Additional Information

shares or ADSs. In addition, this section is based in part upon the representations of the Depositary and the assumption that each obligation in the Deposit Agreement and any related agreement will be performed in accordance with its terms.

This section is based on the Internal Revenue Code of 1986 ( "IRC" ), as amended, its legislative history, existing and proposed regulations, published rulings and court decisions, and with respect to the description of the material French tax consequences, the laws of the Republic of France and French tax regulations, all as currently in effect, as well as on the Convention Between the United States and the Republic of France for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with respect to Taxes on Income and Capital dated August 31, 1994 as amended (the "Treaty" ). These laws, regulations and the Treaty are subject to change, possibly on a retroactive basis.

This discussion is intended only as a descriptive summary and does not purport to be a complete analysis or listing of all potential tax effects of the ownership or disposition of the shares and ADSs and is not intended to substitute competent professional advice. Individual situations of holders of shares and ADSs may vary from the description made below. The following summary does not address the French tax treatment applicable to dividends paid in so-called "Non Cooperative Countries and Territories" ( "NCCT" ) within the meaning of Section 238-0 A of the French Tax Code. It does not apply to dividends paid to persons established or domiciled in such a NCCT, or paid to a bank account opened in a financial institution located in such a NCCT.

**Holders are urged to consult their own tax advisors regarding the U.S. federal, state and local, and French and other tax consequences of owning and disposing shares or ADSs of TOTAL in their respective circumstances. In particular, a holder is encouraged to confirm with its advisor whether the holder is a U.S. Holder eligible for the benefits of the Treaty.**

#### *Taxation of dividends*

##### *French taxation*

The term "dividends" used in the following discussion means dividends within the meaning of the Treaty.

Dividends paid to non-residents of France are in principle subject to a French withholding tax at a rate of 30%. However, under the Treaty, a U.S. Holder is generally entitled to a reduced rate of French withholding tax of 15% with respect to dividends, provided that certain requirements are satisfied.

Administrative guidelines (*Bulletin Officiel des Finances Publiques*, BOI-INT-DG-20-20-20-20120912) (the "Administrative Guidelines" ) set forth the conditions under which the reduced French withholding tax at the rate of 15% may be available. The immediate application of the reduced 15% rate is available to those U.S. Holders that may benefit from the so-called "simplified procedure" (within the meaning of the Administrative Guidelines).

Under the "simplified procedure" , U.S. Holders may claim the immediate application of withholding tax at the rate of 15% on the dividends to be received by them, provided that:

- (i) they furnish to the U.S. financial institution managing their securities account a certificate of residence conforming with form No. 5000. The immediate application of the 15% withholding tax will be available only if the certificate of residence is sent to the U.S. financial institution managing their securities account no later than the dividend payment date.

Furthermore, each financial institution managing the U.S. Holders' securities account must also send to the French paying agent the figure of the total amount of dividends to be received which are eligible to the reduced withholding tax rate before the dividend payment date; and

- (ii) the U.S. financial institution managing the U.S. Holder's securities account provides to the French paying agent dist of the eligible U.S. Holders and other pieces of information set forth in the Administrative Guidelines. Furthermore, the financial institution managing the U.S. Holders' securities account should certify that the U.S. Holder is, to the best of its knowledge, a United States resident within the meaning of the Treaty. These documents must be sent to the French paying agent within a time frame that will allow the French paying agent to file them no later than the end of the third month computed as from the end of the month of the dividend payment date.

Where the U.S. Holder's identity and tax residence are known by the French paying agent, the latter may release such U.S. Holder from furnishing to (i) the financial institution managing its securities account, or (ii) as the case may be, the U.S. Internal Revenue Service ( "IRS" ), the abovementioned certificate of residence, and apply the 15% withholding tax rate to dividends it pays to such U.S. Holder.

## Edgar Filing: TOTAL S.A. - Form 20-F

For a U.S. Holder that is not entitled to the simplified procedure and whose identity and tax residence are not known by the paying agent at the time of the payment, the 30% French withholding tax will be levied at the time the dividends are paid. Such U.S. Holder, however, may be entitled to a refund of the withholding tax in excess of the 15% rate under the standard, as opposed to the simplified procedure, provided that the U.S. Holder furnishes to the French paying agent an application for refund on forms No. 5000 and 5001 (or any other relevant form to be issued by the French tax authorities) certified by the U.S. financial institution managing the U.S. Holder's securities account (or, if not, by the competent U.S. tax authorities) before December 31 of the second year following the date of payment of the withholding tax at the 30% rate to the French tax authorities, according to the requirements provided by the Administrative Guidelines.

Copies of forms No. 5000 and 5001 (or any other relevant form to be issued by the French tax authorities) as well as the form of the certificate of residence and the U.S. financial institution certification, together with instructions, are available from the IRS and the French tax authorities.

These forms, together with instructions, will also be provided by the Depositary to all U.S. Holders of ADRs registered with the Depositary. The Depositary will use reasonable efforts to follow the procedures established by the French tax authorities for U.S. Holders to benefit from the immediate application of the 15% French withholding tax rate or, as the case may be, to recover the excess 15% French withholding tax initially withheld and deducted in respect of dividends distributed to them by TOTAL. To effect such benefit or recovery, the Depositary shall advise such U.S. Holder to return the relevant forms to it, properly completed and executed. Upon receipt of the relevant forms properly completed and executed by such U.S. Holder, the Depositary shall cause them to be filed with the appropriate French tax authorities, and upon receipt of any resulting remittance, the Depositary shall distribute to the U.S. Holder entitled thereto, as soon as practicable, the proceeds thereof in U.S. dollars.

2013 Form 20-F TOTAL S.A. 149

## Table of Contents

### Item 10 - Additional Information

The identity and address of the French paying agent are available from TOTAL.

In addition, subject to certain specific filing obligations, there is no withholding tax on dividend payments made by French companies to non-French collective investment funds formed under foreign law and established in a Member State of the European Union or in another State or territory, such as the United States, that has entered with France into an administrative assistance agreement for the purpose of combating fraud and tax evasion, and which fulfill the two following conditions:

- the fund raises capital among a number of investors for the purpose of investing in accordance with a defined investment policy, in the interest of its investors; and
- the fund has characteristics similar to those of collective investment funds organized under French law (open-end mutual fund (OPCVM), open-end real estate fund (OPCI) and closed-end investment companies (SICAF)).

Collective investment funds are urged to consult their own tax advisors to confirm whether they are eligible to such provisions and under which conditions.

#### *U.S. taxation*

For U.S. federal income tax purposes and subject to the passive foreign investment company rules discussed below, the gross amount of any dividend a U.S. Holder must include in gross income equals the amount paid by TOTAL to the extent of the current and accumulated earnings and profits of TOTAL (as determined for U.S. federal income tax purposes). The dividend will be income from foreign sources. Dividends paid to a non-corporate U.S. Holder that constitute qualified dividend income will be taxable to the holder at the preferential rates applicable to long-term capital gains provided that the shares or ADSs are held for more than sixty days during the 121-day period beginning sixty days before the ex-dividend date and the holder meets other holding period requirements. TOTAL believes that dividends paid by TOTAL with respect to its shares or ADSs will be qualified dividend income. The dividend will not be eligible for the dividends-received deduction allowed to a U.S. corporation under Section 243 of the Code. The dividend is taxable to the U.S. Holder when the holder, in the case of shares, or the Depositary, in the case of ADSs, receives the dividend, actually or constructively. To the extent that an amount received by a U.S. Holder exceeds the allocable share of TOTAL's current and accumulated earnings and profits, it will be applied first to reduce such holder's tax basis in shares or ADSs owned by such holder and then, to the extent it exceeds the holder's tax basis, it will constitute capital gain.

The amount of any dividend distribution includible in the income of a U.S. Holder equals the U.S. dollar value of the euro payment made, determined at the spot euro/dollar exchange rate on the date the dividend distribution is includible in the U.S. Holder's income, regardless of whether the payment is in fact converted into U.S. dollars. Any gain or loss resulting from currency exchange fluctuations during the period from the date the dividend payment is includible in the U.S. Holder's income to the date the payment is converted into U.S. dollars will generally be treated as ordinary income or loss from sources within the United States and will not be eligible for the special tax rate applicable to qualified dividend income.

Subject to certain conditions and limitations, French taxes withheld in accordance with the Treaty will generally be eligible for credit against the U.S. Holder's U.S. federal income tax liability. The limitation on foreign taxes eligible for credit is calculated separately with respect to specific classes of income. In addition, special rules apply in determining the foreign tax credit limitation with respect to dividends that are subject to the preferential tax rates. To the extent a refund of the tax withheld is available to a U.S. Holder under French law or under the Treaty, the amount of tax withheld that is refundable will not be eligible for credit against such an individual's United States federal income tax liability.

For this purpose, dividends distributed by TOTAL will constitute passive income, or, in the case of certain U.S. Holders, general income, which are treated separately from one another for purposes of computing the foreign tax credit allowable to the U.S. Holder. Alternatively, a U.S. Holder may claim all foreign taxes paid as an itemized deduction in lieu of claiming a foreign tax credit.

#### *Taxation of disposition of shares*

In general, a U.S. Holder will not be subject to French tax on any capital gain from the sale or exchange of the ADSs or redemption of the underlying shares unless those ADSs or shares form part of a business property of a permanent establishment or fixed base that the U.S. Holder has in France. Special rules may apply to individuals who are residents of more than one country.

A financial transaction tax applies, under certain conditions, to the acquisition of shares of publicly traded companies registered in France having a market capitalization over €1 billion on December 31 of the year preceding the acquisition. A list of the companies within the scope of the financial transaction tax for 2014 has been published in a decree dated December 27, 2013. TOTAL is included in this list. The tax also applies to the acquisition of ADRs evidencing ADSs. The financial transaction tax is due at a rate of 0.2% on the price paid to acquire the shares. The person or entity liable for the tax is generally the provider of

## Edgar Filing: TOTAL S.A. - Form 20-F

investment services defined in Article L. 321-1 of the French Monetary and Financial Code (*prestataire de services d'investissement*). Investment service providers providing equivalent services outside France are subject to the tax under the same terms and conditions. Taxable transactions are broadly construed but several exceptions may apply. U.S. Holders should consult their own tax advisors as to the tax consequences of such financial transaction tax.

For U.S. federal income tax purposes and subject to the passive foreign investment company rules discussed below, a U.S. Holder generally will recognize capital gain or loss upon the sale or disposition of shares or ADSs equal to the difference between the U.S. dollar value of the amount realized on the sale or disposition and the holder's tax basis, determined in U.S. dollars, in the shares or ADSs. The gain or loss generally will be U.S. source gain or loss and will be long-term capital gain or loss if the U.S. Holder's holding period of the shares or ADSs is more than one year at the time of the disposition. Long-term capital gain of a non-corporate U.S. Holder is generally taxed at preferential rates. The deductibility of capital losses is subject to limitation.

### ***Passive foreign investment status***

TOTAL believes that the shares or ADSs will not be treated as stock of a passive foreign investment company, or PFIC, for United States federal income tax purposes, but this conclusion is a factual determination that is made annually and thus is subject to change. If TOTAL is treated as a PFIC, unless a U.S. Holder elects

## Table of Contents

Items 10 - 11

to be taxed annually on a mark-to-market basis with respect to the shares or ADSs, gain realized on the sale or other disposition of the shares or ADSs would in general not be treated as capital gain. Instead, a U.S. Holder would be treated as if he or she had realized such gain and certain excess distributions ratably over the holding period for the shares or ADSs and would be taxed at the highest tax rate in effect for each such year to which the gain was allocated, in addition to which an interest charge in respect of the tax attributable to each such year would apply. With certain exceptions, a U.S. Holder's shares or ADSs will be treated as stock in a PFIC if TOTAL were a PFIC at any time during his or her holding period in the shares or ADSs. Dividends paid will not be eligible for the preferential tax rates applicable to qualified dividend income if TOTAL is treated as a PFIC with respect to a U.S. Holder either in the taxable year of the distribution or the preceding taxable year, but instead will be taxable at rates applicable to ordinary income.

### *French estate and gift taxes*

In general, a transfer of ADSs or shares by gift or by reason of the death of a U.S. Holder that would otherwise be subject to French gift or inheritance tax, respectively, will not be subject to such French tax by reason of the Convention between the United States of America and the French Republic for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Estates, Inheritances and Gifts, dated November 24, 1978 as amended, unless the donor or the transferor is domiciled in France at the time of making the gift, or at the time of his death, or if the ADSs or shares were used in, or held for use in, the conduct of a business through a permanent establishment or a fixed base in France.

### *French wealth tax*

The French wealth tax does not apply to a U.S. Holder (i) that is not an individual, or (ii) in the case of individuals who are eligible for the benefits of the Treaty and who own, alone or with related persons, directly or indirectly, TOTAL shares which give right to less than 25% of TOTAL's earnings.

### *U.S. state and local taxes*

In addition to U.S. federal income tax, U.S. Holders of shares or ADSs may be subject to U.S. state and local taxes with respect to their shares or ADSs. U.S. Holders should consult their own tax advisors.

## Dividends and Paying Agents

After BNP Paribas Securities Services performs centralizing procedures, dividends are paid through the accounts of financial intermediaries participating in Euroclear France's direct payment procedures. The Bank of New York Mellon acts as paying agent for dividends distributed to ADS holders.

## Documents on Display

TOTAL files annual, periodic, and other reports and information with the Securities and Exchange Commission. You may inspect any reports, statements or other information TOTAL files with the United States Securities and Exchange Commission (SEC) at the SEC's public reference rooms by calling the SEC for more information at 1-800-SEC-0330. All of TOTAL's SEC filings made after December 31, 2001, are available to the public at the SEC website at <http://www.sec.gov> and from certain commercial document retrieval services. You may also inspect any document the Company files with the SEC at the offices of The New York Stock Exchange, 20 Broad Street, New York, New York 10005.

## ITEM 11. QUANTITATIVE AND QUALITATIVE DISCLOSURES ABOUT MARKET RISK

Please refer to Note 31 to the Consolidated Financial Statements included elsewhere herein for a qualitative and quantitative discussion of the Group's exposure to market risks. Please also refer to Notes 29 and 30 to the Consolidated Financial Statements included elsewhere herein for details of the different derivatives owned by the Group in these markets.

As part of its financing and cash management activities, the Group uses derivative instruments to manage its exposure to changes in interest rates and foreign exchange rates. These instruments are mainly interest rate and currency swaps. The Group may also occasionally use futures contracts and options. These operations and their accounting treatment are detailed in Note 1 paragraph M and Notes 20, 28 and 29 to the Consolidated Financial Statements included

## Edgar Filing: TOTAL S.A. - Form 20-F

elsewhere herein.

The financial performance of TOTAL is sensitive to a number of factors, the most significant being oil and gas prices, generally expressed in dollars, and exchange rates, in particular that of the dollar versus the euro. Generally, a rise in the price of crude oil has a positive effect on earnings as a result of an increase in revenues from oil and gas production. Conversely, a decline in crude oil prices reduces revenues. The impact of changes in crude oil prices on Refining & Chemicals and Marketing & Services activities depends upon the speed at which the prices of finished products adjust to reflect these changes. All of the Group's activities are, to various degrees, sensitive to fluctuations in the dollar/euro exchange rate.

2013 Form 20-F TOTAL S.A. 151



**Table of Contents**

Items 12 - 15

**ITEM 12. DESCRIPTION OF SECURITIES OTHER THAN EQUITY SECURITIES****American Depositary Receipts fees and charges**

The Bank of New York Mellon, as a depositary, collects its fees for delivery and surrender of ADRs directly from investors depositing shares or surrendering ADRs for the purpose of withdrawal or from intermediaries acting for them. The depositary collects fees for making distributions to investors by deducting those fees from the amounts distributed or by selling a portion of distributable property to pay the fees. The depositary may generally refuse to provide fee-attracting services until its fees for those services are paid.

Investors must pay:	For:
\$5.00 (or less) per 100 ADSs (or portion of 100 ADSs)	Issuance of ADRs, including issuances resulting from a distribution of shares or rights or other property, stocks splits or mergers
A fee equivalent to the fee that would be payable if securities distributed to the investor had been shares and the shares had been deposited for issuance of ADSs	Cancellation of ADRs for the purpose of withdrawal, including if the deposit agreement terminates
Registration or transfer fees	Distribution of securities distributed to holders of deposited securities that are distributed by the depositary to ADS registered holders
Expenses of the depositary	Transfer and registration of shares on the Company's share register to or from the name of the depositary or its agent when the investor deposits or withdraws shares
Taxes and other governmental charges the depositary or the custodian have to pay on any ADS or share underlying an ADS, for example, stock transfer taxes, stamp duty or withholding taxes	Cable, telex and facsimile transmissions (when expressly provided in the deposit agreement)
Any charges incurred by the depositary or its agents for servicing the deposited securities	Converting foreign currency to U.S. dollars
	As necessary
	As necessary

The depositary has agreed to reimburse expenses ( Reimbursed Expenses ) incurred by the Company for the establishment and maintenance of the ADS program that include, but are not limited to, exchange listing fees, annual meeting expenses, standard out-of-pocket maintenance costs for the ADRs (e.g., the expenses of postage and envelopes for mailing annual and interim financial reports, printing and distributing dividend checks, electronic filing of U.S. Federal tax information, mailing required tax forms, stationery, postage, facsimile, and telephone calls), shareholder identification, investor relations activities or programs in North America, accounting fees (such as external audit fees incurred in connection with the Sarbanes-Oxley Act, the preparation of the Company's Form 20-F and paid to the FASB and the PCAOB),

legal fees and other expenses incurred in connection with the preparation of regulatory filings and other documentation related to ongoing SEC, NYSE and U.S. securities law compliance. In certain instances, the depositary has agreed to provide additional payments to the Company based on certain applicable performance indicators relating to the ADR facility. There are limits on the amount of expenses for which the depositary will reimburse the Company, but the amount of reimbursement available to the Company is not necessarily tied to the amount of fees the depositary collects from investors.

From March 16, 2013 to March 15, 2014, the Company received from the depositary a payment of \$3,500,000.00 with respect to certain Reimbursed Expenses.

**ITEM 13. DEFAULTS, DIVIDEND ARREARAGES AND DELINQUENCIES**

None.

**ITEM 14. MATERIAL MODIFICATIONS TO THE RIGHTS OF  
SECURITY HOLDERS AND USE OF PROCEEDS**

None.

**ITEM 15. CONTROLS AND PROCEDURES**

**Disclosure Controls and Procedures**

An evaluation was carried out under the supervision and with the participation of the Group's management, including the Chief Executive Officer and the Chief Financial Officer, of the effectiveness, as of the end of the period covered by this report, of the design and operation of the Group's disclosure controls and procedures, which are defined as those controls and procedures designed to ensure that information required to be disclosed in reports filed under the U.S. Securities Exchange Act of 1934, as

amended, is recorded, summarized and reported within specified time periods. There are inherent limitations to the effectiveness of any system of disclosure controls and procedures, including the possibility of human error and the circumvention or overriding of the controls and procedures. Accordingly, even effective disclosure controls and procedures can provide only reasonable assurance of achieving their control objectives. Based on this evaluation, the Chief Executive Officer and Chief Financial Officer concluded that the design and operation of these disclosure controls and procedures were effective to provide reasonable

**Table of Contents**

Items 15 - 16C

assurance that information required to be disclosed in the reports that the Company files under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the applicable rules and forms, and that it is accumulated and communicated to management, including the Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

**Management's Annual Report on Internal Control Over Financial Reporting**

The Group's management is responsible for establishing and maintaining adequate internal control over financial reporting. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements and even when determined to be effective, can only provide reasonable assurance with respect to financial statement preparation and presentation. Also, the effectiveness of an internal control system may change over time.

The Group's management, including the Chief Executive Officer and the Chief Financial Officer, conducted an evaluation of the effectiveness of internal control over financial reporting using the criteria set forth in the Internal Control – Integrated Framework

issued in 1992 by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on the results of this evaluation, the Group's management concluded that its internal control over financial reporting was effective as of December 31, 2013.

The effectiveness of internal control over financial reporting as of December 31, 2013, was audited by KPMG S.A. and Ernst & Young Audit, independent registered public accounting firms, as stated in their report on page F-2 of this Annual Report.

**Changes in Internal Control Over Financial Reporting**

There were no changes in the Group's internal control over financial reporting that occurred during the period covered by this report that have materially affected, or that were reasonably likely to materially affect, the Group's internal control over financial reporting.

The Group is exploring ways to adapt its internal control system to the 2013 COSO framework, which will replace the 1992 COSO framework as from December 15, 2014.

**ITEM 16A. AUDIT COMMITTEE FINANCIAL EXPERT**

Ms. Patricia Barbizet is the Audit Committee financial expert. Ms. Barbizet is an independent member of the Board of Directors in accordance with the NYSE listing standards applicable to TOTAL, as are the other members of the Audit Committee.

**ITEM 16B. CODE OF ETHICS**

At its meeting on February 18, 2004, the Board of Directors adopted a code of ethics that applies to its Chief Executive Officer, Chief Financial Officer, Chief Accounting Officer and the financial and accounting officers for its principal activities. A copy of this code of ethics is included as an exhibit to this Annual Report.

**ITEM 16C. PRINCIPAL ACCOUNTANT FEES AND SERVICES**

During the fiscal years ended December 31, 2013 and 2012, fees for services provided by Ernst & Young Audit and KPMG were as follows:

(M€)	KPMG		Ernst & Young Audit	
	fiscal year 2013	fiscal year 2012	fiscal year 2013	fiscal year 2012
Audit Fees	15.2	14.3	18.4	18.5

## Edgar Filing: TOTAL S.A. - Form 20-F

Audit-Related Fees <sup>(a)</sup>	4.7	3.8	1.3	1.6
Tax Fees <sup>(b)</sup>	1.9	1.8	2.5	2.1
All Other Fees <sup>(c)</sup>	0.3		0.2	0.1
<b>Total</b>	<b>22.1</b>	<b>19.9</b>	<b>22.4</b>	<b>22.3</b>

<sup>(a)</sup> *Audit-related fees are generally fees billed for services that are closely related to the performance of the audit or review of financial statements. These include due diligence services related to business combinations, attestation services not required by statute or regulation, agreed upon or expanded auditing procedures related to accounting or billing records required to respond to or comply with financial, accounting or regulatory reporting matters, consultations concerning financial accounting and reporting standards, information system reviews, internal control reviews and assistance with internal control reporting requirements.*

<sup>(b)</sup> *Tax fees are fees for services related to international and domestic tax compliance, including the preparation of tax returns and claims for refund, tax planning and tax advice, including assistance with tax audits and tax appeals, and tax services regarding statutory, regulatory or administrative developments and expatriate tax assistance and compliance.*

<sup>(c)</sup> *All other fees are principally for risk management advisory services.*

### Audit Committee Pre-Approval Policy

The Audit Committee has adopted an Audit and Non-Audit Services Pre-Approval Policy that sets forth the procedures and the conditions pursuant to which services proposed to be performed by the statutory auditors may be pre-approved and that are not prohibited by regulatory or other professional requirements. This policy provides for both pre-approval of certain types of services through the use of an annual budget approved by the

Audit Committee for these types of services and special pre-approval of services by the Audit Committee on a case-by-case basis. The Audit Committee reviews on an annual basis the services provided by the statutory auditors. During 2013, no audit-related fees, tax fees or other non-audit fees were approved by the Audit Committee pursuant to the *de minimis* exception to the pre-approval requirement provided by paragraph (c)(7)(i)(C) of Rule 2-01 of Regulation S-X.

**Table of Contents**

Items 16D - 16G

**ITEM 16D. EXEMPTIONS FROM THE LISTING STANDARDS FOR AUDIT COMMITTEES**

None.

**ITEM 16E. PURCHASES OF EQUITY SECURITIES BY THE ISSUER AND AFFILIATED PURCHASERS**

Period	Total Number Of			
	Total Number Of Shares Purchased	Average Price Paid Per Share (€)	Shares Purchased, Maximum Number As Part Of Publicly Of Shares That May Announced Yet Be Purchased Plans Or Under The Plans Or	
			Programs <sup>(a)</sup>	Programs <sup>(b)</sup>
January 2013				128,201,798
February 2013				128,201,823
March 2013				128,201,943
April 2013				129,282,275
May 2013				129,282,925
June 2013				129,282,940
July 2013	712,847	40.096	712,847	128,571,408
August 2013	3,701,353	40.662	3,701,353	124,873,894
September 2013				128,504,419
October 2013				128,525,844
November 2013				128,543,449
December 2013				128,553,368
January 2014				128,556,625
February 2014				128,572,574

<sup>(a)</sup> The shareholders' meeting of May 17, 2013, canceled and replaced the previous resolution from the shareholders' meeting of May 11, 2012, authorizing the Board of Directors to trade in the Company's own shares on the market for a period of eighteen months within the framework of the stock purchase program. The maximum number of shares that may be purchased by virtue of this authorization or under the previous authorization may not exceed 10% of the total number of shares constituting the share capital, this amount being periodically adjusted to take into account operations modifying the share capital after each shareholders' meeting. Under no circumstances may the total number of shares the Company holds, either directly or indirectly through its subsidiaries, exceed 10% of the share capital.

<sup>(b)</sup> Based on 10% of the Company's share capital, and after deducting the shares held by the Company for cancellation and the shares held by the Company to cover the share purchase option plans for Company employees and restricted share grants for Company employees, as well as after deducting the shares held by the subsidiaries.

**ITEM 16F. CHANGE IN REGISTRANT'S CERTIFYING ACCOUNTANT**

Not applicable.

**ITEM 16G. CORPORATE GOVERNANCE**

**Summary of Significant Differences between French Corporate Governance Practices and the NYSE's Corporate Governance Standards, as required by section 303A.11 of the NYSE Listed Company Manual.**

***Overview***

The following paragraphs provide a brief, general summary of significant ways in which our corporate governance practices differ from those required by the listing standards of the New York Stock Exchange (the "NYSE") for U.S. companies that have common stock listed on the NYSE. While our management believes that our corporate governance practices are similar in many respects to those of U.S. domestic NYSE listed companies and provide investors with protections that are comparable in many respects to those established by the NYSE Listed Company Manual, certain significant differences are described below.

The principal sources of corporate governance standards in France are the French Commercial Code (Code de Commerce), the French Financial and Monetary Code (Code monétaire et financier), as amended from time to time, and the regulations and recommendations provided by the French Financial Markets Authority (Autorité des marchés financiers, AMF), as well as a number of general recommendations and guidelines on corporate governance, most notably the Corporate Governance Code for

Listed Companies published in December 2008 (as amended in April 2010 and June 2013) by the principal French business confederations, the Association Française des Entreprises Privées (AFEP) and the Mouvement des Entreprises de France (MEDEF) (the "AFEP-MEDEF Code").

The AFEP-MEDEF Code includes, among other things, recommendations relating to the role and operation of the board of directors (creation, composition and evaluation of the board of directors and the audit, compensation and nominating committees) and the independence criteria for board members. Articles L. 820-1 *et seq.* of the French Commercial Code prohibits statutory auditors from providing certain non-audit services and defines certain criteria for the independence of statutory auditors. In France, the independence of statutory auditors is also monitored by an independent body, the High Council for Statutory Auditors (Haut Conseil du commissariat aux comptes).

For an overview of certain of our corporate governance policies, see Item 6. Corporate Governance.

***Composition of Board of Directors; Independence***

The NYSE listing standards provide that the board of directors of a U.S.-listed company must consist of a majority of independent directors and that the audit committee, the nominating/corporate governance committee and the compensation committee must be composed entirely of independent directors. A director qualifies as independent only if the board affirmatively determines that the

**Table of Contents****Item 16G - Summary of Significant Corporate Governance Differences**

director has no material relationship with the company, either directly or as a partner, shareholder or officer of an organization that has a relationship with the company. In addition, the listing standards enumerate a number of relationships that preclude independence. Furthermore, as discussed below, new rules under the listing standards that came into effect in 2013 require additional procedures in regards to the independence of directors who sit on the compensation committee.

French law does not contain any independence requirement for the members of the board of directors of a French company, except for the audit committee, as described below. The AFEP- MEDEF Code recommends, however, that (i) at least half of the members of the board of directors be independent in companies that have a dispersed ownership structure and no controlling shareholder, and (ii) at least a third of the members of the board of directors be independent in companies that have a controlling shareholder. Members of the board representing the employee shareholders, as well as members representing the employees, are not taken into account in order to determine these percentages. The AFEP-MEDEF Code states that a director is independent when he or she has no relationship of any nature with the company, its group or the management of either, that may compromise the exercise of his or her freedom of judgment. The AFEP-MEDEF Code also enumerates specific criteria for determining independence, which are on the whole consistent with the goals of the NYSE's rules, including recent amendments, although the specific tests under the two standards may vary on some points.

Based on the proposal of TOTAL's Governance & Ethics Committee (formerly Nominating & Governance Committee), the Board of Directors of TOTAL at its meeting on February 11, 2014, examined the independence of each of the Company's Directors as of December 31, 2013, relying on its assessment of the independence criteria set forth in the AFEP-MEDEF Code. The Board of Directors considered that all of the Directors of the Company are independent, with the exceptions of Mr. de Margerie, Chairman and Chief Executive Officer of the Company since May 21, 2010, and Mr. Desmarest, honorary Chairman (formerly Chairman of the Board of Directors until May 21, 2010), and noted that, as of February 11, 2014, 85%<sup>(1)</sup> of the Directors were independent.

***Representation of women on corporate boards***

Article L. 225-18-1 of the French Commercial Code provides for legally binding quotas to boost the percentage of women on boards of directors of French-listed companies, requiring that women represent: (i) at least 20% following the first ordinary shareholders' meeting held after January 1, 2014, and (ii) at least 40% following the first ordinary shareholders' meeting held after January 1, 2017. Members of the board representing the employees are not taken into account in order to determine these percentages. When the board of directors consists of less than nine members, the difference between the number of directors of each gender at the end of the 5-year period should not be higher than two. Any appointment of a director made in violation of these rules shall be declared null and void and the payment of the directors' compensation shall be suspended until the board composition complies with the law's requirements (the management report shall also indicate the suspension of the directors' compensation until the board composition complies with the law's requirements). However, decisions of a board of directors

that fail to comply with these quotas may not be declared null and void. As of February 11, 2014, the Company's Board had five female members (*i.e.*, one-third of the Directors).

***Board committees***

*Overview.* The NYSE listing standards require that a U.S.-listed company have an audit committee, a nominating/corporate governance committee and a compensation committee. Each of these committees must consist solely of independent directors and must have a written charter that addresses certain matters specified in the listing standards. In addition, the NYSE adopted in 2013 new compensation committee rules, which require that, in addition to the independence criteria referenced above under "Composition of Board of Directors; Independence", certain enumerated factors be taken into consideration when making a determination on the independence of directors on the compensation committee or when engaging advisors to the compensation committee.

With the exception of an audit committee, as described below, French law requires neither the establishment of board committees nor the adoption of written charters.

The AFEP-MEDEF Code recommends, however, that the board of directors sets up, in addition to an audit committee, a nominating committee and a compensation committee, indicating that the nominating and compensation committees may form only one committee. The AFEP-MEDEF Code also recommends that at least two-thirds of the audit committee members and a majority of the members of each of the compensation committee and the nominating committee be independent directors, it being specified that the chairman of the compensation committee should be independent.

TOTAL has established an Audit Committee, a Governance & Ethics Committee (formerly Nominating & Governance Committee), a Compensation Committee and a Strategic Committee, and considers all of the members of these committees to be independent with the exception of Mr. Desmarest, who is a member of the Compensation Committee and the Strategic Committee and chairs the Governance & Ethics Committee, and Mr. de Margerie, who chairs the Strategic Committee. For the text of the charters that define the scope of each committee's activity as well as the membership of each committee, see "Item 6. Corporate Governance".

## Edgar Filing: TOTAL S.A. - Form 20-F

The NYSE listing standards also require that the audit, nominating/corporate governance and compensation committees of a U.S.-listed company be vested with decision-making powers on certain matters. Under French law, these committees are advisory in nature and have no decision-making authority. Board committees are responsible for examining matters within the scope of their charter and making recommendations on these matters to the board of directors. Under French law, the board of directors has the final decision-making authority.

*Audit committee.* The NYSE listing standards contain detailed requirements for the audit committees of U.S.-listed companies. Some, but not all, of these requirements also apply to non-U.S.-listed companies, such as TOTAL.

French law requires the board of directors of companies listed in France to establish an audit committee (Article L. 823-19 of the French Commercial Code), at least one member of which must be an independent director and must be competent in finance or

<sup>(1)</sup> Not including the director representing employee shareholders, according to the recommendations made in the AFEP-MEDEF Code.

2013 Form 20-F TOTAL S.A. 155



## **Table of Contents**

### **Item 16G - Summary of Significant Corporate Governance Differences**

accounting. The AFEP-MEDEF Code provides that at least two-thirds of the directors on the audit committee be independent and that the audit committee should not include any executive director.

Pursuant to French law and the AFEP-MEDEF Code, the audit committee is responsible for, among other things, reviewing the financial statements and ensuring the relevance and consistency of accounting methods used in drawing up the consolidated and corporate accounts, examining the company's risk exposure and material off-balance sheet commitments and the scope of consolidation, monitoring the process for the preparation of financial information, monitoring the efficiency of internal control procedures and risk management systems, managing the process of selecting statutory auditors, expressing an opinion on the amount of their fees and monitoring compliance with rules designed to ensure auditor independence, regularly interviewing statutory auditors without the executive management being present and calling upon outside experts if necessary.

Although the audit committee requirements under French law and recommendations under the AFEP-MEDEF Code are less detailed than those contained in the NYSE listing standards, the NYSE listing standards, French law and the AFEP-MEDEF Code share the goal of establishing a system for overseeing the company's accounting that is independent from management and that ensures auditor independence. As a result, they address similar topics, and there is some overlap.

For the specific tasks performed by the Audit Committee of TOTAL that exceed those required by French law and those recommended by the AFEP-MEDEF Code, see Item 6. Corporate Governance – Audit Committee.

One structural difference between the legal status of the audit committee of a U.S.-listed company and that of a French-listed company concerns the degree of the committee's involvement in managing the relationship between the company and the auditor. French law requires French companies that publish consolidated financial statements, such as TOTAL S.A., to have two co-auditors. While the NYSE listing standards require that the audit committee of a U.S.-listed company have direct responsibility for the appointment, compensation, retention and oversight of the work of the auditor, French law provides that the election of the co-auditors is the sole responsibility of the shareholders duly convened at a shareholders' meeting. In making their decision, the shareholders may rely on proposals submitted to them by the board of directors, the decision of the latter being taken upon consultation with the audit committee. The shareholders elect the auditors for an audit period of six fiscal years. The auditors may only be dismissed by a court and only on grounds of professional negligence or incapacity to perform their mission.

#### ***Meetings of non-management directors***

The NYSE listing standards require that the non-management directors of a U.S.-listed company meet at regularly scheduled executive sessions without management. French law does not contain such a requirement. The AFEP-MEDEF Code recommends, however, that directors should have the opportunity to meet outside the presence of executive directors, and that the rules of procedure of the Board of Directors should provide for one meeting of this kind per year, during which the performance of the Chairman, the Chief Executive Officer and the Deputy Chief Executive Officer(s) would be evaluated, and which would be an opportunity to reflect periodically on the future of the Company's management.

Although the rules of procedure of the Board of Directors do not expressly provide that one meeting of the non-executive directors be held per year without the participation of the executive or in-house directors, the Board of Directors' practice constitutes a mechanism which has the same effect as the recommendation made in the AFEP-MEDEF Code. In fact, at its meeting held each year in February, the Board of Directors evaluates the performances of the Chairman and Chief Executive Officer and, where applicable, reflects on the future of the Company's management. When these particular matters are reviewed, the Chairman and Chief Executive Officer, as well as the members of the Executive Committee present at the meeting (that are not executive and non-executive directors), leave the Board meeting. The Honorary Chairman then serves as Chairman of the Board with regard to these matters.

#### ***Disclosure***

The NYSE listing standards require U.S.-listed companies to adopt, and post on their websites, a set of corporate governance guidelines. The guidelines must address, among other things: director qualification standards, director responsibilities, director access to management and independent advisers, director compensation, director orientation and continuing education, management succession, and an annual performance evaluation of the board. In addition, the chief executive officer of a U.S.-listed company must certify to the NYSE annually that he or she is not aware of any violations by the company of the NYSE's corporate governance listing standards.

French law requires neither the adoption of such guidelines nor the provision of such certification. The AFEP-MEDEF Code recommends, however, that the board of directors of a French-listed company performs an annual review of its operation and that a formal evaluation, possibly with the assistance of an outside consultant, be undertaken every three years (which for TOTAL took place in early 2013) with the assistance of an outside consultant, and that the board of directors reviews its composition, organization and operation and that shareholders be informed of these evaluations each year in the annual report. In addition, Article L. 225-37 of the French Commercial Code provides that the chairman of the board of directors annually describes in a report to the shareholders the composition of the board and the balanced representation of men and women in the board, the preparation and organization of the board's work, as well as the

## Edgar Filing: TOTAL S.A. - Form 20-F

internal controls and risk management procedures implemented by the company. The AFEP-MEDEF Code also addresses deontology rules that the directors are expected to comply with.

### ***Code of business conduct and ethics***

The NYSE listing standards require each U.S.-listed company to adopt, and post on its website, a code of business conduct and ethics for its directors, officers and employees. There is no similar requirement under French law. However, under the SEC's rules and regulations, all companies required to submit periodic reports to the SEC, including TOTAL, must disclose in their annual reports whether they have adopted a code of ethics for their principal executive officer and senior financial officers. In addition, they must file a copy of the code with the SEC, post the text of the code on their website or undertake to provide a copy upon request to any person without charge. There is significant, though not complete, overlap between the code of ethics required by the NYSE listing standards and the code of ethics for senior financial officers required by the SEC's rules. For a discussion of the code of ethics adopted by TOTAL, see Item 6. Corporate Governance and Item 16B. Code of Ethics.

**Table of Contents**

Items 16H - 19

**ITEM 16H. MINE SAFETY DISCLOSURE**

Not applicable.

**ITEM 17. FINANCIAL STATEMENTS**

Not applicable.

**ITEM 18. FINANCIAL STATEMENTS**

The following financial statements, together with the report of Ernst & Young Audit and KPMG S.A. thereon, are held as part of this annual report.

<u>Report of Independent Registered Public Accounting Firms on the Consolidated Financial Statements</u>	Page
<u>Report of Independent Registered Public Accounting Firms on the Internal Control over Financial Reporting</u>	F-1
<u>Consolidated Statement of Income for the Years Ended December 31, 2013, 2012 and 2011</u>	F-2
<u>Consolidated Statement of Comprehensive Income for the Years Ended December 31, 2013, 2012 and 2011</u>	F-3
<u>Consolidated Balance Sheet at December 31, 2013, 2012 and 2011</u>	F-4
<u>Consolidated Statement of Cash Flow for the Years Ended December 31, 2013, 2012 and 2011</u>	F-5
<u>Consolidated Statement of Changes in Shareholders' Equity for the Years Ended December 31, 2013, 2012 and 2011</u>	F-6
<u>Notes to the Consolidated Financial Statements</u>	F-7
<u>Supplemental Oil and Gas Information (Unaudited)</u>	F-8
Schedules have been omitted since they are not required under the applicable instructions or the substance of the required information is shown in the financial statements.	S-1

**ITEM 19. EXHIBITS**

The following documents are filed as part of this annual report:

- 1 Bylaws (*Statuts*) of TOTAL S.A. (as amended through December 31, 2013).
- 2 The total amount of long-term debt securities authorized under any instrument does not exceed 10% of the total assets of the Company and its subsidiaries on a consolidated basis. We hereby agree to furnish to the SEC, upon its request, a copy of any instrument defining the rights of holders of long-term debt of the Company or of its subsidiaries for which consolidated or unconsolidated financial statements are required to be filed.
- 7.1 Ratio of earnings to fixed charges.
- 7.2 Computation of earnings to fixed charges.
- 8 List of Subsidiaries (see Note 35 to the Consolidated Financial Statements included in this Annual Report).
- 11 Code of Ethics (incorporated by reference to the Company's Annual Report on Form 20-F for the year ended December 31, 2005, filed on April 20, 2006).
- 12.1 Certification of Chairman and Chief Executive Officer.
- 12.2 Certification of Chief Financial Officer.
- 13.1 Certification of Chairman and Chief Executive Officer.
- 13.2 Certification of Chief Financial Officer.
- 15 Consent of ERNST & YOUNG AUDIT and of KPMG S.A.

**SIGNATURE**

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this annual report on its behalf.

## Edgar Filing: TOTAL S.A. - Form 20-F

TOTAL S.A.

By: /s/ CHRISTOPHE DE MARGERIE

Name: Christophe de Margerie

Title: Chairman and Chief Executive Officer

Date: March 27, 2014

2013 Form 20-F TOTAL S.A. 157

---

**Table of Contents**

**REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRMS**  
**ON THE CONSOLIDATED FINANCIAL STATEMENTS**

Year ended December 31, 2013

The Board of Directors and Shareholders,

We have audited the accompanying consolidated balance sheets of TOTAL S.A. and subsidiaries ( the Company ) as of December 31, 2013, 2012 and 2011, and the related consolidated statements of income, comprehensive income, cash flows and changes in shareholders' equity for each of the years in the three-year period ended December 31, 2013. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of the Company as of December 31, 2013, 2012 and 2011, and the consolidated results of its operations and its consolidated cash flows for each of the years in the three-year period ended December 31, 2013, in conformity with International Financial Reporting Standards as adopted by the European Union and in conformity with International Financial Reporting Standards as issued by the International Accounting Standards Board.

As discussed in the Introduction to the notes to the consolidated financial statements, the Company has changed its method of accounting for employee benefits as a result of the mandatory application of the revised standard IAS 19 Employee Benefits.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the Company's internal control over financial reporting as of December 31, 2013, based on criteria established in Internal Control Integrated Framework (1992) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO) and our report dated March 6, 2014 expressed an unqualified opinion on the effectiveness of the Company's internal control over financial reporting.

Paris La Défense, March 6, 2014

KPMG Audit

ERNST & YOUNG Audit

*A division of KPMG S.A.*

/s/ JAY NIRSIMLOO  
Jay Nirsimloo  
Partner

/s/ PASCAL MACIOCE  
Pascal Macioce  
Partner

/s/ LAURENT VITSE  
Laurent Vitse  
Partner

2013 Form 20-F TOTAL S.A. F-1

## **Table of Contents**

### **REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRMS ON THE INTERNAL CONTROL OVER FINANCIAL REPORTING**

Year ended December 31, 2013

The Board of Directors and Shareholders,

We have audited TOTAL S.A. and subsidiaries (the Company) internal control over financial reporting as of December 31, 2013, based on criteria established in *Internal Control – Integrated Framework (1992)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). The Company's management is responsible for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting included in the accompanying Management's Annual Report on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit.

We conducted our audit in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2013, based on criteria established in *Internal Control – Integrated Framework (1992)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States), the consolidated balance sheets of the Company as of December 31, 2013, 2012 and 2011 and the related consolidated statements of income, comprehensive income, cash flows and changes in shareholders' equity for each of the years in the three-year period ended December 31, 2013, and our report dated March 6, 2014 expressed an unqualified opinion on those consolidated financial statements.

Paris La Défense, March 6, 2014

KPMG Audit

ERNST & YOUNG Audit

*A division of KPMG S.A.*

/s/ JAY NIRSIMLOO  
Jay Nirsimloo  
Partner

/s/ PASCAL MACIOCE  
Pascal Macioce  
Partner

/s/ LAURENT VITSE  
Laurent Vitse  
Partner

**Table of Contents****CONSOLIDATED STATEMENT OF INCOME****TOTAL**

For the year ended December 31, (M <sup>(a)</sup> )		2013	2012	2011
<b>Sales</b>	(Notes 4 & 5)	<b>189,542</b>	<b>200,061</b>	<b>184,693</b>
Excise taxes		(17,887)	(17,762)	(18,143)
Revenues from sales		171,655	182,299	166,550
Purchases net of inventory variation	(Note 6)	(121,113)	(126,798)	(113,892)
Other operating expenses	(Note 6)	(21,687)	(22,784)	(19,792)
Exploration costs	(Note 6)	(1,633)	(1,446)	(1,019)
Depreciation, depletion and amortization of tangible assets and mineral interests		(9,031)	(9,525)	(7,506)
Other income	(Note 7)	1,725	1,462	1,946
Other expense	(Note 7)	(2,105)	(915)	(1,247)
Financial interest on debt		(670)	(671)	(713)
Financial income from marketable securities & cash equivalents		64	100	273
Cost of net debt	(Note 29)	(606)	(571)	(440)
Other financial income	(Note 8)	524	558	609
Other financial expense	(Note 8)	(529)	(499)	(429)
Equity in income (loss) of affiliates	(Note 12)	2,571	2,010	1,925
Income taxes	(Note 9)	(11,110)	(13,035)	(14,091)
<b>Consolidated net income</b>		<b>8,661</b>	<b>10,756</b>	<b>12,614</b>
Group share		8,440	10,609	12,309
Non-controlling interests		221	147	305
Earnings per share ( )		3.73	4.70	5.48
Fully-diluted earnings per share ( )		3.72	4.68	5.45

(a) Except for per share amounts.

**Table of Contents**

## CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

**TOTAL**

For the year ended December 31, (M )	2013	2012	2011
<b>Consolidated net income</b>	<b>8,661</b>	<b>10,756</b>	<b>12,614</b>
<b>Other comprehensive income</b>			
Actuarial gains and losses	513	(911)	(533)
Tax effect	(216)	362	191
<b>Items not potentially reclassifiable to profit and loss</b>	<b>297</b>	<b>(549)</b>	<b>(342)</b>
Currency translation adjustment	(2,199)	(702)	1,483
Available for sale financial assets	25	(338)	337
Cash flow hedge	117	65	(84)
Share of other comprehensive income of equity affiliates, net amount	(857)	160	(15)
Other	(4)	(14)	(3)
Tax effect	(47)	63	(55)
<b>Items potentially reclassifiable to profit and loss</b>	<b>(2,965)</b>	<b>(766)</b>	<b>1,663</b>
<b>Total other comprehensive income (net amount) (Note 17)</b>	<b>(2,668)</b>	<b>(1,315)</b>	<b>1,321</b>
<b>Comprehensive income</b>	<b>5,993</b>	<b>9,441</b>	<b>13,935</b>
<i>Group share</i>	<i>5,910</i>	<i>9,334</i>	<i>13,585</i>
<i>Non-controlling interests</i>	<i>83</i>	<i>107</i>	<i>350</i>



**Table of Contents****CONSOLIDATED BALANCE SHEET****TOTAL**

As of December 31, (M )		2013	2012	2011
<b>ASSETS</b>				
<b>Non-current assets</b>				
Intangible assets, net	(Notes 5 & 10)	13,341	12,858	12,413
Property, plant and equipment, net	(Notes 5 & 11)	75,759	69,332	64,457
Equity affiliates : investments and loans	(Note 12)	14,804	13,759	12,995
Other investments	(Note 13)	1,207	1,190	3,674
Hedging instruments of non-current financial debt	(Note 20)	1,028	1,626	1,976
Deferred income taxes	(Note 9)	2,810	2,279	2,070
Other non-current assets	(Note 14)	3,195	2,663	2,457
<b>Total non-current assets</b>		<b>112,144</b>	<b>103,707</b>	<b>100,042</b>
<b>Current assets</b>				
Inventories, net	(Note 15)	16,023	17,397	18,122
Accounts receivable, net	(Note 16)	16,984	19,206	20,049
Other current assets	(Note 16)	10,798	10,086	10,767
Current financial assets	(Note 20)	536	1,562	700
Cash and cash equivalents	(Note 27)	14,647	15,469	14,025
Assets classified as held for sale	(Note 34)	2,359	3,797	
<b>Total current assets</b>		<b>61,347</b>	<b>67,517</b>	<b>63,663</b>
<b>Total assets</b>		<b>173,491</b>	<b>171,224</b>	<b>163,705</b>
<b>LIABILITIES &amp; SHAREHOLDERS' EQUITY</b>				
<b>Shareholders' equity</b>				
Common shares		5,944	5,915	5,909
Paid-in surplus and retained earnings		74,449	70,116	65,430
Currency translation adjustment		(4,385)	(1,504)	(1,004)
Treasury shares		(3,379)	(3,342)	(3,390)
<b>Total shareholders' equity - Group share</b>	(Note 17)	<b>72,629</b>	<b>71,185</b>	<b>66,945</b>
<b>Non-controlling interests</b>		<b>2,281</b>	<b>1,280</b>	<b>1,352</b>
<b>Total shareholders' equity</b>		<b>74,910</b>	<b>72,465</b>	<b>68,297</b>
<b>Non-current liabilities</b>				
Deferred income taxes	(Note 9)	12,943	12,132	11,855
Employee benefits	(Note 18)	3,071	3,744	3,385
Provisions and other non-current liabilities	(Note 19)	12,701	11,585	10,909
Non-current financial debt	(Note 20)	25,069	22,274	22,557
<b>Total non-current liabilities</b>		<b>53,784</b>	<b>49,735</b>	<b>48,706</b>
<b>Current liabilities</b>				
Accounts payable		21,958	21,648	22,086
Other creditors and accrued liabilities	(Note 21)	13,821	14,698	14,774
Current borrowings	(Note 20)	8,116	11,016	9,675
Other current financial liabilities	(Note 20)	276	176	167
Liabilities directly associated with the assets classified as held for sale	(Note 34)	626	1,486	
<b>Total current liabilities</b>		<b>44,797</b>	<b>49,024</b>	<b>46,702</b>
<b>Total liabilities and shareholders' equity</b>		<b>173,491</b>	<b>171,224</b>	<b>163,705</b>

2013 Form 20-F TOTAL S.A. F-5

**Table of Contents****CONSOLIDATED STATEMENT OF CASH FLOW****TOTAL**

(Note 27)

For the year ended December 31, (M )	2013	2012	2011
<b>CASH FLOW FROM OPERATING ACTIVITIES</b>			
Consolidated net income	8,661	10,756	12,614
Depreciation, depletion and amortization	10,058	10,481	8,628
Non-current liabilities, valuation allowances and deferred taxes	1,171	1,470	1,632
Impact of coverage of pension benefit plans		(362)	
(Gains) losses on disposals of assets	(68)	(1,321)	(1,590)
Undistributed affiliates' equity earnings	(583)	211	(107)
(Increase) decrease in working capital	1,930	1,084	(1,739)
Other changes, net	304	143	98
<b>Cash flow from operating activities</b>	<b>21,473</b>	<b>22,462</b>	<b>19,536</b>
<b>CASH FLOW USED IN INVESTING ACTIVITIES</b>			
Intangible assets and property, plant and equipment additions	(22,400)	(19,905)	(17,950)
Acquisitions of subsidiaries, net of cash acquired	(16)	(191)	(854)
Investments in equity affiliates and other securities	(1,318)	(898)	(4,525)
Increase in non-current loans	(2,188)	(1,949)	(1,212)
<b>Total expenditures</b>	<b>(25,922)</b>	<b>(22,943)</b>	<b>(24,541)</b>
Proceeds from disposals of intangible assets and property, plant and equipment	1,329	1,418	1,439
Proceeds from disposals of subsidiaries, net of cash sold	1,995	352	575
Proceeds from disposals of non-current investments	248	2,816	5,691
Repayment of non-current loans	1,242	1,285	873
<b>Total divestments</b>	<b>4,814</b>	<b>5,871</b>	<b>8,578</b>
<b>Cash flow used in investing activities</b>	<b>(21,108)</b>	<b>(17,072)</b>	<b>(15,963)</b>
<b>CASH FLOW USED IN FINANCING ACTIVITIES</b>			
Issuance (repayment) of shares:			
Parent company shareholders	365	32	481
Treasury shares	(179)	(68)	
Dividends paid:			
Parent company shareholders	(5,367)	(5,184)	(5,140)
Non controlling interests	(118)	(104)	(172)
Other transactions with non-controlling interests	1,621	1	(573)
Net issuance (repayment) of non-current debt	8,359	5,279	4,069
Increase (decrease) in current borrowings	(6,804)	(2,754)	(3,870)
Increase (decrease) in current financial assets and liabilities	978	(947)	896
<b>Cash flow used in financing activities</b>	<b>(1,145)</b>	<b>(3,745)</b>	<b>(4,309)</b>
<b>Net increase (decrease) in cash and cash equivalents</b>	<b>(780)</b>	<b>1,645</b>	<b>(736)</b>
Effect of exchange rates	(42)	(201)	272
Cash and cash equivalents at the beginning of the period	15,469	14,025	14,489
<b>Cash and cash equivalents at the end of the period</b>	<b>14,647</b>	<b>15,469</b>	<b>14,025</b>

**Table of Contents****CONSOLIDATED STATEMENT OF CHANGES IN SHAREHOLDERS' EQUITY****TOTAL**

(M )	Common shares issued		Paid-in surplus and retained earnings	Currency translation adjustment	Treasury shares		Shareholders' equity - Group share	Non-controlling interests	Total shareholders' equity
	Number	Amount			Number	Amount			
<b>As of January 1, 2011 before IAS 19 R application</b>	<b>2,349,640,931</b>	<b>5,874</b>	<b>60,538</b>	<b>(2,495)</b>	<b>(112,487,679)</b>	<b>(3,503)</b>	<b>60,414</b>	<b>857</b>	<b>61,271</b>
IAS 19 R impacts			(766)				(766)	(1)	(767)
<b>As of January 1, 2011 after IAS 19 R application</b>	<b>2,349,640,931</b>	<b>5,874</b>	<b>59,772</b>	<b>(2,495)</b>	<b>(112,487,679)</b>	<b>(3,503)</b>	<b>59,648</b>	<b>856</b>	<b>60,504</b>
Net income 2011			12,309				12,309	305	12,614
Other comprehensive income (Note 17)			(112)	1,388			1,276	45	1,321
<b>Comprehensive Income</b>			<b>12,197</b>	<b>1,388</b>			<b>13,585</b>	<b>350</b>	<b>13,935</b>
Dividend			(6,457)				(6,457)	(172)	(6,629)
Issuance of common shares (Note 17)	14,126,382	35	446				481		481
Purchase of treasury shares									
Sale of treasury shares <sup>(a)</sup>			(113)		2,933,506	113			
Share-based payments (Note 25)			161				161		161
Share cancellation (Note 17)									
Other operations with non-controlling interests			(553)	103			(450)	(123)	(573)
Other items			(23)				(23)	441	418
<b>As of December 31, 2011</b>	<b>2,363,767,313</b>	<b>5,909</b>	<b>65,430</b>	<b>(1,004)</b>	<b>(109,554,173)</b>	<b>(3,390)</b>	<b>66,945</b>	<b>1,352</b>	<b>68,297</b>
Net income 2012			10,609				10,609	147	10,756
Other comprehensive income (Note 17)			(769)	(506)			(1,275)	(40)	(1,315)
<b>Comprehensive Income</b>			<b>9,840</b>	<b>(506)</b>			<b>9,334</b>	<b>107</b>	<b>9,441</b>
Dividend			(5,237)				(5,237)	(104)	(5,341)
Issuance of common shares (Note 17)	2,165,833	6	26				32		32
Purchase of treasury shares					(1,800,000)	(68)	(68)		(68)
Sale of treasury shares <sup>(a)</sup>			(116)		2,962,534	116			
Share-based payments (Note 25)			146				146		146
Share cancellation (Note 17)									
Other operations with non-controlling interests			11	6			17	(16)	1
Other items			16				16	(59)	(43)
<b>As of December 31, 2012</b>	<b>2,365,933,146</b>	<b>5,915</b>	<b>70,116</b>	<b>(1,504)</b>	<b>(108,391,639)</b>	<b>(3,342)</b>	<b>71,185</b>	<b>1,280</b>	<b>72,465</b>
Net income 2013			8,440				8,440	221	8,661
Other comprehensive income (Note 17)			360	(2,890)			(2,530)	(138)	(2,668)
<b>Comprehensive Income</b>			<b>8,800</b>	<b>(2,890)</b>			<b>5,910</b>	<b>83</b>	<b>5,993</b>
Dividend			(5,358)				(5,358)	(118)	(5,476)
Issuance of common shares (Note 17)	11,745,014	29	336				365		365
Purchase of treasury shares					(4,414,200)	(179)	(179)		(179)
Sale of treasury shares <sup>(a)</sup>			(142)		3,591,391	142			
Share-based payments (Note 25)			142				142		142
Share cancellation (Note 17)									
Other operations with non-controlling interests			548	9			557	1,027	1,584
Other items			7				7	9	16

# Edgar Filing: TOTAL S.A. - Form 20-F

As of December 31, 2013	2,377,678,160	5,944	74,449	(4,385)	(109,214,448)	(3,379)	72,629	2,281	74,910
-------------------------	---------------	-------	--------	---------	---------------	---------	--------	-------	--------

(a) Treasury shares related to the restricted stock grants.

2013 Form 20-F TOTAL S.A. F-7

## **Table of Contents**

# **TOTAL**

## **NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS**

On February 11, 2014, the Board of Directors established and authorized the publication of the Consolidated Financial Statements of TOTAL S.A. for the year ended December 31, 2013, which will be submitted for approval to the shareholders' meeting to be held on May 16, 2014.

### **INTRODUCTION**

The Consolidated Financial Statements of TOTAL S.A. and its subsidiaries (the Group) are presented in Euros and have been prepared on the basis of IFRS (International Financial Reporting Standards) as adopted by the European Union and IFRS as issued by the IASB (International Accounting Standard Board) as of December 31, 2013.

The accounting principles applied in the Consolidated Financial Statements as of December 31, 2013 were the same as those that were used as of December 31, 2012 except for amendments and interpretations of IFRS which were mandatory for the periods beginning after January 1, 2013 (and not early adopted).

The revised standard IAS 19 Employee benefits applicable retrospectively from January 1, 2013, led in particular to the full recognition of the net position in respect of employee benefits obligations (liabilities net of assets) in the balance sheet, to the elimination of the corridor approach previously used by the Group, the elimination of the depreciation of past services costs, and to the obligation to evaluate the expected return on plan assets on a normative basis (via the discount rate used to value the debt).

The application of this standard had an impact on January 1, 2013, on January 1, 2012 and on January 1, 2011 of an increase in employee benefit provisions of 2.8 billion, 1.8 billion and 1.3 billion respectively, and a respective decrease in equity of 2.8 billion, 1.8 billion and 1.3 billion before tax ( 1.7 billion, 1.1 billion and 0.8 billion after tax). The impact on the profit for 2012 and 2011 is not significant. In accordance with the transitional rules of IAS 19 revised, the comparative periods were restated to take into account the retrospective application of the standard.

Application of standards on consolidation: IFRS 10 Consolidated Financial Statements, IFRS 11 Joint arrangements, IFRS 12 Disclosure of interests in other entities, IAS 27 revised Separate financial statements and IAS 28 revised Investments in associates and joint ventures. The application of these standards did not have a material effect on the Group's consolidated balance sheet, income statement and shareholder's equity as of December 31, 2013.

The application of standards IFRS 13 Fair value measurement and IAS 1 revised Presentation of financial statements did not have a material effect on the Group's consolidated balance sheet, statement of income and shareholder's equity as of December 31, 2013.

The preparation of financial statements in accordance with IFRS requires the management to make estimates and assumptions that affect the reported amounts of assets, liabilities and contingent liabilities at the date of preparation of the financial statements and reported income and expenses for the period. The management reviews these estimates and assumptions on an ongoing basis, by reference to past experience and various other factors considered as reasonable which form the basis for assessing the carrying amount of assets and liabilities. Actual results may differ significantly from these estimates, if different assumptions or circumstances apply. These judgments and estimates relate principally to the application of the successful efforts method for the oil and gas accounting, the valuation of long-lived assets, the provisions for asset retirement obligations and environmental remediation, the pensions and post-retirements benefits and the income tax computation.

Furthermore, where the accounting treatment of a specific transaction is not addressed by any accounting standard or interpretation, the management applies its judgment to define and apply accounting policies that provide information consistent with the general IFRS concepts: faithful representation, relevance and materiality.

### **CHANGE IN PRESENTATION CURRENCY OF THE CONSOLIDATED FINANCIAL STATEMENTS**

To make the financial information of the Group more readable and to better reflect the performance of its activities mainly carried out in U.S. dollars, Total decided to change, effective January 1, 2014, the presentation currency of the Consolidated Financial Statements from the euro to the U.S. dollar. The financial

## Edgar Filing: TOTAL S.A. - Form 20-F

statements of TOTAL S.A., the parent company of the Group, remain prepared in euro. The dividend paid therefore remains fixed in euro.

F-8 TOTAL S.A. Form 20-F 2013

## **Table of Contents**

Following this change in accounting policy, the comparative consolidated financial statements will be presented in U.S. dollars.

### **1) ACCOUNTING POLICIES**

Pursuant to the accrual basis of accounting followed by the Group, the financial statements reflect the effects of transactions and other events when they occur. Assets and liabilities such as property, plant and equipment and intangible assets are usually measured at cost. Assets and liabilities are measured at fair value when required by the standards.

Accounting policies used by the Group are described below:

#### ***A) PRINCIPLES OF CONSOLIDATION***

Entities that are directly controlled by the parent company or indirectly controlled by other consolidated entities are fully consolidated.

Investments in joint ventures are consolidated under the equity method. The Group accounts for joint operations by recognizing its share of assets, liabilities, income and expenses.

Investments in associates, in which the Group has significant influence, are accounted for by the equity method. Significant influence is presumed when the Group holds, directly or indirectly (e.g. through subsidiaries), 20% or more of the voting rights. Companies in which ownership interest is less than 20%, but over which the Company is deemed to exercise significant influence, are also accounted for by the equity method.

All intercompany balances, transactions and income are eliminated.

#### ***B) BUSINESS COMBINATIONS***

Business combinations are accounted for using the acquisition method. This method requires the recognition of the acquired identifiable assets, assumed liabilities and any non-controlling interests in the companies acquired by the Group at their fair value.

The value of the purchase price is finalized within one year from the acquisition date.

The acquirer shall recognize goodwill at the acquisition date, being the excess of:

The consideration transferred, the amount of non-controlling interests and, in business combinations achieved in stages, the fair value at the acquisition date of the investment previously held in the acquired company;

Over the fair value at the acquisition date of acquired identifiable assets and assumed liabilities.

If the consideration transferred is lower than the fair value of acquired identifiable assets and assumed liabilities, an additional analysis is performed on the identification and valuation of the identifiable elements of the assets and liabilities. After having completed such additional analysis any residual negative goodwill is recorded as income.

In transactions with non-controlling interests, the difference between the price paid (received) and the book value of non-controlling interests acquired (sold) is recognized directly in equity.

#### ***C) FOREIGN CURRENCY TRANSLATION***

The financial statements of subsidiaries are prepared in the currency that most clearly reflects their business environment. This is referred to as their functional currency.

##### **(i) Monetary transactions**

## Edgar Filing: TOTAL S.A. - Form 20-F

Transactions denominated in foreign currencies other than the functional currency of the entity are translated at the exchange rate on the transaction date. At each balance sheet date, monetary assets and liabilities are translated at the closing rate and the resulting exchange differences are recognized in the statement of income.

### **(ii) Translation of financial statements denominated in foreign currencies**

Assets and liabilities of foreign entities are translated into euros on the basis of the exchange rates at the end of the period. The income and cash flow statements are translated using the average exchange rates for the period. Foreign exchange differences resulting from such translations are either recorded in shareholders equity under Currency translation adjustments (for the Group share) or under Non-controlling interests (for the share of non-controlling interests) as deemed appropriate.

### ***D) SALES AND REVENUES FROM SALES***

Sales figures include excise taxes collected by the Group within the course of its oil distribution operations. Excise taxes are deducted from sales in order to obtain the Revenues from sales indicator.

#### **(i) Sale of goods**

Revenues from sales are recognized when the significant risks and rewards of ownership have been passed to the buyer and when the amount is recoverable and can be reasonably measured.



## **Table of Contents**

Revenues from sales of crude oil, natural gas and coal are recorded upon transfer of title, according to the terms of the sales contracts.

Revenues from the production of crude oil and natural gas properties, in which the Group has an interest with other producers, are recognized based on actual volumes sold during the period. Any difference between volumes sold and entitlement volumes, based on the Group net working interest, is recognized as Crude oil and natural gas inventories or Other current assets or Other creditors and accrued liabilities, as appropriate.

Quantities delivered that represent production royalties and taxes, when paid in cash, are included in oil and gas sales, except for the United States and Canada.

Certain transactions within the trading activities (contracts involving quantities that are purchased from third parties then resold to third parties) are shown at their net value in sales.

Exchanges of crude oil and petroleum products within normal trading activities do not generate any income and therefore these flows are shown at their net value in both the statement of income and the balance sheet.

### **(ii) Sale of services**

Revenues from services are recognized when the services have been rendered.

Revenues from gas transport are recognized when services are rendered. These revenues are based on the quantities transported and measured according to procedures defined in each service contract.

Shipping revenues and expenses from time-charter activities are recognized on a pro rata basis over a period that commences upon the unloading of the previous voyage and terminates upon the unloading of the current voyage. Shipping revenue recognition starts only when a charter has been agreed to by both the Group and the customer.

### **(iii) Solar Farm Development Projects**

SunPower develops and sells solar farm projects. This activity generally contains a property component (land ownership or an interest in land rights). The revenue associated with the development of these projects is recognized when the entities-projects and land rights are irrevocably sold.

Revenues under contracts for construction of solar systems are recognized based on the progress of

construction works, measured according to the percentage of costs incurred relative to total forecast costs.

## ***E) SHARE-BASED PAYMENTS***

The Group may grant employees stock options, create employee share purchase plans and offer its employees the opportunity to subscribe to reserved capital increases. These employee benefits are recognized as expenses with a corresponding credit to shareholders' equity.

The expense is equal to the fair value of the instruments granted. The expense is recognized on a straight-line basis between the grant date and vesting date.

The fair value of the options is calculated using the Black-Scholes model at the grant date.

For restricted share plans, the fair value is calculated using the market price at the grant date after deducting the expected distribution rate during the vesting period.

The number of allocated equity instruments can be revised during the vesting period in cases of non-compliance with performance conditions, with the exception of those related to the market, or according to the rate of turnover of the beneficiaries.

The cost of employee-reserved capital increases is immediately expensed. A discount reduces the expense in order to account for the non-transferability of the shares awarded to the employees over a period of five years.

## Edgar Filing: TOTAL S.A. - Form 20-F

### ***F) INCOME TAXES***

Income taxes disclosed in the statement of income include the current tax expenses and the deferred tax expenses.

The Group uses the method whereby deferred income taxes are recorded based on the temporary differences between the carrying amounts of assets and liabilities recorded in the balance sheet and their tax bases, and on carry-forwards of unused tax losses and tax credits.

Deferred tax assets and liabilities are measured using the tax rates that have been enacted or substantially enacted at the balance sheet date. The tax rates used depend on the timing of reversals of temporary differences, tax losses and other tax credits. The effect of a change in tax rate is recognized either in the consolidated statement of income or in shareholders' equity depending on the item it relates to.

Deferred tax assets are recognized when future recovery is probable.

F-10 TOTAL S.A. Form 20-F 2013

## **Table of Contents**

Asset retirement obligations and finance leases give rise to the recognition of assets and liabilities for accounting purposes as described in paragraph K Leases and paragraph Q Asset retirement obligations of this Note. Deferred income taxes resulting from temporary differences between the carrying amounts and tax bases of such assets and liabilities are recognized.

Deferred taxes resulting from temporary differences between the carrying amounts of equity-method investments and their tax bases are recognized. The deferred tax calculation is based on the expected future tax effect (dividend distribution rates or tax rates on capital gains).

### ***G) EARNINGS PER SHARE***

Earnings per share is calculated by dividing net income (Group share) by the weighted-average number of common shares outstanding during the period, excluding TOTAL shares held by TOTAL S.A. (Treasury shares) and TOTAL shares held by the Group subsidiaries which are deducted from consolidated shareholders equity.

Diluted earnings per share is calculated by dividing net income (Group share) by the fully-diluted weighted-average number of common shares outstanding during the period. Treasury shares held by the parent company, TOTAL S.A., and TOTAL shares held by the Group subsidiaries are deducted from consolidated shareholders equity. These shares are not considered outstanding for purposes of this calculation which also takes into account the dilutive effect of stock options, share grants and capital increases with a subscription period closing after the end of the fiscal year.

The weighted-average number of fully-diluted shares is calculated in accordance with the treasury stock method provided for by IAS 33. The proceeds, which would be recovered in the event of an exercise of rights related to dilutive instruments, are presumed to be a share buyback at the average market price over the period. The number of shares thereby obtained leads to a reduction in the total number of shares that would result from the exercise of rights.

### ***H) OIL AND GAS EXPLORATION AND PRODUCING PROPERTIES***

The Group applies IFRS 6 Exploration for and Evaluation of Mineral Resources. Oil and gas exploration and production properties and assets are accounted for in accordance with the successful efforts method.

#### **(i) Exploration costs**

Geological and geophysical costs, including seismic surveys for exploration purposes are expensed as incurred.

Mineral interests are capitalized as intangible assets when acquired. These acquired interests are tested for impairment on a regular basis, property-by-property, based on the results of the exploratory activity and the management's evaluation.

In the event of a discovery, the unproved mineral interests are transferred to proved mineral interests at their net book value as soon as proved reserves are booked.

Exploratory wells are tested for impairment on a well-by-well basis and accounted for as follows:

Costs of exploratory wells which result in proved reserves are capitalized and then depreciated using the unit-of-production method based on proved developed reserves;

Costs of dry exploratory wells and wells that have not found proved reserves are charged to expense;

Costs of exploratory wells are temporarily capitalized until a determination is made as to whether the well has found proved reserves if both of the following conditions are met:

The well has found a sufficient quantity of reserves to justify its completion as a producing well, if appropriate, assuming that the required capital expenditures are made;

The Group is making sufficient progress assessing the reserves and the economic and operating viability of the project. This progress is evaluated on the basis of indicators such as whether additional exploratory works are under way or firmly planned (wells, seismic or significant studies), whether costs are being incurred for development studies and whether the Group is waiting for governmental or other third-party authorization of a proposed project, or availability of capacity on an existing transport or processing facility.

Costs of exploratory wells not meeting these conditions are charged to expense.

**(ii) Oil and Gas producing assets**

Development costs incurred for the drilling of wells and for the construction of production and treatment facilities are capitalized, together with borrowing costs incurred during the period of construction and the present value of estimated future costs of asset retirement obligations. The depletion rate is usually equal to the ratio of oil and gas production for the period to proved developed reserves (unit-of-production method).

---

## **Table of Contents**

With respect to production sharing contracts, this computation is based on the portion of production and reserves assigned to the Group taking into account estimates based on the contractual clauses regarding the reimbursement of exploration, development and production costs (cost oil) as well as the sharing of hydrocarbon rights (profit oil).

Transportation assets are depreciated using the unit-of-production method based on throughput or by using the straight-line method whichever best reflects the duration of use of the economic life of the asset.

Proved mineral interests are depreciated using the unit-of-production method based on proved reserves.

### ***I) GOODWILL AND OTHER INTANGIBLE ASSETS EXCLUDING MINERAL INTERESTS***

Other intangible assets include goodwill, patents, trademarks, and lease rights.

Intangible assets are carried at cost, after deducting any accumulated depreciation and accumulated impairment losses.

Guidance for calculating goodwill is presented in Note 1 paragraph B to the Consolidated Financial Statements. Goodwill is not amortized but is tested for impairment annually or as soon as there is any indication of impairment (see Note 1 paragraph L to the Consolidated Financial Statements).

In equity affiliates, goodwill is included in the investment book value.

Other intangible assets (except goodwill) have a finite useful life and are amortized on a straight-line basis over 3 to 20 years depending on the useful life of the assets.

### **Research and development**

Research costs are charged to expense as incurred.

Development expenses are capitalized when the following can be demonstrated:

the technical feasibility of the project and the availability of the adequate resources for the completion of the intangible asset;

the ability of the asset to generate probable future economic benefits;

the ability to measure reliably the expenditures attributable to the asset; and  
the feasibility and intention of the Group to complete the intangible asset and use or sell it.

Advertising costs are charged to expense as incurred.

### ***J) OTHER PROPERTY, PLANT AND EQUIPMENT***

Other property, plant and equipment are carried at cost, after deducting any accumulated depreciation and accumulated impairment losses. This cost includes borrowing costs directly attributable to the acquisition or production of a qualifying asset incurred until assets are placed in service. Borrowing costs are capitalized as follows:

if the project benefits from a specific funding, the capitalization of borrowing costs is based on the borrowing rate;

if the project is financed by all the Group's debt, the capitalization of borrowing costs is based on the weighted average borrowing cost for the period.

## Edgar Filing: TOTAL S.A. - Form 20-F

Routine maintenance and repairs are charged to expense as incurred. The costs of major turnarounds of refineries and large petrochemical units are capitalized as incurred and depreciated over the period of time between two consecutive major turnarounds.

Other property, plant and equipment are depreciated using the straight-line method over their useful lives, which are as follows:

Furniture, office equipment, machinery and tools	3-12 years
Transportation equipments	5-20 years
Storage tanks and related equipment	10-15 years
Specialized complex installations and pipelines	10-30 years
Buildings	10-50 years

### **K) LEASES**

A finance lease transfers substantially all the risks and rewards incidental to ownership from the lessor to the lessee. These contracts are capitalized as assets at fair value or, if lower, at the present value of the minimum lease payments according to the contract. A corresponding financial debt is recognized as a financial liability. These assets are depreciated over the corresponding useful life used by the Group.

Leases that are not finance leases as defined above are recorded as operating leases.

## **Table of Contents**

Certain arrangements do not take the legal form of a lease but convey the right to use an asset or a group of assets in return for fixed payments. Such arrangements are accounted for as leases and are analyzed to determine whether they should be classified as operating leases or as finance leases.

### ***L) IMPAIRMENT OF LONG-LIVED ASSETS***

The recoverable amounts of intangible assets and property, plant and equipment are tested for impairment as soon as any indication of impairment exists. This test is performed at least annually for goodwill.

The recoverable amount is the higher of the fair value (less costs to sell) or its value in use.

Assets are grouped into cash-generating units (or CGUs) and tested. A cash-generating unit is a homogeneous group of assets that generates cash inflows that are largely independent of the cash inflows from other groups of assets.

The value in use of a CGU is determined by reference to the discounted expected future cash flows, based upon the management's expectation of future economic and operating conditions. When this value is less than the carrying amount of the CGU, an impairment loss is recorded. It is allocated first to goodwill in counterpart of Other expenses. These impairment losses are then allocated to Depreciation, depletion and amortization of tangible assets and mineral interests for property, plant and mineral interests and to Other expenses for other intangible assets.

Impairment losses recognized in prior periods can be reversed up to the original carrying amount, had the impairment loss not been recognized. Impairment losses recognized for goodwill cannot be reversed.

### ***M) FINANCIAL ASSETS AND LIABILITIES***

Financial assets and liabilities are financial loans and receivables, investments in non-consolidated companies, publicly traded equity securities, derivatives instruments and current and non-current financial liabilities.

The accounting treatment of these financial assets and liabilities is as follows:

#### **(i) Loans and receivables**

Financial loans and receivables are recognized at amortized cost. They are tested for impairment, by comparing the carrying amount of the assets to estimates of the discounted future recoverable cash flows. These tests are conducted as soon as there is any evidence that

their fair value is less than their carrying amount, and at least annually. Any impairment loss is recorded in the statement of income.

#### **(ii) Other investments**

These assets are classified as financial assets available for sale and therefore measured at their fair value. For listed securities, this fair value is equal to the market price. For unlisted securities, if the fair value is not reliably determinable, securities are recorded at their historical value. Changes in fair value are recorded in shareholders' equity. If there is any evidence of a significant or long-lasting impairment loss, a loss is recorded in the statement of income. This impairment is irreversible.

#### **(iii) Derivative instruments**

The Group uses derivative instruments to manage its exposure to risks of changes in interest rates, foreign exchange rates and commodity prices. Changes in fair value of derivative instruments are recognized in the statement of income or in shareholders' equity and are recognized in the balance sheet in the accounts corresponding to their nature, according to the risk management strategy described in Note 31 to the Consolidated Financial Statements. The derivative instruments used by the Group are the following:

## Edgar Filing: TOTAL S.A. - Form 20-F

### *Cash management*

Financial instruments used for cash management purposes are part of a hedging strategy of currency and interest rate risks within global limits set by the Group and are considered to be used for transactions (held for trading). Changes in fair value are systematically recorded in the statement of income. The balance sheet value of those instruments is included in Current financial assets or Other current financial liabilities .

### *Long-term financing*

When an external long-term financing is set up, specifically to finance subsidiaries, and when this financing involves currency and interest rate derivatives, these instruments are qualified as:

- i. Fair value hedge of the interest rate risk on the external debt and of the currency risk of the loans to subsidiaries. Changes in fair value of derivatives are recognized in the statement of income as are changes in fair value of underlying financial debts and loans to subsidiaries. The fair value of those hedging instruments of long-term financing is included in the assets under



## **Table of Contents**

Hedging instruments on non-current financial debt or in the liabilities under Non-current financial debt for the non-current portion. The current portion (less than one year) is accounted for in Current financial assets or Other current financial liabilities .

In case of the anticipated termination of derivative instruments accounted for as fair value hedges, the amount paid or received is recognized in the statement of income and:

If this termination is due to an early cancellation of the hedged items, the adjustment previously recorded as revaluation of those hedged items is also recognized in the statement of income;

If the hedged items remain in the balance sheet, the adjustment previously recorded as a revaluation of those hedged items is spread over the remaining life of those items.

- ii. Cash flow hedge of the currency risk of the external debt. Changes in fair value are recorded in Other comprehensive Income for the effective portion of the hedging and in the statement of income for the ineffective portion of the hedging. Amounts recorded in equity are transferred to the income statement when the hedged transaction affects profit or loss.

The fair value of those hedging instruments of long-term financing is included in the assets under Hedging instruments on non-current financial debt or in the liabilities under Non-current financial debt for the non-current portion. The current portion (less than one year) is accounted for in Current financial assets or Other current financial liabilities .

If the hedging instrument expires, is sold or terminated by anticipation, gains or losses previously recognized in equity remain in equity. Amounts are recycled in the income statement only when the hedged transaction affects profit or loss.

### *Foreign subsidiaries' equity hedge*

Certain financial instruments hedge against risks related to the equity of foreign subsidiaries whose functional currency is not the euro (mainly the dollar). These instruments qualify as net investment hedges and changes in fair value are recorded in Other comprehensive income for the effective portion of the

hedging and in the statement of income for the ineffective portion of the hedging. Gains or losses on hedging instruments previously recorded in equity, are reclassified to the statement of income in the same period as the total or partial disposal of the foreign activity.

The fair value of these instruments is recorded under Current financial assets or Other current financial liabilities .

### *Financial instruments related to commodity contracts*

Financial instruments related to commodity contracts, including crude oil, petroleum products, gas, power and coal purchase/sales contracts within the trading activities, together with the commodity contract derivative instruments such as energy contracts and forward freight agreements, are used to adjust the Group's exposure to price fluctuations within global trading limits. According to the industry practice, these instruments are considered as held for trading. Changes in fair value are recorded in the statement of income. The fair value of these instruments is recorded in Other current assets or Other creditors and accrued liabilities depending on whether they are assets or liabilities.

Detailed information about derivatives positions is disclosed in Notes 20, 28, 29, 30 and 31 to the Consolidated Financial Statements.

### **(iv) Current and non-current financial liabilities**

Current and non-current financial liabilities (excluding derivatives) are recognized at amortized cost, except those for which hedge accounting can be applied as described in the previous paragraph.

## Edgar Filing: TOTAL S.A. - Form 20-F

### (v) Fair value of financial instruments

Fair values are estimated for the majority of the Group's financial instruments, with the exception of publicly traded equity securities and marketable securities for which the market price is used.

Estimations of fair value, which are based on principles such as discounting future cash flows to present value, must be weighted by the fact that the value of a financial instrument at a given time may be influenced by the market environment (liquidity especially), and also the fact that subsequent changes in interest rates and exchange rates are not taken into account.

As a consequence, the use of different estimates, methodologies and assumptions could have a material effect on the estimated fair value amounts.

## **Table of Contents**

The methods used are as follows:

### *Financial debts, swaps*

The market value of swaps and of bonds that are hedged by those swaps has been determined on an individual basis by discounting future cash flows with the zero coupon interest rate curves existing at year-end.

### *Financial instruments related to commodity contracts*

The valuation methodology is to mark to market all open positions for both physical and paper transactions. The valuations are determined on a daily basis using observable market data based on organized and over the counter (OTC) markets. In particular cases when market data are not directly available, the valuations are derived from observable data such as arbitrages, freight or spreads and market corroboration. For valuation of risks which are the result of a calculation, such as options for example, commonly known models are used to compute the fair value.

### *Other financial instruments*

The fair value of the interest rate swaps and of FRAs (Forward Rate Agreements) are calculated by discounting future cash flows on the basis of zero coupon interest rate curves existing at year-end after adjustment for interest accrued but unpaid.

Forward exchange contracts and currency swaps are valued on the basis of a comparison of the negotiated forward rates with the rates in effect on the financial markets at year-end for similar maturities.

Exchange options are valued based on the Garman-Kohlhagen model including market quotations at year-end.

### *Fair value hierarchy*

IFRS 7 Financial instruments: disclosures, amended in 2009, introduces a fair value hierarchy for financial instruments and proposes the following three-level classification:

level 1: quotations for assets and liabilities (identical to the ones that are being valued) obtained at the valuation date on an active market to which the entity has access;

level 2: the entry data are observable data but do not correspond to quotations for identical assets or liabilities;

level 3: the entry data are not observable data. For example: these data come from extrapolation. This level applies when there is no market or observable data and the company has to use its own hypotheses to estimate the data that other market players would have used to determine the fair value of the asset.

Fair value hierarchy is disclosed in Notes 29 and 30 to the Consolidated Financial Statements.

### **(vi) Commitments to purchase shares held by non-controlling interests (put options written on minority interests)**

Put options granted to non-controlling-interest shareholders are initially recognized as financial liabilities at the present value of the exercise price of the options with a corresponding reduction in shareholders' equity. The financial liability is subsequently measured at fair value at each balance sheet date in accordance with contractual clauses and any variation is recorded in the statement of income (cost of debt).

## **N) INVENTORIES**

## Edgar Filing: TOTAL S.A. - Form 20-F

Inventories are measured in the Consolidated Financial Statements at the lower of historical cost or market value. Costs for petroleum and petrochemical products are determined according to the FIFO (First-In, First-Out) method and other inventories are measured using the weighted-average cost method. In addition stocks held for trading are measured at fair value less costs of sale.

### **Refining & Chemicals**

Petroleum product inventories are mainly comprised of crude oil and refined products. Refined products principally consist of gasoline, kerosene, diesel, fuel oil and heating oil produced by the Group's refineries. The turnover of petroleum products does not exceed more than two months on average.

Crude oil costs include raw material and receiving costs. Refining costs principally include crude oil costs, production costs (energy, labor, depreciation of producing assets) and an allocation of production overheads (taxes, maintenance, insurance, etc.).

Costs of chemical product inventories consist of raw material costs, direct labor costs and an allocation of production overheads. Start-up costs, general administrative costs and financing costs are excluded from the cost price of refined and chemicals products.

2013 Form 20-F TOTAL S.A. F-15

## **Table of Contents**

### **Marketing & Services**

The costs of refined products include mainly crude oil costs, production costs (energy, labor, depreciation of producing assets) and an allocation of production overheads (taxes, maintenance, insurance, etc.).

Start-up costs, general administrative costs and financing costs are excluded from the cost price of refined products.

Product inventories purchased from entities external to the Group are valued at their purchase cost plus primary costs of transport.

### ***O) TREASURY SHARES***

Treasury shares of the parent company held by its subsidiaries or itself are deducted from consolidated shareholders' equity. Gains or losses on sales of treasury shares are excluded from the determination of net income and are recognized in shareholders' equity.

### ***P) PROVISIONS AND OTHER NON-CURRENT LIABILITIES***

A provision is recognized when the Group has a present obligation (legal or constructive) as a result of a past event for which it is probable that an outflow of resources will be required and when a reliable estimate can be made regarding the amount of the obligation. The amount of the liability corresponds to the best possible estimate.

Provisions and non-current liabilities are comprised of liabilities for which the amount and the timing are uncertain. They arise from environmental risks, legal and tax risks, litigation and other risks.

### ***Q) ASSET RETIREMENT OBLIGATIONS***

Asset retirement obligations, which result from a legal or constructive obligation, are recognized based on a reasonable estimate in the period in which the obligation arises.

The associated asset retirement costs are capitalized as part of the carrying amount of the underlying asset and depreciated over the useful life of this asset.

An entity is required to measure changes in the liability for an asset retirement obligation due to the passage of time (accretion) by applying a risk-free discount rate to the amount of the liability. The increase of the provision due to the passage of time is recognized as Other financial expense.

### ***R) EMPLOYEE BENEFITS***

In accordance with the laws and practices of each country, the Group participates in employee benefit plans offering

retirement, death and disability, healthcare and special termination benefits. These plans provide benefits based on various factors such as length of service, salaries, and contributions made to the governmental bodies responsible for the payment of benefits.

These plans can be either defined contribution or defined benefit pension plans and may be entirely or partially funded with investments made in various non-Group instruments such as mutual funds, insurance contracts, and other instruments.

For defined contribution plans, expenses correspond to the contributions paid.

Defined benefit obligations are determined according to the Projected Unit Method. Actuarial gains and losses may arise from differences between actuarial valuation and projected commitments (depending on new calculations or assumptions) and between projected and actual return of plan assets. Such gains and losses are recognized in the statement of comprehensive income, with no possibility to subsequently recycle them to the income statement.

The past service cost is recorded immediately in the statement of income, whether vested or unvested.

The net periodic pension cost is recognized under Other operating expenses.

**S) CONSOLIDATED STATEMENT OF CASH FLOWS**

The Consolidated Statement of Cash Flows prepared in foreign currencies has been translated into euros using the exchange rate on the transaction date or the average exchange rate for the period. Currency translation differences arising from the translation of monetary assets and liabilities denominated in foreign currency into euros using the closing exchange rates are shown in the Consolidated Statement of Cash Flows under Effect of exchange rates . Therefore, the Consolidated Statement of Cash Flows will not agree with the figures derived from the Consolidated Balance Sheet.

**Cash and cash equivalents**

Cash and cash equivalents are comprised of cash on hand and highly liquid short-term investments that are easily convertible into known amounts of cash and are subject to insignificant risks of changes in value.

Investments with maturities greater than three months and less than twelve months are shown under Current financial assets .

Changes in current financial assets and liabilities are included in the financing activities section of the Consolidated Statement of Cash Flows.

## **Table of Contents**

### **Non-current financial debt**

Changes in non-current financial debt are presented as the net variation to reflect significant changes mainly related to revolving credit agreements.

### ***T) CARBON DIOXIDE EMISSION RIGHTS***

In the absence of a current IFRS standard or interpretation on accounting for emission rights of carbon dioxide, the following principles are applied:

Emission rights are managed as a cost of production and as such are recognized in inventories:

Emission rights allocated for free are booked in inventories with a nil carrying amount,

Purchased emission rights are booked at acquisition cost,

Sales or annual restorations of emission rights consist of decreases in inventories recognized based on a weighted average cost,

If the carrying amount of inventories at closing date is higher than the market value, an impairment loss is recorded.

At each closing, a provision is recorded in order to materialize the obligation of emission rights restoration related to the emissions of the period. This provision is calculated based on estimated emissions of the period, valued at weighted average cost of the inventories at the end of the period. It is reversed when the emission rights are restored.

If emission rights to be delivered at the end of the compliance period are higher than emission rights (allocated and purchased) booked in inventories, the shortage is accounted for as a liability at market value.

Forward transactions are recognized at their fair market value in the balance sheet. Changes in the fair value of such forward transactions are recognized in the statement of income.

### ***U) ENERGY SAVINGS CERTIFICATES***

In the absence of current IFRS standards or interpretations on accounting for energy savings certificates, the following principles are applied:

If the obligations linked to the sales of energy are greater than the number of ESC s held then a liability is recorded. These liabilities are valued based on the price of the latest transactions.

In the event that the number of ESC s held exceeds the obligation at the balance sheet date this is accounted for as inventory.

ESC inventories are valued at weighted average cost (acquisition cost for those ESC acquired or cost incurred for those ESC generated internally).

If the carrying value of the inventory of certificates at the balance sheet date is higher than the market value, an impairment loss is recorded in income

***V) NON-CURRENT ASSETS HELD FOR SALE AND DISCONTINUED OPERATIONS***

Pursuant to IFRS 5 Non-current assets held for sale and discontinued operations, assets and liabilities of affiliates that are held for sale are presented separately on the face of the balance sheet. Depreciation of assets ceases from the date of classification in Non-current assets held for sale.

Net income from discontinued operations is presented separately on the face of the statement of income. Therefore, the notes to the Consolidated Financial Statements related to the statement of income only refer to continuing operations.

A discontinued operation is a component of the Group for which cash flows are independent. It represents a major line of business or geographical area of operations which has been disposed of or is currently being held for sale.

***W) NEW ACCOUNTING PRINCIPLES NOT YET IN EFFECT***

The standards or interpretations published respectively by the International Accounting Standards Board (IASB) and the International Financial Reporting Interpretations Committee (IFRIC) which were not yet in effect at December 31, 2013, are as follows:

**Standards not yet adopted by the European Union at December 31, 2013**

In November 2009, the IASB issued standard IFRS 9 Financial Instruments that introduces new requirements for the classification and measurement of financial assets, and included in October 2010 requirements regarding classification and measurement of financial liabilities. This standard shall be completed with texts on impairment of financial assets measured at amortized cost and hedge accounting. Under standard IFRS 9, financial assets and liabilities are generally measured either at fair value through profit or loss or at amortized cost if certain conditions are met. The standard will not be applicable before 2017. The application of the standard as published in 2010 should not have any material effect on the Group's consolidated balance sheet, statement of income and shareholder's equity.



## **Table of Contents**

In May 2013, the IASB issued the interpretation IFRIC 21 – Levies . This interpretation is applicable retrospectively for annual periods beginning on or after January 1, 2014. The impacts of the application of this interpretation are under review.

### **2) MAIN INDICATORS – INFORMATION BY BUSINESS SEGMENT**

Performance indicators excluding the adjustment items, such as adjusted operating income, adjusted net operating income, and adjusted net income are meant to facilitate the analysis of the financial performance and the comparison of income between periods.

#### **Adjustment items**

The detail of these adjustment items is presented in Note 4 to the Consolidated Financial Statements.

Adjustment items include:

##### **(i) Special items**

Due to their unusual nature or particular significance, certain transactions qualified as special items are excluded from the business segment figures. In general, special items relate to transactions that are significant, infrequent or unusual. However, in certain instances, transactions such as restructuring costs or assets disposals, which are not considered to be representative of the normal course of business, may be qualified as special items although they may have occurred within prior years or are likely to occur again within the coming years.

##### **(ii) The inventory valuation effect**

The adjusted results of the Refining & Chemicals and Marketing & Services segments are presented according to the replacement cost method. This method is used to assess the segments' performance and facilitate the comparability of the segments' performance with those of its competitors.

In the replacement cost method, which approximates the LIFO (Last-In, First-Out) method, the variation of inventory values in the statement of income is, depending on the nature of the inventory, determined using either the month-end prices differential between one period and another or the average prices of the period rather than the historical value. The inventory valuation effect is the difference between the results according to the FIFO (First-In, First-Out) and the replacement cost.

##### **(iii) Effect of changes in fair value**

The effect of changes in fair value presented as adjustment items reflects for some transactions differences between internal measures of performance used by TOTAL's management and the accounting for these transactions under IFRS.

IFRS requires that trading inventories be recorded at their fair value using period end spot prices. In order to best reflect the management of economic exposure through derivative transactions, internal indicators used to measure performance include valuations of trading inventories based on forward prices.

Furthermore, TOTAL, in its trading activities, enters into storage contracts, which future effects are recorded at fair value in Group's internal economic performance. IFRS precludes recognition of this fair value effect.

#### **Main indicators**

##### **(i) Operating income (measure used to evaluate operating performance)**

Revenue from sales after deducting cost of goods sold and inventory variations, other operating expenses, exploration expenses and depreciation, depletion, and amortization.

Operating income excludes the amortization of intangible assets other than mineral interests, currency translation adjustments and gains or losses on the disposal of assets.

##### **(ii) Net operating income (measure used to evaluate the return on capital employed)**

## Edgar Filing: TOTAL S.A. - Form 20-F

Operating income after taking into account the amortization of intangible assets other than mineral interests, currency translation adjustments, gains or losses on the disposal of assets, as well as all other income and expenses related to capital employed (dividends from non-consolidated companies, equity in income of affiliates, capitalized interest expenses), and after income taxes applicable to the above.

The only income and expense not included in net operating income but included in net income are interest expenses related to net financial debt, after applicable income taxes (net cost of net debt) and non-controlling interests.

### **(iii) Adjusted income**

Operating income, net operating income, or net income excluding the effect of adjustment items described above.

F-18 TOTAL S.A. Form 20-F 2013

## **Table of Contents**

### **(iv) Fully-diluted adjusted earnings per share**

Adjusted net income divided by the fully-diluted weighted-average number of common shares.

### **(v) Capital employed**

Non-current assets and working capital, at replacement cost, net of deferred income taxes and non-current liabilities.

### **(vi) ROACE (Return on Average Capital Employed)**

Ratio of adjusted net operating income to average capital employed between the beginning and the end of the period.

### **(vii) ROE (Return on Equity)**

Ratio of adjusted consolidated net income to average adjusted shareholders' equity (after distribution) between the beginning and the end of the period.

### **(viii) Net debt**

Non-current debt, including current portion, current borrowings, other current financial liabilities, less cash and cash equivalents and other current financial assets.

## **3) CHANGES IN THE GROUP STRUCTURE, MAIN ACQUISITIONS AND DIVESTMENTS**

During 2013, 2012 and 2011, main changes in the Group structure and main acquisitions and divestments were as follows:

### **2013**

#### **Upstream**

TOTAL finalized in February 2013 the acquisition of an additional 6% interest in the Ichthys liquefied natural gas (LNG) project from its partner INPEX. TOTAL's overall equity stake in the Ichthys LNG project increased from 24% to 30%.

TOTAL finalized in February 2013 the sale to INPEX of a 9.99% indirect interest in offshore Angola Block 14.

On March 27, 2013, TOTAL entered into an agreement for the sale to Suncor Energy Inc. of its 49% interest in the Voyageur upgrader project, which is located in the Canadian province of Alberta and intended to upgrade bitumen from the Fort Hills and Joslyn mines. The transaction amounted to \$506 million (€ 381 million). The mining development projects of Fort Hills and Joslyn continue according to the production evacuation logistics studies jointly conducted with Suncor. The sale entails a net loss of € 1,247 million.

TOTAL finalized in June 2013 the sale of a 25% interest in the Tempa Rossa field in Italy to Mitsui.

TOTAL finalized in July 2013 the sale of 100% of Transport et Infrastructures Gaz France (TIGF) to a consortium comprising Snam, EDF and GIC (Government of Singapore Investment Corporation) for an amount of € 1,558 million, net of cash sold.

## Edgar Filing: TOTAL S.A. - Form 20-F

TOTAL finalized in September 2013 the sale of its Upstream interests in Trinidad & Tobago to The National Gas Company of Trinidad & Tobago for an amount of 236 million (\$318 million), net of cash sold.

TOTAL finalized in December 2013 the acquisition by Qatar Petroleum International of 15% of the capital of Total E&P Congo through a capital increase of 1,225 million (\$1,627 million).

TOTAL finalized during 2013 the acquisition of an additional 1.62% interest in Novatek for an amount of 437 million (\$587 million), bringing TOTAL's overall interest in Novatek to 16.96% as at December 31, 2013.

In October 2013, a consortium in which TOTAL holds a 20% interest was awarded a production sharing contract for 35 years to develop the Libra oil field in Brazil. TOTAL paid a signing bonus of 3,000 million Brazilian Real (approximately \$1,301 million).

### Refining & Chemicals

TOTAL finalized in June 2013 the sale of its fertilizing businesses in Europe.  
Information relating to sales in progress is presented in accordance with IFRS 5 Non-current assets held for sale and discontinued operations in note 34.

### 2012

#### Upstream

TOTAL finalized in February 2012 the acquisition in Uganda of a one-third interest in Blocks 1, 2 and 3A held by Tullow Oil plc for 1,157 million (\$1,487 million), entirely consisting of mineral interests. TOTAL became an equal partner with

## **Table of Contents**

Tullow and CNOOC in the blocks, each with a one-third interest and each being an operator of one of the blocks. TOTAL is the operator of Block 1.

TOTAL finalized during 2012 the acquisition of an additional 1.25% interest in Novatek for an amount of 368 million (\$480 million), increasing TOTAL's overall interest in Novatek to 15.34% as at December 31, 2012.

TOTAL finalized in October 2012 the sale of its interest in the Cusiana field as well as a participation in OAM and ODC pipelines in Colombia to Sinochem, for an amount of 318 million (\$409 million), net of cash sold.

### **Holding**

During 2012, TOTAL gradually sold its remaining interest in Sanofi, generating a net capital gain of 341 million after tax. As at the December 31, 2012 the Group retained no further interest in the capital of Sanofi.

2011

### **Upstream**

TOTAL finalized in March 2011 the acquisition from Santos of an additional 7.5% interest in Australia's GLNG project. This increased TOTAL's overall stake in the project to 27.5%.

The acquisition cost amounted to 202 million (\$281 million) and mainly corresponded to the value of mineral interests that have been recognized as intangible assets in the consolidated balance sheet for 227 million.

In March 2011, Total E&P Canada Ltd., a TOTAL subsidiary, and Suncor Energy Inc. (Suncor) finalized a strategic oil sands alliance encompassing the Suncor-operated Fort Hills mining project, the TOTAL-operated Joslyn mining project and the Suncor-operated Voyageur upgrader project. All three assets are located in the Athabasca region of the province of Alberta, in Canada.

TOTAL acquired 19.2% of Suncor's interest in the Fort Hills project, increasing TOTAL's overall interest in the project to 39.2%. Suncor, as operator, held 40.8%. TOTAL also acquired a 49% stake in the Suncor-operated Voyageur upgrader project. For those two acquisitions, the Group paid 1,937 million (CAD 2,666 million)

mainly representing the value of intangible assets for 474 million and the value of tangible assets for 1,550 million.

Furthermore, TOTAL sold to Suncor 36.75% interest in the Joslyn project for 612 million (CAD 842 million). The Group, as operator, retained a 38.25% interest in the project.

TOTAL finalized in April 2011 the sale of its 75.8% interest in its upstream Cameroonian affiliate Total E&P Cameroun to Perenco, for an amount of 172 million (\$247 million), net of cash sold.

TOTAL and the Russian company Novatek signed in March 2011 two Memorandums of Cooperation to develop the cooperation between TOTAL on one side, and Novatek and its main shareholders on the other side.

This cooperation was developed around the two following axes:

In April 2011, TOTAL took a 12.09% shareholding in Novatek for an amount of 2,901 million (\$4,108 million). In December 2011, TOTAL finalized the acquisition of an additional 2% interest in Novatek for an amount of 596 million (\$796 million), which increased TOTAL's overall

## Edgar Filing: TOTAL S.A. - Form 20-F

interest in Novatek to 14.09%. TOTAL considered that it had a significant influence especially through its representation on the Board of Directors of Novatek and its participation in the major Yamal LNG project. Therefore, the interest in Novatek has been accounted for by the equity method since the second quarter of 2011.

In October 2011, TOTAL finalized the acquisition of a 20% interest in the Yamal LNG project and became Novatek's partner in this project.

TOTAL finalized in July 2011 the sale of 10% of its interest in the Colombian pipeline OCENSA. The Group still held a 5.2% interest in this asset.

TOTAL finalized in September 2011 the acquisition of Esso Italiana's interests respectively in the Gorgoglione concession (25% interest), which contains the Tempa Rossa field, and in two exploration licenses located in the same area (51.7% for each one). The acquisition increased TOTAL's interest in the operated Tempa Rossa field to 75%.

F-20 TOTAL S.A. Form 20-F 2013

## **Table of Contents**

TOTAL finalized in December 2011 the sale to Silex Gas Norway AS, a wholly owned subsidiary of Allianz, of its entire stake in Gassled (6.4%) and related entities for an amount of 477 million (NOK 3.7 billion).

Total E&P USA Inc. signed in December 2011 an agreement to enter into a Joint Venture with Chesapeake Exploration L.L.C., a subsidiary of Chesapeake Energy Corporation, and its partner EnerVest Ltd. Under the terms of this agreement, TOTAL acquired a 25% share in Chesapeake's and EnerVest's liquids-rich area of the Utica shale play. TOTAL paid to Chesapeake and EnerVest 500 million (\$696 million) in cash for the acquisition of these assets. TOTAL will also be committed to pay additional amounts up to \$1.63 billion over a maximum period of 7 years in the form of a 60% carry of Chesapeake and EnerVest's future capital expenditures on drilling and completion of wells within the Joint Venture. Furthermore, TOTAL will also acquire a 25% share in any new acreage which will be acquired by Chesapeake in the liquids-rich area of the Utica shale play.

### **Refining & Chemicals**

TOTAL finalized in July 2011 the sale of its photocure and coatings resins businesses to Arkema for an amount of 520 million, net of cash sold.

TOTAL and International Petroleum Investment Company (a company wholly-owned by the Government of Abu Dhabi) entered into an agreement on February 15, 2011 for the sale, to International Petroleum Investment Company (IPIC), of the 48.83% equity interest held by TOTAL in the share capital of CEPISA, to be completed within the framework of a public tender offer being launched by IPIC for all the CEPISA shares not yet held by IPIC, at a unit purchase price of 28 per CEPISA share. TOTAL sold to IPIC all of its equity interest in CEPISA and received, as of July 29, 2011, an amount of 3,659 million.

### **Marketing & Services**

TOTAL finalized in October 2011 the sale of most of its Marketing assets in the United Kingdom, the Channel Islands and the Isle of Man, to Rontec Investments LLP, a consortium led by Snax 24, one of the leading independent forecourt operators in the United Kingdom, for an amount of 424 million (£368 million).

After the all-cash tender of \$23.25 per share launched on April 28, 2011 and completed on June 21, 2011, TOTAL acquired a 60% stake in SunPower Corp., a U.S. company listed on NASDAQ with headquarters in San Jose (California). Shares of SunPower Corp. continue to be traded on the NASDAQ.

The acquisition cost, whose cash payment occurred on June 21, 2011, amounted to 974 million (\$1,394 million).

The goodwill amounted to \$533 million and was fully depreciated on December 31, 2011.

## **4) BUSINESS SEGMENT INFORMATION**

Financial information by business segment is reported in accordance with the internal reporting system and shows internal segment information that is used to manage and measure the performance of TOTAL and which is reviewed by the main operational decision-making body of the Group, namely the Executive committee.

The operational profit and assets are broken down by business segment prior to the consolidation and inter-segment adjustments.

Sales prices between business segments approximate market prices.

The Group's activities are divided into three business segments as follows:

an Upstream segment including, alongside the activities of the Exploration & Production of hydrocarbons, the activities of Gas & Power;

## Edgar Filing: TOTAL S.A. - Form 20-F

a Refining & Chemicals segment constituting a major industrial hub comprising the activities of refining, petrochemicals, fertilizers and speciality chemicals. This segment also includes the activities of oil Trading & Shipping; and

a Marketing & Services segment including the global activities of supply and marketing in the field of petroleum products as well as the activity of New Energies.

In addition the Corporate segment includes holdings operating and financial activities.

2013 Form 20-F TOTAL S.A. F-21



**Table of Contents****A) INFORMATION BY BUSINESS SEGMENT**

For the year ended December 31, 2013 (M )	Upstream	Refining & Chemicals	Marketing & Services	Corporate	Intercompany	Total
Non-Group sales	19,855	86,204	83,481	2		189,542
Intersegment sales	28,349	39,360	1,626	133	(69,468)	
Excise taxes		(3,625)	(14,262)			(17,887)
<b>Revenues from sales</b>	<b>48,204</b>	<b>121,939</b>	<b>70,845</b>	<b>135</b>	<b>(69,468)</b>	<b>171,655</b>
Operating expenses	(24,002)	(120,500)	(68,802)	(597)	69,468	(144,433)
Depreciation, depletion and amortization of tangible assets and mineral interests	(7,141)	(1,307)	(552)	(31)		(9,031)
<b>Operating income</b>	<b>17,061</b>	<b>132</b>	<b>1,491</b>	<b>(493)</b>		<b>18,191</b>
Equity in net income (loss) of affiliates and other items	2,027	143	39	(23)		2,186
Tax on net operating income	(10,321)	(460)	(413)	(21)		(11,215)
<b>Net operating income</b>	<b>8,767</b>	<b>(185)</b>	<b>1,117</b>	<b>(537)</b>		<b>9,162</b>
Net cost of net debt						(501)
Non-controlling interests						(221)
<b>Net income</b>						<b>8,440</b>

For the year ended December 31, 2013 (adjustments) <sup>(a)</sup> (M )	Upstream	Refining & Chemicals	Marketing & Services	Corporate	Intercompany	Total
Non-Group sales	(56)					(56)
Intersegment sales						
Excise taxes						
<b>Revenues from sales</b>	<b>(56)</b>					<b>(56)</b>
Operating expenses	(86)	(1,059)	(102)			(1,247)
Depreciation, depletion and amortization of tangible assets and mineral interests	(651)	(138)	(3)			(792)
<b>Operating income<sup>(b)</sup></b>	<b>(793)</b>	<b>(1,197)</b>	<b>(105)</b>			<b>(2,095)</b>
Equity in net income (loss) of affiliates and other items	(218)	(199)	2	(30)		(445)
Tax on net operating income	408	(193)	69	(34)		250
<b>Net operating income<sup>(b)</sup></b>	<b>(603)</b>	<b>(1,589)</b>	<b>(34)</b>	<b>(64)</b>		<b>(2,290)</b>
Net cost of net debt						
Non-controlling interests						(15)
<b>Net income</b>						<b>(2,305)</b>

(a) Adjustments include special items, inventory valuation effect and the effect of changes in fair value.

(b) Of which inventory valuation effect

On operating income (737) (65)

On net operating income (495) (47)

**Table of Contents**

For the year ended December 31, 2013 (adjusted) (M <sup>(a)</sup> )	Upstream	Refining & Chemicals	Marketing & Services	Corporate	Intercompany	Total
Non-Group sales	19,911	86,204	83,481	2		189,598
Intersegment sales	28,349	39,360	1,626	133	(69,468)	
Excise taxes		(3,625)	(14,262)			(17,887)
<b>Revenues from sales</b>	<b>48,260</b>	<b>121,939</b>	<b>70,845</b>	<b>135</b>	<b>(69,468)</b>	<b>171,711</b>
Operating expenses	(23,916)	(119,441)	(68,700)	(597)	69,468	(143,186)
Depreciation, depletion and amortization of tangible assets and mineral interests	(6,490)	(1,169)	(549)	(31)		(8,239)
<b>Adjusted operating income</b>	<b>17,854</b>	<b>1,329</b>	<b>1,596</b>	<b>(493)</b>		<b>20,286</b>
Equity in net income (loss) of affiliates and other items	2,245	342	37	7		2,631
Tax on net operating income	(10,729)	(267)	(482)	13		(11,465)
<b>Adjusted net operating income</b>	<b>9,370</b>	<b>1,404</b>	<b>1,151</b>	<b>(473)</b>		<b>11,452</b>
Net cost of net debt						(501)
Non-controlling interests						(206)
<b>Adjusted net income</b>						<b>10,745</b>
<b>Adjusted fully-diluted earnings per share ( )</b>						<b>4.73</b>

(a) Except for earnings per share.

For the year ended December 31, 2013 (M )	Upstream	Refining & Chemicals	Marketing & Services	Corporate	Intercompany	Total
Total expenditures	22,396	2,039	1,365	122		25,922
Total divestments	4,353	275	141	45		4,814
Cash flow from operating activities	16,457	3,211	1,926	(121)		21,473
<b>Balance sheets as of December 31, 2013</b>						
Property, plant and equipment, intangible assets, net	75,169	8,998	4,671	262		89,100
Investments & loans in equity affiliates	11,499	2,568	737			14,804
Other non-current assets	4,125	1,045	1,475	567		7,212
Working capital	(237)	7,545	2,692	(1,974)		8,026
Provisions and other non-current liabilities	(22,894)	(3,216)	(1,669)	(936)		(28,715)
Assets and liabilities classified as held for sale	1,603					1,603
<b>Capital Employed (balance sheet)</b>	<b>69,265</b>	<b>16,940</b>	<b>7,906</b>	<b>(2,081)</b>		<b>92,030</b>
Less inventory valuation effect		(2,643)	(647)	(2)		(3,292)
<b>Capital Employed</b>	<b>69,265</b>	<b>14,297</b>	<b>7,259</b>	<b>(2,083)</b>		<b>88,738</b>
<b>(Business segment information)</b>						
<b>ROACE as a percentage</b>	<b>14%</b>	<b>9%</b>	<b>16%</b>			<b>13%</b>

2013 Form 20-F TOTAL S.A. F-23

**Table of Contents**

For the year ended December 31, 2012 (M )	Upstream	Refining & Chemicals	Marketing & Services	Corporate	Intercompany	Total
Non-Group sales	22,143	91,117	86,614	187		200,061
Intersegment sales	31,521	44,470	755	199	(76,945)	
Excise taxes		(3,593)	(14,169)			(17,762)
<b>Revenues from sales</b>	<b>53,664</b>	<b>131,994</b>	<b>73,200</b>	<b>386</b>	<b>(76,945)</b>	<b>182,299</b>
Operating expenses	(25,966)	(129,499)	(71,535)	(973)	76,945	(151,028)
Depreciation, depletion and amortization of tangible assets and mineral interests	(7,437)	(1,445)	(607)	(36)		(9,525)
<b>Operating income</b>	<b>20,261</b>	<b>1,050</b>	<b>1,058</b>	<b>(623)</b>		<b>21,746</b>
Equity in net income (loss) of affiliates and other items	2,325	213	(198)	276		2,616
Tax on net operating income	(12,359)	(263)	(380)	(127)		(13,129)
<b>Net operating income</b>	<b>10,227</b>	<b>1,000</b>	<b>480</b>	<b>(474)</b>		<b>11,233</b>
Net cost of net debt						(477)
Non-controlling interests						(147)
<b>Net income</b>						<b>10,609</b>

  

For the year ended December 31, 2012 (adjustments) <sup>(a)</sup> (M )	Upstream	Refining & Chemicals	Marketing & Services	Corporate	Intercompany	Total
Non-Group sales	(9)					(9)
Intersegment sales						
Excise taxes						
<b>Revenues from sales</b>	<b>(9)</b>					<b>(9)</b>
Operating expenses	(586)	(199)	(229)	(88)		(1,102)
Depreciation, depletion and amortization of tangible assets and mineral interests	(1,200)	(206)	(68)			(1,474)
<b>Operating income<sup>(b)</sup></b>	<b>(1,795)</b>	<b>(405)</b>	<b>(297)</b>	<b>(88)</b>		<b>(2,585)</b>
Equity in net income (loss) of affiliates and other items	240	(41)	(119)	146		226
Tax on net operating income	637	70	66	(108)		665
<b>Net operating income<sup>(b)</sup></b>	<b>(918)</b>	<b>(376)</b>	<b>(350)</b>	<b>(50)</b>		<b>(1,694)</b>
Net cost of net debt						
Non-controlling interests						27
<b>Net income</b>						<b>(1,667)</b>

(a) Adjustments include special items, inventory valuation effect and the effect of changes in fair value.

(b) Of which inventory valuation effect

On operating income (179) (55)

On net operating income (116) (39)

**Table of Contents**

For the year ended December 31, 2012 (adjusted) (M <sup>(a)</sup> )	Upstream	Refining & Chemicals	Marketing & Services	Corporate	Intercompany	Total
Non-Group sales	22,152	91,117	86,614	187		200,070
Intersegment sales	31,521	44,470	755	199	(76,945)	
Excise taxes		(3,593)	(14,169)			(17,762)
<b>Revenues from sales</b>	<b>53,673</b>	<b>131,994</b>	<b>73,200</b>	<b>386</b>	<b>(76,945)</b>	<b>182,308</b>
Operating expenses	(25,380)	(129,300)	(71,306)	(885)	76,945	(149,926)
Depreciation, depletion and amortization of tangible assets and mineral interests	(6,237)	(1,239)	(539)	(36)		(8,051)
<b>Adjusted operating income</b>	<b>22,056</b>	<b>1,455</b>	<b>1,355</b>	<b>(535)</b>		<b>24,331</b>
Equity in net income (loss) of affiliates and other items	2,085	254	(79)	130		2,390
Tax on net operating income	(12,996)	(333)	(446)	(19)		(13,794)
<b>Adjusted net operating income</b>	<b>11,145</b>	<b>1,376</b>	<b>830</b>	<b>(424)</b>		<b>12,927</b>
Net cost of net debt						(477)
Non-controlling interests						(174)
<b>Adjusted net income</b>						<b>12,276</b>
<b>Adjusted fully-diluted earnings per share ( )</b>						<b>5.42</b>

(a) Except for earnings per share.

For the year ended December 31, 2012 (M )	Upstream	Refining & Chemicals	Marketing & Services	Corporate	Intercompany	Total
Total expenditures	19,618	1,944	1,301	80		22,943
Total divestments	2,798	304	152	2,617		5,871
Cash flow from operating activities	18,950	2,127	1,132	253		22,462
<b>Balance sheets as of December 31, 2012</b>						
Property, plant and equipment, intangible assets, net	68,310	9,220	4,433	227		82,190
Investments & loans in equity affiliates	11,080	1,971	708			13,759
Other non-current assets	3,226	1,194	1,293	419		6,132
Working capital	(329)	9,623	2,821	(1,772)		10,343
Provisions and other non-current liabilities	(21,492)	(3,046)	(1,627)	(1,296)		(27,461)
Assets and liabilities classified as held for sale	3,067					3,067
<b>Capital Employed (balance sheet)</b>	<b>63,862</b>	<b>18,962</b>	<b>7,628</b>	<b>(2,422)</b>		<b>88,030</b>
Less inventory valuation effect		(3,236)	(642)			(3,878)
<b>Capital Employed (Business segment information)</b>	<b>63,862</b>	<b>15,726</b>	<b>6,986</b>	<b>(2,422)</b>		<b>84,152</b>
<b>ROACE as a percentage</b>	<b>18%</b>	<b>9%</b>	<b>12%</b>			<b>16%</b>

**Table of Contents**

For the year ended December 31, 2011 (M )	Upstream	Refining & Chemicals	Marketing & Services	Corporate	Intercompany	Total
Non-Group sales	22,211	77,146	85,325	11		184,693
Intersegment sales	27,301	44,277	805	185	(72,568)	
Excise taxes		(2,362)	(15,781)			(18,143)
<b>Revenues from sales</b>	<b>49,512</b>	<b>119,061</b>	<b>70,349</b>	<b>196</b>	<b>(72,568)</b>	<b>166,550</b>
Operating expenses	(21,855)	(116,369)	(68,384)	(663)	72,568	(134,703)
Depreciation, depletion and amortization of tangible assets and mineral interests	(5,039)	(1,936)	(496)	(35)		(7,506)
<b>Operating income</b>	<b>22,618</b>	<b>756</b>	<b>1,469</b>	<b>(502)</b>		<b>24,341</b>
Equity in net income (loss) of affiliates and other items	2,198	647	(377)	336		2,804
Tax on net operating income	(13,576)	(138)	(441)	(41)		(14,196)
<b>Net operating income</b>	<b>11,240</b>	<b>1,265</b>	<b>651</b>	<b>(207)</b>		<b>12,949</b>
Net cost of net debt						(335)
Non-controlling interests						(305)
<b>Net income</b>						<b>12,309</b>

For the year ended December 31, 2011 (adjustments) <sup>(a)</sup> (M )	Upstream	Refining & Chemicals	Marketing & Services	Corporate	Intercompany	Total
Non-Group sales	45					45
Intersegment sales						
Excise taxes						
<b>Revenues from sales</b>	<b>45</b>					<b>45</b>
Operating expenses		852	271			1,123
Depreciation, depletion and amortization of tangible assets and mineral interests	(75)	(705)	(1)			(781)
<b>Operating income<sup>(b)</sup></b>	<b>(30)</b>	<b>147</b>	<b>270</b>			<b>387</b>
Equity in net income (loss) of affiliates and other items	682	337	(363)	90		746
Tax on net operating income	(43)	(61)	(78)	(80)		(262)
<b>Net operating income<sup>(b)</sup></b>	<b>609</b>	<b>423</b>	<b>(171)</b>	<b>10</b>		<b>871</b>
Net cost of net debt						
Non-controlling interests						(19)
<b>Net income</b>						<b>852</b>

(a) Adjustments include special items, inventory valuation effect and the effect of changes in fair value.

(b) Of which inventory valuation effect

On operating income	928	287
On net operating income	669	200

**Table of Contents**

For the year ended December 31, 2011 (adjusted) (M <sup>(a)</sup> )	Upstream	Refining & Chemicals	Marketing & Services	Corporate	Intercompany	Total
Non-Group sales	22,166	77,146	85,325	11		184,648
Intersegment sales	27,301	44,277	805	185	(72,568)	
Excise taxes		(2,362)	(15,781)			(18,143)
<b>Revenues from sales</b>	<b>49,467</b>	<b>119,061</b>	<b>70,349</b>	<b>196</b>	<b>(72,568)</b>	<b>166,505</b>
Operating expenses	(21,855)	(117,221)	(68,655)	(663)	72,568	(135,826)
Depreciation, depletion and amortization of tangible assets and mineral interests	(4,964)	(1,231)	(495)	(35)		(6,725)
<b>Adjusted operating income</b>	<b>22,648</b>	<b>609</b>	<b>1,199</b>	<b>(502)</b>		<b>23,954</b>
Equity in net income (loss) of affiliates and other items	1,516	310	(14)	246		2,058
Tax on net operating income	(13,533)	(77)	(363)	39		(13,934)
<b>Adjusted net operating income</b>	<b>10,631</b>	<b>842</b>	<b>822</b>	<b>(217)</b>		<b>12,078</b>
Net cost of net debt						(335)
Non-controlling interests						(286)
<b>Adjusted net income</b>						<b>11,457</b>
<b>Adjusted fully-diluted earnings per share ( )</b>						<b>5.08</b>

(a) Except for earnings per share.

For the year ended December 31, 2011 (M )	Upstream	Refining & Chemicals	Marketing & Services	Corporate	Intercompany	Total
Total expenditures	20,662	1,910	1,834	135		24,541
Total divestments	2,591	2,509	1,955	1,523		8,578
Cash flow from operating activities	17,044	2,146	541	(195)		19,536
<b>Balance sheets as of December 31, 2011</b>						
Property, plant and equipment, intangible assets, net	63,250	9,037	4,338	245		76,870
Investments & loans in equity affiliates	10,581	1,658	756			12,995
Other non-current assets	2,446	1,492	1,188	3,075		8,201
Working capital	699	9,851	2,902	(1,374)		12,078
Provisions and other non-current liabilities	(20,064)	(3,220)	(1,664)	(1,201)		(26,149)
Assets and liabilities classified as held for sale						
<b>Capital Employed (balance sheet)</b>	<b>56,912</b>	<b>18,818</b>	<b>7,520</b>	<b>745</b>		<b>83,995</b>
Less inventory valuation effect		(3,367)	(667)	13		(4,021)
<b>Capital Employed (Business segment information)</b>	<b>56,912</b>	<b>15,451</b>	<b>6,853</b>	<b>758</b>		<b>79,974</b>
<b>ROACE as a percentage</b>	<b>21%</b>	<b>5%</b>	<b>13%</b>			<b>16%</b>

2013 Form 20-F TOTAL S.A. F-27

**Table of Contents****B) ROE (RETURN ON EQUITY)**

The Group evaluates the return on equity as the ratio of adjusted consolidated net income to average adjusted shareholders' equity between the beginning and the end of

the period. Thus, adjusted shareholders' equity for the year ended December 31, 2013 is calculated after payment of a dividend of 2.38 per share, subject to approval by the shareholders' meeting on May 16, 2014.

The ROE is calculated as follows:

For the year ended December 31, (M )	2013	2012	2011
Adjusted net income - Group share	10,745	12,276	11,457
Adjusted non-controlling interests	206	174	286
<b>Adjusted consolidated net income</b>	<b>10,951</b>	<b>12,450</b>	<b>11,743</b>
Shareholders' equity - Group share	72,629	71,185	66,945
Distribution of the income based on existing shares at the closing date	(1,362)	(1,299)	(1,255)
Non-controlling interests	2,281	1,280	1,352
<b>Adjusted shareholders' equity<sup>(a)</sup></b>	<b>73,548</b>	<b>71,166</b>	<b>67,042</b>
<b>ROE</b>	<b>15%</b>	<b>18%</b>	<b>19%</b>

(a) Adjusted shareholders' equity as of December 31, 2010 amounted to 57,951 million.

**C) RECONCILIATION OF THE INFORMATION BY BUSINESS SEGMENT WITH CONSOLIDATED FINANCIAL STATEMENTS**

The table below presents the impact of adjustment items on the consolidated statement of income:

For the year ended December 31, 2013 (M )	Adjusted	Adjustments <sup>(a)</sup>	Consolidated statement of income
Sales	189,598	(56)	189,542
Excise taxes	(17,887)		(17,887)
Revenues from sales	171,711	(56)	171,655
Purchases net of inventory variation	(120,311)	(802)	(121,113)
Other operating expenses	(21,242)	(445)	(21,687)
Exploration costs	(1,633)		(1,633)
Depreciation, depletion and amortization of tangible assets and mineral interests	(8,239)	(792)	(9,031)
Other income	468	1,257	1,725
Other expense	(418)	(1,687)	(2,105)
Financial interest on debt	(670)		(670)
Financial income from marketable securities & cash equivalents	64		64
Cost of net debt	(606)		(606)
Other financial income	524		524
Other financial expense	(529)		(529)
Equity in net income (loss) of affiliates	2,586	(15)	2,571
Income taxes	(11,360)	250	(11,110)
<b>Consolidated net income</b>	<b>10,951</b>	<b>(2,290)</b>	<b>8,661</b>
Group share	10,745	(2,305)	8,440
Non-controlling interests	206	15	221

(a) Adjustments include special items, inventory valuation effect and the effect of changes in fair value.





**Table of Contents**

For the year ended December 31, 2012 (M )	Adjusted	Adjustments <sup>(a)</sup>	Consolidated statement of income
Sales	200,070	(9)	200,061
Excise taxes	(17,762)		(17,762)
Revenues from sales	182,308	(9)	182,299
Purchases net of inventory variation	(126,564)	(234)	(126,798)
Other operating expenses	(21,916)	(868)	(22,784)
Exploration costs	(1,446)		(1,446)
Depreciation, depletion and amortization of tangible assets and mineral interests	(8,051)	(1,474)	(9,525)
Other income	681	781	1,462
Other expense	(448)	(467)	(915)
Financial interest on debt	(671)		(671)
Financial income from marketable securities & cash equivalents	100		100
Cost of net debt	(571)		(571)
Other financial income	558		558
Other financial expense	(499)		(499)
Equity in net income (loss) of affiliates	2,098	(88)	2,010
Income taxes	(13,700)	665	(13,035)
<b>Consolidated net income</b>	<b>12,450</b>	<b>(1,694)</b>	<b>10,756</b>
Group share	12,276	(1,667)	10,609
Non-controlling interests	174	(27)	147

(a) Adjustments include special items, inventory valuation effect and the effect of changes in fair value.

For the year ended December 31, 2011 (M )	Adjusted	Adjustments <sup>(a)</sup>	Consolidated statement of income
Sales	184,648	45	184,693
Excise taxes	(18,143)		(18,143)
Revenues from sales	166,505	45	166,550
Purchases net of inventory variation	(115,107)	1,215	(113,892)
Other operating expenses	(19,700)	(92)	(19,792)
Exploration costs	(1,019)		(1,019)
Depreciation, depletion and amortization of tangible assets and mineral interests	(6,725)	(781)	(7,506)
Other income	430	1,516	1,946
Other expense	(536)	(711)	(1,247)
Financial interest on debt	(713)		(713)
Financial income from marketable securities & cash equivalents	273		273
Cost of net debt	(440)		(440)
Other financial income	609		609
Other financial expense	(429)		(429)
Equity in net income (loss) of affiliates	1,984	(59)	1,925
Income taxes	(13,829)	(262)	(14,091)
<b>Consolidated net income</b>	<b>11,743</b>	<b>871</b>	<b>12,614</b>
Group share	11,457	852	12,309
Non-controlling interests	286	19	305

(a) Adjustments include special items, inventory valuation effect and the effect of changes in fair value.

**Table of Contents****D) ADJUSTMENT ITEMS BY BUSINESS SEGMENT**

The adjustment items for income as per Note 2 to the Consolidated Financial Statements are detailed as follows:

Adjustments to operating income					
For the year ended December 31, 2013 (M )	Upstream	Refining & Chemicals	Marketing & Services	Corporate	Total
Inventory valuation effect		(737)	(65)		(802)
Effect of changes in fair value	(56)				(56)
Restructuring charges		(281)	(3)		(284)
Asset impairment charges	(651)	(138)	(3)		(792)
Other items	(86)	(41)	(34)		(161)
<b>Total</b>	<b>(793)</b>	<b>(1,197)</b>	<b>(105)</b>		<b>(2,095)</b>

Adjustments to net income, Group share					
For the year ended December 31, 2013 (M )	Upstream	Refining & Chemicals	Marketing & Services	Corporate	Total
Inventory valuation effect		(495)	(54)		(549)
Effect of changes in fair value	(44)				(44)
Restructuring charges		(405)	(23)		(428)
Asset impairment charges	(442)	(137)	(7)		(586)
Gains (losses) on disposals of assets	(31)	(41)			(72)
Other items	(86)	(511)	35	(64)	(626)
<b>Total</b>	<b>(603)</b>	<b>(1,589)</b>	<b>(49)</b>	<b>(64)</b>	<b>(2,305)</b>

Adjustments to operating income					
For the year ended December 31, 2012 (M )	Upstream	Refining & Chemicals	Marketing & Services	Corporate	Total
Inventory valuation effect		(179)	(55)		(234)
Effect of changes in fair value	(9)				(9)
Restructuring charges		(2)			(2)
Asset impairment charges	(1,200)	(206)	(68)		(1,474)
Other items	(586)	(18)	(174)	(88)	(866)
<b>Total</b>	<b>(1,795)</b>	<b>(405)</b>	<b>(297)</b>	<b>(88)</b>	<b>(2,585)</b>

Adjustments to net income, Group share					
For the year ended December 31, 2012 (M )	Upstream	Refining & Chemicals	Marketing & Services	Corporate	Total
Inventory valuation effect		(116)	(41)		(157)
Effect of changes in fair value	(7)				(7)
Restructuring charges		(24)	(53)		(77)
Asset impairment charges	(769)	(192)	(121)	(30)	(1,112)
Gains (losses) on disposals of assets	240			341	581
Other items	(382)	(44)	(108)	(361)	(895)
<b>Total</b>	<b>(918)</b>	<b>(376)</b>	<b>(323)</b>	<b>(50)</b>	<b>(1,667)</b>

Adjustments to operating income					
For the year ended December 31, 2011 (M )	Upstream	Refining & Chemicals	Marketing & Services	Corporate	Total
Inventory valuation effect		928	287		1,215
Effect of changes in fair value	45				45
Restructuring charges		(706)			(781)
Asset impairment charges	(75)	(75)	(17)		(92)
Other items					

# Edgar Filing: TOTAL S.A. - Form 20-F

<b>Total</b>	<b>(30)</b>	<b>147</b>	<b>270</b>	<b>387</b>
--------------	-------------	------------	------------	------------

Adjustments to net income, Group share					
For the year ended December 31, 2011 (M )	Upstream	Refining & Chemicals	Marketing & Services	Corporate	Total
Inventory valuation effect		669	165		834
Effect of changes in fair value	32				32
Restructuring charges		(72)	(50)		(122)
Asset impairment charges	(75)	(476)	(463)		(1,014)
Gains (losses) on disposals of assets	843	415	206	74	1,538
Other items	(178)	(113)	(61)	(64)	(416)
<b>Total</b>	<b>622</b>	<b>423</b>	<b>(203)</b>	<b>10</b>	<b>852</b>

F-30 TOTAL S.A. Form 20-F 2013

## Table of Contents

### **E) ADDITIONAL INFORMATION ON IMPAIRMENTS**

In the Upstream, Refining & Chemicals, Marketing & Services and Holdings segments, impairments of assets have been recognized for the year ended December 31, 2013, with an impact of 792 million in operating income and 586 million in net income, Group share. These impairments have been disclosed as adjustments to operating income and adjustments to net income, Group share. These items are identified in paragraph 4D above as adjustment items with the heading "Asset impairment charges".

The impairment losses impact certain Cash Generating Units (CGU) for which there were indications of impairment, due mainly to changes in the operating conditions or the economic environment of their specific businesses.

The principles applied are the following:

the recoverable amount of CGUs has been based on their value in use, as defined in Note 1 paragraph L to the Consolidated Financial Statements "Impairment of long-lived assets";

the future cash flows have been determined with the assumptions in the long-term plan of the Group. These assumptions (including future prices of products, supply and demand for products, future production volumes) represent the best estimate by management of the Group of all economic conditions during the remaining life of assets;

the future cash flows, based on the long-term plan, are prepared over a period consistent with the life of the assets within the CGU. They are prepared post-tax and include specific risks attached to CGU assets. They are discounted using an 8% post-tax discount rate, this rate being a weighted-average capital cost estimated from historical market data. This rate has been applied consistently for the years ending in 2011, 2012 and 2013.

the value in use calculated by discounting the above post-tax cash flows using an 8% post-tax discount rate is not materially different from value in use calculated by discounting pre-tax cash flows using a pre-tax discount rate determined by an iterative computation from the post-tax value in use. These pre-tax discount rates are in a range from 8% to 12% in 2013.

For the year ended December 31, 2013 impairments of assets have been recognized in respect of CGUs of the Upstream segment with an impact of 651 million in operating income and 442 million in net income, Group share. These impairments mainly concern shale gas assets

in the Barnett basin of the United States due to the persistent weakness of gas prices in the American market (Henry Hub). They also include impairments of the Group's assets in Syria due to a permanent degradation of the security context. A +10% variation in the price of hydrocarbons in identical operating conditions would have a positive impact in operating income of 195 million and 126 million in net income, Group share. A variation of (1)% in the discount rate would have a positive impact in operating income of 47 million and 30 million in net income, Group share. For these assets and certain assets where the value in use is close to the net book value, opposite variations in the above assumptions would have respective impacts in operating income of (1,185) million and (619) million, and of (822) million and (431) million in net income, Group share.

The additional impairments that could be recorded in the case of unfavorable evolutions of the price of hydrocarbons or discount rates concern mainly shale gas assets in the Barnett basin of the United States and assets in Australia and Kazakhstan.

The CGUs for the Refining & Chemicals segment are defined by the legal entities having the operating activities for the refining and petrochemical activities. The CGUs for the other activities of the sector are global divisions, each division grouping together a set of businesses or homogeneous products for strategic, commercial and industrial plans. For the year 2013 the Group recorded impairments of 138 million in operating profit and 137 million in net income, Group share, mainly linked to the project to adapt the Carling platform in France. In addition, in the context of persistent volatility of European refining margins, the Group did not change impairments on CGUs for refining in France and the United Kingdom. A +5% variation in gross margin under identical operating conditions or a (1)% or a +1% variation in the discount rate would not impact operating income or net income, Group share. An opposite variation in gross margin projections would have an impact in operating income of (31) million and (22) million in net income, Group share. This additional impairment in the case of unfavorable gross margin concerns mainly the Composites activity.

The CGUs of Marketing & Services are subsidiaries or groups of subsidiaries organized by relevant geographical zone. For the year 2013 the Group recorded impairments on CGUs of the Marketing & Services segment of 3 million in operating profit and 7 million in net income, Group share. Different scenarios of sensitivity (gross margin, discount rate, and solar unit sales prices) would not lead to additional impairments on CGUs of this segment.



**Table of Contents**

For the year ended December 31, 2012, impairments of assets have been recognized in the Upstream, Refining & Chemicals, Marketing & Services and Holding segments with an impact of 1,474 million in operating income and 1,112 million in net income, Group share. These impairments have been disclosed as adjustments to operating income and adjustments to net income, Group share.

For the year ended December 31, 2011, impairments of assets have been recognized in the Upstream, Refining &

Chemicals and Marketing & Services segments with an impact of 781 million in operating income and 1,014 million in net income, Group share. These impairments have been disclosed as adjustments to operating income and adjustments to net income, Group share.

No reversal of impairment has been recognized for the years ended December 31, 2013, 2012, and 2011.

**5) INFORMATION BY GEOGRAPHICAL AREA**

(M )	France	Rest of Europe	North America	Africa	Rest of the world	Total
<b>For the year ended December 31, 2013</b>						
Non-Group sales	43,412	96,876	16,815	17,428	15,011	<b>189,542</b>
Property, plant and equipment, intangible assets, net	4,533	19,463	14,204	27,444	23,456	<b>89,100</b>
Capital expenditures	1,335	4,736	3,130	8,060	8,661	<b>25,922</b>
<b>For the year ended December 31, 2012</b>						
Non-Group sales	45,981	103,862	17,648	17,921	14,649	<b>200,061</b>
Property, plant and equipment, intangible assets, net	4,560	17,697	15,220	24,999	19,714	<b>82,190</b>
Capital expenditures	1,589	4,406	3,148	7,274	6,526	<b>22,943</b>
<b>For the year ended December 31, 2011</b>						
Non-Group sales	42,626	81,453	15,917	15,077	29,620	<b>184,693</b>
Property, plant and equipment, intangible assets, net	5,637	15,576	14,518	23,546	17,593	<b>76,870</b>
Capital expenditures	1,530	3,802	5,245	5,264	8,700	<b>24,541</b>

**6) OPERATING EXPENSES**

For the year ended December 31, (M )	2013	2012	2011
Purchases, net of inventory variation <sup>(a)(b)</sup>	(121,113)	(126,798)	(113,892)
Exploration costs	(1,633)	(1,446)	(1,019)
Other operating expenses <sup>(c)</sup>	(21,687)	(22,784)	(19,792)
<i>of which non-current operating liabilities (allowances) reversals</i>	<i>138</i>	<i>436</i>	<i>666</i>
<i>of which current operating liabilities (allowances) reversals</i>	<i>4</i>	<i>(51)</i>	<i>(150)</i>
<b>Operating expenses</b>	<b>(144,433)</b>	<b>(151,028)</b>	<b>(134,703)</b>

(a) Includes taxes paid on oil and gas production in the Upstream segment, namely royalties.

(b) The group values under / overliftings at market value.

(c) Principally composed of production and administrative costs (see in particular the payroll costs as detailed in Note 26 to the Consolidated Financial Statements Payroll and staff ). Also includes for 2012 an amount of 176 million for the exceptional contribution of 4% on the value of the oil stocks established by the second corrective finance act for 2012 in France. This exceptional contribution is due by every person, with the exception of the state, owning volumes of certain types of petroleum products situated in the territory of metropolitan France.

**7) OTHER INCOME AND OTHER EXPENSE**

For the year ended December 31, (M )	2013	2012	2011
---	------	------	------

## Edgar Filing: TOTAL S.A. - Form 20-F

Gains on disposal of assets	1,501	1,321	1,650
Foreign exchange gains	6	26	118
Other	218	115	178
<b>Other income</b>	<b>1,725</b>	<b>1,462</b>	<b>1,946</b>
Losses on disposal of assets	(1,433)		
Foreign exchange losses			
Amortization of other intangible assets (excl. mineral interests)	(219)	(250)	(592)
Other	(453)	(665)	(655)
<b>Other expense</b>	<b>(2,105)</b>	<b>(915)</b>	<b>(1,247)</b>
<b>Other income</b>			

In 2013, gains on disposals were mainly related to the sale of Transport et Infrastructures Gaz France (TIGF) and the sales of interests in the Upstream segment: 25% interest in the Tempa Rossa field in Italy and all interests in Trinidad & Tobago (see Note 3 to the Consolidated Financial Statements).

In 2012, gains and losses on disposal of assets were mainly related to the sale of the interest in Sanofi and to the sale of assets in the Upstream segment (sales in Colombia (see Note 3 to the Consolidated Financial Statements), Great Britain and Nigeria).

**Table of Contents**

In 2011, gains and losses on disposal of assets were mainly related to the sale of the interest in CEP SA, to the sale of assets in the Upstream segment (especially the sale of 10% Group's interest in the Colombian pipeline OCENSA) and to the sale of photocure and coatings resins businesses (see Note 3 to the Consolidated Financial Statements).

**Other expense**

In 2013, the loss on disposals is mainly related to the sale to Suncor Energy Inc. of TOTAL's 49% interest in the Voyageur upgrader project in Canada (see Note 3 to the Consolidated Financial Statements). The heading Other mainly consists of 212 million of restructuring charges in the Upstream, Refining & Chemicals and Marketing & Services segments.

In 2012, the heading Other was mainly comprised of a provision for the amount of \$398 million in relation to a transaction in progress with the United States Securities and Exchange Commission (SEC) and the Department of Justice (DoJ) in the United States (see Note 32 to the Consolidated Financial Statements).

In 2011, the heading Other was mainly comprised of 243 million of restructuring charges in the Upstream, Refining & Chemicals and Marketing & Services segments.

**8) OTHER FINANCIAL INCOME AND EXPENSE**

As of December 31, (M )	2013	2012	2011
Dividend income on non-consolidated subsidiaries	152	223	330
Capitalized financial expenses	259	248	171
Other	113	87	108
<b>Other financial income</b>	<b>524</b>	<b>558</b>	<b>609</b>
Accretion of asset retirement obligations	(439)	(405)	(344)
Other	(90)	(94)	(85)
<b>Other financial expense</b>	<b>(529)</b>	<b>(499)</b>	<b>(429)</b>

**9) INCOME TAXES**

TOTAL S.A. is taxed in accordance with the common French tax regime.

Since August 2012, an additional tax to corporate income tax of 3% is due on dividends distributed by French companies or foreign organizations subject to corporate income tax in France. This tax is liable on amounts distributed, the payment of which was due from August 17, 2012, the effective date of the law.

The impact of this additional tax for the Group is a charge of 161 million in 2013 and of 120 million in 2012. This additional tax is not tax deductible.

In addition, no deferred tax is recognized for the temporary differences between the carrying amounts and tax bases of investments in foreign subsidiaries which are considered to be permanent investments. Undistributed earnings from foreign subsidiaries considered to be reinvested indefinitely amounted to 31,097 million as of December 31, 2013. The determination of the tax effect relating to such reinvested income is not practicable.

No deferred tax is recognized on unremitted earnings (approximately 28,195 million) of the Group's French subsidiaries since the remittance of such earnings would be tax exempt for the subsidiaries in which the Company owns 95% or more of the outstanding shares.

Income taxes are detailed as follows:

For the year ended December 31, (M )	2013	2012	2011
Current income taxes	(10,246)	(12,430)	(12,495)
Deferred income taxes	(864)	(605)	(1,596)
<b>Total income taxes</b>	<b>(11,110)</b>	<b>(13,035)</b>	<b>(14,091)</b>

Before netting deferred tax assets and liabilities by fiscal entity, the components of deferred tax balances are as follows:



Edgar Filing: TOTAL S.A. - Form 20-F

As of December 31, (M )	2013	2012	2011
Net operating losses and tax carry forwards	3,325	2,247	1,584
Employee benefits	1,190	1,583	1,329
Other temporary non-deductible provisions	4,373	3,816	3,521
<b>Gross deferred tax assets</b>	<b>8,888</b>	<b>7,646</b>	<b>6,434</b>
Valuation allowance	(1,462)	(719)	(667)
<b>Net deferred tax assets</b>	<b>7,426</b>	<b>6,927</b>	<b>5,767</b>
Excess tax over book depreciation	(15,190)	(14,083)	(12,831)
Other temporary tax deductions	(2,369)	(2,697)	(2,721)
<b>Gross deferred tax liability</b>	<b>(17,559)</b>	<b>(16,780)</b>	<b>(15,552)</b>
<b>Net deferred tax liability</b>	<b>(10,133)</b>	<b>(9,853)</b>	<b>(9,785)</b>

2013 Form 20-F TOTAL S.A. F-33

**Table of Contents**

Carried forward tax losses on net operating losses in the table above for 3,325 million as of December 31, 2013, includes notably Belgium for 575 million, France for 567 million and the United States for 476 million.

The impairment of deferred tax assets in the table above for 1,426 million as of December 31, 2013, relates notably to France for an amount of 365 million and to Belgium for an amount of 337 million.

After netting deferred tax assets and liabilities by fiscal entity, deferred taxes are presented on the balance sheet as follows:

As of December 31, (M )	2013	2012	2011
Deferred tax assets, non-current	2,810	2,279	2,070
Deferred tax liabilities, non-current	(12,943)	(12,132)	(11,855)
<b>Net amount</b>	<b>(10,133)</b>	<b>(9,853)</b>	<b>(9,785)</b>

The net deferred tax variation in the balance sheet is analyzed as follows:

As of December 31, (M )	2013	2012	2011
<b>Opening balance</b>	<b>(9,853)</b>	<b>(9,785)</b>	<b>(7,921)</b>
Deferred tax on income	(864)	(605)	(1,596)
Deferred tax on shareholders' equity <sup>(a)</sup>	(263)	425	136
Changes in scope of consolidation <sup>(b)</sup>	113	69	(17)
Currency translation adjustment	734	43	(387)
<b>Closing balance</b>	<b>(10,133)</b>	<b>(9,853)</b>	<b>(9,785)</b>

(a) This amount includes mainly deferred taxes on actuarial gains and losses, current income taxes and deferred taxes for changes in fair value of listed securities classified as financial assets available for sale, as well as deferred taxes related to cash flow hedges (see Note 17 to the Consolidated Financial Statements).

(b) Changes in scope of consolidation include, as of December 31, 2013, the impact of reclassifications in assets classified as held for sale and liabilities directly associated with the assets classified as held for sale for 219 million.

**Reconciliation between provision for income taxes and pre-tax income:**

For the year ended December 31, (M )	2013	2012	2011
Consolidated net income	8,661	10,756	12,614
Provision for income taxes	11,110	13,035	14,091
<b>Pre-tax income</b>	<b>19,771</b>	<b>23,791</b>	<b>26,705</b>
French statutory tax rate	38.00%	36.10%	36.10%
<b>Theoretical tax charge</b>	<b>(7,513)</b>	<b>(8,589)</b>	<b>(9,641)</b>
Difference between French and foreign income tax rates	(4,616)	(5,944)	(5,739)
Tax effect of equity in income (loss) of affiliates	977	726	695
Permanent differences	852	811	889
Adjustments on prior years income taxes		82	(19)
Adjustments on deferred tax related to changes in tax rates	2	(69)	(201)
Changes in valuation allowance of deferred tax assets	(812)	(52)	(71)
Other			(4)
<b>Net provision for income taxes</b>	<b>(11,110)</b>	<b>(13,035)</b>	<b>(14,091)</b>

The difference between the French tax rate and the tax rates of foreign subsidiaries is mainly due to the taxation of profits made by the Group in countries where it conducts its exploration and production activities at higher tax rates than French tax rates.

The French statutory tax rate includes the standard corporate tax rate (33.33%) and additional applicable taxes that bring the overall tax rate to 38.00% in 2013 (versus 36.10% in 2012 and 2011).

Permanent differences are mainly due to impairment of goodwill and to dividends from non-consolidated companies as well as the specific taxation rules applicable to certain activities.



**Table of Contents****Net operating losses and carried forward tax credits**

Deferred tax assets related to carried forward tax credits on net operating losses expire in the following years:

As of December 31, (M )	2013		2012		2011	
	Basis	Tax	Basis	Tax	Basis	Tax
2012					242	115
2013			316	150	171	81
2014	356	171	249	116	104	47
2015	270	129	167	75	8	2
2016 <sup>(a)</sup>	164	76	26	8	2,095	688
2017 <sup>(b)</sup>	410	134	3,187	971		
2018 and after	3,216	966				
Unlimited	5,506	1,849	3,049	927	2,119	651
<b>Total</b>	<b>9,922</b>	<b>3,325</b>	<b>6,994</b>	<b>2,247</b>	<b>4,739</b>	<b>1,584</b>

(a) Net operating losses and carried forward tax credits in 2016 and after for 2011.

(b) Net operating losses and carried forward tax credits in 2017 and after for 2012.

**10) INTANGIBLE ASSETS**

As of December 31, 2013 (M )	Cost	Amortization and impairment	Net
Goodwill	1,845	(937)	908
Proved mineral interests	8,926	(3,628)	5,298
Unproved mineral interests	7,563	(1,295)	6,268
Other intangible assets	3,609	(2,742)	867
<b>Total intangible assets</b>	<b>21,943</b>	<b>(8,602)</b>	<b>13,341</b>

As of December 31, 2012 (M )	Cost	Amortization and impairment	Net
Goodwill	1,852	(963)	889
Proved mineral interests	8,803	(3,291)	5,512
Unproved mineral interests	6,416	(913)	5,503
Other intangible assets	3,571	(2,617)	954
<b>Total intangible assets</b>	<b>20,642</b>	<b>(7,784)</b>	<b>12,858</b>

As of December 31, 2011 (M )	Cost	Amortization and impairment	Net
Goodwill	1,903	(993)	910
Proved mineral interests	8,319	(2,626)	5,693
Unproved mineral interests	5,400	(555)	4,845
Other intangible assets	3,377	(2,412)	965
<b>Total intangible assets</b>	<b>18,999</b>	<b>(6,586)</b>	<b>12,413</b>

Changes in net intangible assets are analyzed in the following table:

(M )	Net amount as of January 1,	Acquisitions	Disposals	Amortization and impairment	Currency translation adjustment	Other	Net amount as of December 31,
2013	12,858	2,746	(292)	(1,150)	(602)	(219)	13,341

## Edgar Filing: TOTAL S.A. - Form 20-F

2012	12,413	2,466	(58)	(1,439)	(163)	(361)	12,858
2011	8,917	2,504	(428)	(991)	358	2,053	12,413

In 2013, the heading "Other" mainly includes mineral interests in Utica reclassified into acquisitions for (455) million, the reclassification of assets in accordance with IFRS 5 "Non-current assets held for sale and discontinued operations" for (70) million (see Note 34 to the Consolidated Financial Statements) and the reversal of the reclassification under IFRS 5 as at December 31, 2012 for 249 million corresponding to disposals.

In 2012, the heading "Other" mainly included the reclassification of assets in accordance with IFRS 5 "Non-current assets held for sale and discontinued operations" for (333) million (see Note 34 to the Consolidated Financial Statements).

In 2011, the heading "Other" mainly included Chesapeake's Barnett shale mineral interests reclassified

2013 Form 20-F TOTAL S.A. F-35

**Table of Contents**

into the acquisitions for (649) million, the not yet paid part of the acquisition of Chesapeake's mineral interests in Utica for 1,216 million, the reclassification of Joslyn's mineral interests sold in 2011 and formerly classified in

accordance with IFRS 5 Non-current assets held for sale and discontinued operations for 384 million, and 697 million related to the acquisition of SunPower.

A summary of changes in the carrying amount of goodwill by business segment for the year ended December 31, 2013 is as follows:

(M )	Net goodwill as of January 1, 2013	Increases	Impairments	Other	Net goodwill as of December 31, 2013
<b>Upstream</b>	2				2
<b>Refining &amp; Chemicals</b>	788	63		(35)	816
<b>Marketing &amp; Services</b>	74			(9)	65
<b>Corporate</b>	25				25
<b>Total</b>	<b>889</b>	<b>63</b>		<b>(44)</b>	<b>908</b>
<b>11) <u>PROPERTY, PLANT AND EQUIPMENT</u></b>					

As of December 31, 2013 (M )	Cost	Depreciation and impairment	Net
<b>Upstream properties</b>			
Proved properties	97,534	(60,489)	37,045
Unproved properties	1,038		1,038
Work in progress	25,138	(41)	25,097
<b>Subtotal</b>	<b>123,710</b>	<b>(60,530)</b>	<b>63,180</b>
<b>Other property, plant and equipment</b>			
Land	1,339	(422)	917
Machinery, plant and equipment (including transportation equipment)	25,537	(19,508)	6,029
Buildings	6,563	(4,257)	2,306
Work in progress	1,680	(337)	1,343
Other	7,046	(5,062)	1,984
<b>Subtotal</b>	<b>42,165</b>	<b>(29,586)</b>	<b>12,579</b>
<b>Total property, plant and equipment</b>	<b>165,875</b>	<b>(90,116)</b>	<b>75,759</b>

As of December 31, 2012 (M )	Cost	Depreciation and impairment	Net
<b>Upstream properties</b>			
Proved properties	87,896	(57,832)	30,064
Unproved properties	229		229
Work in progress	26,645	(172)	26,473
<b>Subtotal</b>	<b>114,770</b>	<b>(58,004)</b>	<b>56,766</b>
<b>Other property, plant and equipment</b>			
Land	1,354	(407)	947
Machinery, plant and equipment (including transportation equipment)	25,501	(19,458)	6,043
Buildings	6,489	(4,172)	2,317
Work in progress	1,732	(277)	1,455
Other	6,840	(5,036)	1,804
<b>Subtotal</b>	<b>41,916</b>	<b>(29,350)</b>	<b>12,566</b>
<b>Total property, plant and equipment</b>	<b>156,686</b>	<b>(87,354)</b>	<b>69,332</b>

As of December 31, 2011 (M )	Cost	Depreciation and impairment	Net
------------------------------	------	--------------------------------	-----

# Edgar Filing: TOTAL S.A. - Form 20-F

<b>Upstream properties</b>			
Proved properties	84,222	(54,589)	29,633
Unproved properties	209		209
Work in progress	21,190	(15)	21,175
<b>Subtotal</b>	<b>105,621</b>	<b>(54,604)</b>	<b>51,017</b>
<b>Other property, plant and equipment</b>			
Land	1,346	(398)	948
Machinery, plant and equipment (including transportation equipment)	25,838	(18,349)	7,489
Buildings	6,241	(4,131)	2,110
Work in progress	1,534	(306)	1,228
Other	6,564	(4,899)	1,665
<b>Subtotal</b>	<b>41,523</b>	<b>(28,083)</b>	<b>13,440</b>
<b>Total property, plant and equipment</b>	<b>147,144</b>	<b>(82,687)</b>	<b>64,457</b>

F-36 TOTAL S.A. Form 20-F 2013

**Table of Contents**

Changes in net property, plant and equipment are analyzed in the following table:

(M )	Net amount as of January 1,	Acquisitions	Disposals	Depreciation and impairment	Currency translation adjustment	Other	Net amount as of December 31,
<b>2013</b>	<b>69,332</b>	<b>19,654</b>	<b>(2,129)</b>	<b>(8,908)</b>	<b>(3,633)</b>	<b>1,443</b>	<b>75,759</b>
2012	64,457	17,439	(633)	(9,042)	(409)	(2,480)	69,332
2011	54,964	15,443	(1,489)	(7,636)	1,692	1,483	64,457

In 2013, the heading "Disposals" mainly includes the impact of sales of assets in the Upstream segment (sale of the Voyageur Upgrader project in Canada and the sale of TOTAL's interests in the Tempa Rossa field in Italy).

In 2013, the heading "Depreciation and impairment" includes the impact of impairments of assets recognized for 792 million (see Note 4D to the Consolidated Financial Statements).

In 2013, the heading "Other" principally corresponds to the increase of the asset for site restitution for an amount of 2,069 million. It also includes (405) million related to the reclassification of assets classified in accordance with IFRS 5 "Non-current assets held for sale and discontinued operations" and (155) million related to the sale of the fertilizing businesses in Europe.

In 2012, the heading "Disposals" mainly included the impact of sales of assets in the Upstream segment in Great Britain, Norway and Nigeria.

In 2012, the heading "Depreciation and impairment" included the impact of impairments of shale gas assets in the Barnett basin recognized for 1,134 million (see Note 4E to the Consolidated Financial Statements).

In 2012, the heading "Other" principally included the reclassification of assets in accordance with IFRS 5 "Non-current assets held for sale and discontinued operations" for an amount of 2,992 million.

In 2011, the heading "Disposals" mainly included the impact of sales of assets in the Upstream segment (disposal of the interests in Gassled in Norway and in Joslyn's field in Canada) and in the Marketing & Services segment (disposal of Marketing assets in the United Kingdom) (see Note 3 to the Consolidated Financial Statements).

In 2011, the heading "Depreciation and impairment" included the impact of impairments of assets recognized for 781 million (see Note 4D to the Consolidated Financial Statements).

In 2011, the heading "Other" corresponded to the increase of the asset for site restitution for an amount of 653 million. It also included 428 million related to the reclassification of tangible assets of Joslyn and resins businesses sold in 2011 and formerly classified in accordance with IFRS 5 "Non-current assets held for sale and discontinued operations".

Property, plant and equipment presented above includes the following amounts for facilities and equipment under finance leases that have been capitalized:

As of December 31, 2013 (M )	Cost	Depreciation and impairment	Net
Machinery, plant and equipment	391	(314)	77
Buildings	54	(26)	28
Other	198	(13)	185
<b>Total</b>	<b>643</b>	<b>(353)</b>	<b>290</b>
As of December 31, 2012 (M )	Cost	Depreciation and impairment	Net



Edgar Filing: TOTAL S.A. - Form 20-F

		impairment	
Machinery, plant and equipment	391	(294)	97
Buildings	54	(26)	28
Other	207	(2)	205
<b>Total</b>	<b>652</b>	<b>(322)</b>	<b>330</b>
		Depreciation and impairment	Net
As of December 31, 2011 (M )	Cost		
Machinery, plant and equipment	414	(284)	130
Buildings	54	(25)	29
Other			
<b>Total</b>	<b>468</b>	<b>(309)</b>	<b>159</b>

2013 Form 20-F TOTAL S.A. F-37

**Table of Contents****12) EQUITY AFFILIATES: INVESTMENTS AND LOANS**

The contribution of equity affiliates in the consolidated balance sheet, consolidated statement of income and consolidated statement of comprehensive income is presented below:

Equity value			
As of December 31,			
(M )	2013	2012	2011
Total Associates	9,946	9,379	9,045
Total Joint ventures	2,281	2,020	1,704
<b>Total</b>	<b>12,227</b>	<b>11,399</b>	<b>10,749</b>
Loans	2,577	2,360	2,246
<b>Total</b>	<b>14,804</b>	<b>13,759</b>	<b>12,995</b>

Equity share in profit/(loss)			
As of December 31,			
(M )	2013	2012	2011
Total Associates	2,438	1,962	1,855
Total Joint ventures	133	48	70
<b>Total</b>	<b>2,571</b>	<b>2,010</b>	<b>1,925</b>

Other comprehensive income			
As of December 31,			
(M )	2013	2012	2011
Total Associates	(684)	95	(34)
Total Joint ventures	(173)	65	19
<b>Total</b>	<b>(857)</b>	<b>160</b>	<b>(15)</b>

In cases where the Group holds less than 20% of the voting rights in another entity, the determination of whether the Group exercises significant influence is also based on other facts and circumstances i.e. representation on the board of directors or an equivalent governing body of the entity, participation in policy-making processes, including participation in decisions relating to dividends or other distributions, significant transactions between the investor and the entity, exchange of management personnel, or provision of essential technical information.

Information (100% gross) relating to significant associates is as follows:

**Upstream**

	Novatek <sup>(a)</sup>			Liquefaction entities			PetroCedeño		
(M )	2013	2012	2011	2013	2012	2011	2013	2012	2011
Non current assets	9,874	8,689	6,508	22,971	23,307	24,396	4,542	4,604	4,518
Current assets	2,051	1,252	1,611	5,572	5,669	4,726	3,668	3,410	2,596
<b>Total Assets</b>	<b>11,925</b>	<b>9,941</b>	<b>8,119</b>	<b>28,543</b>	<b>28,976</b>	<b>29,122</b>	<b>8,210</b>	<b>8,014</b>	<b>7,114</b>
Shareholder's equity	7,746	7,040	4,478	16,863	15,855	16,586	4,047	4,228	4,067
Non current liabilities	3,578	2,060	2,271	8,320	9,615	9,939	135	158	181
Current liabilities	601	841	1,370	3,360	3,506	2,597	4,028	3,628	2,866
<b>Total Liabilities</b>	<b>11,925</b>	<b>9,941</b>	<b>8,119</b>	<b>28,543</b>	<b>28,976</b>	<b>29,122</b>	<b>8,210</b>	<b>8,014</b>	<b>7,114</b>
Revenues from sales	7,044	5,463	3,094	29,160	29,807	23,858	3,100	3,664	3,133

# Edgar Filing: TOTAL S.A. - Form 20-F

<b>Net income</b>	<b>1,993</b>	<b>2,914</b>	<b>845</b>	<b>10,828</b>	<b>10,851</b>	<b>10,112</b>	<b>452</b>	<b>406</b>	<b>181</b>
<b>Other comprehensive income</b>	<b>(837)</b>	<b>137</b>	<b>(114)</b>	<b>(751)</b>	<b>(64)</b>	<b>92</b>	<b>(185)</b>		
% owned	16.96%	15.34%	14.09%				30.32%	30.32%	30.32%
Revaluation identifiable assets on equity affiliates	2,570	2,735	2,737						
Equity value	3,884	3,815	3,368	2,627	2,310	2,369	1,227	1,282	1,233
Equity share in profit/(loss)	167	34	24	1,526	1,377	1,290	137	123	55
Equity other comprehensive income	(448)	113	(96)	(116)	(7)	11	(56)		
Dividends paid to the Group	77	69	21	1,189	1,485	1,272	137	47	

(a) Information includes estimates at the date of Total's financial statements.

Novatek, listed in Moscow and London, is the 2nd largest producer of natural gas in Russia. The Group share of Novatek's market value amounted to 4,542 million as at December 31, 2013.

The Group's interests in associates operating liquefaction plants are combined. The amounts include investments in; Nigeria LNG (15.00%), Angola LNG Ltd. (13.60%), Yemen LNG Co (39.62%), Qatargas (10.00%), Qatar Liquefied Gas Company Limited II Train B (16.70%), Oman LNG (5.54%), Brass LNG (17.00%) and Abu Dhabi Gas Lc (5.00%).

PetroCedeño produces and upgrades extra-heavy crude oil in Venezuela.

**Table of Contents****Refining & Chemicals**

(M )	Saudi Aramco Total Refining & Petrochemicals			Qatar		
	2013	2012	2011	2013	2012	2011
Non current assets	8,960	7,867	5,893	2,079	1,941	1,964
Current assets	965	74	264	926	823	778
<b>Total Assets</b>	<b>9,925</b>	<b>7,941</b>	<b>6,157</b>	<b>3,005</b>	<b>2,764</b>	<b>2,742</b>
Shareholder's equity	1,077	472	325	1,906	1,721	1,477
Non current liabilities	7,571	7,013	4,835	349	686	994
Current liabilities	1,277	456	997	750	357	271
<b>Total Liabilities</b>	<b>9,925</b>	<b>7,941</b>	<b>6,157</b>	<b>3,005</b>	<b>2,764</b>	<b>2,742</b>
Revenues from sales				1,627	1,446	1,297
<b>Net income</b>	<b>(67)</b>	<b>(77)</b>	<b>(80)</b>	<b>760</b>	<b>720</b>	<b>645</b>
<b>Other comprehensive income</b>	<b>(45)</b>	<b>(8)</b>	<b>21</b>	<b>(86)</b>	<b>(31)</b>	<b>62</b>
% owned	37.50%	37.50%	37.50%			
Revaluation identifiable assets on equity affiliates						
Equity value	404	177	121	579	513	376
Equity share in profit/(loss)	(25)	(29)	(30)	261	234	187
Equity other comprehensive income	(17)	(3)	8	(26)	(8)	19
Dividends paid to the Group				169	89	76

Saudi Aramco Total Refining & Petrochemicals is an entity including a refinery in Jubail, Saudi Arabia, with a capacity of 400,000 barrels/day with integrated petrochemical units.

The Group's interests in associates of the Refining & Chemicals segment, operating steam crackers and polyethylene lines in Qatar have been combined: Qatar Petrochemical Company Ltd. (20.00%) and Qatofin (49.09%).

The information (100% gross) relating to significant joint ventures is as follows:

(M )	Liquefaction entities (Upstream)			Samsung Total Petrochemicals (Refining & Chemicals)		
	2013	2012	2011	2013	2012	2011
Non current assets	9,114	3,427	913	2,744	2,022	1,626
Current assets excluding cash and cash equivalents	38	99	60	968	918	780
Cash and cash equivalents	260	143	8	114	90	242
<b>Total Assets</b>	<b>9,412</b>	<b>3,669</b>	<b>981</b>	<b>3,826</b>	<b>3,030</b>	<b>2,648</b>
Shareholder's equity	625	904	662	1,694	1,516	1,412
Other non current liabilities	5	5	10	60	52	38
Non current financial debts	7,756	1,867	83	1,002	682	454
Other current liabilities	1,026	893	76	512	468	508
Current financial debts			150	558	312	236
<b>Total Liabilities</b>	<b>9,412</b>	<b>3,669</b>	<b>981</b>	<b>3,826</b>	<b>3,030</b>	<b>2,648</b>
Revenues from sales	5			5,412	5,004	4,432
Depreciation and amortisation				(150)	(166)	(130)
Interest income						
Interest expense				(16)	(26)	(20)
Income taxes				(74)	(58)	(62)
<b>Net income</b>	<b>(70)</b>	<b>(63)</b>	<b>(29)</b>	<b>284</b>	<b>136</b>	<b>228</b>
<b>Other comprehensive income</b>	<b>(247)</b>	<b>2</b>	<b>41</b>	<b>(40)</b>	<b>88</b>	<b>(10)</b>
% owned				50.00%	50.00%	50.00%
Revaluation identifiable assets on equity affiliates	709	587	430			
Equity value	844	781	576	847	758	706
Equity share in profit/(loss)	(16)	(13)	(7)	142	68	114
Equity other comprehensive income	(140)	21	26	(20)	44	(5)
Dividends paid to the Group				34	59	49

The Group's interests in joint ventures operating liquefaction plants have been combined. The amounts include investments in Yamal LNG in Russia (20.02% direct holding) and Ichthys LNG in Australia (30.00%).



**Table of Contents**

Samsung Total Petrochemicals is a South Korean company that operates a petrochemical complex in Daesan, South Korea (condensate separator, steam cracker, styrene, paraxylene, polyolefins).

Off balance sheet commitments relating to joint ventures are disclosed in Note 23 of the Consolidated Financial Statements.

In Group share, the main aggregated financial items in equity consolidated affiliates, and that have not been presented individually are as follows:

As of December 31, (M )	2013		2012		2011	
	Associates	Joint ventures	Associates	Joint ventures	Associates	Joint ventures
Non current assets	2,914	1,059	2,512	714	2,709	673
Current assets	1,086	1,103	927	1,001	1,125	1,036
<b>Total Assets</b>	<b>4,000</b>	<b>2,162</b>	<b>3,439</b>	<b>1,715</b>	<b>3,834</b>	<b>1,709</b>
Shareholder's equity	1,225	590	1,282	481	1,577	423
Non current liabilities	1,614	761	1,306	526	1,272	438
Current liabilities	1,161	811	851	708	985	848
<b>Total Liabilities</b>	<b>4,000</b>	<b>2,162</b>	<b>3,439</b>	<b>1,715</b>	<b>3,834</b>	<b>1,709</b>

As of December 31, (M )	2013		2012		2011	
	Associates	Joint ventures	Associates	Joint ventures	Associates	Joint ventures
Revenues from sales	2,944	4,150	2,984	3,934	5,429	3,415
<b>Net income</b>	<b>372</b>	<b>7</b>	<b>223</b>	<b>(7)</b>	<b>329</b>	<b>(37)</b>
Other comprehensive income	(21)	13			24	(2)
Equity value	1,225	590	1,282	481	1,577	423
Dividends paid to the Groupe	336	36	425	32	367	22

The equity value of the Group's share in Shtokman Development AG amounts to 254 million as of December 31, 2013.

In 2007, TOTAL and Gazprom signed an agreement for the first phase of development of the Shtokman gas and condensates offshore field located in the Barents Sea. A joint venture, Shtokman Development AG (SDAG) (TOTAL, 25%) was created in 2008 to design, build, finance and operate this first phase based on an initial development plan intended to produce 23.7 Bm<sup>3</sup>/y (0.4 Mboe/d) of gas, with half of the gas being piped to Europe and the other half being exported as LNG.

The studies performed on the Shtokman project demonstrated that initially selected technical solutions had too high capital and operating costs to provide an acceptable return on investment, and led the partners at the first quarter 2012 to redefine the development plan for LNG production only.

Within this framework, TOTAL and Gazprom are pursuing discussions so as to conclude a new agreement reflecting the revised development scheme and replacing the previous agreement of 2007 expired since July 1, 2012. In parallel, TOTAL and Gazprom are pursuing dialogue on technical studies to achieve an economically viable project.

**13) OTHER INVESTMENTS**

## Edgar Filing: TOTAL S.A. - Form 20-F

The investments detailed below are classified as Financial assets available for sale (see Note 1 paragraph M(ii) to the Consolidated Financial Statements).

As of December 31, 2013			
(M )	Carrying amount	Unrealized gain (loss)	Balance sheet value
Areva <sup>(a)</sup>	37	32	69
CME Group	1	10	11
Olympia Energy Fund energy investment fund	36	(7)	29
Gevo	5		5
Other publicly traded equity securities	1	1	2
<b>Total publicly traded equity securities<sup>(b)</sup></b>	<b>80</b>	<b>36</b>	<b>116</b>
BBPP	58		58
BTC Limited	104		104
Other equity securities	929		929
<b>Total other equity securities<sup>(b)</sup></b>	<b>1,091</b>		<b>1,091</b>
<b>Other investments</b>	<b>1,171</b>	<b>36</b>	<b>1,207</b>

F-40 TOTAL S.A. Form 20-F 2013

**Table of Contents**

As of December 31, 2012			
(M )	Carrying amount	Unrealized gain (loss)	Balance sheet value
Areva <sup>(a)</sup>	37	10	47
CME Group	1	7	8
Olympia Energy Fund – energy investment fund	38	(6)	32
Gevo	3		3
Other publicly traded equity securities	1		1
<b>Total publicly traded equity securities<sup>(b)</sup></b>	<b>80</b>	<b>11</b>	<b>91</b>
BBPP	61		61
Ocensa	83		83
BTC Limited	119		119
Other equity securities	836		836
<b>Total other equity securities<sup>(b)</sup></b>	<b>1,099</b>		<b>1,099</b>
<b>Other investments</b>	<b>1,179</b>	<b>11</b>	<b>1,190</b>

As of December 31, 2011			
(M )	Carrying amount	Unrealized gain (loss)	Balance sheet value
Sanofi	2,100	351	2,451
Areva <sup>(a)</sup>	69	1	70
Arkema			
Chicago Mercantile Exchange Group	1	6	7
Olympia Energy Fund – energy investment fund	38	(5)	33
Gevo	15	(3)	12
Other publicly traded equity securities	3	(1)	2
<b>Total publicly traded equity securities<sup>(b)</sup></b>	<b>2,226</b>	<b>349</b>	<b>2,575</b>
BBPP	62		62
Ocensa <sup>(c)</sup>	85		85
BTC Limited	132		132
Other equity securities	820		820
<b>Total other equity securities<sup>(b)</sup></b>	<b>1,099</b>		<b>1,099</b>
<b>Other investments</b>	<b>3,325</b>	<b>349</b>	<b>3,674</b>

(a) Unrealized gain based on the investment certificate.

(b) Including cumulative impairments of 722 million in 2013, 669 million in 2012 and 604 million in 2011.

(c) End of the accounting for by the equity method of Ocensa in July 2011 (see Note 3 to the Consolidated Financial Statements).

**14) OTHER NON-CURRENT ASSETS**

As of December 31, 2013			
(M )	Gross value	Valuation allowance	Net value
Loans and advances <sup>(a)</sup>	2,953	(361)	2,592
Other	603		603
<b>Total</b>	<b>3,556</b>	<b>(361)</b>	<b>3,195</b>

As of December 31, 2012			
(M )	Gross value	Valuation allowance	Net value
Loans and advances <sup>(a)</sup>	2,593	(386)	2,207
Other	456		456
<b>Total</b>	<b>3,049</b>	<b>(386)</b>	<b>2,663</b>

As of December 31, 2011	Gross value	Net value
-------------------------	-------------	-----------



# Edgar Filing: TOTAL S.A. - Form 20-F

(M )		Valuation allowance	
Loans and advances <sup>(a)</sup>	2,454	(399)	2,055
Other	402		402
<b>Total</b>	<b>2,856</b>	<b>(399)</b>	<b>2,457</b>

*(a) Excluding loans to equity affiliates.*

2013 Form 20-F TOTAL S.A. F-41

**Table of Contents**

Changes in the valuation allowance on loans and advances are detailed as follows:

For the year ended December 31, (M )	Valuation allowance as of January 1,	Increases	Decreases	Currency translation adjustment and other variations	Valuation allowance as of December 31,
2013	(386)	(16)	7	34	(361)
2012	(399)	(16)	18	11	(386)
2011	(464)	(25)	122	(32)	(399)

**15) INVENTORIES**

As of December 31, 2013				
(M )	Gross value	Valuation allowance	Net value	
Crude oil and natural gas	3,274	(18)	3,256	
Refined products	6,430	(111)	6,319	
Chemicals products	1,172	(78)	1,094	
Trading inventories	3,191		3,191	
Other inventories	2,697	(534)	2,163	
<b>Total</b>	<b>16,764</b>	<b>(741)</b>	<b>16,023</b>	

As of December 31, 2012				
(M )	Gross value	Valuation allowance	Net value	
Crude oil and natural gas	3,044	(17)	3,027	
Refined products	7,169	(86)	7,083	
Chemicals products	1,440	(94)	1,346	
Trading inventories	3,782		3,782	
Other inventories	2,620	(461)	2,159	
<b>Total</b>	<b>18,055</b>	<b>(658)</b>	<b>17,397</b>	

As of December 31, 2011				
(M )	Gross value	Valuation allowance	Net value	
Crude oil and natural gas	3,791	(24)	3,767	
Refined products	7,483	(36)	7,447	
Chemicals products	1,489	(103)	1,386	
Trading inventories	3,233		3,233	
Other inventories	2,695	(406)	2,289	
<b>Total</b>	<b>18,691</b>	<b>(569)</b>	<b>18,122</b>	

Changes in the valuation allowance on inventories are as follows:

For the year ended December 31, (M )	Valuation allowance as of January 1,	Increase (net)	Currency translation adjustment and other variations	Valuation allowance as of December 31,
2013	(658)	(119)	36	(741)
2012	(569)	(96)	7	(658)
2011	(445)	(83)	(41)	(569)

**16) ACCOUNTS RECEIVABLE AND OTHER CURRENT ASSETS**

As of December 31, 2013			
(M )	Gross value	Valuation allowance	Net value
<b>Accounts receivable</b>	<b>17,523</b>	<b>(539)</b>	<b>16,984</b>
Recoverable taxes	2,482		2,482
Other operating receivables	7,303	(112)	7,191
Prepaid expenses	1,075		1,075
Other current assets	50		50
<b>Other current assets</b>	<b>10,910</b>	<b>(112)</b>	<b>10,798</b>

F-42 TOTAL S.A. Form 20-F 2013

**Table of Contents****As of December 31, 2012**

(M )	Gross value	Valuation allowance	Net value
<b>Accounts receivable</b>	<b>19,678</b>	<b>(472)</b>	<b>19,206</b>
Recoverable taxes	2,796		2,796
Other operating receivables	6,416	(258)	6,158
Prepaid expenses	1,085		1,085
Other current assets	47		47
<b>Other current assets</b>	<b>10,344</b>	<b>(258)</b>	<b>10,086</b>

**As of December 31, 2011**

(M )	Gross value	Valuation allowance	Net value
<b>Accounts receivable</b>	<b>20,532</b>	<b>(483)</b>	<b>20,049</b>
Recoverable taxes	2,398		2,398
Other operating receivables	7,750	(283)	7,467
Prepaid expenses	840		840
Other current assets	62		62
<b>Other current assets</b>	<b>11,050</b>	<b>(283)</b>	<b>10,767</b>

Changes in the valuation allowance on Accounts receivable and Other current assets are as follows:

For the year ended December 31,	Valuation allowance as of January 1,	Increase (net)	Currency translation adjustments and other variations	Valuation allowance as of December 31,
(M )				
<b>Accounts receivable</b>				
<b>2013</b>	<b>(472)</b>	<b>(88)</b>	<b>21</b>	<b>(539)</b>
2012	(483)	(56)	67	(472)
2011	(476)	4	(11)	(483)
<b>Other current assets</b>				
<b>2013</b>	<b>(258)</b>	<b>122</b>	<b>24</b>	<b>(112)</b>
2012	(283)	26	(1)	(258)
2011	(136)	(132)	(15)	(283)

As of December 31, 2013, the net portion of the overdue receivables included in Accounts receivable and Other current assets was 2,764 million, of which 1,135 million was due in less than 90 days, 434 million was due between 90 days and 6 months, 547 million was due between 6 and 12 months and 648 million was due after 12 months.

As of December 31, 2012, the net portion of the overdue receivables included in Accounts receivable and Other current assets was 3,442 million, of which 2,025 million was due in less than 90 days, 679 million was due between 90 days and 6 months, 260 million was due between 6 and 12 months and 478 million was due after 12 months.

As of December 31, 2011, the net portion of the overdue receivables included in Accounts receivable and Other current assets was 3,556 million, of which 1,857 million was due in less than 90 days, 365 million was due between 90 days and 6 months, 746 million was due between 6 and 12 months and 588 million was due after 12 months.

**17) SHAREHOLDERS' EQUITY****Number of TOTAL shares**

The Company's common shares, par value 2.50, as of December 31, 2013 are the only category of shares. Shares may be held in either bearer or registered form.

Double voting rights are granted to holders of shares that are fully-paid and held in the name of the same shareholder for at least two years, with due consideration for the total portion of the share capital represented. Double voting rights are also assigned to restricted shares in the event of an increase in share capital by incorporation of reserves, profits or premiums based on shares already held that are entitled to double voting rights.

## Edgar Filing: TOTAL S.A. - Form 20-F

Pursuant to the Company's bylaws (Statutes), no shareholder may cast a vote at a shareholders' meeting, either by himself or through an agent, representing more than 10% of the total voting rights for the Company's shares. This limit applies to the aggregated amount of voting rights held directly, indirectly or through voting proxies. However, in the case of double voting rights, this limit may be extended to 20%.

2013 Form 20-F TOTAL S.A. F-43

**Table of Contents**

These restrictions no longer apply if any individual or entity, acting alone or in concert, acquires at least two-thirds of the total share capital of the Company, directly or indirectly, following a public tender offer for all of the Company's shares.

The authorized share capital amounts to 3,417,495,344 shares as of December 31, 2013 compared to 3,421,533,930 shares as of December 31, 2012 and 3,446,401,650 shares as of December 31, 2011.

**Variation of the share capital**

<b>As of December 31, 2010</b>		<b>2,349,640,931</b>
Shares issued in connection with:	Capital increase reserved for employees	8,902,717
	Exercise of TOTAL share subscription options	5,223,665
<b>As of December 31, 2011</b>		<b>2,363,767,313</b>
Shares issued in connection with:	Capital increase as part of a global free share plan intended for the Group employees	1,366,950
	Exercise of TOTAL share subscription options	798,883
<b>As of December 31, 2012</b>		<b>2,365,933,146</b>
Shares issued in connection with:	Capital increase reserved for employees	10,802,215
	Exercise of TOTAL share subscription options	942,799
<b>As of December 31, 2013<sup>(a)</sup></b>		<b>2,377,678,160</b>

(a) Including 109,214,448 treasury shares deducted from consolidated shareholders' equity.

The variation of both weighted-average number of shares and weighted-average number of diluted shares respectively used in the calculation of earnings per share and fully-diluted earnings per share is detailed as follows:

	2013	2012	2011
<b>Number of shares as of January 1,</b>	<b>2,365,933,146</b>	<b>2,363,767,313</b>	<b>2,349,640,931</b>
<i>Number of shares issued during the year (pro rated)</i>			
Exercise of TOTAL share subscription options	248,606	663,429	3,412,123
Exercise of TOTAL share purchase options			
TOTAL performance shares	1,197,228	991,126	978,503
Global free TOTAL share plan <sup>(a)</sup>	227	683,868	506
Capital increase reserved for employees	7,201,477		5,935,145
TOTAL shares held by TOTAL S.A. or by its subsidiaries and deducted from shareholders' equity	(110,230,889)	(110,304,173)	(112,487,679)
<b>Weighted-average number of shares</b>	<b>2,264,349,795</b>	<b>2,255,801,563</b>	<b>2,247,479,529</b>
<i>Dilutive effect</i>			
TOTAL share subscription and purchase options	554,224	247,527	470,095
TOTAL performance shares	4,924,693	7,748,805	6,174,808
Global free TOTAL share plan <sup>(a)</sup>	852,057	1,703,554	2,523,233
Capital increase reserved for employees	862,889	1,134,296	303,738
<b>Weighted-average number of diluted shares</b>	<b>2,271,543,658</b>	<b>2,266,635,745</b>	<b>2,256,951,403</b>

(a) The Board of Directors approved on May 21, 2010 the implementation and conditions of a global free share plan intended for the Group employees.

**Capital increase reserved for Group employees**

The Combined General Meeting of May 11, 2012, in its seventeenth resolution, delegated to the Board of Directors the authority to carry out in one or more occasions within a maximum period of twenty-six months, a capital increase reserved for employees belonging to an employee savings plan.

## Edgar Filing: TOTAL S.A. - Form 20-F

The Combined General Meeting of May 11, 2012, in its eighteenth resolution, also delegated to the Board of Directors the powers necessary to accomplish in one or more occasions within a maximum period of eighteen

months, a capital increase with the objective of providing employees with their registered office located outside France with benefits comparable to those granted to the employees included in the seventeenth resolution of the Combined General Meeting of May 11, 2012.

Pursuant to these delegations, the Board of Directors, during its September 18, 2012, meeting, decided to proceed with a capital increase reserved for employees that included a classic offering and a leveraged offering depending on the employees' choice, within the limit of 18 million shares with dividend rights as of January 1,

F-44 TOTAL S.A. Form 20-F 2013

## **Table of Contents**

2012. This capital increase resulted in the subscription of 10,802,215 shares with a par value of 2.5 at a unit price of 30.70. The issuance of the shares was acknowledged on April 25, 2013.

The prior capital increase reserved for employees of the Group was decided by the Board of Directors on October 28, 2010, under the terms of the authorization of the Combined General Meeting of May 21, 2010, and resulted in the subscription of 8,902,717 shares with a par value of 2.5 at a unit price of 34.80. The issuance of the shares was acknowledged on April 28, 2011.

### ***Capital increase as part of a global free share plan intended for Group employees***

The Shareholders' Meeting held on May 16, 2008, in its seventeenth resolution, delegated to the Board of Directors the authority to grant, in one or more occasions within a maximum period of thirty-eight months, restricted shares to employees and executive officers of the Company or companies outside France affiliated with the Company, within a limit of 0.8% of the outstanding share capital of the Company as of the date of the decision of the Board of Directors to grant such shares.

Pursuant to this delegation, the Board of Directors, during its May 21, 2010 meeting, determined the terms of a global free share plan intended for Group employees and granted the Chairman and Chief Executive Officer all powers necessary to implement this plan.

As a result, on July 2, 2012, the Chairman and Chief Executive Officer of the Group acknowledged the issuance and the final allocation of 1,366,950 ordinary shares with a nominal value of 2.50 to beneficiaries designated by the terms defined by the Board of Directors meeting held on May 21, 2010.

On December 31, 2013, 873,475 additional shares may be issued as part of this plan.

### ***Share cancellation***

The Group did not proceed with a reduction of capital by cancellation of shares held by the Company during the fiscal years 2011, 2012 and 2013.

### ***Treasury shares (TOTAL shares held by TOTAL S.A.)***

As of December 31, 2013, TOTAL S.A. holds 8,883,180 of its own shares, representing 0.37% of its share capital, detailed as follows:

8,764,020 shares allocated to TOTAL share grant plans for Group employees; and

119,160 shares intended to be allocated to new TOTAL share purchase option plans or to new share grant plans.  
These shares are deducted from the consolidated shareholders' equity.

As of December 31, 2012, TOTAL S.A. holds 8,060,371 of its own shares, representing 0.34% of its share capital, detailed as follows:

7,994,470 shares allocated to TOTAL share grant plans for Group employees; and

65,901 shares intended to be allocated to new TOTAL share purchase option plans or to new share grant plans.  
These shares are deducted from the consolidated shareholders' equity.

As of December 31, 2011, TOTAL S.A. held 9,222,905 of its own shares, representing 0.39% of its share capital, detailed as follows:

6,712,528 shares allocated to TOTAL share grant plans for Group employees;

2,510,377 shares intended to be allocated to new TOTAL share purchase option plans or to new share grant plans.  
These shares were deducted from the consolidated shareholders' equity.



## Edgar Filing: TOTAL S.A. - Form 20-F

### ***TOTAL shares held by Group subsidiaries***

As of December 31, 2013, 2012 and 2011, TOTAL S.A. held indirectly through its subsidiaries 100,331,268 of its own shares, representing 4.22% of its share capital as of December 31, 2013, 4.24% of its share capital as of December 31, 2012 and 4.24% of its share capital as of December 31, 2011 detailed as follows:

2,023,672 shares held by a consolidated subsidiary, Total Nucléaire, 100% indirectly controlled by TOTAL S.A.; and

98,307,596 shares held by subsidiaries of Elf Aquitaine (Financière Valorgest, Sogapar and Fingestval), 100% indirectly controlled by TOTAL S.A. These shares are deducted from the consolidated shareholders' equity.

### ***Dividend***

TOTAL S.A. paid on March 21, 2013, the third quarterly interim dividend of 0.59 per share for the fiscal year 2012 (the ex-dividend date was March 18, 2013). TOTAL S.A. also paid on June 27, 2013, the balance of the dividend of 0.59 per share for the 2012 fiscal year (the ex-dividend date was June 24, 2013).

2013 Form 20-F TOTAL S.A. F-45

**Table of Contents**

In addition, TOTAL S.A. paid two quarterly interim dividends for the fiscal year 2013:

the first quarterly interim dividend of 0.59 per share for the fiscal year 2013, decided by the Board of Directors on April 25, 2013, was paid on September 27, 2013 (the ex-dividend date was September 24, 2013); and

the second quarterly interim dividend of 0.59 per share for the fiscal year 2013, decided by the Board of Directors on July 25, 2013, was paid on December 19, 2013 (the ex-dividend date was December 16, 2013).

The Board of Directors, during its October 30, 2013 meeting, decided to set the third quarterly interim dividend for the fiscal year 2013 at 0.59 per share. This interim dividend will be paid on March 27, 2014 (the ex-dividend date will be March 24, 2014).

A resolution will be submitted at the shareholders' meeting on May 16, 2014 to pay a dividend of 2.38 per share for the 2013 fiscal year, i.e. a balance of 0.61 per share to be distributed after deducting the three quarterly interim dividends of 0.59 per share that will have already been paid.

***Paid-in surplus***

In accordance with French law, the paid-in surplus corresponds to premiums related to shares, contributions or mergers of the parent company which can be

capitalized or used to offset losses if the legal reserve has reached its minimum required level. The amount of the paid-in surplus may also be distributed subject to taxation except in cases of a refund of shareholder contributions.

As of December 31, 2013, paid-in surplus amounted to 28,020 million ( 27,684 million as of December 31, 2012 and 27,655 million as of December 31, 2011).

***Reserves***

Under French law, 5% of net income must be transferred to the legal reserve until the legal reserve reaches 10% of the nominal value of the share capital. This reserve cannot be distributed to the shareholders other than upon liquidation but can be used to offset losses.

If wholly distributed, the unrestricted reserves of the parent company would be taxed for an approximate amount of 568 million as of December 31, 2013 ( 539 million as of December 31, 2012 and 539 million as of December 31, 2011) with regards to additional corporation tax to be applied on regulatory reserves so that they become distributable.

Furthermore, the additional tax to corporate income tax of 3%, due on dividends distributed by French companies or foreign organizations subject to corporate income tax in France, established by the second corrective finance act for 2012 would be payable for an amount of 405 million ( 375 million as of December 31, 2012).

***Other comprehensive income***

Detail of other comprehensive income showing items reclassified from equity to net income is presented in the table below:

For the year ended December 31, (M )	2013	2012	2011
Actuarial gains and losses	513	(911)	(533)
Tax effect	(216)	362	191
<b>Subtotal items not potentially reclassifiable to profit &amp; loss</b>	<b>297</b>	<b>(549)</b>	<b>(342)</b>
<b>Currency translation adjustment</b>	<b>(2,199)</b>	<b>(702)</b>	<b>1,483</b>
Unrealized gain/(loss) of the period	(2,216)	(713)	1,420
Less gain/(loss) included in net income	(17)	(11)	(63)
<b>Available for sale financial assets</b>	<b>25</b>	<b>(338)</b>	<b>337</b>
Unrealized gain/(loss) of the period	25	63	382
Less gain/(loss) included in net income		401	45

# Edgar Filing: TOTAL S.A. - Form 20-F

<b>Cash flow hedge</b>		<b>117</b>		<b>65</b>		<b>(84)</b>
Unrealized gain/(loss) of the period	182		152		(131)	
Less gain/(loss) included in net income	65		87		(47)	
<b>Share of other comprehensive income of equity affiliates, net amount</b>		<b>(857)</b>		<b>160</b>		<b>(15)</b>
<b>Other</b>		<b>(4)</b>		<b>(14)</b>		<b>(3)</b>
Unrealized gain/(loss) of the period	(4)		(14)		(3)	
Less gain/(loss) included in net income						
<b>Tax effect</b>		<b>(47)</b>		<b>63</b>		<b>(55)</b>
<b>Subtotal items potentially reclassifiable to profit &amp; loss</b>		<b>(2,965)</b>		<b>(766)</b>		<b>1,663</b>
<b>Total other comprehensive income, net amount</b>		<b>(2,668)</b>		<b>(1,315)</b>		<b>1,321</b>

F-46 TOTAL S.A. Form 20-F 2013

**Table of Contents**

Tax effects relating to each component of other comprehensive income are as follows:

For the year ended	2013			2012			2011		
	Pre-tax amount	Tax effect	Net amount	Pre-tax amount	Tax effect	Net amount	Pre-tax amount	Tax effect	Net amount
<b>December 31, (M )</b>									
Actuarial gains and losses	513	(216)	297	(911)	362	(549)	(533)	191	(342)
<b>Subtotal items not potentially reclassifiable to profit &amp; loss</b>	<b>513</b>	<b>(216)</b>	<b>297</b>	<b>(911)</b>	<b>362</b>	<b>(549)</b>	<b>(533)</b>	<b>191</b>	<b>(342)</b>
Currency translation adjustment	(2,199)		(2,199)	(702)		(702)	1,483		1,483
Available for sale financial assets	25	(6)	19	(338)	89	(249)	337	(93)	244
Cash flow hedge	117	(41)	76	65	(26)	39	(84)	38	(46)
Share of other comprehensive income of equity affiliates, net amount	(857)		(857)	160		160	(15)		(15)
Other	(4)		(4)	(14)		(14)	(3)		(3)
<b>Subtotal items potentially reclassifiable to profit &amp; loss</b>	<b>(2,918)</b>	<b>(47)</b>	<b>(2,965)</b>	<b>(829)</b>	<b>63</b>	<b>(766)</b>	<b>1,718</b>	<b>(55)</b>	<b>1,663</b>
<b>Total other comprehensive income</b>	<b>(2,405)</b>	<b>(263)</b>	<b>(2,668)</b>	<b>(1,740)</b>	<b>425</b>	<b>(1,315)</b>	<b>1,185</b>	<b>136</b>	<b>1,321</b>
<b>Non-controlling interests</b>									

As of December 31, 2013, no subsidiary has non-controlling interests that would have a material effect on the Group financial statements.

**18) EMPLOYEE BENEFITS OBLIGATIONS**

Liabilities for employee benefits obligations consist of the following:

As of December 31, (M )	2013	2012	2011
Pension benefits liabilities	2,244	2,774	2,413
Other benefits liabilities	571	701	628
Restructuring reserves (early retirement plans)	256	269	344
<b>Total</b>	<b>3,071</b>	<b>3,744</b>	<b>3,385</b>
Net liabilities relating to assets held for sale		9	

**Description of plans and risk management**

The Group operates for the benefit of its current and former employees both defined benefit plans and defined contribution plans.

The Group recognized a charge of 97 million for defined contribution plans in 2013.

The Group's main defined benefit pension plans are located in France, the United Kingdom, the United States, Belgium and Germany. Their main characteristics, depending on the country-specific regulatory environment, are the following:

the benefits are usually based on the final salary and seniority;

they are usually funded (pension fund or insurer);

they are usually closed to new employees who benefit from defined contribution pension plans; and

they are paid in annuity or in lump sum.

The pension benefits include also termination indemnities and early retirement benefits. The other benefits are employer contributions to post-employment medical care.

In order to manage the inherent risks, the Group has implemented a dedicated governance framework to ensure the supervision of the different plans. These governance rules provide for:

the Group's representation in key governance bodies or monitoring committees;

the principles of the funding policy;

the general investment policy, including for most plans the establishment of a monitoring committee to define and follow the investment strategy and performance and ensure the principles in respect of investment allocation are respected;

a procedure for to approve the establishment of new plans or amendment of existing plans

principles of administration, communication and reporting

**Table of Contents****Change in benefit obligations and plan assets**

The fair value of the defined benefit obligation and plan assets in the Consolidated Financial Statements is detailed as follows:

As of December 31, (M )	Pension benefits			Other benefits		
	2013	2012	2011	2013	2012	2011
<b>Change in benefit obligation</b>						
Benefit obligation at beginning of year	10,893	9,322	8,740	701	628	623
Current service cost	219	180	163	16	14	13
Interest cost	388	429	420	23	29	28
Past service cost	9	204	9	(51)	8	3
Settlements	(68)		(111)	(1)		
Plan participants' contributions	8	9	9			
Benefits paid	(540)	(549)	(451)	(34)	(37)	(34)
Actuarial losses (gains)	(273)	1,217	435	(69)	58	(9)
Foreign currency translation and other	(259)	81	108	(14)	1	4
<b>Benefit obligation at year-end</b>	<b>10,377</b>	<b>10,893</b>	<b>9,322</b>	<b>571</b>	<b>701</b>	<b>628</b>
<i>of which plans entirely or partially funded</i>	9,632	9,918	8,277			
<i>of which plans not funded</i>	745	975	1,045	571	701	628
<b>Change in fair value of plan assets</b>						
Fair value of plan assets at beginning of year	(8,148)	(7,028)	(6,809)			
Interest income	(307)	(339)	(338)			
Actuarial losses (gains)	(187)	(366)	108			
Settlements	69		80			
Plan participants' contributions	(8)	(9)	(9)			
Employer contributions	(224)	(787)	(347)			
Benefits paid	453	452	386			
Foreign currency translation and other	163	(71)	(99)			
<b>Fair value of plan assets at year-end</b>	<b>(8,189)</b>	<b>(8,148)</b>	<b>(7,028)</b>			
<b>Unfunded status</b>	<b>2,188</b>	<b>2,745</b>	<b>2,294</b>	<b>571</b>	<b>701</b>	<b>628</b>
Asset ceiling	21	15	14			
<b>Net recognized amount</b>	<b>2,208</b>	<b>2,760</b>	<b>2,308</b>	<b>571</b>	<b>701</b>	<b>628</b>
Pension benefits and other benefits liabilities	2,244	2,774	2,413	571	701	628
Other non-current assets	(36)	(23)	(105)			
Net benefit liabilities relating to assets held for sale		9				

The amounts recognized in the consolidated income statement and the consolidated statement of comprehensive income for defined benefit plans are detailed as follows:

As of December 31, (M )	Pension benefits			Other benefits		
	2013	2012	2011	2013	2012	2011
Current service cost	219	180	163	16	14	13
Past service cost	9	204	9	(51)	8	3
Settlements	1		(31)	(1)		
Net interest cost	81	90	82	23	29	28
<b>Benefit amounts recognized in Profit &amp; Loss</b>	<b>310</b>	<b>474</b>	<b>223</b>	<b>(13)</b>	<b>51</b>	<b>44</b>
Actuarial (Gains) Losses						
Effect of changes in demographic assumptions	4	32	64	(7)	(1)	(9)
Effect of changes in financial assumptions	(226)	1,030	419	(51)	67	10
Effect of experience adjustments	(51)	155	(48)	(11)	(8)	(10)
Actual return on plan assets (excluding interest income)	(187)	(366)	108			
Effect of asset ceiling	16	2	(1)			
<b>Benefit amounts recognized in Equity</b>	<b>(444)</b>	<b>853</b>	<b>542</b>	<b>(69)</b>	<b>58</b>	<b>(9)</b>
<b>Total benefit amounts recognized in other comprehensive income</b>	<b>(134)</b>	<b>1,327</b>	<b>765</b>	<b>(82)</b>	<b>109</b>	<b>35</b>

The past service cost recognized in 2012 for 204 million is mainly due to the amendment of certain French plans.



**Table of Contents****Expected future cash out flow**

The average duration of accrued benefits is approximately 15 years for defined pension benefits and 14 years for other benefits. The Group expects to pay contributions of 183 million in respect of funded pension plans in 2014.

Estimated future benefits either financed from plan assets or directly paid by the employer are detailed as follows:

Estimated future payments		
As of December 31, (M )	Pension benefits	Other benefits
2014	566	29
2015	540	29
2016	550	30
2017	583	30
2018	541	30
2019-2023	2,896	159

**Type of assets**

Asset allocation	Pension benefits		
As of December 31,	2013	2012	2011
Equity securities	30%	29%	29%
Debt securities	64%	64%	64%
Monetary	2%	3%	4%
Real estate	4%	4%	3%

Investments on equity and debt markets are quoted on active markets.

**Main actuarial assumptions and sensitivity analysis**

Assumptions used to determine benefits obligations		Pension benefits			Other benefits		
As of December 31,		2013	2012	2011	2013	2012	2011
Discount rate (weighted average for all regions)		4.14%	3.79%	4.61%	4.14%	3.82%	4.70%
	Of which Euro zone	3.40%	3.20%	4.21%	3.44%	3.19%	4.25%
	Of which United States	4.74%	4.00%	5.00%	4.71%	4.00%	4.97%
	Of which United Kingdom	4.50%	4.25%	4.75%			
Inflation rate (weighted average for all regions)		2.67%	2.24%	2.35%			
	Of which Euro zone	2.00%	2.00%	2.00%			
	Of which United Kingdom	3.50%	2.75%	3.00%			

The discount rate retained is determined by reference to the high quality rates for AA-rated corporate bonds for a duration equivalent to that of the obligations. It derives from a benchmark per monetary area of different market data at the closing date.

A 0.5% increase or decrease in discount rates all other things being equal would have the following approximate impact on the benefit obligation:

(M )	0.5% increase	0.5% decrease
Benefit obligation as of December 31, 2013	(728)	827

A 0.5% increase or decrease in inflation rates all other things being equal would have the following approximate impact on the benefit obligation:

(M )	0.5% increase	0.5% decrease
------	---------------	---------------



Benefit obligation as of December 31, 2013	497	(454)
	2013 Form 20-F TOTAL S.A.	F-49

**Table of Contents****19) PROVISIONS AND OTHER NON-CURRENT LIABILITIES**

As of December 31, (M )	2013	2012	2011
Litigations and accrued penalty claims	624	930	572
Provisions for environmental contingencies	841	556	600
Asset retirement obligations	9,287	7,624	6,884
Other non-current provisions	1,104	1,028	1,099
Other non-current liabilities	845	1,447	1,754
<b>Total</b>	<b>12,701</b>	<b>11,585</b>	<b>10,909</b>

In 2013, litigation reserves mainly include a provision of 624 million of which 506 million is in the Upstream, notably in Angola and Nigeria. Other risks and commitments that give rise to contingent liabilities are described in Note 32 to the Consolidated Financial Statements.

In 2013, other non-current provisions mainly include:

The contingency reserve related to the Toulouse-AZF plant explosion (civil liability) for 13 million as of December 31, 2013;

Provisions related to restructuring activities in the Refining & Chemicals and Marketing & Services segments for 199 million as of December 31, 2013;

Provisions for financial risks related to non-consolidated and equity consolidated affiliates for 172 million as of December 31, 2013; and

The contingency reserve regarding guarantees granted in relation to solar panels of SunPower for 108 million as of December 31, 2013.

In 2013, other non-current liabilities mainly include debts (whose maturity is more than one year) related to fixed assets acquisitions. This heading is mainly composed of a 92 million debt related to the acquisition of an interest in the liquids-rich area of the Utica shale play (see Note 3 to the Consolidated Financial Statements).

In 2012, litigation reserves mainly included a provision of \$398 million in relation to a transaction in progress with the United States Securities and Exchange Commission (SEC) and the Department of Justice (DoJ) in the United States (see Note 32 to the Consolidated Financial Statements). It also included a provision covering risks concerning antitrust investigations related to Arkema for an amount of 17 million as of December 31, 2012. Other risks and commitments that give rise to contingent liabilities are described in Note 32 to the Consolidated Financial Statements.

In 2012, other non-current provisions mainly included:

The contingency reserve related to the Toulouse-AZF plant explosion (civil liability) for 17 million as of December 31, 2012;

Provisions related to restructuring activities in the Refining & Chemicals and Marketing & Services segments for 196 million as of December 31, 2012;

Provisions for financial risks related to non-consolidated and equity consolidated affiliates for 147 million as of December 31, 2012; and

The contingency reserve regarding guarantees granted in relation to solar panels of SunPower for 89 million as of December 31, 2012.

In 2012, other non-current liabilities mainly included debts (whose maturity is more than one year) related to fixed assets acquisitions. This heading was mainly composed of a 737 million debt related to the acquisition of an interest in the liquids-rich area of the Utica shale play (see Note 3 to the Consolidated Financial Statements).

## Edgar Filing: TOTAL S.A. - Form 20-F

In 2011, litigation reserves mainly included a provision covering risks concerning antitrust investigations related to Arkema amounting to 17 million as of December 31, 2011. Other risks and commitments that give rise to contingent liabilities are described in Note 32 to the Consolidated Financial Statements.

In 2011, other non-current provisions mainly included:

The contingency reserve related to the Toulouse-AZF plant explosion (civil liability) for 21 million as of December 31, 2011;

Provisions related to restructuring activities in the Refining & Chemicals and Marketing & Services segments for 227 million as of December 31, 2011; and

The contingency reserve related to the Buncefield depot explosion (civil liability) for 80 million as of December 31, 2011.

F-50 TOTAL S.A. Form 20-F 2013

**Table of Contents**

In 2011, other non-current liabilities mainly included debts (whose maturity is more than one year) related to fixed assets acquisitions. This heading was mainly composed of

- a 991 million debt related to the acquisition of an interest in the liquids-rich area of the Utica shale play (see Note 3 to the Consolidated Financial Statements).

**Changes in provisions and other non-current liabilities**

Changes in provisions and other non-current liabilities are as follows:

(M )	As of January 1,	Allowances	Reversals	Currency translation adjustment	Other	As of December 31,
<b>2013</b>	<b>11,585</b>	<b>1,309</b>	<b>(1,014)</b>	<b>(612)</b>	<b>1,433</b>	<b>12,701</b>
2012	10,909	1,217	(887)	47	299	11,585
2011	9,098	921	(798)	227	1,461	10,909

**Allowances**

In 2013, allowances for the period ( 1,309 million) mainly includes:

Asset retirement obligations for 439 million (accretion);

Environmental contingencies for 358 million in the Marketing & Services and Refining & Chemicals segments of which 272 million is related to the Carling site in France;

Provisions related to restructuring of activities for 117 million.

In 2012, allowances of the period ( 1,217 million) mainly included:

Asset retirement obligations for 405 million (accretion);

Environmental contingencies for 74 million in the Marketing & Services and Refining & Chemicals segments;

Provisions related to restructuring of activities for 74 million.

A provision of \$398 million in relation to a transaction in progress with the United States Securities and Exchange Commission (SEC) and the Department of Justice (DoJ) in the United States (see Note 32 to the Consolidated Financial Statements).

In 2011, allowances of the period ( 921 million) mainly included:

## Edgar Filing: TOTAL S.A. - Form 20-F

Asset retirement obligations for 344 million (accretion);

Environmental contingencies for 100 million in the Refining & Chemicals segments; and

Provisions related to restructuring of activities for 79 million.

### **Reversals**

In 2013, reversals of the period ( 1,014 million) are mainly related to the following incurred expenses:

A provision of \$398 million in relation to a transaction in progress with the United States Securities and Exchange Commission (SEC) and the Department of Justice (DoJ) in the United States (see Note 32 to the Consolidated Financial Statements).

Provisions for asset retirement obligations for 287 million;

Environmental contingencies written back for 75 million;

The contingency reserve related to the Toulouse-AZF plant explosion (civil liability), written back for 4 million;

Provisions for restructuring and social plans written back for 76 million.

In 2012, reversals of the period ( 887 million) were mainly related to the following incurred expenses:

Provisions for asset retirement obligations for 314 million;

Environmental contingencies written back for 109 million;

The contingency reserve related to the Toulouse-AZF plant explosion (civil liability), written back for 10 million;

The contingency reserve related to the Buncefield depot explosion (civil liability), written back for 81 million; and

Provisions for restructuring and social plans written back for 111 million.

2013 Form 20-F TOTAL S.A. F-51

**Table of Contents**

In 2011, reversals of the period ( 798 million) were mainly related to the following incurred expenses:

Provisions for asset retirement obligations for 189 million;

Environmental contingencies written back for 70 million;

The contingency reserve related to the Toulouse-AZF plant explosion (civil liability), written back for 10 million;

The contingency reserve related to the Buncefield depot explosion (civil liability), written back for 116 million; and

Provisions for restructuring and social plans written back for 164 million.

**Changes in the asset retirement obligation**

Changes in the asset retirement obligation are as follows:

(M )	As of January 1,	Accretion	Revision in estimates	New obligations	Spending on existing obligations	Currency translation adjustment	Other	As of December 31,
2013	7,624	439	1,653	416	(287)	(523)	(35)	9,287
2012	6,884	405	183	115	(314)	82	269	7,624
2011	5,917	344	330	323	(189)	150	9	6,884

In 2013 the heading "Revision in estimates" includes additional provisions in respect of asset restitution costs and the impact of the revision of the discount rate.

In 2012 the heading "Other" included 385 million increase in provisions to cover the costs of abandonment of wells in the Elgin-Franklin field (Great Britain) that will not return to production, and a 183 million increase in provisions for

the restoration of the Lacq site in France on which activities are going to be stopped. These amounts were partially offset by sales of assets notably in Great Britain and Norway that have been reclassified in accordance with IFRS 5 "Non-current assets held for sale and discontinued operations" (see Note 34 to the Consolidated Financial Statements).

**20) FINANCIAL DEBT AND RELATED FINANCIAL INSTRUMENTS*****A) NON-CURRENT FINANCIAL DEBT AND RELATED FINANCIAL INSTRUMENTS***

As of December 31, 2013 (M )

(Assets) / Liabilities	Secured	Unsecured	Total
------------------------	---------	-----------	-------

## Edgar Filing: TOTAL S.A. - Form 20-F

Non-current financial debt	519	24,550	25,069
<i>of which hedging instruments of non-current financial debt (liabilities)</i>		236	236
Hedging instruments of non-current financial debt (assets) <sup>(a)</sup>		(1,028)	(1,028)
<b>Non-current financial debt net of hedging instruments</b>	<b>519</b>	<b>23,522</b>	<b>24,041</b>
Bonds after fair value hedge		18,828	18,828
Fixed rate bonds and bonds after cash flow hedge		4,408	4,408
Bank and other, floating rate	125	179	304
Bank and other, fixed rate	114	107	221
Financial lease obligations	280		280
<b>Non-current financial debt net of hedging instruments</b>	<b>519</b>	<b>23,522</b>	<b>24,041</b>

*(a) See the description of these hedging instruments in Notes 1 paragraph M(iii) Long-term financing, 28 and 29 to the Consolidated Financial Statements.*

**Table of Contents**

As of December 31, 2012 (M )

(Assets) / Liabilities	Secured	Unsecured	Total
Non-current financial debt	713	21,561	22,274
<i>of which hedging instruments of non-current financial debt (liabilities)</i>		11	11
Hedging instruments of non-current financial debt (assets) <sup>(a)</sup>		(1,626)	(1,626)
<b>Non-current financial debt net of hedging instruments</b>	<b>713</b>	<b>19,935</b>	<b>20,648</b>
Bonds after fair value hedge		15,227	15,227
Fixed rate bonds and bonds after cash flow hedge		4,504	4,504
Bank and other, floating rate	306	29	335
Bank and other, fixed rate	81	168	249
Financial lease obligations	326	7	333
<b>Non-current financial debt net of hedging instruments</b>	<b>713</b>	<b>19,935</b>	<b>20,648</b>

(a) See the description of these hedging instruments in Notes 1 paragraph M(iii) Long-term financing, 28 and 29 to the Consolidated Financial Statements.

As of December 31, 2011 (M )

(Assets) / Liabilities	Secured	Unsecured	Total
Non-current financial debt	349	22,208	22,557
<i>of which hedging instruments of non-current financial debt (liabilities)</i>		146	146
Hedging instruments of non-current financial debt (assets) <sup>(a)</sup>		(1,976)	(1,976)
<b>Non-current financial debt net of hedging instruments</b>	<b>349</b>	<b>20,232</b>	<b>20,581</b>
Bonds after fair value hedge		15,148	15,148
Fixed rate bonds and bonds after cash flow hedge		4,424	4,424
Bank and other, floating rate	129	446	575
Bank and other, fixed rate	76	206	282
Financial lease obligations	144	8	152
<b>Non-current financial debt net of hedging instruments</b>	<b>349</b>	<b>20,232</b>	<b>20,581</b>

(a) See the description of these hedging instruments in Notes 1 paragraph M(iii) Long-term financing, 28 and 29 to the Consolidated Financial Statements.

Fair value of bonds, as of December 31, 2013, after taking into account currency and interest rates swaps, is detailed as follows:

Bonds after fair value hedge (M )	Year of issue	Fair value after hedging as of December 31, 2013	Fair value after hedging as of December 31, 2012	Fair value after hedging as of December 31, 2011	Currency	Maturity	Initial rate before hedging instruments
<b>Parent company</b>							
Bond	1998		127	129	FRF	2013	5.000%
Current portion (less than one year)			(127)				
<b>Total Parent company</b>				<b>129</b>			

Bonds after fair value hedge (M )	Year of issue	Fair value after hedging as of December 31, 2013	Fair value after hedging as of December 31, 2012	Fair value after hedging as of December 31, 2011	Currency	Maturity	Initial rate before hedging instruments
<b>TOTAL CAPITAL<sup>(a)</sup></b>							
Bond	2002			15	USD	2012	5.890%
Bond	2003		23	23	USD	2013	4.500%
Bond	2004			129	CHF	2012	2.375%



## Edgar Filing: TOTAL S.A. - Form 20-F

Bond	2004	49	51	52	NZD	2014	6.750%
Bond	2005			63	AUD	2012	5.750%
Bond	2005			200	CHF	2012	2.135%
Bond	2005			65	CHF	2012	2.135%
Bond	2005			97	CHF	2012	2.375%
Bond	2005			404	EUR	2012	3.250%
Bond	2005			57	NZD	2012	6.500%
Bond	2006			62	AUD	2012	5.625%
Bond	2006			72	CAD	2012	4.125%

2013 Form 20-F TOTAL S.A. F-53

**Table of Contents**

Bonds after fair value hedge (M )	Year of issue	Fair value after hedging as of December 31, 2013	Fair value after hedging as of December 31, 2012	Fair value after hedging as of December 31, 2011	Currency	Maturity	Initial rate before hedging instruments
Bond	2006			100	EUR	2012	3.250%
Bond	2006			74	GBP	2012	4.625%
Bond	2006			100	EUR	2012	3.250%
Bond	2006		125	125	CHF	2013	2.510%
Bond	2006	127	127	127	CHF	2014	2.635%
Bond	2006	130	130	130	CHF	2016	2.385%
Bond	2006	65	65	65	CHF	2016	2.385%
Bond	2006	64	64	64	CHF	2016	2.385%
Bond	2006	63	63	63	CHF	2016	2.385%
Bond	2006	129	129	129	CHF	2018	3.135%
Bond	2007			370	USD	2012	5.000%
Bond	2007			222	USD	2012	5.000%
Bond	2007			61	AUD	2012	6.500%
Bond	2007			72	CAD	2012	4.125%
Bond	2007			71	GBP	2012	4.625%
Bond	2007		300	300	EUR	2013	4.125%
Bond	2007		73	73	GBP	2013	5.500%
Bond	2007		305	306	GBP	2013	5.500%
Bond	2007		72	72	GBP	2013	5.500%
Bond	2007	248	248	248	CHF	2014	2.635%
Bond	2007	31	31	31	JPY	2014	1.505%
Bond	2007	61	61	61	CHF	2014	2.635%
Bond	2007	49	49	49	JPY	2014	1.723%
Bond	2007	121	121	121	CHF	2015	3.125%
Bond	2007	300	300	300	EUR	2017	4.700%
Bond	2007	76	76	76	CHF	2018	3.135%
Bond	2007	60	60	60	CHF	2018	3.135%
Bond	2008			62	CHF	2012	2.135%
Bond	2008			124	CHF	2012	3.635%
Bond	2008			46	CHF	2012	2.385%
Bond	2008			92	CHF	2012	2.385%
Bond	2008			64	CHF	2012	2.385%
Bond	2008			50	EUR	2012	3.250%
Bond	2008			63	GBP	2012	4.625%
Bond	2008			63	GBP	2012	4.625%
Bond	2008			63	GBP	2012	4.625%
Bond	2008			62	NOK	2012	6.000%
Bond	2008			69	USD	2012	5.000%
Bond	2008		60	60	AUD	2013	7.500%
Bond	2008		61	61	AUD	2013	7.500%
Bond	2008		127	128	CHF	2013	3.135%
Bond	2008		62	62	CHF	2013	3.135%
Bond	2008		200	200	EUR	2013	4.125%
Bond	2008		100	100	EUR	2013	4.125%
Bond	2008		999	1,000	EUR	2013	4.750%
Bond	2008		63	63	GBP	2013	5.500%
Bond	2008		149	149	JPY	2013	EURIBOR 6 months + 0.008%
Bond	2008		191	191	USD	2013	4.000%
Bond	2008	61	61	61	CHF	2015	3.135%
Bond	2008	62	62	62	CHF	2015	3.135%
Bond	2008	61	61	61	CHF	2015	3.135%
Bond	2008	62	62	62	CHF	2018	3.135%
Bond	2009		56	56	AUD	2013	5.500%
Bond	2009		54	54	AUD	2013	5.500%
Bond	2009		236	236	CHF	2013	2.500%
Bond	2009		77	77	USD	2013	4.000%



**Table of Contents**

Bonds after fair value hedge (M )	Year of issue	Fair value after hedging as of December 31, 2013	Fair value after hedging as of December 31, 2012	Fair value after hedging as of December 31, 2011	Currency	Maturity	Initial rate before hedging instruments
Bond	2009	131	131	131	CHF	2014	2.625%
Bond	2009	997	998	998	EUR	2014	3.500%
Bond	2009	150	150	150	EUR	2014	3.500%
Bond	2009	40	40	40	HKD	2014	3.240%
Bond	2009	100	105	107	AUD	2015	6.000%
Bond	2009	549	550	550	EUR	2015	3.625%
Bond	2009	684	684	684	USD	2015	3.125%
Bond	2009	217	227	232	USD	2015	3.125%
Bond	2009	99	99	99	CHF	2016	2.385%
Bond	2009	115	115	115	GBP	2017	4.250%
Bond	2009	225	225	225	GBP	2017	4.250%
Bond	2009	451	448	448	EUR	2019	4.875%
Bond	2009	69	69	69	HKD	2019	4.180%
Bond	2010	99	103	105	AUD	2014	5.750%
Bond	2010	66	69	70	AUD	2015	6.000%
Bond	2010	67	70	71	AUD	2015	6.000%
Bond	2010	64	64	64	AUD	2015	6.000%
Bond	2010	104	109	111	CAD	2014	2.500%
Bond	2010	461	482	491	EUR	2022	3.125%
Bond	2010	51	53	54	NZD	2014	4.750%
Bond	2010	181	189	193	USD	2015	2.875%
Bond	2010	906	947	966	USD	2015	3.000%
Bond	2010	725	757	773	USD	2016	2.300%
Bond	2011	560	586	597	GBP	2018	3.875%
Bond	2011	108	113	116	AUD	2016	6.500%
Bond	2013	725			USD	2018	1.450%
Current portion (less than one year)		(2,137)	(3,333)	(2,992)			
<b>Total TOTAL CAPITAL</b>		<b>7,626</b>	<b>9,204</b>	<b>12,617</b>			
<b>TOTAL CAPITAL CANADA Ltd.(b)</b>							
Bond	2011	543	567	565	USD	2014	1.625%
Bond	2011	544	567	565	USD	2014	USLIBOR 3 months + 0.38 %
Bond	2011	72	76	75	AUD	2014	5.750%
Bond	2011		743	738	USD	2013	USLIBOR 3 months + 0.09 %
Bond	2011	80	83	82	NOK	2016	4.000%
Bond	2011	68	69	69	SEK	2016	3.625%
Bond	2013	724			USD	2018	1.450%
Bond	2013	111			AUD	2018	4.000%
Bond	2013	362			USD	2023	2.750%
Bond	2013	726			USD	2016	USLIBOR 3 months + 0.38 %
Bond	2013	707			EUR	2020	4.000%
Current portion (less than one year)		(1,159)	(743)				
<b>Total TOTAL CAPITAL CANADA Ltd</b>		<b>2,778</b>	<b>1,362</b>	<b>2,094</b>			
<b>TOTAL CAPITAL INTERNATIONAL(c)</b>							
Bond	2012	75	78		AUD	2017	4.875%
Bond	2012	725	758		USD	2017	1.500%
Bond	2012	111	116		AUD	2017	4.125%
Bond	2012	1,088	1,137		USD	2017	1.550%
Bond	2012	73	76		NOK	2016	2.250%
Bond	2012	106	111		NOK	2017	2.250%

**Table of Contents**

Bonds after fair value hedge (M )	Year of issue	Fair value after hedging as of December 31, 2013	Fair value after hedging as of December 31, 2012	Fair value after hedging as of December 31, 2011	Currency	Maturity	Initial rate before hedging instruments
Bond	2012	464	485		EUR	2023	2.125%
Bond	2012	362	379		USD	2016	0.750%
Bond	2012	724	757		USD	2023	2.700%
Bond	2012	76	80		NOK	2017	2.250%
Bond	2012	76	79		AUD	2017	3.875%
Bond	2012	73	76		CAD	2017	2.000%
Bond	2013	235			EUR	2023	2.125%
Bond	2013	181			USD	2016	0.750%
Bond	2013	362			USD	2016	5.750%
Bond	2013	75			NOK	2018	1.000%
Bond	2013	363			USD	2018	USLIBOR 3 months + 0.57 %
Bond	2013	283			EUR	2020	2.125%
Bond	2013	218			USD	2020	USLIBOR 3 months + 0.75 %
Bond	2013	724			USD	2024	1.875%
Bond	2013	69			CAD	2018	2.375%
Bond	2013	825			EUR	2021	2.125%
Bond	2013	630			EUR	2025	2.875%
Current portion (less than one year)							
<b>TOTAL CAPITAL</b>							
<b>INTERNATIONAL</b>		<b>7,918</b>	<b>4,132</b>				
<b>Other consolidated subsidiaries</b>		<b>506</b>	<b>529</b>	<b>308</b>			
<b>Total bonds after fair value hedge</b>		<b>18,828</b>	<b>15,227</b>	<b>15,148</b>			

Bonds after cash flow hedge and fixed rate bonds (M )	Year of issue	Amount after hedging as of December 31, 2013	Amount after hedging as of December 31, 2012	Amount after hedging as of December 31, 2011	Currency	Maturity	Initial rate before hedging instruments
<b>TOTAL CAPITAL<sup>(a)</sup></b>							
Bond	2005			294	GBP	2012	4.625%
Bond	2009	651	701	744	EUR	2019	4.875%
Bond	2009	363	379	386	USD	2021	4.250%
Bond	2009	804	926	1,016	EUR	2024	5.125%
Bond	2010	905	947	966	USD	2020	4.450%
Bond	2011	363	379	386	USD	2021	4.125%
Bond	2013	128			CNY	2018	3.750%
Current portion (less than one year)				(294)			
<b>Total TOTAL CAPITAL</b>		<b>3,214</b>	<b>3,332</b>	<b>3,498</b>			
<b>TOTAL CAPITAL CANADA</b>							
<b>Ltd.<sup>(b)</sup></b>							
Bond	2013	363			USD	2023	2.750%
Current portion (less than one year)							
<b>Total TOTAL CAPITAL</b>							
<b>CANADA Ltd</b>		<b>363</b>					
<b>TOTAL CAPITAL</b>							
<b>INTERNATIONAL<sup>(c)</sup></b>							
Bond	2012	725	758		USD	2022	2.875%
Current portion (less than one year)							
<b>Total TOTAL CAPITAL</b>							
<b>INTERNATIONAL</b>		<b>725</b>	<b>758</b>				
<b>Other consolidated subsidiaries</b>		<b>106</b>	<b>414</b>	<b>926</b>			
<b>Total Bonds after cash flow hedge</b>		<b>4,408</b>	<b>4,504</b>	<b>4,424</b>			



**Table of Contents**

- (a) *TOTAL CAPITAL* is a wholly-owned indirect subsidiary of *TOTAL S.A.* (with the exception of one share held by each member of its Board of Directors). It acts as a financing vehicle for the Group. Its debt securities are fully and unconditionally guaranteed by *TOTAL S.A.* as to payment of principal, premium, if any, interest and any other amounts due.
- (b) *TOTAL CAPITAL CANADA Ltd.* is a wholly-owned direct subsidiary of *TOTAL S.A.* It acts as a financing vehicle for the activities of the Group in Canada. Its debt securities are fully and unconditionally guaranteed by *TOTAL S.A.* as to payment of principal, premium, if any, interest and any other amounts due.
- (c) *TOTAL CAPITAL INTERNATIONAL* is a wholly-owned direct subsidiary of *TOTAL S.A.* It acts as a financing vehicle for the Group. Its debt securities are fully and unconditionally guaranteed by *TOTAL S.A.* as to payment of principal, premium, if any, interest and any other amounts due.

**Loan repayment schedule (excluding current portion)**

As of December 31, 2013 (M )	Non-current financial debt	of which hedging instruments of non-current financial debt (liabilities)	Hedging instruments of non-current financial debt (assets)	Non-current financial debt net of hedging instruments	%
2015	3,625	3	(255)	3,370	14%
2016	3,441	19	(157)	3,284	14%
2017	3,094	56	(79)	3,015	12%
2018	3,386	37	(224)	3,162	13%
2019 and beyond	11,523	121	(313)	11,210	47%
<b>Total</b>	<b>25,069</b>	<b>236</b>	<b>(1,028)</b>	<b>24,041</b>	<b>100%</b>
As of December 31, 2012 (M )	Non-current financial debt	of which hedging instruments of non-current financial debt (liabilities)	Hedging instruments of non-current financial debt (assets)	Non-current financial debt net of hedging instruments	%
2014	4,163	1	(331)	3,832	19%
2015	3,903	8	(438)	3,465	17%
2016	2,335		(210)	2,125	10%
2017	3,275		(149)	3,126	15%
2018 and beyond	8,598	2	(498)	8,100	39%
<b>Total</b>	<b>22,274</b>	<b>11</b>	<b>(1,626)</b>	<b>20,648</b>	<b>100%</b>
As of December 31, 2011 (M )	Non-current financial debt	of which hedging instruments of non-current financial debt (liabilities)	Hedging instruments of non-current financial debt (assets)	Non-current financial debt net of hedging instruments	%
2013	5,021	80	(529)	4,492	22%
2014	4,020	3	(390)	3,630	18%
2015	4,070	6	(456)	3,614	18%
2016	1,712	9	(193)	1,519	7%
2017 and beyond	7,734	48	(408)	7,326	35%
<b>Total</b>	<b>22,557</b>	<b>146</b>	<b>(1,976)</b>	<b>20,581</b>	<b>100%</b>

**Analysis by currency and interest rate**

These analyses take into account interest rate and foreign currency swaps to hedge non-current financial debt.

As of December 31, (M )	2013	%	2012	%	2011	%
U.S. Dollar	20,236	84%	13,685	66%	8,645	42%

# Edgar Filing: TOTAL S.A. - Form 20-F

Euro	3,542	15%	5,643	27%	9,582	47%
Other currencies	263	1%	1,320	7%	2,354	11%
<b>Total</b>	<b>24,041</b>	<b>100%</b>	<b>20,648</b>	<b>100%</b>	<b>20,581</b>	<b>100%</b>

As of December 31, (M )	2013	%	2012	%	2011	%
Fixed rate	4,909	20%	5,085	25%	4,854	24%
Floating rate	19,132	80%	15,563	75%	15,727	76%
<b>Total</b>	<b>24,041</b>	<b>100%</b>	<b>20,648</b>	<b>100%</b>	<b>20,581</b>	<b>100%</b>

2013 Form 20-F TOTAL S.A. F-57



**Table of Contents****B) CURRENT FINANCIAL ASSETS AND LIABILITIES**

Current borrowings consist mainly of commercial papers or treasury bills or draws on bank loans. These instruments bear interest at rates that are close to market rates.

As of December 31, (M )	2013	2012	2011
<b>(Assets) / Liabilities</b>			
Current financial debt <sup>(a)</sup>	4,191	6,392	5,819
Current portion of non-current financial debt	3,925	4,624	3,856
<b>Current borrowings (note 28)</b>	<b>8,116</b>	<b>11,016</b>	<b>9,675</b>
Current portion of hedging instruments of debt (liabilities)	228	84	40
Other current financial instruments (liabilities)	48	92	127
<b>Other current financial liabilities (note 28)</b>	<b>276</b>	<b>176</b>	<b>167</b>
Current deposits beyond three months	(117)	(1,093)	(101)
Current portion of hedging instruments of debt (assets)	(340)	(430)	(383)
Other current financial instruments (assets)	(79)	(39)	(216)
<b>Current financial assets (note 28)</b>	<b>(536)</b>	<b>(1,562)</b>	<b>(700)</b>
<b>Current borrowings and related financial assets and liabilities, net</b>	<b>7,856</b>	<b>9,630</b>	<b>9,142</b>

(a) As of December 31, 2011 and as of December 31, 2010, the current financial debt includes a commercial paper program in Total Capital Canada Ltd. Total Capital Canada Ltd. is a wholly-owned direct subsidiary of TOTAL S.A. It acts as a financing vehicle for the activities of the Group in Canada. Its debt securities are fully and unconditionally guaranteed by TOTAL S.A. as to payment of principal, premium, if any, interest and any other amounts due.

**C) NET-DEBT-TO-EQUITY RATIO**

For its internal and external communication needs, the Group calculates a debt ratio by dividing its net financial debt by equity. Adjusted shareholders' equity for the year ended December 31, 2013 is calculated after payment of a dividend of 2.38 per share, subject to approval by the shareholders' meeting on May 16, 2014.

The net-debt-to-equity ratio is calculated as follows:

As of December 31, (M )	2013	2012	2011
<b>(Assets) / Liabilities</b>			
Current borrowings	8,116	11,016	9,675
Other current financial liabilities	276	176	167
Current financial assets	(536)	(1,562)	(700)
Net financial assets and liabilities held for sale or exchange	(130)	756	
Non-current financial debt	25,069	22,274	22,557
Hedging instruments on non-current financial debt	(1,028)	(1,626)	(1,976)
Cash and cash equivalents	(14,647)	(15,469)	(14,025)
<b>Net financial debt</b>	<b>17,120</b>	<b>15,565</b>	<b>15,698</b>
Shareholders' equity - Group share	72,629	71,185	66,945
Distribution of the income based on existing shares at the closing date	(1,362)	(1,299)	(1,255)
Non-controlling interests	2,281	1,280	1,352
<b>Adjusted shareholders' equity</b>	<b>73,548</b>	<b>71,166</b>	<b>67,042</b>
<b>Net-debt-to-equity ratio</b>	<b>23.3%</b>	<b>21.9%</b>	<b>23.4%</b>

**21) OTHER CREDITORS AND ACCRUED LIABILITIES**

As of December 31, (M )	2013	2012	2011
Accruals and deferred income	217	240	231
Payable to States (including taxes and duties)	6,523	7,426	8,040
Payroll	1,140	1,128	1,062
Other operating liabilities	5,941	5,904	5,441
<b>Total</b>	<b>13,821</b>	<b>14,698</b>	<b>14,774</b>

## Edgar Filing: TOTAL S.A. - Form 20-F

As of December 31, 2013, the heading "Other operating liabilities" includes mainly the third quarterly interim dividend for the fiscal year 2013 for 1,361 million. This interim dividend will be paid in March 2014.

As of December 31, 2012, the heading "Other operating liabilities" included mainly the third quarterly interim dividend for the fiscal year 2012 for 1,366 million. This interim dividend was paid in March 2013.

As of December 31, 2011, the heading "Other operating liabilities" included mainly the third quarterly interim dividend for the fiscal year 2011 for 1,317 million. This interim dividend was paid in March 2012.

F-58 TOTAL S.A. Form 20-F 2013

**Table of Contents****22) LEASE CONTRACTS**

The Group leases real estate, retail stations, ships, and other equipments (see Note 11 to the Consolidated Financial Statements).

The future minimum lease payments on operating and finance leases to which the Group is committed are shown as follows:

For the year ended December 31, 2013 (M )	Operating leases	Finance leases
2014	807	52
2015	657	51
2016	600	48
2017	459	17
2018	361	17
2019 and beyond	1,174	206
<b>Total minimum payments</b>	<b>4,058</b>	<b>391</b>
Less financial expenses		(82)
<b>Nominal value of contracts</b>		<b>309</b>
Less current portion of finance lease contracts		(29)
<b>Outstanding liability of finance lease contracts</b>		<b>280</b>

For the year ended December 31, 2012 (M )	Operating leases	Finance leases
2013	781	55
2014	569	54
2015	514	53
For the year ended December 31, 2012 (M )	Operating leases	Finance leases
2016	441	51
2017	337	19
2018 and beyond	971	236
<b>Total minimum payments</b>	<b>3,613</b>	<b>468</b>
Less financial expenses		(108)
<b>Nominal value of contracts</b>		<b>360</b>
Less current portion of finance lease contracts		(27)
<b>Outstanding liability of finance lease contracts</b>		<b>333</b>

For the year ended December 31, 2011 (M )	Operating leases	Finance leases
2012	762	41
2013	552	40
2014	416	37
2015	335	36
2016	316	34
2017 and beyond	940	20
<b>Total minimum payments</b>	<b>3,321</b>	<b>208</b>
Less financial expenses		(31)
<b>Nominal value of contracts</b>		<b>177</b>
Less current portion of finance lease contracts		(25)
<b>Outstanding liability of finance lease contracts</b>		<b>152</b>

Net rental expense incurred under operating leases for the year ended December 31, 2013 is 848 million (against 780 million in 2012 and 645 million in 2011).

**23) COMMITMENTS AND CONTINGENCIES**

As of December 31, 2013 (M )	Maturity and installments			
	Total	Less than 1 year	Between 1 and 5 years	More than 5 years
Non-current debt obligations net of hedging instruments <i>(note 20)</i>	23,761		12,721	11,040
Current portion of non-current debt obligations net of hedging instruments <i>(note 20)</i>	3,784	3,784		
Finance lease obligations <i>(note 22)</i>	309	29	110	170
Asset retirement obligations <i>(note 19)</i>	9,287	533	1,717	7,037
<b>Contractual obligations recorded in the balance sheet</b>	<b>37,141</b>	<b>4,346</b>	<b>14,548</b>	<b>18,247</b>
Operating lease obligations <i>(note 22)</i>	4,058	807	2,077	1,174
Purchase obligations	86,275	14,546	24,663	47,066
<b>Contractual obligations not recorded in the balance sheet</b>	<b>90,333</b>	<b>15,353</b>	<b>26,740</b>	<b>48,240</b>
<b>Total of contractual obligations</b>	<b>127,474</b>	<b>19,699</b>	<b>41,288</b>	<b>66,487</b>
Guarantees given for excise taxes	1,772	1,485	74	213
Guarantees given against borrowings	6,001	80	2,687	3,234
Indemnities related to sales of businesses	232	5	98	129
Guarantees of current liabilities	525	89	169	267
Guarantees to customers / suppliers	3,528	1,537	138	1,853
Letters of credit	1,711	1,351	163	197
Other operating commitments	3,043	989	696	1,358
<b>Total of other commitments given</b>	<b>16,812</b>	<b>5,536</b>	<b>4,025</b>	<b>7,251</b>
Mortgages and liens received	282	15	1	266
Sales obligations	98,226	7,625	28,063	62,538
Other commitments received	5,941	3,211	1,269	1,461
<b>Total of commitments received</b>	<b>104,449</b>	<b>10,851</b>	<b>29,333</b>	<b>64,265</b>
<i>Of which commitments given relating to joint ventures</i>	<i>8,086</i>	<i>71</i>	<i>401</i>	<i>7,614</i>

**Table of Contents**

As of December 31, 2012 (M )	Maturity and installments			
	Total	Less than 1 year	Between 1 and 5 years	More than 5 years
Non-current debt obligations net of hedging instruments ( <i>note 20</i> )	20,315		12,405	7,910
Current portion of non-current debt obligations net of hedging instruments ( <i>note 20</i> )	4,251	4,251		
Finance lease obligations ( <i>note 22</i> )	360	27	143	190
Asset retirement obligations ( <i>note 19</i> )	7,624	407	1,429	5,788
<b>Contractual obligations recorded in the balance sheet</b>	<b>32,550</b>	<b>4,685</b>	<b>13,977</b>	<b>13,888</b>
Operating lease obligations ( <i>note 22</i> )	3,613	781	1,861	971
Purchase obligations	83,219	12,005	21,088	50,126
<b>Contractual obligations not recorded in the balance sheet</b>	<b>86,832</b>	<b>12,786</b>	<b>22,949</b>	<b>51,097</b>
<b>Total of contractual obligations</b>	<b>119,382</b>	<b>17,471</b>	<b>36,926</b>	<b>64,985</b>
Guarantees given for excise taxes	1,675	1,507	70	98
Guarantees given against borrowings	3,952	117	2,695	1,140
Indemnities related to sales of businesses	193	4	49	140
Guarantees of current liabilities	403	133	105	165
Guarantees to customers / suppliers	3,586	1,982	113	1,491
Letters of credit	2,298	1,785	252	261
Other operating commitments	2,659	753	702	1,204
<b>Total of other commitments given</b>	<b>14,766</b>	<b>6,281</b>	<b>3,986</b>	<b>4,499</b>
Mortgages and liens received	435	117	8	310
Sales obligations	80,514	7,416	26,137	46,961
Other commitments received	5,564	3,465	859	1,240
<b>Total of commitments received</b>	<b>86,513</b>	<b>10,998</b>	<b>27,004</b>	<b>48,511</b>
<i>Of which commitments given relating to joint ventures</i>	<i>7,011</i>		<i>145</i>	<i>6,866</i>

As of December 31, 2011 (M )	Maturity and installments			
	Total	Less than 1 year	Between 1 and 5 years	More than 5 years
Non-current debt obligations net of hedging instruments ( <i>note 20</i> )	20,429		13,121	7,308
Current portion of non-current debt obligations net of hedging instruments ( <i>note 20</i> )	3,488	3,488		
Finance lease obligations ( <i>note 22</i> )	177	25	134	18
Asset retirement obligations ( <i>note 19</i> )	6,884	272	804	5,808
<b>Contractual obligations recorded in the balance sheet</b>	<b>30,978</b>	<b>3,785</b>	<b>14,059</b>	<b>13,134</b>
Operating lease obligations ( <i>note 22</i> )	3,321	762	1,619	940
Purchase obligations	77,353	11,049	20,534	45,770
<b>Contractual obligations not recorded in the balance sheet</b>	<b>80,674</b>	<b>11,811</b>	<b>22,153</b>	<b>46,710</b>
<b>Total of contractual obligations</b>	<b>111,652</b>	<b>15,596</b>	<b>36,212</b>	<b>59,844</b>
Guarantees given for excise taxes	1,765	1,594	73	98
Guarantees given against borrowings	4,778	1,027	2,797	954
Indemnities related to sales of businesses	39		34	5
Guarantees of current liabilities	376	262	35	79
Guarantees to customers / suppliers	3,265	1,634	57	1,574
Letters of credit	2,408	1,898	301	209
Other operating commitments	2,477	433	697	1,347
<b>Total of other commitments given</b>	<b>15,108</b>	<b>6,848</b>	<b>3,994</b>	<b>4,266</b>
Mortgages and liens received	408	7	119	282
Sales obligations	62,216	4,221	17,161	40,834
Other commitments received	6,740	4,415	757	1,568
<b>Total of commitments received</b>	<b>69,364</b>	<b>8,643</b>	<b>18,037</b>	<b>42,684</b>
<i>Of which commitments given relating to joint ventures</i>				

## **Table of Contents**

### ***A. CONTRACTUAL OBLIGATIONS***

#### ***Debt obligations***

Non-current debt obligations are included in the items Non-current financial debt and Hedging instruments of non-current financial debt of the Consolidated Balance Sheet. It includes the non-current portion of swaps hedging bonds, and excludes non-current finance lease obligations of 280 million.

The current portion of non-current debt is included in the items Current borrowings, Current financial assets and Other current financial liabilities of the Consolidated Balance Sheet. It includes the current portion of swaps hedging bonds, and excludes the current portion of finance lease obligations of 29 million.

The information regarding contractual obligations linked to indebtedness is presented in Note 20 to the Consolidated Financial Statements.

#### ***Lease contracts***

The information regarding operating and finance leases is presented in Note 22 to the Consolidated Financial Statements.

#### ***Asset retirement obligations***

This item represents the discounted present value of Upstream asset retirement obligations, primarily asset removal costs at the completion date. The information regarding contractual obligations linked to asset retirement obligations is presented in Notes 1Q and 19 to the Consolidated Financial Statements.

#### ***Purchase obligations***

Purchase obligations are obligations under contractual agreements to purchase goods or services, including capital projects. These obligations are enforceable and legally binding on the company and specify all significant terms, including the amount and the timing of the payments.

These obligations mainly include: hydrocarbon unconditional purchase contracts (except where an active, highly-liquid market exists and when the hydrocarbons are expected to be re-sold shortly after purchase), reservation of transport capacities in pipelines, unconditional exploration works and development works in the Upstream segment, and contracts for capital investment projects in the Refining & Chemicals segment.

### ***B. OTHER COMMITMENTS GIVEN***

#### ***Guarantees given for excise taxes***

They consist of guarantees given to other oil and gas companies in order to comply with French tax authorities

requirements for oil and gas imports in France. A payment would be triggered by a failure of the guaranteed party with respect to the French tax authorities. The default of the guaranteed parties is however considered to be highly remote by the Group.

#### ***Guarantees given against borrowings***

The Group guarantees bank debt and finance lease obligations of certain non-consolidated subsidiaries and equity affiliates. Maturity dates vary, and guarantees will terminate on payment and/or cancellation of the obligation. A payment would be triggered by failure of the guaranteed party to fulfill its obligation covered by the guarantee, and no assets are held as collateral for these guarantees. As of December 31, 2013, the maturities of these guarantees are up to 2028.

Guarantees given against borrowings include the guarantee given in 2008 by TOTAL S.A. in connection with the financing of the Yemen LNG project for an amount of 528 million.

In 2010, TOTAL S.A. provided guarantees in connection with the financing of the Jubail project (operated by SAUDI ARAMCO TOTAL Refining and Petrochemical Company (SATORP)) of up to 2,311 million, proportional to TOTAL's share in the project (37.5%). In addition, TOTAL S.A. provided in 2010 a guarantee in favor of its partner in the Jubail project (Saudi Arabian Oil Company) with respect to Total Refining Saudi Arabia SAS's obligations under the shareholders agreement with respect to SATORP. As of December 31, 2013, this guarantee is of up to 892 million and has been recorded under Other operating commitments.

In 2013, TOTAL S.A. provided guarantees in connection with the financing of the Ichthys LNG project for an amount of 2,218 million.

#### ***Indemnities related to sales of businesses***

## Edgar Filing: TOTAL S.A. - Form 20-F

In the ordinary course of business, the Group executes contracts involving standard indemnities in oil industry and indemnities specific to transactions such as sales of businesses. These indemnities might include claims against any of the following: environmental, tax and shareholder matters, intellectual property rights, governmental regulations and employment-related matters, dealer, supplier, and other commercial contractual relationships. Performance under these indemnities would generally be triggered by a breach of terms of the contract or by a third party claim. The Group regularly evaluates the probability of having to incur costs associated with these indemnities.

The guarantees related to antitrust investigations granted as part of the agreement relating to the spin-off of Arkema are described in Note 32 to the Consolidated Financial Statements.

2013 Form 20-F TOTAL S.A. F-61

**Table of Contents*****Other guarantees given******Non-consolidated subsidiaries***

The Group also guarantees the current liabilities of certain non-consolidated subsidiaries. Performance under these guarantees would be triggered by a financial default of the entity.

***Operating agreements***

As part of normal ongoing business operations and consistent with generally and accepted recognized industry practices, the Group enters into numerous agreements

with other parties. These commitments are often entered into for commercial purposes, for regulatory purposes or for other operating agreements.

***C. COMMITMENTS RECEIVED******Sales obligations***

These amounts represent binding obligations under contractual agreements to sell goods, including in particular hydrocarbon unconditional sale contracts (except when an active, highly-liquid market exists and volumes are re-sold shortly after purchase).

**24) RELATED PARTIES**

The main transactions and balances with related parties (principally non-consolidated subsidiaries and equity affiliates) are detailed as follows:

As of December 31, (M )	2013	2012	2011
<b>Balance sheet</b>			
<i>Receivables</i>			
Debtors and other debtors	613	646	585
Loans (excl. loans to equity affiliates)	341	383	331
<i>Payables</i>			
Creditors and other creditors	876	713	724
Debts	13	9	31
<b>For the year ended December 31, (M )</b>	<b>2013</b>	<b>2012</b>	<b>2011</b>
<b>Statement of income</b>			
Sales	3,865	3,959	4,400
Purchases	5,475	5,721	5,508
Financial expense			
Financial income	105	106	79
<b>Compensation for the administration and management bodies</b>			

The aggregate amount of direct and indirect compensation accounted for by the French and foreign affiliates of the Company for the executive officers of TOTAL (the members of the Management Committee and the Treasurer) and for the members of the Board of Directors who are employees of the Group, is detailed as follows:

For the year ended December 31, (M )	2013	2012	2011
Number of people	31	34	30
Direct or indirect compensation received	22.1	21.3	20.4
Pension expenses <sup>(a)</sup>	10.0	12.5	6.3



## Edgar Filing: TOTAL S.A. - Form 20-F

Other long-term benefits expenses			
Termination benefits expenses			4.8
Share-based payments expense (IFRS 2) <sup>(b)</sup>	11.8	10.6	10.2

(a) The benefits provided for executive officers and certain members of the Board of Directors, employees and former employees of the Group, include severance to be paid on retirement, supplementary pension schemes and insurance plans, which represent 188.7 million provisioned as of December 31, 2013 (against 181.3 million as of December 31, 2012 and 139.7 million as of December 31, 2011).

(b) Share-based payments expense computed for the executive officers and the members of the Board of Directors who are employees of the Group as described in Note 25 paragraph E to the Consolidated Financial Statements and based on the principles of IFRS 2 Share-based payments described in Note 1 paragraph E to the Consolidated Financial Statements.

The compensation allocated to members of the Board of Directors for directors fees totaled 1.25 million in 2013 ( 1.10 million in 2012 and 1.07 million in 2011).

**Table of Contents****25) SHARE-BASED PAYMENTS****A. TOTAL SHARE SUBSCRIPTION OPTION PLANS**

	2003 Plan	2004 Plan	2005 Plan	2006 Plan	2007 Plan	2008 Plan	2009 Plan	2010 Plan	2011 Plan	Total	Weighted average exercise price ( )
<b>Date of the Shareholders Meeting</b>	<b>05/17/2001</b>	<b>05/14/2004</b>	<b>05/14/2004</b>	<b>05/14/2004</b>	<b>05/11/2007</b>	<b>05/11/2007</b>	<b>05/11/2007</b>	<b>05/21/2010</b>	<b>05/21/2010</b>		
<b>Date of the award<sup>(a)</sup></b>	<b>07/16/2003</b>	<b>07/20/2004</b>	<b>07/19/2005</b>	<b>07/18/2006</b>	<b>07/17/2007</b>	<b>10/09/2008</b>	<b>09/15/2009</b>	<b>09/14/2010</b>	<b>09/14/2011</b>		
<b>Exercise price until May 23, 2006 included ( )</b>	<b>33.30</b>	<b>39.85</b>	<b>49.73</b>								
<b>Exercise price since May 24, 2006 ( )</b>	<b>32.84</b>	<b>39.30</b>	<b>49.04</b>	<b>50.60</b>	<b>60.10</b>	<b>42.90</b>	<b>39.90</b>	<b>38.20</b>	<b>33.00</b>		
<b>Expiry date</b>	<b>07/16/2011</b>	<b>07/20/2012</b>	<b>07/19/2013</b>	<b>07/18/2014</b>	<b>07/17/2015</b>	<b>10/09/2016</b>	<b>09/15/2017</b>	<b>09/14/2018</b>	<b>09/14/2019</b>		
<b>Number of options<sup>(b)</sup></b>											
<b>Existing options as of January 1, 2011</b>	<b>5,734,444</b>	<b>12,338,847</b>	<b>6,178,856</b>	<b>5,640,886</b>	<b>5,866,445</b>	<b>4,349,158</b>	<b>4,371,890</b>	<b>4,787,300</b>		<b>49,267,826</b>	<b>43.80</b>
Granted									1,518,840	1,518,840	33.00
Canceled <sup>(c)</sup>	(738,534)	(28,208)	(16,320)	(17,380)	(16,080)	(13,260)	(14,090)	(85,217)	(1,000)	(930,089)	34.86
Exercised	(4,995,910)	(216,115)				(200)		(2,040)	(9,400)	(5,223,665)	33.11
<b>Existing options as of January 1, 2012</b>		<b>12,094,524</b>	<b>6,162,536</b>	<b>5,623,506</b>	<b>5,850,365</b>	<b>4,335,698</b>	<b>4,357,800</b>	<b>4,700,043</b>	<b>1,508,440</b>	<b>44,632,912</b>	<b>44.87</b>
Granted											
Canceled <sup>(c)</sup>		(11,351,931)	(2,516)	(1,980)	(1,380)	(3,600)	(2,700)	(4,140)	(3,400)	(11,371,647)	39.31
Exercised		(742,593)				(1,630)	(20,200)	(34,460)		(798,883)	39.28
<b>Existing options as of January 1, 2013</b>			<b>6,160,020</b>	<b>5,621,526</b>	<b>5,848,985</b>	<b>4,330,468</b>	<b>4,334,900</b>	<b>4,661,443</b>	<b>1,505,040</b>	<b>32,462,382</b>	<b>46.96</b>
Granted											
Canceled <sup>(c)</sup>			(6,159,390)	(900)	(1,020)	(360)	(1,080)	(720)		(6,163,470)	49.04
Exercised			(630)			(110,910)	(344,442)	(122,871)	(363,946)	(942,799)	37.37
<b>Existing options as of December 31, 2013</b>				<b>5,620,626</b>	<b>5,847,965</b>	<b>4,219,198</b>	<b>3,989,378</b>	<b>4,537,852</b>	<b>1,141,094</b>	<b>25,356,113</b>	<b>46.82</b>

(a) The grant date is the date of the Board meeting awarding the share subscription options, except for the grant of October 9, 2008, decided by the Board on September 9, 2008.

(b) In order to take into account the four-for-one stock split on May 18, 2006, the exercise prices of TOTAL subscription shares of the plans in force at that date were multiplied by 0.25 and the number of options awarded, outstanding, canceled or exercised before May 23, 2006 included was multiplied by four. Moreover, following the spin-off of Arkema, the exercise prices of TOTAL subscription shares of these plans were multiplied by an adjustment factor equal to 0.986147 effective as of May 24, 2006.

(c) Out of the options canceled in 2011, 2012 and 2013, 738,534 options that were not exercised expired on July 16, 2011 due to the expiry of the 2003 Plan, 11,351,931 options that were not exercised expired on July 20, 2012 due to the expiry of the 2004 Plan and 6,158,662 options that were not exercised expired

## Edgar Filing: TOTAL S.A. - Form 20-F

*on July 19, 2013 due to the expiry of the 2005 Plan.*

2013 Form 20-F TOTAL S.A. F-63

**Table of Contents**

Options are exercisable, subject to a continuous employment condition, after a 2-year period from the date of the Board meeting awarding the options and expire eight years after this date. The underlying shares may not be transferred during four years from the date of grant. For the 2007 to 2011 Plans, the 4-year transfer restriction period does not apply to employees of non-French subsidiaries as of the date of the grant, who may transfer the underlying shares after a 2-year period from the date of the grant.

Since the 2011 Plan, no new TOTAL share subscription option plan or TOTAL share purchase plan was decided.

**2011 Plan**

For the 2011 Plan, the Board of Directors decided that for each grantee other than the Chairman and Chief Executive Officer, the options will be finally granted to their beneficiary provided that the performance condition is fulfilled.

The performance condition states that the number of options finally granted is based on the average of the Return On Equity (ROE) of the Group as published by the Group according to its consolidated balance sheet and statement of income for fiscal years 2011 and 2012.

The acquisition rate:

is equal to zero if the average ROE is less than or equal to 7%;

varies on straight-line basis between 0% and 100% if the average ROE is more than 7% and less than 18%; and  
is equal to 100% if the average ROE is more than or equal to 18%.

In addition, as part of the 2011 Plan, the Board of Directors decided that the number of share subscription options finally awarded to the Chairman and Chief Executive Officer will be subject to two performance conditions:

For 50% of the share subscription options granted, the performance condition states that the number of options finally granted is based on the average ROE of the Group as published by the Group according to its consolidated balance sheet and statement of income for fiscal years 2011 and 2012. The acquisition rate is equal to zero if the average ROE is less than or equal to 7%; varies on a straight-line basis between 0% and 100% if the average ROE is more than 7% and less than 18%; and is equal to 100% if the average ROE is more than or equal to 18%.

For 50% of the share subscription options granted, the performance condition states that the number of options finally granted is based on the average of the Return On Average Capital Employed (ROACE) of the Group as published by the Group according to its consolidated balance sheet and statement of income for fiscal years 2011 and 2012. The acquisition rate is equal to zero if the average ROACE is less than or equal to 6%; varies on a straight-line basis between 0% and 100% if the average ROACE is more than 6% and less than 15%; and is equal to 100% if the average ROACE is more than or equal to 15%.

**B. TOTAL PERFORMANCE SHARE GRANTS**

	2009 Plan	2010 Plan	2011 Plan	2012 Plan	2013 Plan	Total
<b>Date of the Shareholders Meeting</b>	<b>05/16/2008</b>	<b>05/16/2008</b>	<b>05/13/2011</b>	<b>05/13/2011</b>	<b>05/13/2011</b>	
<b>Date of the award</b>	<b>09/15/2009</b>	<b>09/14/2010</b>	<b>09/14/2011</b>	<b>07/26/2012</b>	<b>07/25/2013</b>	
<b>Date of the final award (end of the vesting period)</b>	<b>09/16/2011</b>	<b>09/15/2012</b>	<b>09/15/2013</b>	<b>07/27/2014</b>	<b>07/26/2016</b>	
<b>Transfer authorized as from</b>	<b>09/16/2013</b>	<b>09/15/2014</b>	<b>09/15/2015</b>	<b>07/27/2016</b>	<b>07/26/2018</b>	
<b>Number of performance shares</b>						
<b>Outstanding as of January 1, 2011</b>	<b>2,954,336</b>	<b>3,000,637</b>				<b>5,954,973</b>
Notified			3,649,770			3,649,770
Canceled	(26,214)	(10,750)	(19,579)			(56,543)
Finally granted	(2,928,122)	(1,836)				(2,929,958)
<b>Outstanding as of January 1, 2012</b>		<b>2,988,051</b>	<b>3,630,191</b>			<b>6,618,242</b>

# Edgar Filing: TOTAL S.A. - Form 20-F

Notified				4,295,930		4,295,930
Canceled	832	(32,650)	(18,855)			(50,673)
Finally granted	(832)	(2,955,401)	(5,530)			(2,961,763)
<b>Outstanding as of January 1, 2013</b>			<b>3,605,806</b>	<b>4,295,930</b>		<b>7,901,736</b>
Notified					4,464,200	4,464,200
Canceled			(14,970)	(17,340)	(3,810)	(36,120)
Finally granted			(3,590,836)	(180)		(3,591,016)
<b>Outstanding as of December 31, 2013</b>				<b>4,278,410</b>	<b>4,460,390</b>	<b>8,738,800</b>

F-64 TOTAL S.A. Form 20-F 2013

## **Table of Contents**

The performance shares, which are bought back by the Company on the market, are finally granted to their beneficiaries after a 3-year vesting period for the 2013 Plan and a 2-year vesting period for the previous plans, from the date of the grant. The final grant is subject to a continued employment condition and a performance condition. Moreover, the transfer of the performance shares finally granted will not be permitted until the end of a 2-year holding period from the date of the final grant.

### **2013 Plan**

For the 2013 Plan, the Board of Directors decided that for senior executives (other than the Chairman and Chief Executive Officer), the final grant of all shares will be subject to a continued employment condition and a performance condition. The performance condition states that the number of shares finally granted is based on the average ROE of the Group as published by the Group according to its consolidated balance sheet and statement of income for fiscal years 2013, 2014 and 2015. The acquisition rate:

is equal to zero if the average ROE is less than or equal to 8%;

varies on a straight-line basis between 0% and 100% if the average ROE is greater than 8% and less than 16%; and

is equal to 100% if the average ROE is greater than or equal to 16%.

The Board of Directors also decided that, for each beneficiary (other than the Chairman and Chief Executive Officer and the senior executives) of more than 100 shares, the shares in excess of this number will be finally granted subject to the performance condition mentioned before.

In addition, as part of the 2013 plan, the Board of Directors decided that, subject to a continuous employment condition, the number of performance shares finally granted to the Chairman and Chief Executive Officer will be subject to two performance conditions:

For 50% of the shares granted, the performance condition states that the number of shares finally granted is based on the average ROE of the Group as published by the Group according to its consolidated balance sheet and statement of income for fiscal years 2013, 2014 and 2015. The acquisition rate is equal to zero if the average ROE is less than or equal to 8%; varies on a straight-line basis between 0% and 100% if the average ROE is more than 8% and less than 16%; and is equal to 100% if the average ROE is more than or equal to 16%.

For 50% of the shares granted, the performance condition states that the number of shares finally granted is based on the average ROACE of the Group as published by the Group according to its consolidated balance sheet and statement of income for fiscal years 2013, 2014 and 2015. The acquisition rate is equal to zero if the average ROACE is less than or equal to 7%; varies on a straight-line basis between 7% and 100% if the average ROACE is more than 7% and less than 15%; and is equal to 100% if the average ROACE is more than or equal to 15%.

### **2012 Plan**

For the 2012 Plan, the Board of Directors decided that for senior executives (other than the Chairman and Chief Executive Officer), the final grant of all shares will be subject to a continued employment condition and a performance condition. The performance condition states that the number of shares finally granted is based on the average ROE of the Group as published by the Group according to its consolidated balance sheet and statement of income for fiscal years 2012 and 2013. The acquisition rate:

is equal to zero if the average ROE is less than or equal to 8%;

varies on a straight-line basis between 0% and 100% if the average ROE is greater than 8% and less than 16%; and

is equal to 100% if the average ROE is greater than or equal to 16%.

The Board of Directors also decided that, for each beneficiary (other than the Chairman and Chief Executive Officer and the senior executives) of more than 100 shares, the shares in excess of this number will be finally granted subject to the performance condition mentioned before.

## Edgar Filing: TOTAL S.A. - Form 20-F

In addition, as part of the 2012 plan, the Board of Directors decided that, subject to a continuous employment condition, the number of performance shares finally granted to the Chairman and Chief Executive Officer will be subject to two performance conditions:

For 50% of the shares granted, the performance condition states that the number of shares finally granted is based on the average ROE of the Group as published by the Group according to its consolidated balance sheet and statement of income for fiscal years 2012 and 2013. The acquisition rate is equal to zero if the average ROE is less than or equal to 8%; varies on a straight-line basis between 0% and 100% if the average ROE is more than 8% and less than 16%; and is equal to 100% if the average ROE is more than or equal to 16%.

2013 Form 20-F TOTAL S.A. F-65

## **Table of Contents**

For 50% of the shares granted, the performance condition states that the number of shares finally granted is based on the average ROACE of the Group as published by the Group according to its consolidated balance sheet and statement of income for fiscal years 2012 and 2013. The acquisition rate is equal to zero if the average ROACE is less than or equal to 7%; varies on a straight-line basis between 7% and 100% if the average ROACE is more than 7% and less than 15%; and is equal to 100% if the average ROACE is more than or equal to 15%.

### **2011 Plan**

For the 2011 Plan, the Board of Directors decided that for senior executives (other than the Chairman and Chief Executive Officer), the final grant of all shares will be subject to a continued employment condition and a performance condition. The performance condition states that the number of shares finally granted is based on the average ROE of the Group as published by the Group according to its consolidated balance sheet and statement of income for fiscal years 2011 and 2012. The acquisition rate:

is equal to zero if the average ROE is less than or equal to 7%;

varies on a straight-line basis between 0% and 100% if the average ROE is greater than 7% and less than 18%; and

is equal to 100% if the average ROE is greater than or equal to 18%.

The Board of Directors also decided that, for each beneficiary (other than the Chairman and Chief Executive Officer and the senior executives) of more than 100 shares, the shares in excess of this number will be finally granted subject to the performance condition mentioned before.

In addition, as part of the 2011 plan, the Board of Directors decided that, subject to a continuous employment condition, the number of performance shares finally granted to the Chairman and Chief Executive Officer will be subject to two performance conditions:

For 50% of the shares granted, the performance condition states that the number of shares finally granted is based on the average ROE of the Group as published by the Group according to its consolidated balance sheet and statement of income for fiscal years 2011 and 2012. The acquisition rate is equal to zero if the average ROE is less than or equal to 7%; varies on a straight-line basis between 0% and 100% if the average ROE is more than 7% and less than 18%; and is equal to 100% if the average ROE is more than or equal to 18%.

For 50% of the shares granted, the performance condition states that the number of shares finally granted is based on the average ROACE of the Group as published by the Group according to its consolidated balance sheet and statement of income for fiscal years 2011 and 2012. The acquisition rate is equal to zero if the average ROACE is less than or equal to 6%; varies on a straight-line basis between 0% and 100% if the average ROACE is more than 6% and less than 15%; and is equal to 100% if the average ROACE is more than or equal to 15%.

Due to the application of the performance condition, the acquisition rate was 100% for the 2011 Plan. As a reminder, the acquisition rates were 100% for the 2009 and 2010 plans.

### ***C. GLOBAL FREE TOTAL SHARE PLAN***

The Board of Directors approved at its meeting on May 21, 2010, the implementation and conditions of a global free share plan intended for the Group's employees (employees of Total S.A. or companies in which Total S.A. holds directly or indirectly an interest of more than 50%). On June 30, 2010, entitlement rights to twenty-five free shares were granted to every employee.

The final grant is subject to a continued employment condition during the plan's vesting period. Depending on the country in which the companies of the Group are located, the acquisition period is either two years followed by a conservation period of two years (for the countries with a 2+2 structure), or four years without any conservation period (for the countries with a 4+0 structure).

Following the vesting period, the shares awarded will be new shares, issued from an increase of capital of TOTAL S.A., by incorporation of paid-in surplus or retained earnings.





**Table of Contents**

The Chairman and Chief Executive Officer acknowledged on July 2, 2012, the issuance and the award of 1,366,950 shares to the beneficiaries designated at the end of the 2-year acquisition period.

	2010 Plan (2+2)	2010 Plan (4+0)	Total
<b>Date of the Shareholders Meeting</b>	<b>05/16/2008</b>	<b>05/16/2008</b>	
<b>Date of the award<sup>(a)</sup></b>	<b>06/30/2010</b>	<b>06/30/2010</b>	
<b>Date of the final award</b>	<b>07/01/2012</b>	<b>07/01/2014</b>	
<b>Transfer authorized as from</b>	<b>07/01/2014</b>	<b>07/01/2014</b>	
<b>Number of free shares</b>			
<b>Outstanding as of January 1, 2011</b>	<b>1,508,650</b>	<b>1,070,575</b>	<b>2,579,225</b>
Notified			
Canceled	(29,175)	(54,625)	(83,800)
Finally granted	(475)	(425)	(900)
<b>Outstanding as of January 1, 2012</b>	<b>1,479,000</b>	<b>1,015,525</b>	<b>2,494,525</b>
Notified			
Canceled	(111,725)	(40,275)	(152,000)
Finally granted <sup>(b)</sup>	(1,367,275)	(350)	(1,367,625)
<b>Outstanding as of January 1, 2013</b>		<b>974,900</b>	<b>974,900</b>
Notified			
Canceled	100	(101,150)	(101,050)
Finally granted	(100)	(275)	(375)
<b>Outstanding as of December 31, 2013</b>		<b>873,475</b>	<b>873,475</b>

(a) The June 30, 2010, grant was decided by the Board of Directors on May 21, 2010.

(b) Final grant of 1,366,950 shares to the designated beneficiaries at the end of the acquisition period.

**D. SUNPOWER PLANS**

SunPower has three stock incentive plans: the 1996 Stock Plan ( 1996 Plan ), the Third Amended and Restated 2005 SunPower Corporation Stock Incentive Plan ( 2005 Plan ) and the PowerLight Corporation Common Stock Option and Common Stock Purchase Plan ( PowerLight Plan ). The PowerLight Plan was assumed by SunPower by way of the acquisition of PowerLight in fiscal 2007. Under the terms of all three plans, SunPower may issue incentive or non-statutory stock options or stock purchase rights to directors, employees and consultants to purchase common stock. The 2005 Plan was adopted by SunPower's Board of Directors in August 2005, and was approved by shareholders in November 2005. The 2005 Plan replaced the 1996 Plan and allows not only for the grant of options, but also for the grant of stock appreciation rights, restricted stock grants, restricted stock units and other equity rights. The 2005 Plan also allows for tax withholding obligations related to stock option exercises or restricted stock awards to be satisfied through the retention of shares otherwise released upon vesting. The PowerLight Plan was adopted by PowerLight's Board of Directors in October 2000.

In May 2008, SunPower's stockholders approved an automatic annual increase available for grant under the 2005 Plan, beginning in fiscal 2009. The automatic annual increase is equal to the lower of three percent of the outstanding shares of all classes of SunPower's common stock measured on the last day of the immediately preceding fiscal quarter, 6.0 million shares, or such other number of shares as determined by SunPower's Board of

Directors. Subsequent to the automatic annual increase effective December 30, 2013, shares available for grant will increase to approximately 7.6 million. No new awards are being granted under the 1996 Plan or the PowerLight Plan.

Incentive stock options may be granted at no less than the fair value of the common stock on the date of grant. Non-statutory stock options and stock purchase rights may be granted at no less than 85% of the fair value of the common stock at the date of grant. The options and rights become exercisable when and as determined by SunPower's Board of Directors, although these terms generally do not exceed ten years for stock options. Under the 1996 and 2005 Plans, the options typically vest over five years with a one-year cliff and monthly vesting thereafter. Under the PowerLight Plan, the options typically vest over five years with yearly cliff vesting. Under the 2005 Plan, the restricted stock grants and restricted stock units typically vest in three equal installments annually over three years.

The majority of shares issued are net of the minimum statutory withholding requirements that SunPower pays on behalf of its employees. During fiscal 2013, 2012, and 2011, the Company withheld 1,329,140 shares, 905,953 shares, and 221,262 shares, respectively, to satisfy the employees' tax obligations. SunPower pays such withholding requirements in cash to the appropriate taxing authorities. Shares withheld are treated as common stock repurchases for accounting and disclosure purposes and reduce the number of shares outstanding upon vesting.



**Table of Contents**

The following table summarizes SunPower's stock option activities:

	Shares (in thousands)	Weighted-Average Exercise Price Per Share (in dollars)	Outstanding Stock Options Weighted-Average Remaining Contractual Term (in years)	Aggregate Intrinsic Value (in thousands dollars)
<b>Outstanding as of July 3, 2011</b>	<b>519</b>	<b>25.39</b>		
Exercised	(29)	3.93		
Forfeited	(6)	31.29		
<b>Outstanding as of January 1, 2012</b>	<b>484</b>	<b>26.62</b>	<b>4.71</b>	<b>480</b>
Exercisable as of January 1, 2012	441	24.52	4.53	480
Expected to vest after January 1, 2012	40	48.08	6.64	
<b>Outstanding as of January 1, 2012</b>	<b>484</b>	<b>26.62</b>		
Exercised	(20)	2.59		
Forfeited	(70)	24.17		
<b>Outstanding as of December 30, 2012</b>	<b>394</b>	<b>28.27</b>	<b>3.51</b>	<b>310</b>
Exercisable as of December 30, 2012	394	28.27	3.51	310
<b>Outstanding as of January 1, 2013</b>	<b>394</b>	<b>28.27</b>		
Exercised	(48)	3.24		
Forfeited	(26)	42.25		
<b>Outstanding as of December 29, 2013</b>	<b>320</b>	<b>30.87</b>	<b>2.78</b>	<b>3,269</b>
Exercisable as of December 29, 2013	320	30.87	2.78	3,269

The intrinsic value of options exercised in 2013, 2012, and 2011 were \$0.8 million, \$0.1 million, and \$0.3 million, respectively. There were no stock options granted in 2013, 2012, and in the second half of 2011.

The aggregate intrinsic value in the preceding table represents the total pre-tax intrinsic value, based on the

closing stock price of \$28.91 at December 29, 2013, which would have been received by the option holders had all option holders exercised their options as of that date. The total number of in-the-money options exercisable was 0.2 million shares as of December 29, 2013.

The following table summarizes SunPower's non-vested stock options and restricted stock activities thereafter:

Stock Options	Restricted Stock Awards and Units
---------------	-----------------------------------

Edgar Filing: TOTAL S.A. - Form 20-F

	Shares (in thousands)	Weighted-Average Exercise Price Per Share (in dollars)	Shares (in thousands)	Weighted-Average Grant Date Fair Value Per Share (in dollars) <sup>(a)</sup>
<b>Outstanding as of July 3, 2011</b>	<b>67</b>	<b>41.34</b>	<b>7,198</b>	<b>16.03</b>
Granted			2,336	6.91
Vested <sup>(b)</sup>	(19)	28.73	(691)	18.96
Forfeited	(5)	31.29	(1,473)	14.10
<b>Outstanding as of December 31, 2011</b>	<b>43</b>	<b>48.33</b>	<b>7,370</b>	<b>13.25</b>
Granted			5,638	5.93
Vested <sup>(b)</sup>	(30)	57.79	(2,845)	13.94
Forfeited	(13)	24.72	(1,587)	11.52
<b>Outstanding as of December 31, 2012</b>			<b>8,576</b>	<b>8.53</b>
Granted			5,607	15.88
Vested <sup>(b)</sup>			(3,583)	9.48
Forfeited			(1,008)	10.10
<b>Outstanding as of December 31, 2013</b>			<b>9,592</b>	<b>12.26</b>

<sup>(a)</sup> The Company estimates the fair value of the restricted stock unit awards as the stock price on the grant date.

<sup>(b)</sup> Restricted stock awards and units vested include shares withheld on behalf of employees to satisfy the minimum statutory tax withholding requirements.

**Table of Contents*****E. SHARE-BASED PAYMENT EXPENSE***

Share-based payment expense before tax for the year 2013 amounts to 216 million and is broken down as follows:

3 million for TOTAL share subscription plans;

128 million for TOTAL restricted shares plans;

74 million for SunPower plans; and

11 million for the capital increase reserved for employees (see Note 17).

Share-based payment expense before tax for the year 2012 amounted to 148 million and was broken down as follows:

13 million for TOTAL share subscription plans;

133 million for TOTAL restricted shares plans; and

2 million for SunPower plans.

Share-based payment expense before tax for the year 2011 amounted to 178 million and was broken down as follows:

27 million for TOTAL share subscription plans;

134 million for TOTAL restricted shares plans; and

17 million for SunPower plans.

The fair value of the options granted in 2011 has been measured according to the Black-Scholes method and based on the following assumptions:

For the year ended December 31,	2013	2012	2011
Risk free interest rate (%) <sup>(a)</sup>			2.0
Expected dividends (%) <sup>(b)</sup>			5.6
Expected volatility (%) <sup>(c)</sup>			27.5
Vesting period (years)			2
Exercise period (years)			8
Fair value of the granted options (€ per option)			4.4

(a) Zero coupon Euro swap rate at 6 years.

(b) The expected dividends are based on the price of TOTAL share derivatives traded on the markets.

(c) The expected volatility is based on the implied volatility of TOTAL share options and of share indices options traded on the markets.

In 2013 and 2012 no new TOTAL share subscription option plan was decided.

## Edgar Filing: TOTAL S.A. - Form 20-F

The cost of capital increases reserved for employees is reduced to take into account the non transferability of the shares that could be subscribed by the employees over a period of five years. The valuation method of non transferability of the shares is based on a strategy cost in two steps consisting, first, in a five years forward sale of the nontransferable shares, and second, in purchasing the

same number of shares in cash with a loan financing reimbursable in fine. During 2011, the main assumptions used for the valuation of the cost of capital increase reserved for employees were the following:

For the year ended December 31,	2011
Date of the Board of Directors meeting that decided the issue	October 28, 2010
Subscription price (€)	34.80
Share price at the reference date (€) <sup>(a)</sup>	41.60
Number of shares (in millions)	8.90
Risk free interest rate (%) <sup>(b)</sup>	2.82
Employees' loan financing rate (%) <sup>(c)</sup>	7.23
Non transferability cost (% of the reference's share price)	17.6

(a) Share price at the date which the Chairman and Chief Executive Officer decided the subscription period.

(b) Zero coupon Euro swap rate at 5 years.

(c) The employees' loan financing rate is based on a 5 year consumer's credit rate.

Due to the fact that the non transferability cost was higher than the discount, no cost has been accounted in 2011.

The Combined General Meeting of May 11, 2012 delegated to the Board of Directors, in its seventeenth resolution, the authority to carry out in one or more occasions within a maximum period of twenty-six months, a capital increase reserved for employees belonging to an employee savings plan.

This same Combined General Meeting of May 11, 2012 also delegated to the Board of Directors the powers necessary to accomplish in one or more occasions within a maximum period of eighteen months, a capital increase with the objective of providing employees with their registered office located outside France with benefits comparable to those granted to the employees included in the seventeenth resolution of the Combined General Meeting of May 11, 2012.

Pursuant to these delegations, the Board of Directors, during its September 18, 2012 meeting, decided to proceed with a capital increase reserved for employees that included a classic offer and a leveraged offer depending on the employees' choice, within the limit of 18 million shares with dividend rights as of January 1, 2012. This capital increase resulted in the subscription of 10,802,215 shares with a par value of €2.5 at a unit price of €30.70. The issuance of the shares was acknowledged on April 25, 2013.

The cost of the capital increase reserved for employees consists of the cost related to the discount on all the shares subscribed using both the classic and the leveraged schemes, and the opportunity gain for the shares subscribed using the leveraged scheme. This

**Table of Contents**

opportunity gain corresponds to the benefit of subscribing to the leveraged offer, rather than reproducing the same economic profile through the purchase of options in the market for individual investors.

The global cost is reduced to take into account the non transferability of the shares that could be subscribed by the employees over a period of five years. The valuation method of non transferability of the shares is based on a strategy cost in two steps consisting, first, in a five years forward sale of the nontransferable shares, and second, in purchasing the same number of shares in cash with a loan financing reimbursable in fine. During the year 2013, the main assumptions used for the valuation of the cost of the capital increase reserved for employees were the following:

For the year ended December 31,	2013
Date of the Board of Directors meeting that decided the issue	September 18, 2012
Subscription price (€)	30.70
Share price at the reference date (€)	39.57
Number of shares (in millions)	10.80
Risk free interest rate (%) <sup>(c)</sup>	0.88
Employees' loan financing rate (%) <sup>(d)</sup>	6.97
Non transferability cost (% of the reference's share price)	22.1

(a) Average of the closing TOTAL share prices during the twenty trading days prior to March 14, 2013, date on which the Chairman and Chief Executive Officer set the subscription period, after deduction of a 20% discount.

(b) Share price on March 14, 2013, date on which the Chairman and Chief Executive Officer set the subscription period.

(c) Zero coupon Euro swap rate at 5 years.

(d) The employees' loan financing rate is based on a 5 year consumer's credit rate.

A cost of 10.6 million related to the capital increase reserved for employees has been accounted to the fiscal year 2013.

**26) PAYROLL AND STAFF**

For the year ended December 31,	2013	2012	2011
<b>Personnel expenses (M€)</b>			
Wages and salaries (including social charges)	7,096	7,135	6,579
<b>Group employees</b>			
<b>France</b>			
Management	11,189	11,347	11,123
Other	22,010	23,656	23,914
<b>International</b>			
Management	17,338	16,307	15,713
Other	48,262	45,816	45,354
<b>Total</b>	<b>98,799</b>	<b>97,126</b>	<b>96,104</b>

The number of employees includes only employees of fully consolidated subsidiaries.

**27) STATEMENT OF CASH FLOWS****A) CASH FLOW FROM OPERATING ACTIVITIES**

The following table gives additional information on cash paid or received in the cash flow from operating activities:

For the year ended December 31, (M€)	2013	2012	2011
Interests paid	(538)	(694)	(679)
Interests received	57	73	277
Income tax paid <sup>(a)</sup>	(10,322)	(13,067)	(12,061)



# Edgar Filing: TOTAL S.A. - Form 20-F

Dividends received	2,107	2,419	2,133
--------------------	-------	-------	-------

(a) These amounts include taxes paid in kind under production-sharing contracts in Exploration & Production.  
Changes in working capital are detailed as follows:

For the year ended December 31, (M )	2013	2012	2011
Inventories	812	372	(1,845)
Accounts receivable	2,396	767	(1,287)
Other current assets	(1,264)	(226)	(2,409)
Accounts payable	130	345	2,646
Other creditors and accrued liabilities	(144)	(174)	1,156
<b>Net amount</b>	<b>1,930</b>	<b>1,084</b>	<b>(1,739)</b>

## B) CASH FLOW USED IN FINANCING ACTIVITIES

Changes in non-current financial debt are detailed in the following table under a net value due to the high number of multiple drawings:

For the year ended December 31, (M )	2013	2012	2011
Issuance of non-current debt	8,448	5,539	4,234
Repayment of non-current debt	(89)	(260)	(165)
<b>Net amount</b>	<b>8,359</b>	<b>5,279</b>	<b>4,069</b>

## C) CASH AND CASH EQUIVALENTS

Cash and cash equivalents are detailed as follows:

For the year ended December 31, (M )	2013	2012	2011
Cash	9,351	6,202	4,715
Cash equivalents	5,296	9,267	9,310
<b>Total</b>	<b>14,647</b>	<b>15,469</b>	<b>14,025</b>

Cash equivalents are mainly composed of deposits less than three months deposited in government institutions or deposit banks selected in accordance with strict criteria.

**Table of Contents****28) FINANCIAL ASSETS AND LIABILITIES ANALYSIS PER INSTRUMENTS CLASS AND STRATEGY**

The financial assets and liabilities disclosed in the balance sheet are detailed as follows:

As of December 31, 2013 (M ) Assets / (Liabilities)	Financial instruments related to financing and operational activities					Other financial instruments	Total	Fair value
	Amortized cost	Available for sale <sup>(a)</sup>	Held for trading	Fair value Financial debt <sup>(b)</sup>	Hedging of financial debt <sup>(b)</sup>	Non-investment hedge and other		
Equity affiliates: loans	2,577						2,577	2,577
Other investments		1,207					1,207	1,207
Hedging instruments of non-current financial debt					873	155	1,028	1,028
Other non-current assets	2,592						2,592	2,592
Accounts receivable, net <sup>(c)</sup>						16,984	16,984	16,984
Other operating receivables			927			6,264	7,191	7,191
Current financial assets	117		78		340	1	536	536
Cash and cash equivalents						14,647	14,647	14,647
<b>Total financial assets</b>	<b>5,286</b>	<b>1,207</b>	<b>1,005</b>		<b>1,213</b>	<b>156</b>	<b>37,895</b>	<b>46,762</b>
<b>Total non-financial assets</b>							<b>126,729</b>	
<b>Total assets</b>							<b>173,491</b>	
Non-current financial debt	(5,064)			(19,769)	(236)		(25,069)	(25,670)
Accounts payable <sup>(c)</sup>						(21,958)	(21,958)	(21,958)
Other operating liabilities			(615)			(5,307)	(5,941)	(5,941)
Current borrowings	(4,279)			(3,837)			(8,116)	(8,116)
Other current financial liabilities			(44)		(228)	(4)	(276)	(276)
<b>Total financial liabilities</b>	<b>(9,343)</b>		<b>(659)</b>	<b>(23,606)</b>	<b>(464)</b>	<b>(23)</b>	<b>(27,265)</b>	<b>(61,360)</b>
<b>Total non-financial liabilities</b>							<b>(112,131)</b>	<b>(61,961)</b>
<b>Total liabilities</b>							<b>(173,491)</b>	

(a) Financial assets available for sale are measured at their fair value except for unlisted securities (see Note 1 paragraph M(ii) and Note 13 to the Consolidated Financial Statements).

(b) The financial debt is adjusted to the hedged risks value (currency and interest rate) as part of hedge accounting (see Note 1 paragraph M(iii) to the Consolidated Financial Statements).

(c) The impact of offsetting on accounts receivable, net is (2,508) million and + 2,508 million on accounts payable.

**Table of Contents**

As of December 31, 2012 (M ) Assets / (Liabilities)	Financial instruments related to financing and operational activities					Other financial instruments	Total	Fair value
	Amortized cost	Available for sale <sup>(a)</sup>	Held for trading	Fair value Financial debt <sup>(b)</sup>	Hedging of financial debt	Cash and investment hedge and other		
Equity affiliates: loans	2,360						2,360	2,360
Other investments		1,190					1,190	1,190
Hedging instruments of non-current financial debt					1,566	60	1,626	1,626
Other non-current assets	2,207						2,207	2,207
Accounts receivable, net <sup>(c)</sup>						19,206	19,206	19,206
Other operating receivables			681			5,477	6,158	6,158
Current financial assets	1,093		38		430	1	1,562	1,562
Cash and cash equivalents						15,469	15,469	15,469
<b>Total financial assets</b>	<b>5,660</b>	<b>1,190</b>	<b>719</b>		<b>1,996</b>	<b>61</b>	<b>40,152</b>	<b>49,778</b>
<b>Total non-financial assets</b>							<b>121,446</b>	
<b>Total assets</b>							<b>171,224</b>	
Non-current financial debt	(5,086)			(17,177)	(11)		(22,274)	(22,473)
Accounts payable <sup>(c)</sup>						(21,648)	(21,648)	(21,648)
Other operating liabilities			(456)			(10)	(5,904)	(5,904)
Current borrowings	(6,787)			(4,229)			(11,016)	(11,016)
Other current financial liabilities			(88)		(84)	(4)	(176)	(176)
<b>Total financial liabilities</b>	<b>(11,873)</b>		<b>(544)</b>	<b>(21,406)</b>	<b>(95)</b>	<b>(14)</b>	<b>(27,086)</b>	<b>(61,018)</b>
<b>Total non-financial liabilities</b>							<b>(110,206)</b>	<b>(61,217)</b>
<b>Total liabilities</b>							<b>(171,224)</b>	

(a) Financial assets available for sale are measured at their fair value except for unlisted securities (see Note 1 paragraph M(ii) and Note 13 to the Consolidated Financial Statements).

(b) The financial debt is adjusted to the hedged risks value (currency and interest rate) as part of hedge accounting (see Note 1 paragraph M(iii) to the Consolidated Financial Statements).

(c) The impact of offsetting on accounts receivable, net is (1,082) million and + 1,082 million on accounts payable.

**Table of Contents**

As of December 31, 2011 (M ) Assets / (Liabilities)	Amortized cost	Financial instruments related to financing and trading activities					Other financial instruments	Total	Fair value
		Available for sale <sup>(a)</sup>	Held for trading	Financial debt <sup>(b)</sup>	Fair value Hedging of Cash flow financial debt	Net investment hedged and other			
Equity affiliates: loans	2,246							2,246	2,246
Other investments		3,674						3,674	3,674
Hedging instruments of non-current financial debt					1,971	5		1,976	1,976
Other non-current assets	2,055							2,055	2,055
Accounts receivable, net <sup>(c)</sup>							20,049	20,049	20,049
Other operating receivables			1,017				6,450	7,467	7,467
Current financial assets	146		159		383	12		700	700
Cash and cash equivalents							14,025	14,025	14,025
<b>Total financial assets</b>	<b>4,447</b>	<b>3,674</b>	<b>1,176</b>		<b>2,354</b>	<b>17</b>	<b>40,524</b>	<b>52,192</b>	<b>52,192</b>
<b>Total non-financial assets</b>								<b>111,513</b>	
<b>Total assets</b>								<b>163,705</b>	
Non-current financial debt	(4,858)			(17,551)	(97)	(49)	(2)	(22,557)	(23,247)
Accounts payable <sup>(c)</sup>							(22,086)	(22,086)	(22,086)
Other operating liabilities			(548)				(4,893)	(5,441)	(5,441)
Current borrowings	(6,158)			(3,517)				(9,675)	(9,675)
Other current financial liabilities			(87)		(40)	(14)	(26)	(167)	(167)
<b>Total financial liabilities</b>	<b>(11,016)</b>		<b>(635)</b>	<b>(21,068)</b>	<b>(137)</b>	<b>(63)</b>	<b>(26,981)</b>	<b>(59,926)</b>	<b>(60,616)</b>
<b>Total non-financial liabilities</b>								<b>(103,779)</b>	
<b>Total liabilities</b>								<b>(163,705)</b>	

(a) Financial assets available for sale are measured at their fair value except for unlisted securities (see Note 1 paragraph M(ii) and Note 13 to the Consolidated Financial Statements).

(b) The financial debt is adjusted to the hedged risks value (currency and interest rate) as part of hedge accounting (see Note 1 paragraph M(iii) to the Consolidated Financial Statements).

(c) The impact of offsetting on accounts receivable, net is (779) million and + 779 million on accounts payable.

**Table of Contents****29) FAIR VALUE OF FINANCIAL INSTRUMENTS (EXCLUDING COMMODITY CONTRACTS)****A) IMPACT ON THE STATEMENT OF INCOME PER NATURE OF FINANCIAL INSTRUMENTS****Operating assets and liabilities**

The impact on the statement of income is detailed as follows:

For the year ended December 31, (M )	2013	2012	2011
Assets available for sale (investments):			
dividend income on non-consolidated subsidiaries	152	223	330
gains (losses) on disposal of assets	112	516	103
other	(71)	(60)	(29)
Loans and receivables	80	(20)	(34)
<b>Impact on net operating income</b>	<b>273</b>	<b>659</b>	<b>370</b>

The impact in the statement of income mainly includes:

Dividends and gains or losses on disposal of other investments classified as Other investments ;

Financial gains and depreciation on loans related to equity affiliates, non-consolidated companies and on receivables reported in Loans and receivables .

**Assets and liabilities from financing activities**

The impact on the statement of income of financing assets and liabilities is detailed as follows:

For the year ended December 31, (M )	2013	2012	2011
Loans and receivables	70	80	271
Financing liabilities and associated hedging instruments	(677)	(675)	(730)
Fair value hedge (ineffective portion)	7	4	17
Assets and liabilities held for trading	(6)	20	2
<b>Impact on the cost of net debt</b>	<b>(606)</b>	<b>(571)</b>	<b>(440)</b>

The impact on the statement of income mainly includes:

Financial income on cash, cash equivalents, and current financial assets (notably current deposits beyond three months) classified as Loans and receivables ;  
Financial expense of long term subsidiaries financing, associated hedging instruments (excluding ineffective portion of the hedge detailed below) and  
financial expense of short term financing classified as Financing liabilities and associated hedging instruments ;

Ineffective portion of bond hedging; and

Financial income, financial expense and fair value of derivative instruments used for cash management purposes classified as Assets and liabilities held for trading .

Financial derivative instruments used for cash management purposes (interest rate and foreign exchange) are considered to be held for trading. Based on practical documentation issues, the Group did not elect to set up hedge accounting for such instruments. The impact on income of the derivatives is offset by the impact of loans and current liabilities they are related to. Therefore these transactions taken as a whole do not have a significant impact on the Consolidated Financial

Statements.

## ***B) IMPACT OF THE HEDGING STRATEGIES***

### **Fair value hedge**

The impact on the statement of income of the bond hedging instruments which is recorded in the item Financial interest on debt in the Consolidated Statement of Income is detailed as follows:

For the year ended December 31, (M )	2013	2012	2011
Revaluation at market value of bonds	1,075	321	(301)
Swap hedging of bonds	(1,068)	(317)	318
<b>Ineffective portion of the fair value hedge</b>	<b>7</b>	<b>4</b>	<b>17</b>

The ineffective portion is not representative of the Group's performance considering the Group's objective to hold swaps to maturity. The current portion of the swaps valuation is not subject to active management.

**Table of Contents****Net investment hedge**

These instruments are recorded directly in shareholders' equity under "Currency translation adjustments". The variations of the period are detailed in the table below:

For the year ended December 31, (M )	As of January 1,	Variations	Disposals	As of December 31,
<b>2013</b>	<b>(291)</b>	<b>25</b>		<b>(266)</b>
2012	(104)	(187)		(291)
2011	(243)	139		(104)

As for December 31, 2012, the Group had no open forward hedging instruments as of December 31, 2013. The fair value of open forward instruments was (26) million in 2011.

**Cash flow hedge**

The impact on the statement of income and on equity of the hedging instruments qualified as cash flow hedges is detailed as follows:

For the year ended December 31, (M )	2013	2012	2011
Profit (Loss) recorded in equity during the period	117	65	(84)
Recycled amount from equity to the income statement during the period	65	87	(47)

As of December 31, 2013, 2012, and 2011, the ineffective portion of these financial instruments is equal to zero.

**Table of Contents****C) MATURITY OF DERIVATIVE INSTRUMENTS**

The maturity of the notional amounts of derivative instruments, excluding the commodity contracts, is detailed in the following table:

As of December 31, 2013 (M )		Notional value <sup>(a)</sup>						2019 and after
Assets / (Liabilities)	Fair value	Total	2014	2015	2016	2017	2018	
<b>Fair value hedge</b>								
Swaps hedging fixed-rates bonds (liabilities)	(236)	7,480						
Swaps hedging fixed-rates bonds (assets)	873	12,156						
<b>Total swaps hedging fixed-rates bonds (assets and liabilities)</b>	<b>637</b>	<b>19,636</b>		<b>3,410</b>	<b>2,606</b>	<b>2,970</b>	<b>3,749</b>	<b>6,901</b>
Swaps hedging fixed-rates bonds (current portion) (liabilities)	(228)	1,366						
Swaps hedging fixed-rates bonds (current portion) (assets)	340	2,793						
<b>Total swaps hedging fixed-rates bonds (current portion) (assets and liabilities)</b>	<b>112</b>	<b>4,159</b>	<b>4,159</b>					
<b>Cash flow hedge</b>								
Swaps hedging fixed-rates bonds (liabilities)								
Swaps hedging fixed-rates bonds (assets)	155	1,610						
<b>Total swaps hedging fixed-rates bonds (assets and liabilities)</b>	<b>155</b>	<b>1,610</b>						<b>1,610</b>
Swaps hedging fixed-rates bonds (current portion) (liabilities)	(4)	120						
Swaps hedging fixed-rates bonds (current portion) (assets)	1	96						
<b>Total swaps hedging fixed-rates bonds (current portion) (assets and liabilities)</b>	<b>(3)</b>	<b>216</b>	<b>196</b>	<b>20</b>				
Swaps hedging investments (liabilities)	(19)	143						
Swaps hedging investments (assets)								
<b>Total swaps hedging investments (assets and liabilities)</b>	<b>(19)</b>	<b>143</b>	<b>132</b>	<b>11</b>				
<b>Net investment hedge</b>								
Currency swaps and forward exchange contracts (assets)								
Currency swaps and forward exchange contracts (liabilities)								
<b>Total swaps hedging net investments</b>								
<b>Held for trading</b>								
Other interest rate swaps (assets)	2	4,093						
Other interest rate swaps (liabilities)	(3)	11,316						
<b>Total other interest rate swaps (assets and liabilities)</b>	<b>(1)</b>	<b>15,409</b>	<b>15,127</b>	<b>86</b>	<b>83</b>	<b>62</b>	<b>51</b>	
Currency swaps and forward exchange contracts (assets)	76	4,768						
Currency swaps and forward exchange contracts (liabilities)	(41)	4,437						
<b>Total currency swaps and forward exchange contracts (assets and liabilities)</b>	<b>35</b>	<b>9,205</b>	<b>8,945</b>	<b>194</b>	<b>42</b>	<b>10</b>	<b>14</b>	

(a) These amounts set the levels of notional commitment and are not indicative of a contingent gain or loss.



**Table of Contents**

As of December 31, 2012 (M )	Notional value <sup>(a)</sup>							2018 and after
	Fair value	Total	2013	2014	2015	2016	2017	
<b>Assets / (Liabilities)</b>								
<b>Fair value hedge</b>								
Swaps hedging fixed-rates bonds (liabilities)	(11)	1,737						
Swaps hedging fixed-rates bonds (assets)	1,566	15,431						
<b>Total swaps hedging fixed-rates bonds (assets and liabilities)</b>	<b>1,555</b>	<b>17,168</b>		<b>4,205</b>	<b>3,537</b>	<b>2,098</b>	<b>3,075</b>	<b>4,253</b>
Swaps hedging fixed-rates bonds (current portion) (liabilities)	(84)	591						
Swaps hedging fixed-rates bonds (current portion) (assets)	430	3,614						
<b>Total swaps hedging fixed-rates bonds (current portion) (assets and liabilities)</b>	<b>346</b>	<b>4,205</b>	<b>4,205</b>					
<b>Cash flow hedge</b>								
Swaps hedging fixed-rates bonds (liabilities)								
Swaps hedging fixed-rates bonds (assets)	60	1,683						
<b>Total swaps hedging fixed-rates bonds (assets and liabilities)</b>	<b>60</b>	<b>1,683</b>						<b>1,683</b>
Swaps hedging fixed-rates bonds (current portion) (liabilities)	(4)	148						
Swaps hedging fixed-rates bonds (current portion) (assets)	1	19						
<b>Total swaps hedging fixed-rates bonds (current portion) (assets and liabilities)</b>	<b>(3)</b>	<b>167</b>	<b>167</b>					
Swaps hedging investments (liabilities)	(10)	518						
Swaps hedging investments (assets)								
<b>Total swaps hedging investments (assets and liabilities)</b>	<b>(10)</b>	<b>518</b>	<b>365</b>	<b>141</b>	<b>12</b>			
<b>Net investment hedge</b>								
Currency swaps and forward exchange contracts (assets)								
Currency swaps and forward exchange contracts (liabilities)								
<b>Total swaps hedging net investments</b>								
<b>Held for trading</b>								
Other interest rate swaps (assets)	2	11,041						
Other interest rate swaps (liabilities)	(2)	9,344						
<b>Total other interest rate swaps (assets and liabilities)</b>		<b>20,385</b>	<b>19,962</b>	<b>133</b>	<b>88</b>	<b>85</b>	<b>64</b>	<b>53</b>
Currency swaps and forward exchange contracts (assets)	36	4,768						
Currency swaps and forward exchange contracts (liabilities)	(86)	12,224						
<b>Total currency swaps and forward exchange contracts (assets and liabilities)</b>	<b>(50)</b>	<b>16,992</b>	<b>16,776</b>	<b>186</b>	<b>(15)</b>	<b>16</b>	<b>16</b>	<b>13</b>

(a) These amounts set the levels of notional commitment and are not indicative of a contingent gain or loss.

**Table of Contents**

As of December 31, 2011 (M )	Notional value <sup>(a)</sup>							2017 and after
	Fair value	Total	2012	2013	2014	2015	2016	
<b>Assets / (Liabilities)</b>								
<b>Fair value hedge</b>								
Swaps hedging fixed-rates bonds (liabilities)	(97)	1,478						
Swaps hedging fixed-rates bonds (assets)	1,971	15,653						
<b>Total swaps hedging fixed-rates bonds (assets and liabilities)</b>	<b>1,874</b>	<b>17,131</b>		<b>4,204</b>	<b>4,215</b>	<b>3,380</b>	<b>1,661</b>	<b>3,671</b>
Swaps hedging fixed-rates bonds (current portion) (liabilities)	(40)	642						
Swaps hedging fixed-rates bonds (current portion) (assets)	383	2,349						
<b>Total swaps hedging fixed-rates bonds (current portion) (assets and liabilities)</b>	<b>343</b>	<b>2,991</b>	<b>2,991</b>					
<b>Cash flow hedge</b>								
Swaps hedging fixed-rates bonds (liabilities)	(49)	967						
Swaps hedging fixed-rates bonds (assets)	5	749						
<b>Total swaps hedging fixed-rates bonds (assets and liabilities)</b>	<b>(44)</b>	<b>1,716</b>						<b>1,716</b>
Swaps hedging fixed-rates bonds (current portion) (liabilities)	(14)	582						
Swaps hedging fixed-rates bonds (current portion) (assets)	12	908						
<b>Total swaps hedging fixed-rates bonds (current portion) (assets and liabilities)</b>	<b>(2)</b>	<b>1,490</b>	<b>1,490</b>					
<b>Net investment hedge</b>								
Currency swaps and forward exchange contracts (assets)								
Currency swaps and forward exchange contracts (liabilities)	(26)	881						
<b>Total swaps hedging net investments</b>	<b>(26)</b>	<b>881</b>	<b>881</b>					
<b>Held for trading</b>								
Other interest rate swaps (assets)	1	3,605						
Other interest rate swaps (liabilities)	(2)	14,679						
<b>Total other interest rate swaps (assets and liabilities)</b>	<b>(1)</b>	<b>18,284</b>	<b>18,284</b>					
Currency swaps and forward exchange contracts (assets)	158	6,984						
Currency swaps and forward exchange contracts (liabilities)	(85)	4,453						
<b>Total currency swaps and forward exchange contracts (assets and liabilities)</b>	<b>73</b>	<b>11,437</b>	<b>11,176</b>	<b>80</b>	<b>58</b>	<b>36</b>	<b>31</b>	<b>56</b>

(a) These amounts set the levels of notional commitment and are not indicative of a contingent gain or loss.

**D) FAIR VALUE HIERARCHY**

The fair value hierarchy for financial instruments excluding commodity contracts is as follows:

As of December 31, 2013 (M )	Quoted prices in active markets for identical assets	Prices based on observable data	Prices based on non observable data	Total
	(level 1)	(level 2)	(level 3)	
Fair value hedge instruments		749		749
Cash flow hedge instruments		133		133
Net investment hedge instruments				
Assets and liabilities held for trading		34		34
Assets available for sale	116			116
<b>Total</b>	<b>116</b>	<b>916</b>		<b>1,032</b>

**Table of Contents**

	Quoted prices in active markets for identical assets	Prices based on observable data	Prices based on non observable data	
As of December 31, 2012 (M )	(level 1)	(level 2)	(level 3)	Total
Fair value hedge instruments		1,901		1,901
Cash flow hedge instruments		47		47
Net investment hedge instruments				
Assets and liabilities held for trading		(50)		(50)
Assets available for sale	91			91
<b>Total</b>	<b>91</b>	<b>1,898</b>		<b>1,989</b>

	Quoted prices in active markets for identical assets	Prices based on observable data	Prices based on non observable data	
As of December 31, 2011 (M )	(level 1)	(level 2)	(level 3)	Total
Fair value hedge instruments		2,217		2,217
Cash flow hedge instruments		(46)		(46)
Net investment hedge instruments		(26)		(26)
Assets and liabilities held for trading		72		72
Assets available for sale	2,575			2,575
<b>Total</b>	<b>2,575</b>	<b>2,217</b>		<b>4,792</b>

The description of each fair value level is presented in Note 1 paragraph M(v) to the Consolidated Financial Statements.

**Table of Contents****30) FINANCIAL INSTRUMENTS RELATED TO COMMODITY CONTRACTS**

Financial instruments related to oil, gas and power activities as well as related currency derivatives are recorded at fair value under Other current assets or Other creditors and accrued liabilities depending on whether they are assets or liabilities.

As of December 31, 2013 (M )	Gross value before offsetting assets	Gross value before offsetting liabilities	Amounts offset assets <sup>(c)</sup>	Amounts offset liabilities <sup>(c)</sup>	Net balance sheet value presented assets	Net balance sheet value presented liabilities	Other amounts offset	Net carrying amount	Fair value <sup>(b)</sup>
<b>Assets / (Liabilities)</b>									
<b>Crude oil, petroleum products and freight rates activities</b>									
Petroleum products and crude oil swaps	68	(148)	(57)	57	11	(91)		(80)	(80)
Freight rate swaps									
Forwards <sup>(a)</sup>	42	(41)	(6)	6	36	(35)		1	1
Options	144	(170)	(45)	45	99	(125)		(26)	(26)
Futures	5	(1)			5	(1)		4	4
Options on futures	49	(41)	(41)	41	8			8	8
Other / Collateral							70	70	70
<b>Total crude oil, petroleum products and freight rates</b>	<b>308</b>	<b>(401)</b>	<b>(149)</b>	<b>149</b>	<b>159</b>	<b>(252)</b>	<b>70</b>	<b>(23)</b>	<b>(23)</b>
<b>Gas &amp; Power activities</b>									
Swaps	50	(15)	(8)	8	42	(7)		35	35
Forwards <sup>(a)</sup>	763	(384)	(29)	29	734	(355)		379	379
Options		(9)	(8)	8	(8)	(1)		(9)	(9)
Futures									
Other / Collateral							11	11	11
<b>Total Gas &amp; Power</b>	<b>813</b>	<b>(408)</b>	<b>(45)</b>	<b>45</b>	<b>768</b>	<b>(363)</b>	<b>11</b>	<b>416</b>	<b>416</b>
<b>Total</b>	<b>1,121</b>	<b>(809)</b>	<b>(194)</b>	<b>194</b>	<b>927</b>	<b>(615)</b>	<b>81</b>	<b>393</b>	<b>393</b>
Total of fair value non recognized in the balance sheet									

<sup>(a)</sup> Forwards: contracts resulting in physical delivery are accounted for as derivative commodity contracts and included in the amounts shown.

<sup>(b)</sup> When the fair value of derivatives listed on an organized exchange market (futures, options on futures and swaps) is offset with the margin call received or paid in the balance sheet, this fair value is set to zero.

<sup>(c)</sup> Amounts offset in accordance with IAS 32.

**Table of Contents**

As of December 31, 2012 (M )	Gross value before offsetting	Gross value before offsetting	Amounts offset	Amounts offset	Net balance sheet value presented	Net balance sheet value presented	Other amounts no	Net carrying amount	Fair value <sup>(b)</sup>
Assets / (Liabilities)	assets	liabilities	assets	liabilities	assets	liabilities	offset		
<b>Crude oil, petroleum products and freight rates activities</b>									
Petroleum products and crude oil swaps	142	(168)	(90)	90	52	(78)		(26)	(26)
Freight rate swaps									
Forwards <sup>(a)</sup>	7	(9)	(3)	3	4	(6)		(2)	(2)
Options	231	(249)	(226)	226	5	(23)		(18)	(18)
Futures		(6)				(6)		(6)	(6)
Options on futures	64	(59)	(59)	59	5			5	5
Other / Collateral							22	22	22
<b>Total crude oil, petroleum products and freight rates</b>	<b>444</b>	<b>(491)</b>	<b>(378)</b>	<b>378</b>	<b>66</b>	<b>(113)</b>	<b>22</b>	<b>(25)</b>	<b>(25)</b>
<b>Gas &amp; Power activities</b>									
Swaps	54	(71)	(43)	43	11	(28)		(17)	(17)
Forwards <sup>(a)</sup>	652	(361)	(48)	48	604	(313)		291	291
Options	11	(13)	(11)	11		(2)		(2)	(2)
Futures									
Other / Collateral							31	31	31
<b>Total Gas &amp; Power</b>	<b>717</b>	<b>(445)</b>	<b>(102)</b>	<b>102</b>	<b>615</b>	<b>(343)</b>	<b>31</b>	<b>303</b>	<b>303</b>
<b>Total</b>	<b>1,161</b>	<b>(936)</b>	<b>(480)</b>	<b>480</b>	<b>681</b>	<b>(456)</b>	<b>53</b>	<b>278</b>	<b>278</b>
Total of fair value non recognized in the balance sheet									

<sup>(a)</sup> Forwards: contracts resulting in physical delivery are accounted for as derivative commodity contracts and included in the amounts shown.

<sup>(b)</sup> When the fair value of derivatives listed on an organized exchange market (futures, options on futures and swaps) is offset with the margin call received or paid in the balance sheet, this fair value is set to zero.

<sup>(c)</sup> Amounts offset in accordance with IAS 32.

**Table of Contents**

As of December 31, 2011 (M )	Gross value before offsetting	Gross value before offsetting	Amounts offset	Amounts offset	Net balance sheet value presented	Net balance sheet value presented	Other amounts not offset	Net carrying amount	Fair value <sup>(b)</sup>
Assets / (Liabilities)	assets	liabilities	assets <sup>(c)</sup>	liabilities <sup>(c)</sup>	assets	liabilities			
<b>Crude oil, petroleum products and freight rates activities</b>									
Petroleum products and crude oil swaps	345	(342)	(240)	240	105	(102)		3	3
Freight rate swaps									
Forwards <sup>(a)</sup>	11	(27)	(6)	6	5	(21)		(16)	(16)
Options	313	(317)	(297)	297	16	(20)		(4)	(4)
Futures		(14)				(14)		(14)	(14)
Options on futures	96	(102)	(96)	96		(6)		(6)	(6)
Other / Collateral							(50)	(50)	(50)
<b>Total crude oil, petroleum products and freight rates</b>	<b>765</b>	<b>(802)</b>	<b>(639)</b>	<b>639</b>	<b>126</b>	<b>(163)</b>	<b>(50)</b>	<b>(87)</b>	<b>(87)</b>
<b>Gas &amp; Power activities</b>									
Swaps	72	(15)	(9)	9	63	(6)		57	57
Forwards <sup>(a)</sup>	949	(497)	(121)	121	828	(376)		452	452
Options	15	(18)	(15)	15		(3)		(3)	(3)
Futures									
Other / Collateral							24	24	24
<b>Total Gas &amp; Power</b>	<b>1,036</b>	<b>(530)</b>	<b>(145)</b>	<b>145</b>	<b>891</b>	<b>(385)</b>	<b>24</b>	<b>530</b>	<b>530</b>
<b>Total</b>	<b>1,801</b>	<b>(1,332)</b>	<b>(784)</b>	<b>784</b>	<b>1,017</b>	<b>(548)</b>	<b>(26)</b>	<b>443</b>	<b>443</b>
Total of fair value non recognized in the balance sheet									

<sup>(a)</sup> Forwards: contracts resulting in physical delivery are accounted for as derivative commodity contracts and included in the amounts shown.

<sup>(b)</sup> When the fair value of derivatives listed on an organized exchange market (futures, options on futures and swaps) is offset with the margin call received or paid in the balance sheet, this fair value is set to zero.

<sup>(c)</sup> Amounts offset in accordance with IAS 32.

**Table of Contents**

Most commitments on crude oil and refined products have a short term maturity (less than one year). The maturity of most Gas & Power energy derivatives is less than three years forward.

The changes in fair value of financial instruments related to commodity contracts are detailed as follows:

	Fair value				Fair value
For the year ended December 31, (M )	as of January 1,	Impact on income	Settled contracts	Other	as of December 31,
<b>Crude oil, petroleum products and freight rates activities</b>					
<b>2013</b>	<b>(47)</b>	<b>1,706</b>	<b>(1,754)</b>	<b>2</b>	<b>(93)</b>
2012	(37)	1,694	(1,705)	1	(47)
2011	38	1,572	(1,648)	1	(37)
<b>Gas &amp; Power activities</b>					
<b>2013</b>	<b>272</b>	<b>470</b>	<b>(282)</b>	<b>(55)</b>	<b>405</b>
2012	506	588	(825)	3	272
2011	(98)	899	(295)		506

The fair value hierarchy for financial instruments related to commodity contracts is as follows:

	Quoted prices in active markets for identical assets (level 1)	Prices based on observable data (level 2)	Prices based on non observable data (level 3)	Total
<b>As of December 31, 2013 (M )</b>				
Crude oil, petroleum products and freight rates activities	15	(108)		(93)
Gas & Power activities		405		405
<b>Total</b>	<b>15</b>	<b>297</b>		<b>312</b>

	Quoted prices in active markets for identical assets (level 1)	Prices based on observable data (level 2)	Prices based on non observable data (level 3)	Total
<b>As of December 31, 2012 (M )</b>				
Crude oil, petroleum products and freight rates activities	5	(52)		(47)
Gas & Power activities	(52)	324		272
<b>Total</b>	<b>(47)</b>	<b>272</b>		<b>225</b>

	Quoted prices in active markets for identical assets (level 1)	Prices based on observable data (level 2)	Prices based on non observable data (level 3)	Total
<b>As of December 31, 2011 (M )</b>				
Crude oil, petroleum products and freight rates activities	(38)	1		(37)
Gas & Power activities	(44)	550		506
<b>Total</b>	<b>(82)</b>	<b>551</b>		<b>469</b>

The description of each fair value level is presented in Note 1 paragraph M(v) to the Consolidated Financial Statements.

**31) FINANCIAL RISKS MANAGEMENT***Oil and gas market related risks*

## Edgar Filing: TOTAL S.A. - Form 20-F

Due to the nature of its business, the Group has significant oil and gas trading activities as part of its day-to-day operations in order to optimize revenues from its oil and gas production and to obtain favorable pricing to supply its refineries.

In its international oil trading business, the Group follows a policy of not selling its future production. However, in connection with this trading business, the Group, like most other oil companies, uses energy derivative instruments to adjust its exposure to price fluctuations of crude oil, refined products, natural gas, power and coal. The Group also

uses freight rate derivative contracts in its shipping business to adjust its exposure to freight-rate fluctuations. To hedge against this risk, the Group uses various instruments such as futures, forwards, swaps and options on organized markets or over-the-counter markets. The list of the different derivatives held by the Group in these markets is detailed in Note 30 to the Consolidated Financial Statements.

The Trading & Shipping division measures its market risk exposure, *i.e.* potential loss in fair values, on its crude oil, refined products and freight rates trading activities using a value-at-risk technique. This technique is based on an historical model and makes an assessment of the market risk arising from possible future changes in market values

2013 Form 20-F TOTAL S.A. F-83



## Table of Contents

over a 24-hour period. The calculation of the range of potential changes in fair values takes into account a snapshot of the end-of-day exposures and the set of historical price movements for the last 400 business days for all instruments and maturities in the global trading activities. Options are systematically re-evaluated using appropriate models.

The potential movement in fair values corresponds to a 97.5% value-at-risk type confidence level. This means that the Group's portfolio result is likely to exceed the value-at-risk loss measure once over 40 business days if the portfolio exposures were left unchanged.

### *Trading & Shipping: value-at-risk with a 97.5% probability*

As of				
December 31, (M )	High	Low	Average	Year end
<b>2013</b>	<b>9.9</b>	<b>3.5</b>	<b>6.2</b>	<b>7.1</b>
2012	13.0	3.8	7.4	5.5
2011	10.6	3.7	6.1	6.3

As part of its gas, power and coal trading activity, the Group also uses derivative instruments such as futures, forwards, swaps and options in both organized and over-the-counter markets. In general, the transactions are settled at maturity date through physical delivery. The Gas & Power division measures its market risk exposure, *i.e.* potential loss in fair values, on its trading business using a value-at-risk technique. This technique is based on an historical model and makes an assessment of the market risk arising from possible future changes in market values over a one-day period. The calculation of the range of potential changes in fair values takes into account a snapshot of the end-of-day exposures and the set of historical price movements for the past two years for all instruments and maturities in the global trading business.

### *Gas & Power trading: value-at-risk with a 97.5% probability*

As of				
December 31, (M )	High	Low	Average	Year end
<b>2013</b>	<b>9.0</b>	<b>2.0</b>	<b>4.0</b>	<b>5.0</b>
2012	20.9	2.6	7.4	2.8
2011	21.0	12.7	16.0	17.6

The Group has implemented strict policies and procedures to manage and monitor these market risks. These are based on the separation of control and front-office functions and on an integrated information system that enables real-time monitoring of trading activities.

Limits on trading positions are approved by the Group's Executive Committee and are monitored daily. To increase flexibility and encourage liquidity, hedging operations are performed with numerous independent operators,

including other oil companies, major energy producers or consumers and financial institutions. The Group has established counterparty limits and monitors outstanding amounts with each counterparty on an ongoing basis.

### *Financial markets related risks*

As part of its financing and cash management activities, the Group uses derivative instruments to manage its exposure to changes in interest rates and foreign exchange rates. These instruments are mainly interest rate and currency swaps. The Group may also occasionally use futures contracts and options. These operations and their accounting treatment are detailed in Notes 1 paragraph M, 20, 28 and 29 to the Consolidated Financial Statements.

Risks relative to cash management operations and to interest rate and foreign exchange financial instruments are managed according to rules set by the Group's senior management, which provide for regular pooling of available cash balances, open positions and management of the financial instruments by the Treasury Department. Excess cash of the Group is deposited mainly in government institutions, deposit banks, or major companies through deposits, reverse repurchase agreements and purchase of commercial paper. Liquidity positions and the management of financial instruments are centralized by the Treasury Department, where they are managed by a team specialized in foreign exchange and interest rate market transactions.

The Cash Monitoring-Management Unit within the Treasury Department monitors limits and positions per bank on a daily basis and results of the Front Office. This unit also prepares marked-to-market valuations of used financial instruments and, when necessary, performs sensitivity analysis.

### *Counterparty risk*

## Edgar Filing: TOTAL S.A. - Form 20-F

The Group has established standards for market transactions under which bank counterparties must be approved in advance, based on an assessment of the counterparty's financial soundness (multi-criteria analysis including a review of market prices and of the Credit Default Swap (CDS), its ratings with Standard & Poor's and Moody's, which must be of high quality, and its overall financial condition).

An overall authorized credit limit is set for each bank and is allotted among the subsidiaries and the Group's central treasury entities according to their needs.

To reduce the market values risk on its commitments, in particular for swaps set as part of bonds issuance, the Treasury Department also developed a system of margin call that is gradually implemented with significant counterparties.

## **Table of Contents**

### ***Currency exposure***

The Group seeks to minimize the currency exposure of each entity to its functional currency (primarily the euro, the dollar, the pound sterling and the Norwegian krone).

For currency exposure generated by commercial activity, the hedging of revenues and costs in foreign currencies is typically performed using currency operations on the spot market and, in some cases, on the forward market. The Group rarely hedges future cash flows, although it may use options to do so.

With respect to currency exposure linked to non-current assets booked in a currency other than the euro, the Group has a policy of reducing the related currency exposure by financing these assets in the same currency.

Net short-term currency exposure is periodically monitored against limits set by the Group's senior management.

The non-current debt described in Note 20 to the Consolidated Financial Statements is generally raised by the corporate treasury entities either directly in dollars or in euros, or in other currencies which are then exchanged for dollars or euros through swaps issues to appropriately match general corporate needs. The proceeds from these debt issuances are loaned to affiliates whose accounts are kept in dollars or in euros. Thus, the net sensitivity of these positions to currency exposure is not significant.

The Group's short-term currency swaps, the notional value of which appears in Note 29 to the Consolidated Financial

Statements, are used to attempt to optimize the centralized cash management of the Group. Thus, the sensitivity to currency fluctuations which may be induced is likewise considered negligible.

### ***Short-term interest rate exposure and cash***

Cash balances, which are primarily composed of euros and dollars, are managed according to the guidelines established by the Group's senior management (maintain an adequate level of liquidity, optimize revenue from investments considering existing interest rate yield curves, and minimize the cost of borrowing) over a less than twelve-month horizon and on the basis of a daily interest rate benchmark, primarily through short-term interest rate swaps and short-term currency swaps, without modifying currency exposure.

### ***Interest rate risk on non-current debt***

The Group's policy consists of incurring non-current debt primarily at a floating rate, or, if the opportunity arises at the time of an issuance, at a fixed rate. Debt is incurred in dollars or in euros according to general corporate needs. Long-term interest rate and currency swaps may be used to hedge bonds at their issuance in order to create a variable or fixed rate synthetic debt. In order to partially modify the interest rate structure of the long-term debt, TOTAL may also enter into long-term interest rate swaps.

**Table of Contents****Sensitivity analysis on interest rate and foreign exchange risk**

The tables below present the potential impact of an increase or decrease of 10 basis points on the interest rate yield curves for each of the currencies on the fair value of the current financial instruments as of December 31, 2013, 2012, and 2011.

Assets / (Liabilities) (M )	Change in fair			
	Carrying amount	Estimated fair value	value due to a change in interest rate by	
			+ 10 basis points	- 10 basis points
<b>As of December 31, 2013</b>				
Bonds (non-current portion, before swaps)	(24,028)	(24,629)	39	(39)
<i>Swaps hedging fixed-rates bonds (liabilities)</i>	(236)	(236)		
<i>Swaps hedging fixed-rates bonds (assets)</i>	1,028	1,028		
Total swaps hedging fixed-rates bonds (assets and liabilities)	792	792	(28)	27
Current portion of non-current debt after swap (excluding capital lease obligations)	3,784	3,784	4	(4)
Other interest rates swaps	(1)	(1)	(1)	1
Currency swaps and forward exchange contracts	13	13		
<b>As of December 31, 2012</b>				
Bonds (non-current portion, before swaps)	(21,346)	(21,545)	97	(97)
<i>Swaps hedging fixed-rates bonds (liabilities)</i>	(11)	(11)		
<i>Swaps hedging fixed-rates bonds (assets)</i>	1,626	1,626		
Total swaps hedging fixed-rates bonds (assets and liabilities)	1,615	1,615	(58)	58
Current portion of non-current debt after swap (excluding capital lease obligations)	4,251	4,251	4	(4)
Other interest rates swaps			2	(2)
Currency swaps and forward exchange contracts	(50)	(50)		
<b>As of December 31, 2011</b>				
Bonds (non-current portion, before swaps)	(21,402)	(22,092)	83	(83)
<i>Swaps hedging fixed-rates bonds (liabilities)</i>	(146)	(146)		
<i>Swaps hedging fixed-rates bonds (assets)</i>	1,976	1,976		
Total swaps hedging fixed-rates bonds (assets and liabilities)	1,830	1,830	(49)	49
Current portion of non-current debt after swap (excluding capital lease obligations)	3,488	3,488	3	(3)
Other interest rates swaps	(1)	(1)	3	(3)
Currency swaps and forward exchange contracts	47	47		
The impact of changes in interest rates on the cost of net debt before tax is as follows:				

For the year ended December 31, (M )	2013	2012	2011
Cost of net debt	(606)	(571)	(440)
Interest rate translation of :			
+ 10 basis points	(11)	(11)	(10)
- 10 basis points	11	11	10
+ 100 basis points	(113)	(106)	(103)
- 100 basis points	113	106	103

As a result of the policy for the management of currency exposure previously described, the Group's sensitivity to currency exposure is primarily influenced by the net equity of the subsidiaries whose functional currency is the dollar and, to a lesser extent, the pound sterling and the Norwegian krone.

This sensitivity is reflected in the historical evolution of the currency translation adjustment recorded in the statement of changes in shareholders' equity which, in the course of the last three fiscal years, is essentially related to the fluctuation of dollar and pound sterling and is set forth in the table below:

	Euro /Dollar exchange rates	Euro / Pound sterling exchange rates
As of December 31, 2013	1.38	0.83

Edgar Filing: TOTAL S.A. - Form 20-F

As of December 31, 2012	1.32	0.82
As of December 31, 2011	1.29	0.84

F-86      TOTAL S.A. Form 20-F 2013

**Table of Contents**

As of December 31, 2013 (M )	Total	Euro	Dollar	Pound sterling	Other currencies and equity affiliates
Shareholders' equity at historical exchange rate	77,014	46,984	23,599	4,289	2,142
Currency translation adjustment before net investment hedge	(4,385)		(2,524)	(931)	(930)
Net investment hedge - open instruments					
Shareholders' equity at exchange rate as of December 31, 2013	72,629	46,984	21,075	3,358	1,212
As of December 31, 2012 (M )	Total	Euro	Dollar	Pound sterling	Other currencies and equity affiliates
Shareholders' equity at historical exchange rate	72,689	44,968	22,253	4,268	1,200
Currency translation adjustment before net investment hedge	(1,504)		(782)	(837)	115
Net investment hedge - open instruments					
Shareholders' equity at exchange rate as of December 31, 2012	71,185	44,968	21,471	3,431	1,315
As of December 31, 2011 (M )	Total	Euro	Dollar	Pound sterling	Other currencies and equity affiliates
Shareholders' equity at historical exchange rate	67,949	40,763	21,554	4,464	1,168
Currency translation adjustment before net investment hedge	(978)		120	(931)	(167)
Net investment hedge - open instruments	(26)		(25)	(1)	
Shareholders' equity at exchange rate as of December 31, 2011	66,945	40,763	21,649	3,532	1,001

As a result of this policy, the impact of currency exchange rate fluctuations on consolidated income, as illustrated in Note 7 to the Consolidated Financial Statements, has not been significant over the last three years despite the considerable fluctuation of the dollar (a gain of 6 million in 2013, a gain of 26 million in 2012 and a gain of 118 million in 2011).

**Stock market risk**

The Group holds interests in a number of publicly-traded companies (see Notes 12 and 13 to the Consolidated Financial Statements). The market value of these holdings fluctuates due to various factors, including stock market trends, valuations of the sectors in which the companies operate, and the economic and financial condition of each individual company.

**Liquidity risk**

TOTAL S.A. has confirmed lines of credit granted by international banks, which are calculated to allow it to manage its short-term liquidity needs as required.

As of December 31, 2013, these lines of credit amounted to \$11,031 million, of which \$11,031 million was unused. The agreements for the lines of credit granted to TOTAL S.A. do not contain conditions related to the Company's financial ratios, to its financial ratings from specialized agencies, or to the occurrence of events that could have a material adverse effect on its financial position. As of December 31, 2013, the aggregate amount of the principal confirmed lines of credit granted by international banks to Group companies, including TOTAL S.A., was \$11,581 million, of which \$11,421 million was unused. The lines of credit granted to Group companies other than TOTAL S.A. are not intended to finance the Group's general needs; they are intended to finance either the general needs of the borrowing subsidiary or a specific project.

The following tables show the maturity of the financial assets and liabilities of the Group as of December 31, 2013, 2012 and 2011 (see Note 20 to the Consolidated Financial Statements).

As of December 31, 2013 (M )	Less than one year	1-2 years	2-3 years	3-4 years	4-5 years	More than 5 years	Total
<b>Assets/(Liabilities)</b>							
Non-current financial debt (notional value excluding interests)		(3,370)	(3,284)	(3,015)	(3,162)	(11,210)	(24,041)
Current borrowings	(8,116)						(8,116)
Other current financial liabilities	(276)						(276)
Current financial assets	536						536
Assets and liabilities available for sale or exchange	130						130
Cash and cash equivalents	14,647						14,647
<b>Net amount before financial expense</b>	<b>6,921</b>	<b>(3,370)</b>	<b>(3,284)</b>	<b>(3,015)</b>	<b>(3,162)</b>	<b>(11,210)</b>	<b>(17,120)</b>
Financial expense on non-current financial debt	(729)	(661)	(554)	(508)	(447)	(1,294)	(4,193)
Interest differential on swaps	350	284	100	(24)	(80)	(515)	115
<b>Net amount</b>	<b>6,542</b>	<b>(3,747)</b>	<b>(3,738)</b>	<b>(3,547)</b>	<b>(3,689)</b>	<b>(13,019)</b>	<b>(21,198)</b>



**Table of Contents**

As of December 31, 2012 (M )	Less than	1-2 years	2-3 years	3-4 years	4-5 years	More than	Total
Assets/(Liabilities)	one year					5 years	
Non-current financial debt (notional value excluding interests)		(3,832)	(3,465)	(2,125)	(3,126)	(8,100)	(20,648)
Current borrowings	(11,016)						(11,016)
Other current financial liabilities	(176)						(176)
Current financial assets	1,562						1,562
Assets and liabilities available for sale or exchange	(756)						(756)
Cash and cash equivalents	15,469						15,469
<b>Net amount before financial expense</b>	<b>5,083</b>	<b>(3,832)</b>	<b>(3,465)</b>	<b>(2,125)</b>	<b>(3,126)</b>	<b>(8,100)</b>	<b>(15,565)</b>
Financial expense on non-current financial debt	(746)	(625)	(519)	(405)	(352)	(1,078)	(3,725)
Interest differential on swaps	371	335	225	106	62	(37)	1,062
<b>Net amount</b>	<b>4,708</b>	<b>(4,122)</b>	<b>(3,760)</b>	<b>(2,424)</b>	<b>(3,416)</b>	<b>(9,215)</b>	<b>(18,228)</b>

As of December 31, 2011 (M )	Less than	1-2 years	2-3 years	3-4 years	4-5 years	More than	Total
Assets/(Liabilities)	one year					5 years	
Non-current financial debt (notional value excluding interests)		(4,492)	(3,630)	(3,614)	(1,519)	(7,326)	(20,581)
Current borrowings	(9,675)						(9,675)
Other current financial liabilities	(167)						(167)
Current financial assets	700						700
Cash and cash equivalents	14,025						14,025
<b>Net amount before financial expense</b>	<b>4,883</b>	<b>(4,492)</b>	<b>(3,630)</b>	<b>(3,614)</b>	<b>(1,519)</b>	<b>(7,326)</b>	<b>(15,698)</b>
Financial expense on non-current financial debt	(785)	(691)	(521)	(417)	(302)	(1,075)	(3,791)
Interest differential on swaps	320	331	221	120	55	44	1,091
<b>Net amount</b>	<b>4,418</b>	<b>(4,852)</b>	<b>(3,930)</b>	<b>(3,911)</b>	<b>(1,766)</b>	<b>(8,357)</b>	<b>(18,398)</b>

In addition, the Group guarantees bank debt and finance lease obligations of certain non-consolidated companies and equity affiliates. A payment would be triggered by failure of the guaranteed party to fulfill its obligation covered by the guarantee, and no assets are held as collateral for these guarantees. Maturity dates and amounts are set forth in Note 23 to the Consolidated Financial Statements ( Guarantees given against borrowings ).

The Group also guarantees the current liabilities of certain non-consolidated companies. Performance under these guarantees would be triggered by a financial default of these entities. Maturity dates and amounts are set forth in Note 23 to the Consolidated Financial Statements ( Guarantees of current liabilities ).

The following table sets forth financial assets and liabilities related to operating activities as of December 31, 2013, 2012 and 2011 (see Note 28 to the Consolidated Financial Statements).

As of December 31 (M )	2013	2012	2011
Assets/(Liabilities)			
Accounts payable	(21,958)	(21,648)	(22,086)
Other operating liabilities	(5,941)	(5,904)	(5,441)
including financial instruments related to commodity contracts	(615)	(456)	(548)
Accounts receivable, net	16,984	19,206	20,049
Other operating receivables	7,191	6,158	7,467
including financial instruments related to commodity contracts	927	681	1,017
<b>Total</b>	<b>(3,724)</b>	<b>(2,188)</b>	<b>(11)</b>

These financial assets and liabilities mainly have a maturity date below one year.

**Credit risk**

Credit risk is defined as the risk of the counterparty to a contract failing to perform or pay the amounts due.



## Edgar Filing: TOTAL S.A. - Form 20-F

The Group is exposed to credit risks in its operating and financing activities. The Group's maximum exposure to credit risk is partially related to financial assets recorded on its balance sheet, including energy derivative instruments that have a positive market value.

F-88 TOTAL S.A. Form 20-F 2013

## Table of Contents

The following table presents the Group's maximum credit risk exposure:

As of December 31, (M )			
Assets/(Liabilities)	2013	2012	2011
Loans to equity affiliates (note 12)	2,577	2,360	2,246
Loans and advances (note 14)	2,592	2,207	2,055
Hedging instruments of non-current financial debt (note 20)	1,028	1,626	1,976
Accounts receivable (note 16)	16,984	19,206	20,049
Other operating receivables (note 16)	7,191	6,158	7,467
Current financial assets (note 20)	536	1,562	700
Cash and cash equivalents (note 27)	14,647	15,469	14,025
<b>Total</b>	<b>45,555</b>	<b>48,588</b>	<b>48,518</b>

The valuation allowance on loans and advances and on accounts receivable and other operating receivables is detailed respectively in Notes 14 and 16 to the Consolidated Financial Statements.

As part of its credit risk management related to operating and financing activities, the Group has developed margin call contracts with certain counterparties. As of December 31, 2013, the net amount received as part of these margin calls was 801 million (against 1,635 million as of December 31, 2012 and 1,682 million as of December 31, 2011).

Credit risk is managed by the Group's business segments as follows:

### Upstream segment

#### Exploration & Production

Risks arising under contracts with government authorities or other oil companies or under long-term supply contracts necessary for the development of projects are evaluated during the project approval process. The long-term aspect of these contracts and the high-quality of the other parties lead to a low level of credit risk.

Risks related to commercial operations, other than those described above (which are, in practice, directly monitored by subsidiaries), are subject to procedures for establishing and reviewing credit.

Customer receivables are subject to provisions on a case-by-case basis, based on prior history and management's assessment of the facts and circumstances.

#### Gas & Power

Gas & Power deals with counterparties in the energy, industrial and financial sectors throughout the world. Financial institutions providing credit risk coverage are highly rated international bank and insurance groups.

Potential counterparties are subject to credit assessment and approval before concluding transactions and are thereafter subject to regular review, including re-appraisal and approval of the limits previously granted.

The creditworthiness of counterparties is assessed based on an analysis of quantitative and qualitative data regarding financial standing and business risks, together with the review of any relevant third party and market information, such as data published by rating agencies. On this basis, credit limits are defined for each potential counterparty and, where appropriate, transactions are subject to specific authorizations.

Credit exposure, which is essentially an economic exposure or an expected future physical exposure, is permanently monitored and subject to sensitivity measures.

Credit risk is mitigated by the systematic use of industry standard contractual frameworks that permit netting, enable requiring added security in case of adverse change in the counterparty risk, and allow for termination of the contract upon occurrence of certain events of default.

*Refining & Chemicals segment*

**Refining & Chemicals**

Credit risk is primarily related to commercial receivables. Internal procedures of Refining & Chemicals include rules for the management of credit describing the fundamentals of internal control in this domain. Each division implements procedures for managing and provisioning credit risk that differ based on the size of the subsidiary and the market in which it operates. The principal elements of these procedures are:

implementation of credit limits with different authorization procedures for possible credit overruns;

use of insurance policies or specific guarantees (letters of credit);

regular monitoring and assessment of overdue accounts (aging balance), including collection procedures; and

provisioning of bad debts on a customer-by-customer basis, according to payment delays and local payment practices (provisions may also be calculated based on statistics).

Counterparties are subject to credit assessment and approval prior to any transaction being concluded. Regular reviews are made for all active counterparties including a

## **Table of Contents**

re-appraisal and renewing of the granted credit limits. The limits of the counterparties are assessed based on quantitative and qualitative data regarding financial standing, together with the review of any relevant third party and market information, such as that provided by rating agencies and insurance companies.

### **Trading & Shipping**

Trading & Shipping deals with commercial counterparties and financial institutions located throughout the world. Counterparties to physical and derivative transactions are primarily entities involved in the oil and gas industry or in the trading of energy commodities, or financial institutions. Credit risk coverage is concluded with financial institutions, international banks and insurance groups selected in accordance with strict criteria.

The Trading & Shipping division has a strict policy of internal delegation of authority governing establishment of country and counterparty credit limits and approval of specific transactions. Credit exposures contracted under these limits and approvals are monitored on a daily basis.

Potential counterparties are subject to credit assessment and approval prior to any transaction being concluded and all active counterparties are subject to regular reviews, including re-appraisal and approval of granted limits. The creditworthiness of counterparties is assessed based on an analysis of quantitative and qualitative data regarding financial standing and business risks, together with the review of any relevant third party and market information, such as ratings published by Standard & Poor's, Moody's Investors Service and other agencies.

Contractual arrangements are structured so as to maximize the risk mitigation benefits of netting between transactions wherever possible and additional protective terms providing for the provision of security in the event of financial deterioration and the termination of transactions on the occurrence of defined default events are used to the greatest permitted extent.

Credit risks in excess of approved levels are secured by means of letters of credit and other guarantees, cash deposits and insurance arrangements. In respect of derivative transactions, risks are secured by margin call contracts wherever possible.

### ***Marketing & Services segment***

Internal procedures for the Marketing & Services division include rules on credit risk that describe the basis of

internal control in this domain, including the separation of authority between commercial and financial operations. Credit policies are defined at the local level, complemented by the implementation of procedures to monitor customer risk (credit committees at the subsidiary level, the creation of credit limits for corporate customers, portfolio guarantees, etc.).

Each entity also implements monitoring of its outstanding receivables. Risks related to credit may be mitigated or limited by subscription of credit insurance and/or requiring security or guarantees.

Bad debts are provisioned on a case-by-case basis at a rate determined by management based on an assessment of the risk of credit loss.

## **32) OTHER RISKS AND CONTINGENT LIABILITIES**

TOTAL is not currently aware of any exceptional event, dispute, risks or contingent liabilities that could have a material impact on the assets and liabilities, results, financial position or operations of the Group.

### **ANTITRUST INVESTIGATIONS**

The principal antitrust proceedings in which the Group's companies are involved are described thereafter.

### ***Refining & Chemicals segment***

As part of the spin-off of Arkema<sup>1</sup> in 2006, TOTAL S.A. and certain other Group companies agreed to grant Arkema for a period of ten years a guarantee for potential monetary consequences related to antitrust proceedings arising from events prior to the spin-off.

As of December 31, 2013, all public and civil proceedings covered by the guarantee were definitively resolved in Europe and in the United States. Despite the fact that Arkema has implemented since 2001 compliance procedures that are designed to prevent its employees from violating antitrust provisions, it is not possible to

## Edgar Filing: TOTAL S.A. - Form 20-F

exclude the possibility that the relevant authorities could commence additional proceedings involving Arkema regarding events prior to the spin-off.

### *Marketing & Services segment*

The administrative procedure opened by the European Commission against TOTAL Nederland N.V and TOTAL S.A., as parent company, in relation to practices regarding a product line of

F-90 TOTAL S.A. Form 20-F 2013

<sup>1</sup> Arkema is used in this section to designate those companies of the Arkema group whose ultimate parent company is Arkema S.A. Arkema became an independent company after being spun-off from TOTAL S.A. in May 2006.

## Table of Contents

the Marketing & Services segment, resulted in a condemnation in 2006 that became definitive in 2012. The resulting fine ( 20.25 million) and interest thereon were paid during the first quarter of 2013.

Following the appeal lodged by the Group's companies against the European Commission's 2008 decision fining Total Marketing Services an amount of 128.2 million, in relation to practices regarding a product line of the Marketing & Services segment, which the company had already paid, and concerning which TOTAL S.A. was declared jointly liable as the parent company, the relevant European court decided during the third quarter of 2013 to reduce the fine imposed on Total Marketing Services to 125.5 million without modifying the liability of TOTAL S.A. as parent company. Appeals have been lodged against this judgment.

In the United Kingdom, a settlement took place in the third quarter of 2013 putting an end to the civil proceeding initiated against TOTAL S.A., Total Marketing Services and other companies, by third parties alleging damages in connection with practices already sanctioned by the European Commission. A similar civil proceeding is pending in the Netherlands. At this stage, the plaintiffs have not communicated the amount of their claim.

Finally, in Italy, in 2013, a civil proceeding was initiated against TOTAL S.A. and its subsidiary Total Aviazione Italia Srl before the competent Italian civil court. The plaintiff claims against TOTAL S.A., its subsidiary and other third parties, damages that it estimates to be nearly 908 million. This procedure follows practices that had been sanctioned by the Italian competition authority in 2006. The existence and the assessment of the alleged damages in this procedure involving multiple defendants are strongly contested.

Whatever the evolution of the proceedings described above, the Group believes that their outcome should not have a material adverse effect on the Group's financial situation or consolidated results.

## GRANDE PAROISSE

An explosion occurred at the Grande Paroisse industrial site in the city of Toulouse in France on September 21, 2001. Grande Paroisse, a former subsidiary of Atofina which became a subsidiary of Elf Aquitaine Fertilisants on

December 31, 2004, as part of the reorganization of the Chemicals segment, was principally engaged in the production and sale of agricultural fertilizers. The explosion, which involved a stockpile of ammonium nitrate pellets, destroyed a portion of the site and caused the death of thirty-one people, including twenty-one workers at the site, and injured many others. The explosion also caused significant damage to certain property in part of the city of Toulouse.

This plant has been closed and individual assistance packages have been provided for employees. The site has been rehabilitated.

On December 14, 2006, Grande Paroisse signed, under the supervision of the city of Toulouse, a deed whereby it donated the former site of the AZF plant to the greater agglomeration of Toulouse (CAGT) and the *Caisse des dépôts et consignations* and its subsidiary ICADE. Under this deed, TOTAL S.A. guaranteed the site remediation obligations of Grande Paroisse and granted a 10 million endowment to the InNaBioSanté research foundation as part of the setting up of a cancer research center at the site by the city of Toulouse.

After having articulated several hypotheses, the Court-appointed experts did not maintain in their final report filed on May 11, 2006, that the accident was caused by pouring a large quantity of a chlorine compound over ammonium nitrate. Instead, the experts have retained a scenario where a container of chlorine compound sweepings was poured between a layer of wet ammonium nitrate covering the floor and a quantity of dry agricultural nitrate at a location not far from the principal storage site. This is claimed to have caused an explosion which then spread into the main storage site. Grande Paroisse was investigated based on this new hypothesis in 2006; Grande Paroisse is contesting this explanation, which it believes to be based on elements that are not factually accurate.

On July 9, 2007, the investigating magistrate brought charges against Grande Paroisse and the former Plant Manager before the Toulouse Criminal Court. In late 2008, TOTAL S.A. and Mr. Thierry Desmarest, Chairman and CEO at the time of the event, were summoned to appear in Court pursuant to a request by a victims association.

On November 19, 2009, the Toulouse Criminal Court acquitted both the former Plant Manager, and Grande Paroisse due to the lack of reliable evidence for the explosion. The Court also ruled that the summonses against TOTAL S.A. and Mr. Thierry Desmarest were inadmissible.

## **Table of Contents**

Due to the presumption of civil liability that applied to Grande Paroisse, the Court declared Grande Paroisse civilly liable for the damages caused by the explosion to the victims in its capacity as custodian and operator of the plant.

The Prosecutor's office, together with certain third parties, appealed the Toulouse Criminal Court verdict. In order to preserve its rights, Grande Paroisse lodged a cross-appeal with respect to civil charges.

By its decision of September 24, 2012, the Court of Appeal of Toulouse (*Cour d'appel de Toulouse*) upheld the lower court verdict pursuant to which the summonses against TOTAL S.A. and Mr. Thierry Desmarest were determined to be inadmissible. This element of the decision has been appealed by certain third parties before the French Supreme Court (*Cour de cassation*).

The Court of Appeal considered, however, that the explosion was the result of the chemical accident described by the court-appointed experts. Accordingly, it convicted the former Plant Manager and Grande Paroisse. This element of the decision has been appealed by the former Plant Manager and Grande Paroisse before the French Supreme Court (*Cour de cassation*), which has the effect of suspending their criminal sentences.

A compensation mechanism for victims was set up immediately following the explosion. 2.3 billion was paid for the compensation of claims and related expenses amounts. A 12.7 million reserve remains booked in the Group's consolidated financial statements as of December 31, 2013.

### **BLUE RAPID AND THE RUSSIAN OLYMPIC COMMITTEE RUSSIAN REGIONS AND INTERNEFT**

Blue Rapid, a Panamanian company, and the Russian Olympic Committee filed a claim for damages with the Paris Commercial Court against Elf Aquitaine, alleging a so-called non-completion by a former subsidiary of Elf Aquitaine of a contract related to an exploration and production project in Russia negotiated in the early 1990s. Elf Aquitaine believed this claim to be unfounded and opposed it. On January 12, 2009, the Commercial Court of Paris rejected Blue Rapid's claim against Elf Aquitaine and found that the Russian Olympic Committee did not have standing in the matter. Blue Rapid and the Russian Olympic Committee appealed this decision. On June 30, 2011, the Court of Appeal of Paris dismissed as inadmissible the claim of Blue Rapid and the Russian Olympic Committee against Elf Aquitaine, notably on the grounds of the contract having lapsed. Blue Rapid and the Russian Olympic Committee appealed this decision to the French Supreme Court.

In connection with the same facts, and fifteen years after the termination of the exploration and production contract, a Russian company, which was held not to be the contracting party to the contract, and two regions of the Russian Federation that were not even parties to the contract, launched an arbitration procedure against the aforementioned former subsidiary of Elf Aquitaine that was liquidated in 2005, claiming alleged damages of U.S.\$22.4 billion. For the same reasons as those successfully adjudicated by Elf Aquitaine against Blue Rapid and the Russian Olympic Committee, the Group considers this claim to be unfounded as a matter of law and fact. The Group has lodged a criminal complaint to denounce the fraudulent claim of which the Group believes it is a victim and, has taken and reserved its rights to take other actions and measures to defend its interests.

### **IRAN**

In 2003, the United States Securities and Exchange Commission (SEC) followed by the Department of Justice (DoJ) issued a formal order directing an investigation in connection with the pursuit of business in Iran by certain oil companies including, among others, TOTAL. The inquiry concerned an agreement concluded by the Company with consultants concerning gas fields in Iran and aimed at verifying whether certain payments made under this agreement would have benefited Iranian officials in violation of the Foreign Corrupt Practices Act (FCPA) and the Company's accounting obligations.

In late May 2013, and after several years of discussions, TOTAL reached settlements with the U.S. authorities (a Deferred Prosecution Agreement with the DoJ and a Cease and Desist Order with the SEC). These settlements, which put an end to these investigations, were concluded without admission of guilt and in exchange for TOTAL respecting a number of obligations, including the payment of a fine (\$245.2 million) and civil compensation (\$153 million) that occurred during the second quarter of 2013. The reserve of \$398.2 million that was booked in the financial statements as of June 30, 2012, has been fully released. By virtue of these settlements, TOTAL also accepted to appoint a French independent compliance monitor to review the Group's compliance program and to recommend possible improvements.

With respect to the same facts, TOTAL and its Chairman and Chief Executive Officer, who was President of the Middle East at the time of the facts, were placed under formal investigation in France following a judicial inquiry initiated in 2006. In late May 2013, the Prosecutor's office recommended that the case be sent to trial. The investigating magistrate has not yet issued his decision.

## **Table of Contents**

At this point, the Company considers that the resolution of these cases is not expected to have a significant impact on the Group's financial situation or consequences for its future planned operations.

### **LIBYA**

In June 2011, the United States Securities and Exchange Commission (SEC) issued to certain oil companies including, among others, TOTAL a formal request for information related to their operations in Libya. In April 2013, the SEC notified TOTAL of the closure of the investigation while stating that it does not intend to take further action as far as TOTAL is concerned.

### **OIL-FOR-FOOD PROGRAM**

Several countries have launched investigations concerning possible violations related to the United Nations (UN) Oil-for-Food Program in Iraq.

Pursuant to a French criminal investigation, certain current or former Group Employees were placed under formal criminal investigation for possible charges as accessories to the misappropriation of Corporate assets and as accessories to the corruption of foreign public agents. The Chairman and Chief Executive Officer of the Company, formerly President of the Group's Exploration & Production division, was also placed under formal investigation in October 2006. In 2007, the criminal investigation was closed and the case was transferred to the Prosecutor's office. In 2009, the Prosecutor's office recommended to the investigating magistrate that the case against the Group's current and former employees and TOTAL's Chairman and Chief Executive Officer not be pursued.

In early 2010, despite the recommendation of the Prosecutor's office, a new investigating magistrate, having taken over the case, decided to indict TOTAL S.A. on bribery charges as well as complicity and influence peddling. The indictment was brought eight years after the beginning of the investigation without any new evidence being introduced.

In October 2010, the Prosecutor's office recommended to the investigating magistrate that the case against TOTAL S.A., the Group's former employees and TOTAL's Chairman and Chief Executive Officer not be pursued. However, by ordinance notified in early August 2011, the investigating magistrate on the matter decided to send the case to trial. On July 8, 2013, TOTAL S.A., the Group's former employees and TOTAL's Chairman and Chief Executive Officer were cleared of all charges by the Criminal Court, which found that none of the offenses for which they had been prosecuted were established. On

July 18, 2013, the Prosecutor's office appealed the parts of the Criminal Court's decision acquitting TOTAL S.A. and certain of the Group's former employees. TOTAL's Chairman and Chief Executive Officer's acquittal issued on July 8, 2013 is irrevocable since the Prosecutor's office did not appeal this part of the Criminal Court's decision.

### **ITALY**

As part of an investigation led by the Prosecutor of the Republic of the Potenza Court, Total Italia and certain Group employees were the subject of an investigation related to certain calls for tenders that Total Italia made for the preparation and development of an oil field. On February 16, 2009, as a preliminary measure before the proceedings go before the Court, the preliminary investigation judge of Potenza served notice to Total Italia of a decision that would suspend the concession for this field for one year. Total Italia has appealed the decision by the preliminary investigation judge before the Court of Appeal of Potenza. In a decision dated April 8, 2009, the Court reversed the suspension of the concession and appointed for one year, *i.e.* until February 16, 2010, a judicial administrator to supervise the operations related to the development of the concession, allowing the Tempa Rossa project to continue.

The criminal investigation was closed in the first half of 2010. In May 2012, the Judge of the preliminary hearing decided to dismiss the charges against some of the Group's employees and to refer the case for trial for a reduced number of charges. The trial started on September 26, 2012.

In 2010, Total Italia's exploration and production operations were transferred to Total E&P Italia and refining and marketing operations were merged with those of Erg Petroli.

### **RIVUNION**

On July 9, 2012, the Swiss *Tribunal Fédéral* (Switzerland's Supreme Court) rendered a decision against Rivunion, a wholly-owned subsidiary of Elf Aquitaine, confirming a tax reassessment in the amount of CHF 171 million (excluding interest for late payment). According to the *Tribunal*, Rivunion was held liable as tax collector of withholding taxes owed by the beneficiaries of taxable services. Rivunion, in liquidation since March 12, 2002, unable to recover the amounts corresponding to the withholding taxes in order to meet its fiscal obligations, has been subject to insolvency proceedings since November 1, 2012. On August 29, 2013, the Swiss federal tax administration lodged a claim as part of the insolvency



**Table of Contents**

proceedings of Rivunion, for an amount of CHF 284 million, including CHF 171 million of principal as well as interest for late payment.

**33) OTHER INFORMATION**

Research and development costs incurred by the Group in 2013 amounted to 949 million ( 805 million in 2012 and 776 million in 2011), corresponding to 0.5% of the sales.

The staff dedicated in 2013 to these research and development activities are estimated at 4,684 people (4,110 in 2012 and 3,946 in 2011).

**34) CHANGES IN PROGRESS IN THE GROUP STRUCTURE****Upstream**

TOTAL announced in November 2012 the finalization of an agreement for the sale in Nigeria of its 20% interest in block OML 138 to a subsidiary of China Petrochemical Corporation (Sinopec). This transaction remains subject to the approval by the relevant authorities. At December 31, 2013 the assets and liabilities have been respectively retained in the consolidated balance sheet in Assets classified as held for sale for an amount of 1,833 million and Liabilities directly associated with the assets classified as held for sale for an amount of 590 million. The assets concerned mainly include tangible assets for an amount of 1,468 million.

TOTAL has put up for sale its interest in block 15/06 in Angola. At December 31, 2013 the assets and liabilities have been respectively classified in the consolidated balance sheet in Assets classified as held for sale for an amount of 526 million and Liabilities directly associated with the assets classified as held for sale for an amount of 36 million. The assets concerned mainly include tangible assets for an amount of 456 million. In February 2014, TOTAL signed an agreement to sell to Sonangol E&P its interest in block 15/06. This transaction remains subject to the approval by the relevant authorities.

**35) CONSOLIDATION SCOPE**

As of December 31, 2013, 898 entities are consolidated of which 809 are fully consolidated and 89 are accounted for under equity method (E).

The table below sets forth the main Group consolidated entities:

Business segment	Statutory corporate name	% Group interest	Method	Country of incorporation	Country of operations
UPSTREAM	ABU DHABI GAS LIQUEFACTION COMPANY LTD	5.00%	E	UNITED ARAB EMIRATES	UNITED ARAB EMIRATES
	ANGOLA BLOCK 14 B.V.	50.01%		THE NETHERLANDS	ANGOLA
	ANGOLA LNG LIMITED	13.60%	E	BERMUDA	ANGOLA
	BRASS HOLDINGS COMPANY LIMITED	100.00%		LUXEMBOURG	LUXEMBOURG
	BRASS LNG LTD	17.00%	E	NIGERIA	NIGERIA
	DOLPHIN ENERGY LIMITED	24.50%	E	UNITED ARAB EMIRATES	UNITED ARAB EMIRATES
	E. F. OIL AND GAS LIMITED	100.00%		UNITED KINGDOM	UNITED KINGDOM
	ELF EXPLORATION PRODUCTION	100.00%		FRANCE	FRANCE
	ELF EXPLORATION UK LIMITED	100.00%		UNITED KINGDOM	UNITED KINGDOM
	ELF PETROLEUM IRAN	100.00%		FRANCE	IRAN
	ELF PETROLEUM UK LIMITED	100.00%		UNITED KINGDOM	UNITED KINGDOM
	GAZ TRANSPORT & TECHNIGAZ SAS	30.00%	E	FRANCE	FRANCE
	ICHTHYS LNG PTY LTD	30.00%	E	AUSTRALIA	AUSTRALIA
	NIGERIA LNG LTD	15.00%	E	NIGERIA	NIGERIA
	NOVATEK	16.96%	E	RUSSIA	RUSSIA

## Edgar Filing: TOTAL S.A. - Form 20-F

OMAN LNG LLC	5.54%	E	OMAN	OMAN
PETROCEDEÑO	30.32%	E	VENEZUELA	VENEZUELA
QATAR LIQUEFIED GAS COMPANY LIMITED (II) TRAIN B	16.70%	E	QATAR	QATAR
QATARGAS LIQUEFIED GAS COMPANY LIMITED	10.00%	E	QATAR	QATAR
SHTOKMAN DEVELOPMENT AG	25.00%	E	SWITZERLAND	RUSSIA
TOTAL (BTC) SARL	100.00%		LUXEMBOURG	LUXEMBOURG
TOTAL AUSTRAL	100.00%		FRANCE	ARGENTINA
TOTAL COAL SOUTH AFRICA (PTY) LTD	100.00%		SOUTH AFRICA	SOUTH AFRICA
TOTAL COLOMBIA PIPELINE	100.00%		FRANCE	COLOMBIA
TOTAL DOLPHIN MIDSTREAM LIMITED	100.00%		BERMUDA	BERMUDA
TOTAL E&P ABSHERON BV	100.00%		THE NETHERLANDS	AZERBAIJAN
TOTAL E&P ALGERIE	100.00%		FRANCE	ALGERIA
TOTAL E&P ANGOLA	100.00%		FRANCE	ANGOLA

F-94 TOTAL S.A. Form 20-F 2013

**Table of Contents**

Business segment	Statutory corporate name	% Group interest	Method	Country of incorporation	Country of operations
	TOTAL E&P ANGOLA BLOCK 15/06 LIMITED	100.00%		BERMUDA	ANGOLA
	TOTAL E&P ANGOLA BLOCK 17/06	100.00%		FRANCE	ANGOLA
	TOTAL E&P ANGOLA BLOCK 25	100.00%		FRANCE	ANGOLA
	TOTAL E&P ANGOLA BLOCK 32	100.00%		FRANCE	ANGOLA
	TOTAL E&P ANGOLA BLOCK 33	100.00%		FRANCE	ANGOLA
	TOTAL E&P ANGOLA BLOCK 39	100.00%		FRANCE	ANGOLA
	TOTAL E&P ANGOLA BLOCK 40	100.00%		FRANCE	ANGOLA
	TOTAL E&P ARCTIC RUSSIA	100.00%		FRANCE	FRANCE
	TOTAL E&P AUSTRALIA	100.00%		FRANCE	AUSTRALIA
	TOTAL E&P AUSTRALIA II	100.00%		FRANCE	AUSTRALIA
	TOTAL E&P AUSTRALIA III	100.00%		FRANCE	AUSTRALIA
	TOTAL E&P AZERBAIJAN BV	100.00%		THE NETHERLANDS	AZERBAIJAN
	TOTAL E&P BOLIVIE	100.00%		FRANCE	BOLIVIA
	TOTAL E&P BORNEO BV	100.00%		THE NETHERLANDS	BRUNEI
	TOTAL E&P BULGARIA B.V.	100.00%		THE NETHERLANDS	BULGARIA
	TOTAL E&P CANADA LTD	100.00%		CANADA	CANADA
	TOTAL E&P CHINE	100.00%		FRANCE	CHINA
	TOTAL E&P COLOMBIE	100.00%		FRANCE	COLOMBIA
	TOTAL E&P CONGO	85.00%		CONGO	CONGO
	TOTAL E&P CYPRUS B.V.	100.00%		THE NETHERLANDS	CYPRUS
	TOTAL E&P DO BRASIL LTDA	100.00%		BRAZIL	BRAZIL
	TOTAL E&P DOLPHIN UPSTREAM LIMITED	100.00%		BERMUDA	QATAR
	TOTAL E&P FRANCE	100.00%		FRANCE	FRANCE
	TOTAL E&P GOLFE HOLDINGS LIMITED	100.00%		BERMUDA	BERMUDA
	TOTAL E&P GOLFE LIMITED	100.00%		UNITED ARAB EMIRATES	QATAR
	TOTAL E&P GUYANE FRANCAISE	100.00%		FRANCE	FRANCE
	TOTAL E&P ICHTHYS	100.00%		FRANCE	AUSTRALIA
	TOTAL E&P ICHTHYS B.V.	100.00%		THE NETHERLANDS	AUSTRALIA
	TOTAL E&P INDONESIA WEST PAPUA	100.00%		FRANCE	INDONESIA
	TOTAL E&P INDONESIE	100.00%		FRANCE	INDONESIA
	TOTAL E&P IRAQ	100.00%		FRANCE	IRAQ
	TOTAL E&P ITALIA	100.00%		ITALY	ITALY
	TOTAL E&P KAZAKHSTAN	100.00%		FRANCE	KAZAKHSTAN
	TOTAL E&P KENYA B.V.	100.00%		THE NETHERLANDS	KENYA
	TOTAL E&P KURDISTAN REGION OF IRAQ (HARIR) B.V.	100.00%		THE NETHERLANDS	IRAQ
	TOTAL E&P KURDISTAN REGION OF IRAQ (SAFEN) B.V.	100.00%		THE NETHERLANDS	IRAQ
	TOTAL E&P LIBYE	100.00%		FRANCE	LIBYA
	TOTAL E&P MADAGASCAR	100.00%		FRANCE	MADAGASCAR
	TOTAL E&P MALAYSIA	100.00%		FRANCE	MALAYSIA
	TOTAL E&P MAROC	100.00%		FRANCE	MOROCCO
	TOTAL E&P MAURITANIE	100.00%		FRANCE	MAURITANIA
	TOTAL E&P MAURITANIE BLOCK TA29 B.V.	100.00%		THE NETHERLANDS	MAURITANIA
	TOTAL E&P MOZAMBIQUE B.V.	100.00%		THE NETHERLANDS	MOZAMBIQUE
	TOTAL E&P MYANMAR	100.00%		FRANCE	MYANMAR
	TOTAL E&P NEDERLAND BV	100.00%		THE NETHERLANDS	THE NETHERLANDS
	TOTAL E&P NIGERIA DEEPWATER D LIMITED	100.00%		NIGERIA	NIGERIA
	TOTAL E&P NIGERIA DEEPWATER E LIMITED	100.00%		NIGERIA	NIGERIA
	TOTAL E&P NIGERIA LTD	100.00%		NIGERIA	NIGERIA
	TOTAL E&P NORGE AS	100.00%		NORWAY	NORWAY
	TOTAL E&P OMAN	100.00%		FRANCE	OMAN
	TOTAL E&P QATAR	100.00%		FRANCE	QATAR
	TOTAL E&P RUSSIE	100.00%		FRANCE	RUSSIA
	TOTAL E&P SOUTH AFRICA BV	100.00%		THE NETHERLANDS	SOUTH AFRICA
	TOTAL E&P SOUTH EAST MAHAKAM	100.00%		FRANCE	INDONESIA
	TOTAL E&P SYRIE	100.00%		FRANCE	SYRIA

## Edgar Filing: TOTAL S.A. - Form 20-F

TOTAL E&P THAILAND	100.00%	FRANCE	THAILAND
TOTAL E&P UGANDA BV	100.00%	THE NETHERLANDS	UGANDA
TOTAL E&P UK LIMITED	100.00%	UNITED KINGDOM	UNITED KINGDOM
TOTAL E&P URUGUAY B.V.	100.00%	THE NETHERLANDS	URUGUAY
TOTAL E&P USA INC	100.00%	UNITED STATES	UNITED STATES
TOTAL E&P VIETNAM	100.00%	FRANCE	VIETNAM
TOTAL E&P YAMAL	100.00%	FRANCE	FRANCE
TOTAL E&P YEMEN	100.00%	FRANCE	YEMEN
TOTAL ENERGIE GAZ	100.00%	FRANCE	FRANCE
TOTAL EXPLORATION M BRIDGE BV	100.00%	THE NETHERLANDS	ANGOLA
TOTAL EXPLORATION PRODUCTION NIGERIA	100.00%	FRANCE	FRANCE
TOTAL GABON	58.28%	GABON	GABON

2013 Form 20-F TOTAL S.A. F-95

**Table of Contents**

Business segment	Statutory corporate name	% Group interest	Method	Country of incorporation	Country of operations
REFINING & CHEMICALS	TOTAL GAS & POWER ACTIFS INDUSTRIELS	100.00%		FRANCE	FRANCE
	TOTAL GAS & POWER LIMITED	100.00%		UNITED KINGDOM	UNITED KINGDOM
	TOTAL GAS & POWER NORTH AMERICA INC	100.00%		UNITED STATES	UNITED STATES
	TOTAL GASANDES	100.00%		FRANCE	FRANCE
	TOTAL GAZ & ELECTRICITE HOLDINGS FRANCE	100.00%		FRANCE	FRANCE
	TOTAL GLNG AUSTRALIA	100.00%		FRANCE	AUSTRALIA
	TOTAL HOLDING DOLPHIN AMONT LIMITED	100.00%		BERMUDA	BERMUDA
	TOTAL HOLDINGS INTERNATIONAL B.V.	100.00%		THE NETHERLANDS	THE NETHERLANDS
	TOTAL HOLDINGS NEDERLAND BV	100.00%		THE NETHERLANDS	THE NETHERLANDS
	TOTAL LNG ANGOLA	100.00%		FRANCE	FRANCE
	TOTAL LNG NIGERIA LTD	100.00%		BERMUDA	BERMUDA
	TOTAL MIDSTREAM HOLDINGS UK LIMITED	100.00%		UNITED KINGDOM	UNITED KINGDOM
	TOTAL OIL AND GAS SOUTH AMERICA	100.00%		FRANCE	FRANCE
	TOTAL OIL AND GAS VENEZUELA BV	100.00%		THE NETHERLANDS	VENEZUELA
	TOTAL PARTICIPATIONS PETROLIERES GABON	100.00%		GABON	GABON
	TOTAL PETROLEUM ANGOLA	100.00%		FRANCE	ANGOLA
	TOTAL PROFILS PETROLIERS	100.00%		FRANCE	FRANCE
	TOTAL QATAR OIL AND GAS	100.00%		FRANCE	FRANCE
	TOTAL SHTOKMAN BV	100.00%		THE NETHERLANDS	THE NETHERLANDS
	TOTAL UPSTREAM NIGERIA LIMITED	100.00%		NIGERIA	NIGERIA
	TOTAL UPSTREAM UK LIMITED	100.00%		UNITED KINGDOM	UNITED KINGDOM
	TOTAL VENEZUELA	100.00%		FRANCE	FRANCE
	TOTAL YEMEN LNG COMPANY LIMITED	100.00%		BERMUDA	BERMUDA
	YAMAL LNG	33.59%	E	RUSSIA	RUSSIA
	YEMEN LNG COMPANY LTD	39.62%	E	BERMUDA	YEMEN
	ATLANTIC TRADING & MARKETING INC.	100.00%		UNITED STATES	UNITED STATES
	ATOTECH (CHINA) CHEMICALS LTD.	100.00%		CHINA	CHINA
	ATOTECH BV	100.00%		THE NETHERLANDS	THE NETHERLANDS
	ATOTECH DEUTSCHLAND GMBH	100.00%		GERMANY	GERMANY
	ATOTECH TAIWAN	100.00%		TAIWAN	TAIWAN
	BASF TOTAL PETROCHEMICALS LLC	40.00%		UNITED STATES	UNITED STATES
	BOSTIK HOLDING SA	100.00%		FRANCE	FRANCE
	BOSTIK INC	100.00%		UNITED STATES	UNITED STATES
	BOSTIK LTD	100.00%		UNITED KINGDOM	UNITED KINGDOM
	BOSTIK SA	100.00%		FRANCE	FRANCE
	COSDEN, LLC	100.00%		UNITED STATES	UNITED STATES
	COS-MAR COMPANY	50.00%		UNITED STATES	UNITED STATES
	CRAY VALLEY USA, LLC	100.00%		UNITED STATES	UNITED STATES
	CSSA - CHARTERING AND SHIPPING SERVICES SA	100.00%		SWITZERLAND	SWITZERLAND
	DALIAN WEST PACIFIC PETROCHEMICAL CO LTD (WEPEC)	22.41%	E	CHINA	CHINA
	GRANDE PAROISSE SA	100.00%		FRANCE	FRANCE
	HUTCHINSON ARGENTINA SA	100.00%		ARGENTINA	ARGENTINA
	HUTCHINSON AUTOPARTES DE MEXICO SA.DE CV	100.00%		MEXICO	MEXICO
	HUTCHINSON CORPORATION	100.00%		UNITED STATES	UNITED STATES
	HUTCHINSON DO BRASIL SA	100.00%		BRAZIL	BRAZIL
	HUTCHINSON GMBH	100.00%		GERMANY	GERMANY
	HUTCHINSON POLAND SP ZO.O.	100.00%		POLAND	POLAND
	HUTCHINSON SA	100.00%		FRANCE	FRANCE
	LEGACY SITE SERVICES LLC	100.00%		UNITED STATES	UNITED STATES
	LSS FUNDING INC.	100.00%		UNITED STATES	UNITED STATES
	NAPHTACHIMIE	50.00%		FRANCE	FRANCE

## Edgar Filing: TOTAL S.A. - Form 20-F

PAULSTRA SNC	100.00%		FRANCE	FRANCE
QATAR PETROCHEMICAL COMPANY Q.S.C. (QAPCO)	20.00%	E	QATAR	QATAR
QATOFIN COMPANY LIMITED	49.09%	E	QATAR	QATAR
SAMSUNG TOTAL PETROCHEMICALS CO. LTD	50.00%	E	SOUTH KOREA	SOUTH KOREA
SAUDI ARAMCO TOTAL REFINING AND PETROCHEMICAL COMPANY	37.50%	E	SAUDI ARABIA	SAUDI ARABIA
SIGMAKALON GROUP BV	100.00%		THE NETHERLANDS	THE NETHERLANDS
TOTAL DEUTSCHLAND GMBH *	100.00%		GERMANY	GERMANY
TOTAL DOWNSTREAM UK PLC	100.00%		UNITED KINGDOM	UNITED KINGDOM
TOTAL LINDSEY OIL REFINERY LTD	100.00%		UNITED KINGDOM	UNITED KINGDOM
TOTAL OLEFINS ANTWERP	100.00%		BELGIUM	BELGIUM
TOTAL PETROCHEMICALS & REFINING USA INC *	100.00%		UNITED STATES	UNITED STATES
TOTAL PETROCHEMICALS & REFINING SA/NV *	100.00%		BELGIUM	BELGIUM

F-96 TOTAL S.A. Form 20-F 2013

**Table of Contents**

Business segment	Statutory corporate name	% Group interest	Method	Country of incorporation	Country of operations
MARKETING & SERVICES	TOTAL PETROCHEMICALS FRANCE	100.00%		FRANCE	FRANCE
	TOTAL RAFFINADERIJ ANTWERPEN NV	100.00%		BELGIUM	BELGIUM
	TOTAL RAFFINAGE CHIMIE	100.00%		FRANCE	FRANCE
	TOTAL RAFFINAGE FRANCE	100.00%		FRANCE	FRANCE
	TOTAL RAFFINERIE	100.00%		GERMANY	GERMANY
	MITTELDEUTSCHLAND GMBH				
	TOTAL UK LIMITED *	100.00%		UNITED KINGDOM	UNITED KINGDOM
	TOTSA TOTAL OIL TRADING SA	100.00%		SWITZERLAND	SWITZERLAND
	ZEELAND REFINERY N.V.	55.00%		THE NETHERLANDS	THE NETHERLANDS
	AIR TOTAL INTERNATIONAL SA	100.00%		SWITZERLAND	SWITZERLAND
	AMYRIS INC.	17.88%	E	UNITED STATES	UNITED STATES
	AS 24	100.00%		FRANCE	FRANCE
	COMPAGNIE PETROLIERE DE L OUEST-CPO	100.00%		FRANCE	FRANCE
	SOCIETE ANONYME DE LA RAFFINERIE DES ANTILLES	50.00%	E	FRANCE	FRANCE
	SUNPOWER CORPORATION	64.65%		UNITED STATES	UNITED STATES
	TOTAL BELGIUM	100.00%		BELGIUM	BELGIUM
	TOTAL CHINA INVESTMENT CO LTD	100.00%		CHINA	CHINA
	TOTAL DEUTSCHLAND GMBH *	100.00%		GERMANY	GERMANY
	TOTAL ENERGIE DEVELOPPEMENT	100.00%		FRANCE	FRANCE
	TOTAL ENERGIES NOUVELLES	100.00%		FRANCE	FRANCE
	ACTIVITES USA				
	TOTAL ESPECIALIDADES ARGENTINA	100.00%		ARGENTINA	ARGENTINA
	TOTAL GUINEA ECUATORIAL	80.00%		EQUATORIAL GUINEA	EQUATORIAL GUINEA
	TOTAL HOLDING ASIE	100.00%		FRANCE	FRANCE
	TOTAL KENYA	93.96%		KENYA	KENYA
	TOTAL LUBRIFIANTS	99.98%		FRANCE	FRANCE
	TOTAL MARKETING MIDDLE EAST FREE ZONE	100.00%		UNITED ARAB EMIRATES	UNITED ARAB EMIRATES
	TOTAL MARKETING SERVICES	100.00%		FRANCE	FRANCE
	TOTAL MAROC	100.00%		MOROCCO	MOROCCO
	TOTAL MINERALOEL UND CHEMIE GMBH	100.00%		GERMANY	GERMANY
	TOTAL OIL TURKIYE AS	100.00%		TURKEY	TURKEY
	TOTAL OUTRE MER	100.00%		FRANCE	FRANCE
	TOTAL SPECIALTIES USA INC	100.00%		UNITED STATES	UNITED STATES
	TOTAL SOUTH AFRICA (PTY) LTD	50.10%		SOUTH AFRICA	SOUTH AFRICA
	TOTAL UK LIMITED *	100.00%		UNITED KINGDOM	UNITED KINGDOM
CORPORATE	TOTAL VOSTOK	100.00%		RUSSIA	RUSSIA
	TOTALERG SPA	49.00%	E	ITALY	ITALY
	ELF AQUITAINE	100.00%		FRANCE	FRANCE
	ELF AQUITAINE FERTILISANTS	100.00%		FRANCE	FRANCE
	ELF AQUITAINE INC.	100.00%		UNITED STATES	UNITED STATES
	OMNIUM REINSURANCE COMPANY SA	100.00%		SWITZERLAND	SWITZERLAND
	SOCAP SAS	100.00%		FRANCE	FRANCE
	SOCIETE CIVILE IMMOBILIERE CB2	100.00%		FRANCE	FRANCE
	SOFAF BANQUE	100.00%		FRANCE	FRANCE
	TOTAL CAPITAL	100.00%		FRANCE	FRANCE
	TOTAL CAPITAL CANADA LTD.	100.00%		CANADA	CANADA
	TOTAL CAPITAL INTERNATIONAL	100.00%		FRANCE	FRANCE
	TOTAL DELAWARE INC	100.00%		UNITED STATES	UNITED STATES
	TOTAL E&P HOLDINGS	100.00%		FRANCE	FRANCE
	TOTAL FINANCE	100.00%		FRANCE	FRANCE
	TOTAL FINANCE EXPLOITATION	100.00%		FRANCE	FRANCE
	TOTAL FINANCE GLOBAL SERVICES SA	100.00%		BELGIUM	BELGIUM
	TOTAL FINANCE USA INC	100.00%		UNITED STATES	UNITED STATES
	TOTAL FUNDING NEDERLAND BV	100.00%		THE NETHERLANDS	THE NETHERLANDS
	TOTAL GESTION FILIALES	100.00%		FRANCE	FRANCE
	TOTAL GESTION USA	100.00%		FRANCE	FRANCE

## Edgar Filing: TOTAL S.A. - Form 20-F

TOTAL HOLDINGS EUROPE	100.00%	FRANCE	FRANCE
TOTAL HOLDINGS UK LIMITED	100.00%	UNITED KINGDOM	UNITED KINGDOM
TOTAL HOLDINGS USA INC	100.00%	UNITED STATES	UNITED STATES
TOTAL INTERNATIONAL NV	100.00%	THE NETHERLANDS	THE NETHERLANDS
TOTAL PETROCHEMICALS & REFINING USA INC *	100.00%	UNITED STATES	UNITED STATES
TOTAL PETROCHEMICALS & REFINING SA/NV *	100.00%	BELGIUM	BELGIUM
TOTAL SA	N/A	FRANCE	FRANCE
TOTAL TREASURY	100.00%	FRANCE	FRANCE
TOTAL UK FINANCE LTD	100.00%	UNITED KINGDOM	UNITED KINGDOM

\* *Multi-segment entities*

2013 Form 20-F TOTAL S.A. F-97



## **Table of Contents**

# **TOTAL**

## **SUPPLEMENTAL OIL AND GAS INFORMATION (Unaudited)**

Proved Reserves estimates are calculated according to the Securities and Exchange Commission (SEC) Rule 4-10 of Regulation S-X set forth in the Modernization of Oil and Gas Reporting release (SEC Release n° 33-8995) and the Financial Accounting Standard Board (FASB) Accounting Standards Update regarding Extractive Activities Oil and Gas (ASC 932) which provide definitions and disclosure requirements.

### **Preparation of reserves estimates**

The estimation of reserves is an ongoing process which is done within affiliates by experienced geoscientists, engineers and economists under the supervision of each affiliate's General Management. Staff involved in reserves evaluation are trained to follow SEC-compliant internal guidelines and policies regarding criteria that must be met before reserves can be considered as proved.

The technical validation process relies on a Technical Reserves Committee that is responsible for approving proved reserves changes above a certain threshold and technical evaluations of reserves associated with an investment decision that requires approval from the Exploration & Production Executive Committee. The Chairman of the Technical Reserves Committee is appointed by the Senior Management of Exploration & Production and its members represent expertise in reservoir engineering, production geology, production geophysics, drilling, and development studies.

An internal control process related to reserves estimation is well established within TOTAL and involves the following elements:

A central Reserve Entity whose responsibility is to consolidate, document and archive the Group's reserves; to ensure coherence of evaluations worldwide; to maintain the Corporate Reserves Guidelines Standards in line with SEC guidelines and policies; to deliver training on reserves evaluation and classification; and to conduct periodically in-depth technical review of reserves for each affiliate.

An annual review of affiliates reserves conducted by an internal group of specialists selected for their expertise in geosciences and engineering or their knowledge of the affiliate. All members of this group chaired by the Reserves Vice-President and composed of at least three Technical Reserves Committee members are knowledgeable in the SEC guidelines for proved reserves evaluation. Their responsibility is to provide an independent review of reserves changes proposed by affiliates and ensure that reserves are estimated using appropriate standards and procedures.

At the end of the annual review carried out by the Development Division, an SEC Reserves Committee chaired by the Exploration & Production Senior Vice President Corporate Affairs and comprised of the Development, Exploration, Strategy and Legal Senior Vice Presidents, or their representatives, as well as the Chairman of the Technical Reserves Committee and the Reserves Vice-President, approves the SEC reserve booking proposals regarding criteria that are not dependent upon reservoir and geosciences techniques. The results of the annual review and the proposals for including revisions or additions of SEC Proved Reserves are presented to the Exploration & Production Executive Committee for approval before final validation by the Group Executive Management.

The reserves evaluation and control process is audited periodically by the Group's internal auditors who verify the effectiveness of the reserves evaluation process and control procedures.

The reserves Vice-President (RVP) is the technical person responsible for preparing the reserves estimates for the Group. Appointed by the President of Exploration & Production, the RVP supervises the Reserve Entity, chairs the annual review of reserves, and is a member of the Technical Reserves Committee and the SEC Reserves Committee. The RVP has over thirty years of experience in the oil & gas industry. He previously held several management positions in the Group in reservoir engineering and geosciences, and has more than fifteen years of experience in the field of reserves evaluation and control process. He holds an engineering degree from Institut National des Sciences Appliquées, Lyon, France, and a petroleum engineering degree from École Nationale Supérieure du Pétrole et des Moteurs (IFP School), France. He is a member and past Chairman of the Society of Petroleum Engineers Oil and Gas Reserves Committee and a member of the UNECE (United Nations Economic Commission for Europe) Expert Group on Resource Classification.

### **Proved developed reserves**

At the end of 2013, proved developed reserves of oil and gas were 5,674 Mboe and represented 49% of the proved reserves. At the end of 2012, proved developed reserves of oil and gas were 5,789 Mboe and represented 51% of the proved reserves. At the end of 2011, proved developed reserves of oil and gas were 6,046 Mboe and represented 53% of the proved reserves. Over the past three years, the yearly average of proved developed reserves renewal has remained above

## Edgar Filing: TOTAL S.A. - Form 20-F

800 Mboe, illustrating TOTAL's ability to consistently transfer proved undeveloped reserves into developed status.

### Proved undeveloped reserves

As of December 31, 2013, TOTAL's combined proved undeveloped reserves of oil and gas were 5,852 Mboe as compared to 5,579 Mboe at the end of 2012. The net increase of 273 Mboe of proved undeveloped reserves is due to the addition of 946 Mboe of undeveloped reserves related to extensions and discoveries, the revision of -278 Mboe of previous estimates, a net increase of 44 Mboe due to acquisitions/divestitures, and the transfer of 439 Mboe from proved undeveloped reserves to proved developed reserves. Negative revision of previous estimates results from a perimeter change in the gas feed of a LNG plant in Africa and the postponement of a debottlenecking phase and a performance study performed on a field located in America. In 2013, the cost incurred to develop proved undeveloped reserves (PUDs) was €15.0 billion, which represents 83% of 2013 development costs incurred, and was related to projects located for the most part in Angola, Australia, Canada, Congo, Gabon, Nigeria, Norway, and United Kingdom.

Approximately 51% of the Group's proved undeveloped reserves are associated with producing projects and are located for the

S-1 TOTAL S.A. Form 20-F 2013

## **Table of Contents**

most part in Canada, Kazakhstan, Nigeria, Norway, Russia, and Venezuela. These reserves are expected to be developed over time as part of initial field development plans or additional development phases. The timing to bring these proved reserves into production will depend upon several factors including reservoir performance, surface facilities or plant capacity constraints and contractual limitations on production level. The remaining proved undeveloped reserves correspond to undeveloped fields or assets for which a development has been sanctioned or is in progress.

The Group's portfolio of projects includes a few large scale and complex developments for which it anticipates that it may take more than five years from the time of recording proved reserves to the start of production. These specific projects represent approximately 20% of the Group's proved undeveloped reserves and include deep offshore developments in Angola, Nigeria and the United Kingdom and development of oil sands in Canada. These projects are highly complex to develop due to a combination of factors that include, among others, the nature of the reservoir rock and fluid properties, challenging operating

environments and the size of the projects. In addition, some of these projects are generally designed and optimized for a given production capacity that controls the pace at which the field is developed and the wells are drilled. At production start-up, only a portion of the proved reserves are developed in order to deliver sufficient production potential to meet capacity constraints and contractual obligations. The remaining PUD's associated with the complete development plan will therefore remain undeveloped for more than five years following project approval and booking. Under these specific circumstances, the Group believes that it is justified to report as proved reserves the level of reserves used in connection with the approved project, despite the fact that some of these PUDs may remain undeveloped for more than five years. In addition, TOTAL has demonstrated in recent years the Group's ability to successfully develop and bring into production similar large scale and complex projects, including the development of deep-offshore fields in Angola, Nigeria, the Republic of Congo, HP/HT fields in the United Kingdom, heavy oil projects in Venezuela and LNG projects in Qatar, Yemen, Nigeria and Indonesia.

The tables provided below are presented by the following geographic areas: Europe, Africa, the Americas, Middle East and Asia (including CIS).

## **ESTIMATED PROVED RESERVES OF OIL, BITUMEN AND GAS RESERVES**

The following tables present, for oil, bitumen and gas reserves, an estimate of the Group's oil, bitumen and gas quantities by geographic areas as of December 31, 2013, 2012 and 2011.

Quantities shown correspond to proved developed and undeveloped reserves together with changes in quantities for 2013, 2012 and 2011.

The definitions used for proved, proved developed and proved undeveloped oil and gas reserves are in accordance with the revised Rule 4-10 of SEC Regulation S-X.

All references in the following tables to reserves or production are to the Group's entire share of such reserves or production. TOTAL's worldwide proved reserves include the proved reserves of its consolidated subsidiaries as well as its proportionate share of the proved reserves of equity affiliates.

**Table of Contents****Changes in oil, bitumen and gas reserves****Proved developed and undeveloped reserves**

	Consolidated subsidiaries					
				Middle		
(in million barrels of oil equivalent)	Europe	Africa	Americas	East	Asia	Total
<b>Balance as of December 31, 2010</b>	<b>1,706</b>	<b>3,371</b>	<b>1,540</b>	<b>574</b>	<b>1,099</b>	<b>8,290</b>
Revisions of previous estimates	117	(61)	(36)	(68)	(19)	(67)
Extensions, discoveries and other	57	6			588	651
Acquisitions of reserves in place	44		309		2	355
Sales of reserves in place		(65)				(65)
Production for the year	(187)	(237)	(75)	(56)	(93)	(648)
<b>Balance as of December 31, 2011</b>	<b>1,737</b>	<b>3,014</b>	<b>1,738</b>	<b>450</b>	<b>1,577</b>	<b>8,516</b>
Revisions of previous estimates	64	65	7	(23)	15	128
Extensions, discoveries and other	67	173	110	29	43	422
Acquisitions of reserves in place	32					32
Sales of reserves in place	(38)	(71)	(8)			(117)
Production for the year	(156)	(261)	(77)	(34)	(90)	(618)
<b>Balance as of December 31, 2012</b>	<b>1,706</b>	<b>2,920</b>	<b>1,770</b>	<b>422</b>	<b>1,545</b>	<b>8,363</b>
Revisions of previous estimates	18	(97)	44	11	48	24
Extensions, discoveries and other	12	20	135	2	227	396
Acquisitions of reserves in place					132	132
Sales of reserves in place	(51)		(51)			(102)
Production for the year	(143)	(243)	(74)	(31)	(97)	(588)
<b>Balance as of December 31, 2013</b>	<b>1,542</b>	<b>2,600</b>	<b>1,824</b>	<b>404</b>	<b>1,855</b>	<b>8,225</b>
<b>Minority interest in proved developed and undeveloped reserves as of</b>						
December 31, 2011		98				98
December 31, 2012		99				99
<b>December 31, 2013</b>		<b>159</b>				<b>159</b>

**Proved developed and undeveloped reserves**

	Equity affiliates					
				Middle		
(in million barrels of oil equivalent)	Europe	Africa	Americas	East	Asia	Total
<b>Balance as of December 31, 2010</b>		<b>107</b>	<b>486</b>	<b>1,812</b>		<b>2,405</b>
Revisions of previous estimates		(1)	(8)	(20)		(29)
Extensions, discoveries and other					779	779
Acquisitions of reserves in place						
Sales of reserves in place		(24)	(4)	(11)		(39)
Production for the year		(4)	(18)	(152)	(35)	(209)
<b>Balance as of December 31, 2011</b>		<b>78</b>	<b>456</b>	<b>1,629</b>	<b>744</b>	<b>2,907</b>
Revisions of previous estimates		2	(39)	5	78	46
Extensions, discoveries and other					158	158
Acquisitions of reserves in place					118	118
Sales of reserves in place						
Production for the year			(15)	(146)	(63)	(224)
<b>Balance as of December 31, 2012</b>		<b>80</b>	<b>402</b>	<b>1,488</b>	<b>1,035</b>	<b>3,005</b>
Revisions of previous estimates		(3)	(141)	(3)	33	(114)
Extensions, discoveries and other				14	622	636
Acquisitions of reserves in place					117	117
Sales of reserves in place					(92)	(92)
Production for the year		(1)	(13)	(164)	(73)	(251)
<b>Balance as of December 31, 2013</b>		<b>76</b>	<b>248</b>	<b>1,335</b>	<b>1,642</b>	<b>3,301</b>

**Table of Contents**

(in million barrels of oil equivalent)	Consolidated subsidiaries and equity affiliates					
	Europe	Africa	Americas	Middle East	Asia	Total
<b>As of December 31, 2011</b>						
<b>Proved developed and undeveloped reserves</b>	<b>1,737</b>	<b>3,092</b>	<b>2,194</b>	<b>2,079</b>	<b>2,321</b>	<b>11,423</b>
Consolidated subsidiaries	1,737	3,014	1,738	450	1,577	8,516
Equity affiliates		78	456	1,629	744	2,907
<b>Proved developed reserves</b>	<b>894</b>	<b>1,660</b>	<b>647</b>	<b>1,869</b>	<b>976</b>	<b>6,046</b>
Consolidated subsidiaries	894	1,639	524	371	321	3,749
Equity affiliates		21	123	1,498	655	2,297
<b>Proved undeveloped reserves</b>	<b>843</b>	<b>1,432</b>	<b>1,547</b>	<b>210</b>	<b>1,345</b>	<b>5,377</b>
Consolidated subsidiaries	843	1,375	1,214	79	1,256	4,767
Equity affiliates		57	333	131	89	610
<b>As of December 31, 2012</b>						
<b>Proved developed and undeveloped reserves</b>	<b>1,706</b>	<b>3,000</b>	<b>2,172</b>	<b>1,910</b>	<b>2,580</b>	<b>11,368</b>
Consolidated subsidiaries	1,706	2,920	1,770	422	1,545	8,363
Equity affiliates		80	402	1,488	1,035	3,005
<b>Proved developed reserves</b>	<b>827</b>	<b>1,584</b>	<b>616</b>	<b>1,718</b>	<b>1,044</b>	<b>5,789</b>
Consolidated subsidiaries	827	1,563	475	349	313	3,527
Equity affiliates		21	141	1,369	731	2,262
<b>Proved undeveloped reserves</b>	<b>879</b>	<b>1,416</b>	<b>1,556</b>	<b>192</b>	<b>1,536</b>	<b>5,579</b>
Consolidated subsidiaries	879	1,357	1,295	73	1,232	4,836
Equity affiliates		59	261	119	304	743
<b>As of December 31, 2013</b>						
<b>Proved developed and undeveloped reserves</b>	<b>1,542</b>	<b>2,676</b>	<b>2,072</b>	<b>1,739</b>	<b>3,497</b>	<b>11,526</b>
Consolidated subsidiaries	1,542	2,600	1,824	404	1,855	8,225
Equity affiliates		76	248	1,335	1,642	3,301
<b>Proved developed reserves</b>	<b>766</b>	<b>1,469</b>	<b>540</b>	<b>1,577</b>	<b>1,322</b>	<b>5,674</b>
Consolidated subsidiaries	766	1,452	452	330	560	3,560
Equity affiliates		17	88	1,247	762	2,114
<b>Proved undeveloped reserves</b>	<b>776</b>	<b>1,207</b>	<b>1,532</b>	<b>162</b>	<b>2,175</b>	<b>5,852</b>
Consolidated subsidiaries	776	1,148	1,372	74	1,295	4,665
Equity affiliates		59	160	88	880	1,187

2013 Form 20-F TOTAL S.A. S-4

**Table of Contents****Changes in oil reserves**

The oil reserves include crude oil, condensates and natural gas liquids.

**Proved developed and undeveloped reserves**

	Consolidated subsidiaries					
				Middle		
(in millions of barrels)	Europe	Africa	Americas	East	Asia	Total
<b>Balance as of December 31, 2010</b>	<b>792</b>	<b>2,350</b>	<b>79</b>	<b>239</b>	<b>554</b>	<b>4,014</b>
Revisions of previous estimates	49	(19)	9	(33)	(24)	(18)
Extensions, discoveries and other	17	6			58	81
Acquisitions of reserves in place	42					42
Sales of reserves in place		(57)				(57)
Production for the year	(88)	(185)	(15)	(25)	(15)	(328)
<b>Balance as of December 31, 2011</b>	<b>812</b>	<b>2,095</b>	<b>73</b>	<b>181</b>	<b>573</b>	<b>3,734</b>
Revisions of previous estimates	20	61	10	2	10	103
Extensions, discoveries and other	27	148	8	28	6	217
Acquisitions of reserves in place	7					7
Sales of reserves in place	(32)	(45)	(2)			(79)
Production for the year	(72)	(210)	(12)	(21)	(14)	(329)
<b>Balance as of December 31, 2012</b>	<b>762</b>	<b>2,049</b>	<b>77</b>	<b>190</b>	<b>575</b>	<b>3,653</b>
Revisions of previous estimates	19	50	7	7	75	158
Extensions, discoveries and other	6	19	20	2	21	68
Acquisitions of reserves in place					34	34
Sales of reserves in place	(49)		(6)			(55)
Production for the year	(60)	(194)	(12)	(20)	(16)	(302)
<b>Balance as of December 31, 2013</b>	<b>678</b>	<b>1,924</b>	<b>86</b>	<b>179</b>	<b>689</b>	<b>3,556</b>

**Minority interest in proved developed and undeveloped reserves as of**

December 31, 2011	88	88
December 31, 2012	87	87
<b>December 31, 2013</b>	<b>140</b>	<b>140</b>

**Proved developed and undeveloped reserves**

	Equity affiliates					
				Middle		
(in millions of barrels)	Europe	Africa	Americas	East	Asia	Total
<b>Balance as of December 31, 2010</b>		<b>34</b>	<b>470</b>	<b>680</b>		<b>1,184</b>
Revisions of previous estimates		2	(6)	(12)		(16)
Extensions, discoveries and other					51	51
Acquisitions of reserves in place		(22)	(4)	(12)		(38)
Sales of reserves in place		(4)	(17)	(91)	(3)	(115)
Production for the year		<b>10</b>	<b>443</b>	<b>565</b>	<b>48</b>	<b>1,066</b>
<b>Balance as of December 31, 2011</b>		<b>10</b>	<b>443</b>	<b>565</b>	<b>48</b>	<b>1,066</b>
Revisions of previous estimates		5	(40)	5	9	(21)
Extensions, discoveries and other					51	51
Acquisitions of reserves in place					11	11
Sales of reserves in place						
Production for the year			(15)	(93)	(5)	(113)
<b>Balance as of December 31, 2012</b>		<b>15</b>	<b>388</b>	<b>477</b>	<b>114</b>	<b>994</b>
Revisions of previous estimates		(3)	(138)	(6)	(4)	(151)
Extensions, discoveries and other					32	32
Acquisitions of reserves in place					13	13
Sales of reserves in place						
Production for the year			(13)	(99)	(7)	(119)
<b>Balance as of December 31, 2013</b>		<b>12</b>	<b>237</b>	<b>372</b>	<b>148</b>	<b>769</b>

**Table of Contents**

	Consolidated subsidiaries and equity affiliates					
				Middle		
(in millions of barrels)	Europe	Africa	Americas	East	Asia	Total
<b>As of December 31, 2011</b>						
<b>Proved developed and undeveloped reserves</b>	<b>812</b>	<b>2,105</b>	<b>516</b>	<b>746</b>	<b>621</b>	<b>4,800</b>
Consolidated subsidiaries	812	2,095	73	181	573	3,734
Equity affiliates		10	443	565	48	1,066
<b>Proved developed reserves</b>	<b>351</b>	<b>1,206</b>	<b>165</b>	<b>565</b>	<b>91</b>	<b>2,378</b>
Consolidated subsidiaries	351	1,202	48	116	50	1,767
Equity affiliates		4	117	449	41	611
<b>Proved undeveloped reserves</b>	<b>461</b>	<b>899</b>	<b>351</b>	<b>181</b>	<b>530</b>	<b>2,422</b>
Consolidated subsidiaries	461	893	25	65	523	1,967
Equity affiliates		6	326	116	7	455
<b>As of December 31, 2012</b>						
<b>Proved developed and undeveloped reserves</b>	<b>761</b>	<b>2,065</b>	<b>465</b>	<b>667</b>	<b>689</b>	<b>4,647</b>
Consolidated subsidiaries	761	2,050	77	190	575	3,653
Equity affiliates		15	388	477	114	994
<b>Proved developed reserves</b>	<b>289</b>	<b>1,145</b>	<b>179</b>	<b>506</b>	<b>110</b>	<b>2,229</b>
Consolidated subsidiaries	289	1,139	44	133	55	1,660
Equity affiliates		6	135	373	55	569
<b>Proved undeveloped reserves</b>	<b>472</b>	<b>920</b>	<b>286</b>	<b>161</b>	<b>579</b>	<b>2,418</b>
Consolidated subsidiaries	472	911	33	57	520	1,993
Equity affiliates		9	253	104	59	425
<b>As of December 31, 2013</b>						
<b>Proved developed and undeveloped reserves</b>	<b>678</b>	<b>1,936</b>	<b>323</b>	<b>551</b>	<b>837</b>	<b>4,325</b>
Consolidated subsidiaries	678	1,924	86	179	689	3,556
Equity affiliates		12	237	372	148	769
<b>Proved developed reserves</b>	<b>274</b>	<b>1,068</b>	<b>128</b>	<b>419</b>	<b>304</b>	<b>2,193</b>
Consolidated subsidiaries	274	1,064	45	119	235	1,737
Equity affiliates		4	83	300	69	456
<b>Proved undeveloped reserves</b>	<b>404</b>	<b>868</b>	<b>195</b>	<b>132</b>	<b>533</b>	<b>2,132</b>
Consolidated subsidiaries	404	860	41	60	454	1,819
Equity affiliates		8	154	72	79	313

2013 Form 20-F TOTAL S.A. S-6

**Table of Contents****Changes in bitumen reserves****Proved developed and undeveloped reserves**

	<b>Consolidated subsidiaries</b>					
	<b>Europe</b>	<b>Africa</b>	<b>Americas</b>	<b>Middle East</b>	<b>Asia</b>	<b>Total</b>
(in millions of barrels)						
<b>Balance as of December 31, 2010</b>			<b>789</b>			<b>789</b>
Revisions of previous estimates			(109)			(109)
Extensions, discoveries and other						
Acquisitions of reserves in place			308			308
Sales of reserves in place						
Production for the year			(4)			(4)
<b>Balance as of December 31, 2011</b>			<b>984</b>			<b>984</b>
Revisions of previous estimates			43			43
Extensions, discoveries and other			15			15
Acquisitions of reserves in place						
Sales of reserves in place						
Production for the year			(4)			(4)
<b>Balance as of December 31, 2012</b>			<b>1,038</b>			<b>1,038</b>
Revisions of previous estimates			2			2
Extensions, discoveries and other			53			53
Acquisitions of reserves in place						
Sales of reserves in place						
Production for the year			(5)			(5)
<b>Balance as of December 31, 2013</b>			<b>1,088</b>			<b>1,088</b>
<b>Proved developed reserves as of</b>						
December 31, 2011			21			21
December 31, 2012			18			18
<b>December 31, 2013</b>			<b>15</b>			<b>15</b>
<b>Proved undeveloped reserves as of</b>						
December 31, 2011			963			963
December 31, 2012			1,020			1,020
<b>December 31, 2013</b>			<b>1,073</b>			<b>1,073</b>

There are no bitumen reserves for equity affiliates.

There are no minority interests for bitumen reserves.



**Table of Contents****Changes in gas reserves****Proved developed and undeveloped reserves**

	Consolidated subsidiaries					
				Middle		
(in billion cubic feet)	Europe	Africa	Americas	East	Asia	Total
<b>Balance as of December 31, 2010</b>	<b>4,962</b>	<b>5,314</b>	<b>3,806</b>	<b>1,867</b>	<b>3,194</b>	<b>19,143</b>
Revisions of previous estimates	358	(216)	367	(180)	1	330
Extensions, discoveries and other	211				2,824	3,035
Acquisitions of reserves in place	11		7		13	31
Sales of reserves in place		(46)				(46)
Production for the year	(528)	(259)	(317)	(169)	(445)	(1,718)
<b>Balance as of December 31, 2011</b>	<b>5,014</b>	<b>4,793</b>	<b>3,863</b>	<b>1,518</b>	<b>5,587</b>	<b>20,775</b>
Revisions of previous estimates	268	31	(278)	(132)	15	(96)
Extensions, discoveries and other	216	127	478	6	195	1,022
Acquisitions of reserves in place	138					138
Sales of reserves in place	(30)	(173)	(35)			(238)
Production for the year	(462)	(257)	(337)	(75)	(433)	(1,564)
<b>Balance as of December 31, 2012</b>	<b>5,144</b>	<b>4,521</b>	<b>3,691</b>	<b>1,317</b>	<b>5,364</b>	<b>20,037</b>
Revisions of previous estimates	(6)	(887)	199	29	(186)	(851)
Extensions, discoveries and other	27	12	336		1,074	1,449
Acquisitions of reserves in place	1				506	507
Sales of reserves in place	(13)		(243)			(256)
Production for the year	(450)	(248)	(320)	(68)	(458)	(1,544)
<b>Balance as of December 31, 2013</b>	<b>4,703</b>	<b>3,398</b>	<b>3,663</b>	<b>1,278</b>	<b>6,300</b>	<b>19,342</b>
<b>Minority interest in proved developed and undeveloped reserves as of</b>						
December 31, 2011		62				62
December 31, 2012		57				57
<b>December 31, 2013</b>		<b>87</b>				<b>87</b>

**Proved developed and undeveloped reserves**

	Equity affiliates					
				Middle		
(in billion cubic feet)	Europe	Africa	Americas	East	Asia	Total
<b>Balance as of December 31, 2010</b>		<b>390</b>	<b>91</b>	<b>6,164</b>		<b>6,645</b>
Revisions of previous estimates		(16)	(10)	(31)		(57)
Extensions, discoveries and other						
Acquisitions of reserves in place					3,865	3,865
Sales of reserves in place		(10)				(10)
Production for the year		(1)	(2)	(331)	(167)	(501)
<b>Balance as of December 31, 2011</b>		<b>363</b>	<b>79</b>	<b>5,802</b>	<b>3,698</b>	<b>9,942</b>
Revisions of previous estimates		(21)	5	(4)	366	346
Extensions, discoveries and other					578	578
Acquisitions of reserves in place					568	568
Sales of reserves in place						
Production for the year		(1)	(2)	(287)	(304)	(594)
<b>Balance as of December 31, 2012</b>		<b>341</b>	<b>82</b>	<b>5,511</b>	<b>4,906</b>	<b>10,840</b>
Revisions of previous estimates		8	(18)	16	191	197
Extensions, discoveries and other				77	3,209	3,286
Acquisitions of reserves in place					553	553
Sales of reserves in place					(485)	(485)
Production for the year		(6)	(2)	(354)	(345)	(707)
<b>Balance as of December 31, 2013</b>		<b>343</b>	<b>62</b>	<b>5,250</b>	<b>8,029</b>	<b>13,684</b>

**Table of Contents**

(in billion cubic feet)	Consolidated subsidiaries and equity affiliates					
	Europe	Africa	Americas	Middle East	Asia	Total
<b>As of December 31, 2011</b>						
<b>Proved developed and undeveloped reserves</b>	<b>5,014</b>	<b>5,156</b>	<b>3,942</b>	<b>7,320</b>	<b>9,285</b>	<b>30,717</b>
Consolidated subsidiaries	5,014	4,793	3,863	1,518	5,587	20,775
Equity affiliates		363	79	5,802	3,698	9,942
<b>Proved developed reserves</b>	<b>2,943</b>	<b>2,308</b>	<b>2,600</b>	<b>7,170</b>	<b>4,854</b>	<b>19,875</b>
Consolidated subsidiaries	2,943	2,216	2,567	1,450	1,594	10,770
Equity affiliates		92	33	5,720	3,260	9,105
<b>Proved undeveloped reserves</b>	<b>2,071</b>	<b>2,848</b>	<b>1,342</b>	<b>150</b>	<b>4,431</b>	<b>10,842</b>
Consolidated subsidiaries	2,071	2,577	1,296	68	3,993	10,005
Equity affiliates		271	46	82	438	837
<b>As of December 31, 2012</b>						
<b>Proved developed and undeveloped reserves</b>	<b>5,144</b>	<b>4,862</b>	<b>3,773</b>	<b>6,828</b>	<b>10,270</b>	<b>30,877</b>
Consolidated subsidiaries	5,144	4,521	3,691	1,317	5,364	20,037
Equity affiliates		341	82	5,511	4,906	10,840
<b>Proved developed reserves</b>	<b>2,927</b>	<b>2,192</b>	<b>2,356</b>	<b>6,656</b>	<b>5,115</b>	<b>19,246</b>
Consolidated subsidiaries	2,927	2,110	2,316	1,240	1,526	10,119
Equity affiliates		82	40	5,416	3,589	9,127
<b>Proved undeveloped reserves</b>	<b>2,217</b>	<b>2,670</b>	<b>1,417</b>	<b>172</b>	<b>5,155</b>	<b>11,631</b>
Consolidated subsidiaries	2,217	2,411	1,375	77	3,838	9,918
Equity affiliates		259	42	95	1,317	1,713
<b>As of December 31, 2013</b>						
<b>Proved developed and undeveloped reserves</b>	<b>4,703</b>	<b>3,741</b>	<b>3,725</b>	<b>6,528</b>	<b>14,329</b>	<b>33,026</b>
Consolidated subsidiaries	4,703	3,398	3,663	1,278	6,300	19,342
Equity affiliates		343	62	5,250	8,029	13,684
<b>Proved developed reserves</b>	<b>2,687</b>	<b>2,009</b>	<b>2,240</b>	<b>6,366</b>	<b>5,514</b>	<b>18,816</b>
Consolidated subsidiaries	2,687	1,937	2,210	1,210	1,834	9,878
Equity affiliates		72	30	5,156	3,680	8,938
<b>Proved undeveloped reserves</b>	<b>2,016</b>	<b>1,732</b>	<b>1,485</b>	<b>162</b>	<b>8,815</b>	<b>14,210</b>
Consolidated subsidiaries	2,016	1,461	1,453	68	4,466	9,464
Equity affiliates		271	32	94	4,349	4,746

**Table of Contents****RESULTS OF OPERATIONS FOR OIL AND GAS PRODUCING ACTIVITIES**

The following tables do not include revenues and expenses related to oil and gas transportation activities and LNG liquefaction and transportation activities.

(in millions of euros)	Consolidated subsidiaries					Total
	Europe	Africa	Americas	Middle East	Asia	
<b>2011</b>						
Non-Group sales	3,116	3,188	776	1,159	3,201	<b>11,440</b>
Group sales	7,057	11,365	764	737	712	<b>20,635</b>
<b>Total Revenues</b>	<b>10,173</b>	<b>14,553</b>	<b>1,540</b>	<b>1,896</b>	<b>3,913</b>	<b>32,075</b>
Production costs	(1,235)	(1,179)	(250)	(286)	(304)	<b>(3,254)</b>
Exploration expenses	(343)	(323)	(48)	(11)	(294)	<b>(1,019)</b>
Depreciation, depletion and amortization and valuation allowances	(1,336)	(1,845)	(352)	(278)	(791)	<b>(4,602)</b>
Other expenses(a)	(307)	(1,181)	(274)	(276)	(95)	<b>(2,133)</b>
<b>Pre-tax income from producing activities</b>	<b>6,952</b>	<b>10,025</b>	<b>616</b>	<b>1,045</b>	<b>2,429</b>	<b>21,067</b>
Income tax	(5,059)	(6,484)	(293)	(465)	(1,302)	<b>(13,603)</b>
<b>Results of oil and gas producing activities</b>	<b>1,893</b>	<b>3,541</b>	<b>323</b>	<b>580</b>	<b>1,127</b>	<b>7,464</b>
<b>2012</b>						
Non-Group sales	1,986	4,388	968	723	3,509	<b>11,574</b>
Group sales	6,857	13,440	639	1,010	790	<b>22,736</b>
<b>Total Revenues</b>	<b>8,843</b>	<b>17,828</b>	<b>1,607</b>	<b>1,733</b>	<b>4,299</b>	<b>34,310</b>
Production costs	(1,318)	(1,442)	(297)	(340)	(395)	<b>(3,792)</b>
Exploration expenses	(483)	(365)	(339)	(18)	(241)	<b>(1,446)</b>
Depreciation, depletion and amortization and valuation allowances	(1,986)	(2,574)	(1,558)	(458)	(938)	<b>(7,514)</b>
Other expenses(a)	(326)	(1,356)	(386)	(159)	(128)	<b>(2,355)</b>
<b>Pre-tax income from producing activities</b>	<b>4,730</b>	<b>12,091</b>	<b>(973)</b>	<b>758</b>	<b>2,597</b>	<b>19,203</b>
Income tax	(3,478)	(7,383)	226	(386)	(1,264)	<b>(12,285)</b>
<b>Results of oil and gas producing activities</b>	<b>1,252</b>	<b>4,708</b>	<b>(747)</b>	<b>372</b>	<b>1,333</b>	<b>6,918</b>
<b>2013</b>						
Non-Group sales	1,634	3,445	1,003	812	3,483	<b>10,377</b>
Group sales	5,834	12,101	608	679	761	<b>19,983</b>
<b>Total Revenues</b>	<b>7,468</b>	<b>15,546</b>	<b>1,611</b>	<b>1,491</b>	<b>4,244</b>	<b>30,360</b>
Production costs	(1,327)	(1,486)	(313)	(375)	(440)	<b>(3,941)</b>
Exploration expenses	(363)	(439)	(406)	(124)	(301)	<b>(1,633)</b>
Depreciation, depletion and amortization and valuation allowances	(1,368)	(2,585)	(914)	(546)	(1,274)	<b>(6,687)</b>
Other expenses(a)	(371)	(1,188)	(327)	(80)	(137)	<b>(2,103)</b>
<b>Pre-tax income from producing activities</b>	<b>4,039</b>	<b>9,848</b>	<b>(349)</b>	<b>366</b>	<b>2,092</b>	<b>15,996</b>
Income tax	(2,726)	(6,235)	42	(316)	(1,061)	<b>(10,296)</b>
<b>Results of oil and gas producing activities</b>	<b>1,313</b>	<b>3,613</b>	<b>(307)</b>	<b>50</b>	<b>1,031</b>	<b>5,700</b>

(a) Included production taxes and accretion expense as provided for by IAS 37 (€338 million in 2011, €391 million in 2012, €426 million in 2013).

**Table of Contents**

(in millions of euros)	Equity affiliates					Total
	Europe	Africa	Americas	Middle East	Asia	
<b>2011</b>						
Non-Group sales		26	15	1,080	256	<b>1,377</b>
Group sales			831	6,804		<b>7,635</b>
<b>Total Revenues</b>		<b>26</b>	<b>846</b>	<b>7,884</b>	<b>256</b>	<b>9,012</b>
Production costs		(7)	(48)	(250)	(28)	<b>(333)</b>
Exploration expenses					(4)	<b>(4)</b>
Depreciation, depletion and amortization and valuation allowances		(7)	(44)	(225)	(109)	<b>(385)</b>
Other expenses			(550)	(6,101)	(36)	<b>(6,687)</b>
<b>Pre-tax income from producing activities</b>		<b>12</b>	<b>204</b>	<b>1,308</b>	<b>79</b>	<b>1,603</b>
Income tax			(95)	(285)	(34)	<b>(414)</b>
<b>Results of oil and gas producing activities</b>		<b>12</b>	<b>109</b>	<b>1,023</b>	<b>45</b>	<b>1,189</b>
<b>2012</b>						
Non-Group sales				1,085	780	<b>1,865</b>
Group sales			1,234	7,850	(323)	<b>8,761</b>
<b>Total Revenues</b>			<b>1,234</b>	<b>8,935</b>	<b>457</b>	<b>10,626</b>
Production costs			(125)	(289)	(88)	<b>(502)</b>
Exploration expenses					(3)	<b>(3)</b>
Depreciation, depletion and amortization and valuation allowances			(60)	(299)	(227)	<b>(586)</b>
Other expenses			(754)	(6,924)	(54)	<b>(7,732)</b>
<b>Pre-tax income from producing activities</b>			<b>295</b>	<b>1,423</b>	<b>85</b>	<b>1,803</b>
Income tax			(63)	(303)	(51)	<b>(417)</b>
<b>Results of oil and gas producing activities</b>			<b>232</b>	<b>1,120</b>	<b>34</b>	<b>1,386</b>
<b>2013</b>						
Non-Group sales				1,521	569	<b>2,090</b>
Group sales			752	7,748	10	<b>8,510</b>
<b>Total Revenues</b>			<b>752</b>	<b>9,269</b>	<b>579</b>	<b>10,600</b>
Production costs			(81)	(362)	(41)	<b>(484)</b>
Exploration expenses					(2)	<b>(2)</b>
Depreciation, depletion and amortization and valuation allowances			(34)	(350)	(194)	<b>(578)</b>
Other expenses			(481)	(6,741)	(91)	<b>(7,313)</b>
<b>Pre-tax income from producing activities</b>			<b>156</b>	<b>1,816</b>	<b>251</b>	<b>2,223</b>
Income tax			(77)	(410)	(83)	<b>(570)</b>
<b>Results of oil and gas producing activities</b>			<b>79</b>	<b>1,406</b>	<b>168</b>	<b>1,653</b>

**Table of Contents****COST INCURRED**

The following tables set forth the costs incurred in the Group's oil and gas property acquisition, exploration and development activities, including both capitalized and expensed amounts. They do not include costs incurred related to oil and gas transportation and LNG liquefaction and transportation activities.

(in millions of euros)	Consolidated subsidiaries					Total
	Europe	Africa	Americas	Middle East	Asia	
<b>2011</b>						
Proved property acquisition	298	10	413	2	251	<b>974</b>
Unproved property acquisition	1	397	1,692	3	14	<b>2,107</b>
Exploration costs	505	384	254	17	417	<b>1,577</b>
Development costs <sup>(a)</sup>	2,352	3,895	1,314	329	2,823	<b>10,713</b>
<b>Total cost incurred</b>	<b>3,156</b>	<b>4,686</b>	<b>3,673</b>	<b>351</b>	<b>3,505</b>	<b>15,371</b>
<b>2012</b>						
Proved property acquisition	202	27			12	<b>241</b>
Unproved property acquisition	40	1,362	384	176	26	<b>1,988</b>
Exploration costs	598	578	571	35	340	<b>2,122</b>
Development costs <sup>(a)</sup>	3,183	4,330	1,830	307	3,331	<b>12,981</b>
<b>Total cost incurred</b>	<b>4,023</b>	<b>6,297</b>	<b>2,785</b>	<b>518</b>	<b>3,709</b>	<b>17,332</b>
<b>2013</b>						
Proved property acquisition		131		2	367	<b>500</b>
Unproved property acquisition	13	386	1,584	64	64	<b>2,111</b>
Exploration costs	511	669	441	174	408	<b>2,203</b>
Development costs <sup>(a)</sup>	3,945	6,434	2,403	349	4,212	<b>17,343</b>
<b>Total cost incurred</b>	<b>4,469</b>	<b>7,620</b>	<b>4,428</b>	<b>589</b>	<b>5,051</b>	<b>22,157</b>
(in millions of euros)	Equity affiliates					Total
	Europe	Africa	Americas	Middle East	Asia	
<b>2011</b>						
Proved property acquisition					2,691	<b>2,691</b>
Unproved property acquisition					1,116	<b>1,116</b>
Exploration costs			2			<b>2</b>
Development costs <sup>(a)</sup>		2	106	314	939	<b>1,361</b>
<b>Total cost incurred</b>		<b>2</b>	<b>108</b>	<b>314</b>	<b>4,746</b>	<b>5,170</b>
<b>2012</b>						
Proved property acquisition					238	<b>238</b>
Unproved property acquisition					(22)	<b>(22)</b>
Exploration costs						
Development costs <sup>(a)</sup>			167	380	202	<b>749</b>
<b>Total cost incurred</b>			<b>167</b>	<b>380</b>	<b>418</b>	<b>965</b>
<b>2013</b>						
Proved property acquisition					206	<b>206</b>
Unproved property acquisition					106	<b>106</b>
Exploration costs						
Development costs <sup>(a)</sup>			128	345	241	<b>714</b>
<b>Total cost incurred</b>			<b>128</b>	<b>345</b>	<b>553</b>	<b>1,026</b>

<sup>(a)</sup> Including asset retirement costs capitalized during the year and any gains or losses recognized upon settlement of asset retirement obligation during the year.

**Table of Contents****CAPITALIZED COSTS RELATED TO OIL AND GAS PRODUCING ACTIVITIES**

Capitalized costs represent the amounts of capitalized proved and unproved property costs, including support equipment and facilities, along with the related accumulated depreciation, depletion and amortization. The following tables do not include capitalized costs related to oil and gas transportation and LNG liquefaction and transportation activities.

(in millions of euros)	Consolidated subsidiaries					
	Europe	Africa	Americas	Middle East	Asia	Total
<b>As of December 31, 2011</b>						
Proved properties	34,308	37,032	8,812	6,229	17,079	<b>103,460</b>
Unproved properties	460	1,962	4,179	62	911	<b>7,574</b>
<b>Total capitalized costs</b>	<b>34,768</b>	<b>38,994</b>	<b>12,991</b>	<b>6,291</b>	<b>17,990</b>	<b>111,034</b>
Accumulated depreciation, depletion and amortization	(24,047)	(18,642)	(2,294)	(4,274)	(5,066)	<b>(54,323)</b>
<b>Net capitalized costs</b>	<b>10,721</b>	<b>20,352</b>	<b>10,697</b>	<b>2,017</b>	<b>12,924</b>	<b>56,711</b>
<b>As of December 31, 2012</b>						
Proved properties	35,456	40,562	10,108	6,408	20,463	<b>112,997</b>
Unproved properties	543	3,184	4,324	248	612	<b>8,911</b>
<b>Total capitalized costs</b>	<b>35,999</b>	<b>43,746</b>	<b>14,432</b>	<b>6,656</b>	<b>21,075</b>	<b>121,908</b>
Accumulated depreciation, depletion and amortization	(23,660)	(20,364)	(3,219)	(4,648)	(5,872)	<b>(57,763)</b>
<b>Net capitalized costs</b>	<b>12,339</b>	<b>23,382</b>	<b>11,213</b>	<b>2,008</b>	<b>15,203</b>	<b>64,145</b>
<b>As of December 31, 2013</b>						
Proved properties	36,482	44,760	10,878	6,483	23,869	<b>122,472</b>
Unproved properties	644	3,661	5,715	349	814	<b>11,183</b>
<b>Total capitalized costs</b>	<b>37,126</b>	<b>48,421</b>	<b>16,593</b>	<b>6,832</b>	<b>24,683</b>	<b>133,655</b>
Accumulated depreciation, depletion and amortization	(23,354)	(21,955)	(3,814)	(4,961)	(6,844)	<b>(60,928)</b>
<b>Net capitalized costs</b>	<b>13,772</b>	<b>26,466</b>	<b>12,779</b>	<b>1,871</b>	<b>17,839</b>	<b>72,727</b>

  

(in millions of euros)	Equity affiliates					
	Europe	Africa	Americas	Middle East	Asia	Total
<b>As of December 31, 2011</b>						
Proved properties			731	3,496	3,973	<b>8,200</b>
Unproved properties					1,146	<b>1,146</b>
<b>Total capitalized costs</b>			<b>731</b>	<b>3,496</b>	<b>5,119</b>	<b>9,346</b>
Accumulated depreciation, depletion and amortization			(96)	(2,337)	(213)	<b>(2,646)</b>
<b>Net capitalized costs</b>			<b>635</b>	<b>1,159</b>	<b>4,906</b>	<b>6,700</b>
<b>As of December 31, 2012</b>						
Proved properties			1,049	3,637	4,074	<b>8,760</b>
Unproved properties					1,118	<b>1,118</b>
<b>Total capitalized costs</b>			<b>1,049</b>	<b>3,637</b>	<b>5,192</b>	<b>9,878</b>
Accumulated depreciation, depletion and amortization			(177)	(2,540)	(457)	<b>(3,174)</b>
<b>Net capitalized costs</b>			<b>872</b>	<b>1,097</b>	<b>4,735</b>	<b>6,704</b>
<b>As of December 31, 2013</b>						
Proved properties			891	3,939	4,567	<b>9,397</b>
Unproved properties					1,224	<b>1,224</b>
<b>Total capitalized costs</b>			<b>891</b>	<b>3,939</b>	<b>5,791</b>	<b>10,621</b>
Accumulated depreciation, depletion and amortization			(161)	(2,911)	(646)	<b>(3,718)</b>
<b>Net capitalized costs</b>			<b>730</b>	<b>1,028</b>	<b>5,145</b>	<b>6,903</b>

**Table of Contents**

**STANDARDIZED MEASURE OF  
DISCOUNTED FUTURE NET CASH FLOWS  
(EXCLUDING TRANSPORTATION)**

The standardized measure of discounted future net cash flows relating to proved oil and gas reserve quantities was developed as follows:

estimates of proved reserves and the corresponding production profiles are based on existing technical and economic conditions;

the estimated future cash flows are determined based on prices used in estimating the Group's proved oil and gas reserves;

the future cash flows incorporate estimated production costs (including production taxes), future development costs and asset retirement costs. All cost estimates are based on year-end technical and economic conditions;  
future income taxes are computed by applying the year-end statutory tax rate to future net cash flows after consideration of permanent differences and future income tax credits; and

future net cash flows are discounted at a standard discount rate of 10 percent.

These principles applied are those required by ASC 932 and do not reflect the expectations of real revenues from these reserves, nor their present value; hence, they do not constitute criteria for investment decisions. An estimate of the fair value of reserves should also take into account, among other things, the recovery of reserves not presently classified as proved, anticipated future changes in prices and costs and a discount factor more representative of the time value of money and the risks inherent in reserves estimates.

	Consolidated subsidiaries					
				Middle		
(in millions of euros)	Europe	Africa	Americas	East	Asia	Total
<b>As of December 31, 2011</b>						
Future cash inflows	85,919	167,367	53,578	14,297	67,868	<b>389,029</b>
Future production costs	(18,787)	(31,741)	(22,713)	(3,962)	(12,646)	<b>(89,849)</b>
Future development costs	(21,631)	(22,776)	(11,548)	(3,110)	(11,044)	<b>(70,109)</b>
Future income taxes	(28,075)	(71,049)	(4,361)	(2,794)	(12,963)	<b>(119,242)</b>
<b>Future net cash flows, after income taxes</b>	<b>17,426</b>	<b>41,801</b>	<b>14,956</b>	<b>4,431</b>	<b>31,215</b>	<b>109,829</b>
Discount at 10%	(9,426)	(17,789)	(12,298)	(2,186)	(20,717)	<b>(62,416)</b>
<b>Standardized measure of discounted future net cash flows</b>	<b>8,000</b>	<b>24,012</b>	<b>2,658</b>	<b>2,245</b>	<b>10,498</b>	<b>47,413</b>
<b>As of December 31, 2012</b>						
Future cash inflows	93,215	177,392	58,140	16,474	70,985	<b>416,206</b>
Future production costs	(20,337)	(39,091)	(25,824)	(5,213)	(15,218)	<b>(105,683)</b>
Future development costs	(24,490)	(28,896)	(12,949)	(3,807)	(10,954)	<b>(81,096)</b>
Future income taxes	(27,393)	(68,017)	(4,456)	(2,732)	(12,641)	<b>(115,239)</b>
<b>Future net cash flows, after income taxes</b>	<b>20,995</b>	<b>41,388</b>	<b>14,911</b>	<b>4,722</b>	<b>32,172</b>	<b>114,188</b>
Discount at 10%	(10,549)	(17,731)	(11,608)	(2,227)	(19,969)	<b>(62,084)</b>
<b>Standardized measure of discounted future net cash flows</b>	<b>10,446</b>	<b>23,657</b>	<b>3,303</b>	<b>2,495</b>	<b>12,203</b>	<b>52,104</b>
<b>As of December 31, 2013</b>						
Future cash inflows	80,779	155,371	59,517	14,660	72,297	<b>382,624</b>
Future production costs	(18,859)	(38,160)	(27,316)	(5,249)	(15,106)	<b>(104,690)</b>
Future development costs	(23,058)	(25,951)	(14,231)	(3,234)	(12,910)	<b>(79,384)</b>
Future income taxes	(20,621)	(55,303)	(3,919)	(2,288)	(11,453)	<b>(93,584)</b>
<b>Future net cash flows, after income taxes</b>	<b>18,241</b>	<b>35,957</b>	<b>14,051</b>	<b>3,889</b>	<b>32,828</b>	<b>104,966</b>

## Edgar Filing: TOTAL S.A. - Form 20-F

Discount at 10%	(8,166)	(14,649)	(11,557)	(1,880)	(20,932)	(57,184)
<b>Standardized measure of discounted future net cash flows</b>	<b>10,075</b>	<b>21,308</b>	<b>2,494</b>	<b>2,009</b>	<b>11,896</b>	<b>47,782</b>
(in millions of euros)						
<b>Minority interests in future net cash flows as of</b>						
December 31, 2011		558				558
December 31, 2012		501				501
<b>December 31, 2013</b>		<b>610</b>				<b>610</b>

2013 Form 20-F TOTAL S.A. S-14



**Table of Contents**

	Equity affiliates					
(in millions of euros)						
	Europe	Africa	Americas	Middle East	Asia	Total
<b>Group's share of future net cash flows as of</b>						
<b>As of December 31, 2011</b>						
Future cash inflows		210	29,887	64,977	7,116	<b>102,190</b>
Future production costs		(95)	(17,393)	(39,800)	(2,683)	<b>(59,971)</b>
Future development costs			(1,838)	(2,809)	(1,297)	<b>(5,944)</b>
Future income taxes		(29)	(5,152)	(3,942)	(2,280)	<b>(11,403)</b>
<b>Future net cash flows, after income taxes</b>		<b>86</b>	<b>5,504</b>	<b>18,426</b>	<b>856</b>	<b>24,872</b>
Discount at 10%		(36)	(3,652)	(9,757)	(196)	<b>(13,641)</b>
<b>Standardized measure of discounted future net cash flows</b>		<b>50</b>	<b>1,852</b>	<b>8,669</b>	<b>660</b>	<b>11,231</b>
<b>As of December 31, 2012</b>						
Future cash inflows		2,103	27,439	64,234	9,390	<b>103,166</b>
Future production costs		(99)	(17,250)	(35,830)	(3,265)	<b>(56,444)</b>
Future development costs			(2,360)	(2,967)	(3,906)	<b>(9,233)</b>
Future income taxes		(392)	(3,353)	(5,430)	(648)	<b>(9,823)</b>
<b>Future net cash flows, after income taxes</b>		<b>1,612</b>	<b>4,476</b>	<b>20,007</b>	<b>1,571</b>	<b>27,666</b>
Discount at 10%		(1,087)	(2,978)	(10,316)	(955)	<b>(15,336)</b>
<b>Standardized measure of discounted future net cash flows</b>		<b>525</b>	<b>1,498</b>	<b>9,691</b>	<b>616</b>	<b>12,330</b>
<b>As of December 31, 2013</b>						
Future cash inflows		1,009	14,870	56,541	28,121	<b>100,541</b>
Future production costs		(105)	(9,043)	(29,094)	(9,481)	<b>(47,723)</b>
Future development costs			(1,265)	(2,558)	(3,866)	<b>(7,689)</b>
Future income taxes		(262)	(2,164)	(5,076)	(1,653)	<b>(9,155)</b>
<b>Future net cash flows, after income taxes</b>		<b>642</b>	<b>2,398</b>	<b>19,813</b>	<b>13,121</b>	<b>35,974</b>
Discount at 10%		(480)	(1,413)	(10,121)	(12,316)	<b>(24,330)</b>
<b>Standardized measure of discounted future net cash flows</b>		<b>162</b>	<b>985</b>	<b>9,692</b>	<b>805</b>	<b>11,644</b>

S-15 TOTAL S.A. Form 20-F 2013

**Table of Contents**

**CHANGES IN THE STANDARDIZED MEASURE OF DISCOUNTED  
FUTURE NET CASH FLOWS**

	Consolidated subsidiaries		
	2011	2012	2013
(in millions of euros)			
<b>Beginning of year</b>	<b>36,033</b>	<b>47,413</b>	<b>52,104</b>
Sales and transfers, net of production costs	(27,026)	(28,552)	(24,742)
Net change in sales and transfer prices and in production costs and other expenses	44,315	7,382	(7,651)
Extensions, discoveries and improved recovery	1,680	1,357	835
Changes in estimated future development costs	(4,798)	(6,503)	(8,158)
Previously estimated development costs incurred during the year	9,519	11,809	13,757
Revisions of previous quantity estimates	1,288	2,719	1,141
Accretion of discount	3,603	4,741	5,210
Net change in income taxes	(16,925)	13,992	15,238
Purchases of reserves in place	885	299	1,102
Sales of reserves in place	(1,161)	(2,553)	(1,054)
<b>End of year</b>	<b>47,413</b>	<b>52,104</b>	<b>47,782</b>

  

	Equity affiliates		
	2011	2012	2013
(in millions of euros)			
<b>Beginning of year</b>	<b>9,234</b>	<b>11,231</b>	<b>12,330</b>
Sales and transfers, net of production costs	(1,991)	(1,885)	(2,775)
Net change in sales and transfer prices and in production costs and other expenses	3,715	(743)	(1,196)
Extensions, discoveries and improved recovery		(25)	3,761
Changes in estimated future development costs	(383)	(495)	408
Previously estimated development costs incurred during the year	635	809	831
Revisions of previous quantity estimates	(749)	984	(3,792)
Accretion of discount	923	1,123	1,233
Net change in income taxes	(1,341)	1,314	836
Purchases of reserves in place	1,812	17	393
Sales of reserves in place	(624)		(385)
<b>End of year</b>	<b>11,231</b>	<b>12,330</b>	<b>11,644</b>

2013 Form 20-F TOTAL S.A. S-16

**Table of Contents****OTHER INFORMATION****Net gas production, production prices and production costs**

	Consolidated subsidiaries					Total
	Europe	Africa	Americas	Middle East	Asia	
<b>2011</b>						
Natural gas production available for sale (Mcf/d) <sup>(a)</sup>	1,350	607	839	424	1,162	<b>4,382</b>
<b>Production prices<sup>(b)</sup></b>						
Oil (€/b)	74.24	74.72	55.13	73.73	68.76	<b>73.34</b>
Bitumen (€/b)			31.36			<b>31.36</b>
Natural gas (€/kcf)	6.58	1.81	2.06	0.54	7.45	<b>4.72</b>
<b>Production costs per unit of production (€/boe)<sup>(c)</sup></b>						
Total liquids and natural gas	6.86	5.14	3.41	5.36	3.40	<b>5.20</b>
Bitumen			20.70			<b>20.70</b>
	Equity affiliates					Total
	Europe	Africa	Americas	Middle East	Asia	
<b>2011</b>						
Natural gas production available for sale (Mcf/d) <sup>(a)</sup>				891	457	<b>1,348</b>
<b>Production prices<sup>(b)</sup></b>						
Oil (€/b)		66.21	61.15	77.07	30.75	<b>73.61</b>
Bitumen (€/b)						
Natural gas (€/kcf)				1.29	0.95	<b>1.23</b>
<b>Production costs per unit of production (€/boe)<sup>(c)</sup></b>						
Total liquids and natural gas		1.99	2.75	1.66	0.79	<b>1.61</b>
Bitumen						
	Consolidated subsidiaries					Total
	Europe	Africa	Americas	Middle East	Asia	
<b>2012</b>						
Natural gas production available for sale (Mcf/d) <sup>(a)</sup>	1,166	593	901	171	1,123	<b>3,955</b>
<b>Production prices<sup>(b)</sup></b>						
Oil (€/b)	79.82	82.65	61.85	81.05	75.49	<b>80.84</b>
Bitumen (€/b)			35.27			<b>35.27</b>
Natural gas (€/kcf)	7.10	2.19	2.23	0.90	8.35	<b>5.31</b>
<b>Production costs per unit of production (€/boe)<sup>(c)</sup></b>						
Total liquids and natural gas	8.78	5.69	3.92	10.76	4.61	<b>6.36</b>
Bitumen			24.00			<b>24.00</b>
	Equity affiliates					Total
	Europe	Africa	Americas	Middle East	Asia	
<b>2012</b>						
Natural gas production available for sale (Mcf/d) <sup>(a)</sup>				769	813	<b>1,583</b>
<b>Production prices<sup>(b)</sup></b>						
Oil (€/b)			105.12	83.26	28.27	<b>83.27</b>
Bitumen (€/b)						
Natural gas (€/kcf)				1.35	0.95	<b>1.23</b>
<b>Production costs per unit of production (€/boe)<sup>(c)</sup></b>						
Total liquids and natural gas			8.84	1.98	1.44	<b>2.27</b>
Bitumen						

**Table of Contents**

	Consolidated subsidiaries					Total
	Europe	Africa	Americas	Middle East	Asia	
<b>2013</b>						
<b>Natural gas production available for sale (Mcf/d)<sup>(a)</sup></b>	1,134	569	860	149	1,193	<b>3,905</b>
<b>Production prices<sup>(b)</sup></b>						
Oil (€/b)	73.60	77.30	49.65	74.22	70.22	<b>74.80</b>
Bitumen (€/b)			34.43			<b>34.43</b>
Natural gas (€/kcf)	7.17	2.00	2.66	0.85	7.64	<b>5.28</b>
<b>Production costs per unit of production (€/boe)<sup>(c)</sup></b>						
Total liquids and natural gas	9.72	6.31	4.27	12.93	4.77	<b>6.96</b>
Bitumen			23.90			<b>23.90</b>
	Equity affiliates					Total
	Europe	Africa	Americas	Middle East	Asia	
<b>2013</b>						
<b>Natural gas production available for sale (Mcf/d)<sup>(a)</sup></b>				935	927	<b>1,862</b>
<b>Production prices<sup>(b)</sup></b>						
Oil (€/b)			62.10	78.62	38.88	<b>74.57</b>
Bitumen (€/b)						
Natural gas (€/kcf)				1.78	0.81	<b>1.47</b>
<b>Production costs per unit of production (€/boe)<sup>(c)</sup></b>						
Total liquids and natural gas			6.25	2.24	0.59	<b>1.97</b>
Bitumen						

<sup>(a)</sup> The reported volumes are different from those shown in the reserves table due to gas consumed in operations.

<sup>(b)</sup> The volumes used for calculation of the average sales prices are the ones sold from the Group's own production.

<sup>(c)</sup> The volumes of liquids used for this computation are shown in the proved reserves tables of this report. The reported volumes for natural gas are different from those shown in the reserves table due to gas consumed in operations.