Key figures

Effective January 1, 2014, TOTAL changed the presentation currency of the Group's Consolidated Financial Statements from the Euro to the US Dollar. Comparative 2013 and 2012 information has been restated.

1. Operating and market data

	2014	2013	2012
Brent ($/b)	99.0	108.7	111.7
Exchange rate (€-$)	1.33	1.33	1.28
European Refinery Margin Indicator (ERMI) ($/t)	18.7	17.9	36.0
Hydrocarbon production (kboe/d)	2,146	2,299	2,300
Liquids (kb/d)	1,034	1,167	1,220
Gas (Mcf/d)	6,063	6,184	5,880
Refinery throughput (kb/d)	1,775	1,719	1,786
Refined product sales [a] (kb/d)	3,769	3,521	3,561

(a) Including Trading.

2. Selected financial information

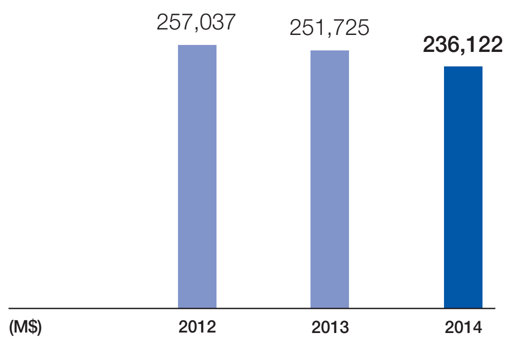
Effective January 1, 2014, TOTAL changed the presentation currency of the Group's Consolidated Financial Statements from the Euro to the US Dollar. Comparative 2013 and 2012 information has been restated. For more information, see the Introduction note to the Consolidated Financial Statements.

Consolidated data in million dollars, except for earnings per share, dividends, number of shares and percentages.

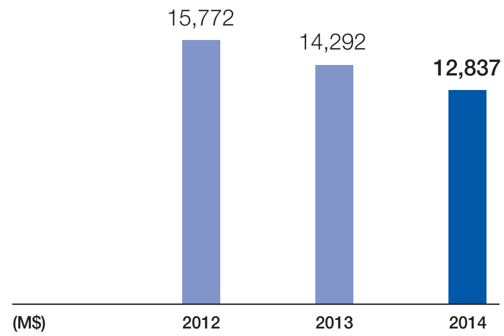
(M$)	2014	2013	2012
Sales	236,122	251,725	257,037
Adjusted operating income from business segments [a]	21,604	27,618	31,946
Adjusted net operating income from business segments [a]	14,247	15,861	17,153
Net income (Group share)	4,244	11,228	13,648
Adjusted net income (Group share) [a]	12,837	14,292	15,772
Fully-diluted weighted-average shares (millions)	2,281	2,272	2,267
Adjusted fully-diluted earnings per share (dollars) [a] [b]	5.63	6.29	6.96
Dividend per share (euros) [c]	2.44	2.38	2.34
Net-debt-to-equity ratio (as of December 31)	31.3%	23.3%	21.9%
Return on Average Capital Employed (ROACE) [d]	11.1%	13.0%	15.5%
Return on Equity (ROE)	13.5%	14.9%	17.7%
Cash flow from operations	25,608	28,513	28,858
Investments [e]	30,509	34,431	29,475
Divestments (at sale price)	6,190	6,399	7,543

(a) Adjusted results are defined as income at replacement cost, excluding non-recurring items and excluding the impact of fair value changes.
(b) Based on fully-diluted weighted-average number of common shares oustanding during the period.
(c) 2014 dividend is subject to approval at the May 29, 2015 Annual Shareholders' Meeting.
(d) Based on adjusted net operating income and average capital employed at replacement cost.
(e) Including acquisitions.

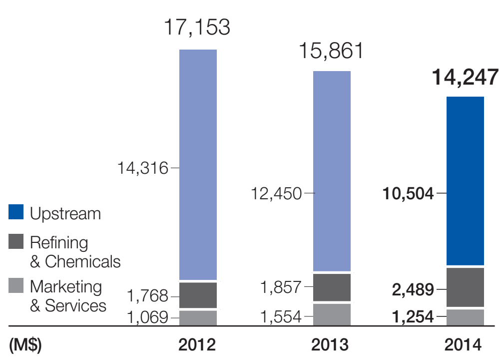
Sales



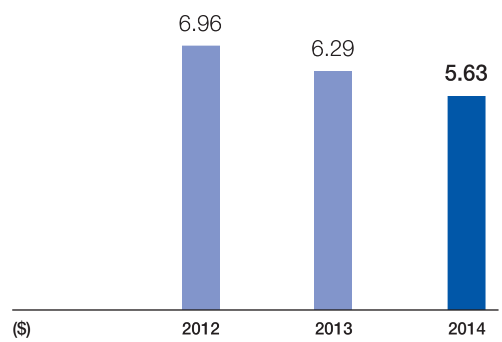
Adjusted net income (Group share)[a]



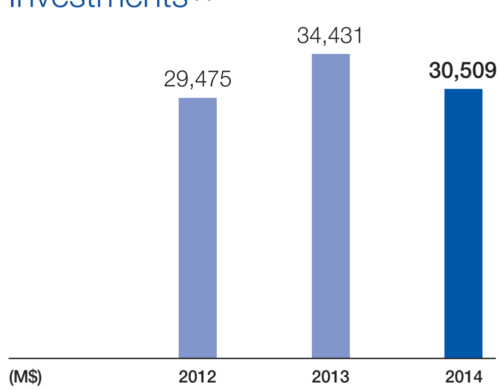
Adjusted net operating income from business segments[a]



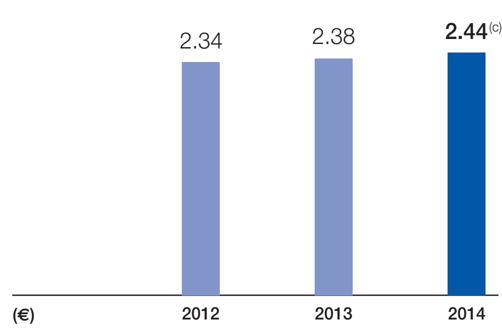
Adjusted fully-diluted earnings per share[a] [b]



Investments[e]

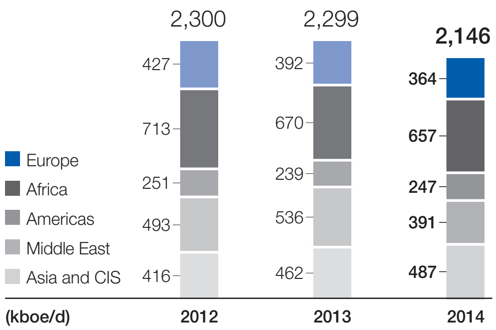


Dividend per share

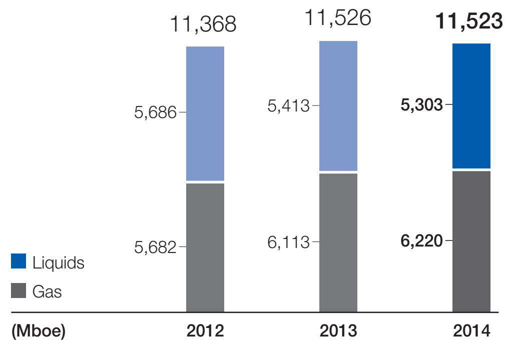


Upstream

Oil and gas production



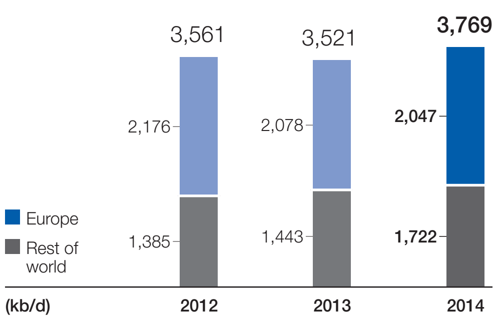
Liquids and gas reserves



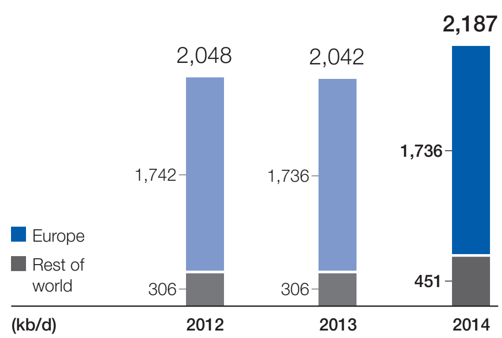
Refining & Chemicals and Marketing & Services

Refined product sales

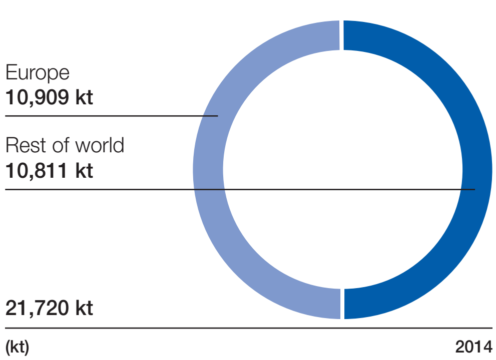
including Trading



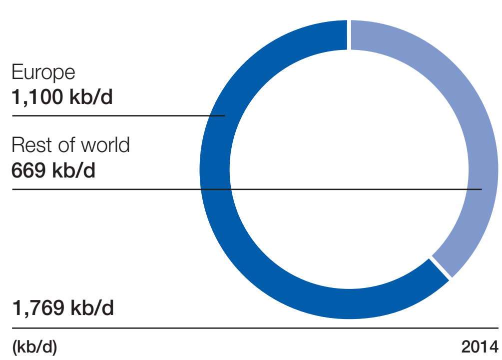
Refining capacity as of December 31, 2014



Petrochemicals production capacity by geographic area as of December 31, 2014

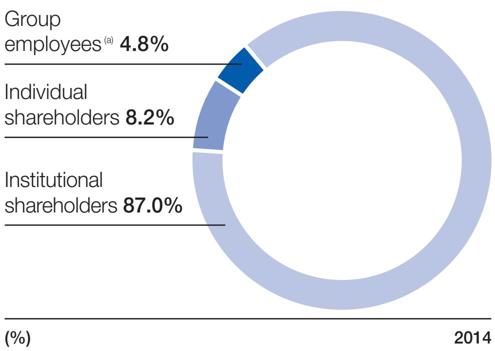


Marketing & Services refined product sales by geographic area in 2014



Shareholder base

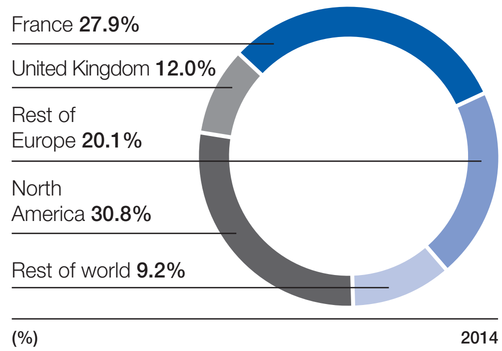
Estimates as of December 31, 2014, excluding treasury shares, based on the survey of identifiable holders of bearer shares (TPI) conducted on that date.



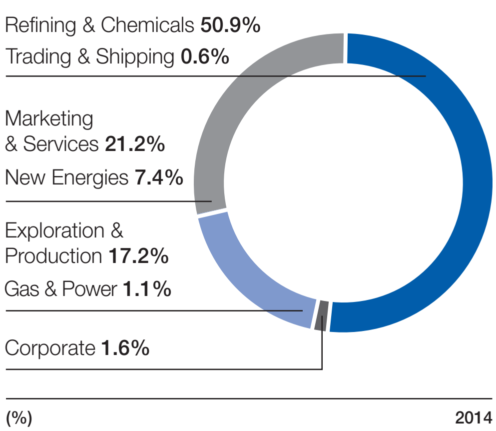
(a) On the basis of employee shareholdings as defined in article L.225-102 of the French Commercial Code.

Shareholder base by region

Estimates as of December 31, 2014, excluding treasury shares, based on the survey of identifiable holders of bearer shares (TPI) conducted on that date.

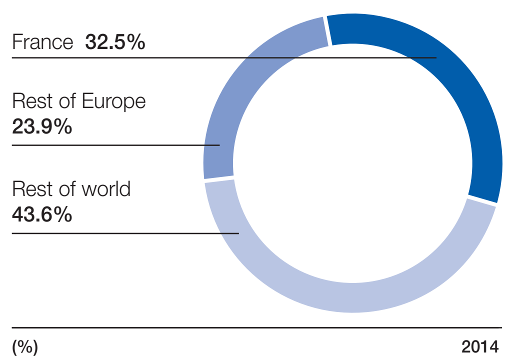


Employees by segment [a]



(a) Consolidated companies.
Workforce as of December 31, 2014: 100,307 employees.

Employees by region [a]



(a) Consolidated companies.
Workforce as of December 31, 2014: 100,307 employees.

Business overview

1. History and strategy of TOTAL

1.1. History and development

TOTAL S.A., a French *société anonyme* (limited company) incorporated on March 28, 1924 is, together with its subsidiaries and affiliates, the world's fourth largest publicly-traded integrated international oil and gas company[(1)].

With operations in more than 130 countries, TOTAL is engaged in every sector of the oil industry, including upstream (hydrocarbon exploration, development and production) and downstream (refining, petrochemicals, specialty chemicals, trading and shipping of crude oil and petroleum products and marketing). TOTAL also operates in the power generation and renewable energy sectors.

TOTAL began its Upstream operations in the Middle East in 1924. Since then, 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 it acquired control of Elf Aquitaine S.A. (hereafter referred to as "Elf Aquitaine" or "Elf").

The Company's corporate name is TOTAL S.A.

The Company's registered office is 2, place Jean Millier, La Défense 6, 92400 Courbevoie, France.

Its telephone number is +33 1 47 44 45 46 and its Internet address is total.com.

TOTAL S.A. is registered in France at the Nanterre Trade Register under number 542 051 180.

1.2. Strategy

TOTAL provides energy-related products and services to customers around the world by discovering, producing and transforming oil and gas, as well as other natural resources (solar and biomass).

The Group's goal is to be a global, integrated energy company - a leading international oil company and a world-class operator in gas, petrochemicals, solar energy and, tomorrow, biomass. To realize this goal, TOTAL leverages its integrated business model, which enables it to capture synergies between the different business segments of the Group. Together, TOTAL's commitments to ethical practices, safety and corporate social responsibility form a shared foundation allowing the achievement of four strategic objectives:

– driving profitable, sustainable growth in exploration and production;

– developing competitive, top-tier refining and petrochemical complexes;

– responding to customer needs by delivering innovative solutions; and

– consolidating the Group's leadership in solar energy and continuing to explore biomass, in order to offer the most appropriate energy solutions.

At the core of TOTAL's strategy is a strong belief that energy is vital, drives progress and must be made available to everyone. Energy is a precious resource that must be used wisely.

The Group is helping to produce the growing amount of energy that people around the planet need to live and thrive, while ensuring that its operations consistently deliver economic, social and environmental benefits. TOTAL is meeting this challenge with and for its fellow employees, its stakeholders and the local communities, in ways that exceed what is generally expected.

Respect, responsibility and exemplary behavior are the values that underpin TOTAL's Code of Conduct. It is through strict adherence to these core values and fundamental principles that TOTAL will be able to build strong and sustainable growth for the Group and its stakeholders.

(1) Based on market capitalization (in dollars) as of December 31, 2014.

2. Upstream segment

TOTAL's Upstream segment includes the activities of Exploration & Production and Gas & Power[1]. 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.

2.1 Mboe/d	11.5 Bboe	$26.5 billion	17,268
of hydrocarbons produced in 2014	of proved reserves as of December 31, 2014[2]	invested in 2014	employees present

Upstream segment financial data

(M$)	2014	2013	2012
Non-Group sales	23,484	26,367	28,449
Adjusted operating income [a]	17,156	23,700	28,333
Adjusted net operating income [a]	10,504	12,450	14,316

(a) Adjusted results are defined as income using replacement cost, adjusted for special items, excluding the impact of changes for fair value.

Adjusted net operating income from the Upstream segment in 2014 was $10,504 million compared to $12,450 million in 2013, a decrease of 16% which was due essentially to the decrease in the average realized price of hydrocarbons. The effective tax rate for the Upstream segment was 57.1% in 2014 compared to 60.0% in 2013.

Technical costs[3] for consolidated subsidiaries, in accordance with ASC 932[4], were 28.3 $/boe in 2014, compared with 26.1 $/boe[5] in 2013.

The Return on Average Capital Employed (ROACE[6]) for the Upstream segment was 10.7% in 2014 compared with 13.8% in 2013.

Price realizations [a]	2014	2013	2012
Average liquids price ($/b)	89.4	103.3	107.7
Average gas price ($/Mbtu)	6.57	7.12	6.74

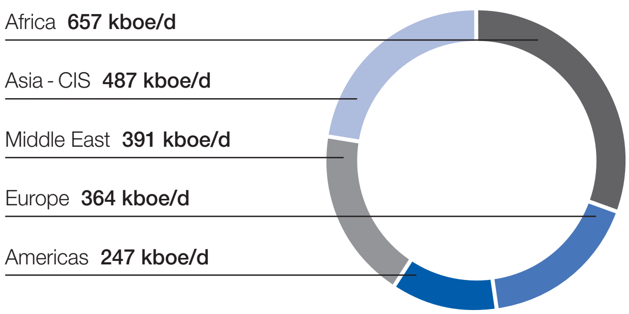
(a) Consolidated subsidiaries, excluding fixed margins.

TOTAL's average liquids price decreased by 13% in 2014 compared to 2013 and average gas price increased by 8% in 2014 compared to 2013.

(1) 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.
(2) Based on a Brent crude price of $101.3/b (Reference price in 2014), according to rules established by the Securities and Exchange Commission (refer to the point 2.1.3.).
(3) (Production costs + exploration expenses + depreciation, depletion and amortization and valuation allowances)/production of the year.
(4) FASB Accounting Standards Codification 932, Extractive industries – Oil and Gas.
(5) Excluding IAS 36 (impairment of assets).
(6) Calculated based on adjusted net operating income and average capital employed, using replacement cost.

Production

Hydrocarbon production	2014	2013	2012
Combined production (kboe/d)	2,146	2,299	2,300
Liquids (kb/d)	1,034	1,167	1,220
Gas (Mcf/d)	6,063	6,184	5,880

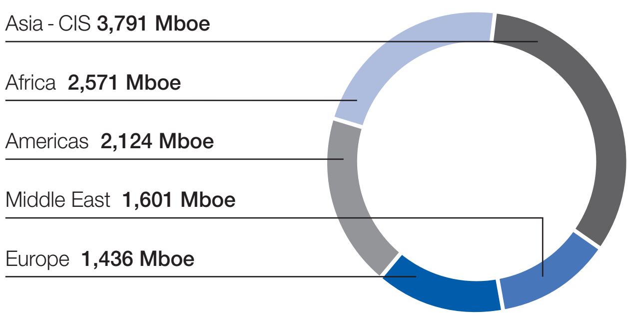


In 2014, hydrocarbon production was 2,146 kboe/d, a decrease of 7% compared to 2013, due to the following:

- -6% essentially for the expiration of the ADCO license in the United Arab Emirates;
- -2% essentially for normal decline and higher maintenance in 2014 notably in the first half, partially offset by production growth in the Utica in the United States; and
- +1% for production growth from start-ups, essentially CLOV in Angola.

Reserves

As of December 31,	2014	2013	2012
Hydrocarbon reserves (Mboe)	11,523	11,526	11,368
Liquids (Mb)	5,303	5,413	5,686
Gas (Bcf)	33,590	33,026	30,877



Proved reserves based on SEC rules (based on Brent at 101.3 $/b) were 11,523 Mboe at December 31, 2014.

Based on the 2014 average rate of production, the reserve life is more than thirteen years. The 2014 proved reserve replacement rate(1), based on SEC rules, was 100%. The 2014 organic proved reserve replacement rate(2) was 125% in a constant price environment.

At year-end 2014, TOTAL had a solid and diversified portfolio of proved and probable reserves(3) representing more than twenty years of reserve life based on the 2014 average production rate, and resources(4) representing about fifty years of production.

(1) Change in reserves excluding production (revisions + discoveries, extensions + acquisitions – divestments)/production for the period.
(2) The reserve replacement rate in constant environment of 108.02 $/b oil price, excluding acquisitions and divestments.
(3) Limited to proved and probable reserves covered by Exploration & Production contracts on fields that have been drilled and for which technical studies have demonstrated economic development in a 100 $/b Brent environment, including projects developed by mining.
(4) Proved and probable reserves plus contingent resources (potential average recoverable reserves from known accumulations – Society of Petroleum Engineers – 03/07).

2.1. Exploration & Production

2.1.1. Exploration and development

TOTAL's Exploration & Production activities aim 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 2,446 Mboe to the Upstream segment's proved reserves during the 3-year period ended December 31, 2014 (before deducting production and sales of reserves in place and adding any acquisitions of reserves in place during this period). The net level of revisions during this 3-year period is +181 Mboe, which was due to the overall positive revisions in field behaviors partially offset by the negative impacts of the increase of bitumen price in Canada (from \$50.4/b in 2013 to \$60.3/b in 2014 for Synbit), the increase in U.S. onshore gas price (from 2011 (\$4.21/MBtu) to 2012 (\$2.85/MBtu) for Henry Hub) and a perimeter change in two projects.

In 2014, the exploration investments of consolidated subsidiaries amounted to \$2,608 million (excluding exploration bonuses), primarily in Angola, Brazil, Norway, South Africa, Iraq, Malaysia, Côte d'Ivoire, Indonesia and Libya. Exploration investments of consolidated subsidiaries amounted to \$2,926 million in 2013 and \$2,701 million in 2012. For 2015, the exploration budget has been reduced to \$1.9 billion to reflect the new market environment.

The Group's consolidated Exploration & Production subsidiaries' organic[1] investments amounted to \$23 billion in 2014, primarily in Angola, Norway, Australia, Canada, Nigeria, the Republic of the Congo, Russia, the United Kingdom, Indonesia, Gabon, the United States and Kazakhstan. The Group's consolidated Exploration & Production subsidiaries' organic investments amounted to \$24 billion in 2013 and \$20 billion in 2012.

2.1.2. 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 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, 2014, 2013 and 2012, see "Supplemental Oil and Gas Information (Unaudited)" in chapter 11.

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)" in chapter 11.

2.1.3. Proved reserves for years 2014, 2013 and 2012

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 2014, 2013 and 2012 were, respectively, \$101.27/b, \$108.02/b and \$111.13/b for Brent crude.

As of December 31, 2014, TOTAL's combined proved reserves of oil and gas were 11,523 Mboe (50% of which were proved developed reserves). Liquids (crude oil, condensates, natural gas liquids and bitumen) represented approximately 46% of these reserves and natural gas the remaining 54%. 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, the United States 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, 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 liquids and bitumen) represented approximately 47% of these reserves and natural gas the remaining 53%. 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%.

(1) For Exploration & Production, organic investments include exploration investments, net development investments and net financial investments.

2.1.4. 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 21% of TOTAL's reserves as of December 31, 2014). 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 recoverable 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 usually lead to a decrease in TOTAL's reserves.

Furthermore, changes in the reference price per barrel used 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 significant decrease of the reference price of petroleum products may involve a reduction of proved reserves.

2.1.5. Production

For the full year 2014, average daily oil and gas production was 2,146 kboe/d compared to 2,299 kboe/d in 2013 and 2,300 kboe/d in 2012. Liquids accounted for approximately 48% and natural gas for approximately 52% of TOTAL's combined liquids and natural gas production in 2014.

The tables on the next pages set forth by geographic area TOTAL's annual and 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's entities frequently act 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 2013 and 2012, substantially all of the liquids production from TOTAL's Upstream segment in 2014 was marketed by the Trading & Shipping division of TOTAL's Refining & Chemicals segment (see table "Trading's crude oil sales and supply and refined products sales" in paragraph 3.2.1. of this chapter).

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.

Some of TOTAL's long-term contracts, notably in Indonesia, Nigeria, Norway, Qatar Thailand and Yemen, 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 2015-2017 to be 3,782 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 chapter 11, "Supplemental Oil and Gas Information (Unaudited)" of this Registration Document).

2.1.6. Production by region

The following table sets forth the Group's annual liquids and natural gas production by region.

	2014			2013			2012		
	Liquids Mb	Natural gas Bcf[(b)]	Total Mboe	Liquids Mb	Natural gas Bcf[(b)]	Total Mboe	Liquids Mb	Natural gas Bcf[(b)]	Total Mboe
Africa	**191**	**253**	**240**	**194**	**255**	**245**	**210**	**257**	**260**
Algeria	2	29	7	2	30	8	2	33	8
Angola	70	20	73	64	23	68	63	16	65
Gabon	20	5	21	20	6	22	20	7	21
Libya	10	-	10	18	-	18	23	-	23
Nigeria	57	187	94	58	187	95	63	190	102
The Congo, Republic of	32	13	35	32	10	34	39	11	41
North America	**14**	**104**	**33**	**10**	**93**	**27**	**9**	**90**	**25**
Canada[(a)]	4	-	4	5	-	5	4	-	4
United States	10	104	28	5	93	22	5	90	21
South America	**18**	**219**	**57**	**20**	**229**	**61**	**22**	**249**	**66**
Argentina	3	134	27	5	134	28	4	144	30
Bolivia	1	51	11	1	47	10	1	45	10
Colombia	-	-	-	-	-	-	0	8	2
Trinidad & Tobago	-	-	-	1	19	4	1	26	6
Venezuela	14	34	19	13	29	18	14	26	18
Asia-Pacific	**11**	**430**	**87**	**11**	**427**	**86**	**10**	**397**	**81**
Australia	-	8	1	-	9	1	-	11	2
Brunei	1	24	5	1	22	5	1	20	4
China	-	23	4	-	17	3	-	3	0
Indonesia	7	217	47	6	221	48	6	221	48
Myanmar	-	49	6	-	47	6	-	46	6
Thailand	4	108	22	4	112	23	3	97	20
CIS	**13**	**414**	**91**	**12**	**382**	**83**	**10**	**332**	**71**
Azerbaijan	1	22	5	2	30	7	1	23	6
Russia	12	393	86	10	352	76	8	308	65
Europe	**60**	**397**	**133**	**61**	**449**	**143**	**72**	**460**	**156**
France	-	3	1	0	16	3	1	21	5
The Netherlands	0	62	11	0	71	13	0	67	12
Norway	49	210	88	50	210	89	58	227	100
United Kingdom	11	122	32	11	152	38	13	144	39
Middle East	**70**	**396**	**143**	**118**	**422**	**196**	**114**	**361**	**180**
United Arab Emirates	42	22	46	90	26	95	85	26	90
Iraq	4	0	4	3	0	3	2	-	2
Oman	9	22	13	9	24	14	9	22	14
Qatar	12	203	48	13	204	50	14	204	51
Yemen	3	148	31	4	168	35	4	109	24
Total production	**377**	**2,213**	**783**	**426**	**2,257**	**839**	**445**	**2,146**	**840**
Including share of equity affiliates	**73**	**726**	**208**	**119**	**714**	**251**	**112**	**597**	**223**
Angola	-	4	1	-	6	1	-	-	-
Venezuela	14	2	14	13	3	14	14	3	15
United Arab Emirates	40	19	43	88	22	92	82	22	87
Oman	8	22	12	8	24	13	8	22	12
Qatar	3	139	28	3	141	28	3	133	27
Yemen	-	147	27	-	167	31	-	109	20
Russia	9	392	83	7	351	72	5	308	62

(a) The Group's production in Canada consists of bitumen only. All of the Group's bitumen production is in Canada.
(b) Including fuel gas (155 Bcf in 2014, 151 Bcf in 2013, 144 Bcf in 2012).

The following table sets forth the Group's average daily liquids and natural gas production by region.

	2014			2013			2012		
	Liquids kb/d	Natural gas Mcf/d[(b)]	Total kboe/d	Liquids kb/d	Natural gas Mcf/d[(b)]	Total kboe/d	Liquids kb/d	Natural gas Mcf/d[(b)]	Total kboe/d
Africa	**522**	**693**	**657**	**531**	**699**	**670**	**574**	**705**	**713**
Algeria	5	79	20	5	82	21	6	90	23
Angola	191	54	200	175	62	186	172	44	179
Gabon	55	14	58	55	16	59	54	19	57
Libya	27	-	27	50	-	50	62	-	62
Nigeria	156	511	257	158	511	261	173	521	279
The Congo, Republic of	88	35	95	88	28	93	107	31	113
North America	**39**	**285**	**90**	**28**	**256**	**73**	**25**	**246**	**69**
Canada[(a)]	12	-	12	13	-	13	12	-	12
United States	27	285	78	15	256	60	13	246	57
South America	**50**	**599**	**157**	**54**	**627**	**166**	**59**	**682**	**182**
Argentina	9	367	75	13	366	78	12	394	83
Bolivia	4	139	30	4	129	28	3	124	27
Colombia	-	-	-	-	-	-	1	23	6
Trinidad & Tobago	-	-	-	2	52	12	4	70	16
Venezuela	37	93	52	35	80	48	39	71	50
Asia-Pacific	**30**	**1,178**	**238**	**30**	**1,170**	**235**	**27**	**1,089**	**221**
Australia	-	23	4	-	25	4	-	29	5
Brunei	2	66	15	2	59	13	2	54	12
China	-	63	12	-	46	8	-	7	1
Indonesia	18	594	130	17	605	131	16	605	132
Myanmar	-	135	17	-	129	16	-	127	16
Thailand	10	297	60	11	306	63	9	267	55
CIS	**36**	**1,135**	**249**	**32**	**1,046**	**227**	**27**	**909**	**195**
Azerbaijan	3	59	14	5	82	20	4	64	16
Russia	33	1,076	235	27	964	207	23	845	179
Europe	**165**	**1,089**	**364**	**168**	**1,231**	**392**	**197**	**1,259**	**427**
France	-	9	2	1	45	9	2	58	13
The Netherlands	1	171	31	1	195	35	1	184	33
Norway	135	576	242	136	575	243	159	622	275
United Kingdom	29	333	89	30	416	105	35	395	106
Middle East	**192**	**1,084**	**391**	**324**	**1,155**	**536**	**311**	**990**	**493**
United Arab Emirates	115	61	127	247	71	260	233	70	246
Iraq	12	1	12	7	1	7	6	-	6
Oman	24	61	36	24	66	37	24	61	37
Qatar	32	555	132	36	558	137	38	560	139
Yemen	9	406	84	10	459	95	10	299	65
Total production	**1,034**	**6,063**	**2,146**	**1,167**	**6,184**	**2,299**	**1,220**	**5,880**	**2,300**
Including share of equity affiliates	**200**	**1,988**	**571**	**325**	**1,955**	**687**	**308**	**1,635**	**611**
Angola	-	10	2	-	16	3	-	-	-
Venezuela	37	6	38	35	7	37	38	7	40
United Arab Emirates	109	51	118	240	61	253	225	61	237
Oman	23	61	34	23	66	35	23	60	34
Qatar	7	381	77	8	385	78	7	364	74
Yemen	-	404	75	-	458	84	-	299	55
Russia	24	1,075	227	19	962	197	15	844	171

(a) The Group's production in Canada consists of bitumen only. All of the Group's bitumen production is in Canada.
(b) Including fuel gas (426 Mcf/d in 2014, 415 Mcf/d in 2013, 394 Mcf/d in 2012).

2.1.7. Presentation of production activites by region

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

TOTAL's producing assets as of December 31, 2014 [(a)]

	Year of entry into the country	Operated (Group share in %)	Non-operated (Group share in %)
Africa			
Algeria	1952		
			Tin Fouye Tabankort (35.00%)
Angola	1953		
		Girassol, Jasmim, Rosa, Dalia, Pazflor, CLOV (Block 17) (40.00%)	
			Cabinda Block 0 (10.00%)
			Kuito, BBLT, Tombua-Landana (Block 14) (20.00%) [(b)]
			Angola LNG (13.60%)
Gabon	1928		
		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%)	
		Mandaros (100.00%)	
		M'Boukou (57.50%)	
		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%)	
			Rabi Kounga (47.50%)
Libya	1959		
			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)]
Nigeria	1962		
		OML 58 (40.00%)	
		OML 99 Amenam-Kpono (30.40%)	
		OML 100 (40.00%)	
		OML 102 (40.00%)	OML 102-Ekanga (40.00%)
		OML 130 (24.00%)	
			Shell Petroleum Development Company (SPDC 10.00%)
			OML 118-Bonga (12.50%)
			OML 138 (20.00%)

	Year of entry into the country	Operated (Group share in %)	Non-operated (Group share in %)
The Congo, Republic of	1968		
		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 (42.50%)
			Zatchi (29.75%)
North America			
Canada	1999		
			Surmont (50.00%)
United States	1957		
			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%)
South America			
Argentina	1978		
		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%)	
			Sierra Chata (2.51%)
Bolivia	1995		
			San Alberto (15.00%)
			San Antonio (15.00%)
			Itaú (41.00%)
Venezuela	1980		
			PetroCedeño (30.32%)
			Yucal Placer (69.50%)
Asia-Pacific			
Australia	2005		
			Various fields in UJV GLNG (27.50%)[e]
Brunei	1986		
		Maharaja Lela Jamalulalam (37.50%)	
China	2006		
			South Sulige (49.00%)

	Year of entry into the country	Operated (Group share in %)	Non-operated (Group share in %)
Indonesia	**1968**		
		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%)
Myanmar	**1992**		
		Yadana (31.24%)	
Thailand	**1990**		
			Bongkot (33.33%)
Commonwealth of Independant States			
Kazakhstan	**1992**		
			Kashagan (16.81%)
Russia	**1991**		
		Kharyaga (40.00%)	
			Several fields through the participation in OAO Novatek (18.24%)
Europe			
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%)
			Gungne (10.00%)
			Heimdal (16.76%)
			Huldra (24.33%)
			Islay (5.51%) [f]
			Kristin (6.00%)
			Kvitebjørn (5.00%)
			Mikkel (7.65%)
			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%)
			Troll I (3.69%)
			Troll II (3.69%)
			Tune (10.00%)
			Tyrihans (23.15%)
			Visund (7.70%)
			Visund South (7.70%)
			Visund North (7.70%)

	Year of entry into the country	Operated (Group share in %)	Non-operated (Group share in %)
The Netherlands	**1964**		
		F6a gas (55.66%)	
		F6a oil (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%)	
		L4d (55.66%)	
			E16a (16.92%)
			E17a/E17b (14.10%)
			J3b/J6 (25.00%)
			K9ab-A (22.46%)
			Q16a (6.49%)
United Kingdom	**1962**		
		Alwyn North, Dunbar, Ellon, Forvie North, Grant, Jura, Nuggets (100.00%)	
		Elgin-Franklin, West Franklin (46.17%)	
		Glenelg (58.73%)	
		Islay (94.49%) [f]	
			Bruce (43.25%)
			Markham unitized field (7.35%)
			Keith (25.00%)

	Year of entry into the country	Operated (Group share in %)	Non-operated (Group share in %)
Middle East			
U.A.E.	**1939**		
		Abu Dhabi-Abu Al Bu Khoosh (75.00%)	
			Abu Dhabi offshore (13.33%) [g]
			GASCO (15.00%)
			ADGAS (5.00%)
Iraq	**1920**		
			Halfaya (22.5%) [h]
Oman	**1937**		
			Various fields onshore (Block 6) (4.00%) [i]
			Mukhaizna field (Block 53) (2.00%) [j]
Qatar	**1936**		
		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%)
Yemen	**1987**		
		Kharir/Atuf (Block 10) (28.57%)	
			Yemen LNG (39.62%)
			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%), Total E&P Congo (85.00%) and certain entities in Abu Dhabi and Oman (see notes b through i 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 uncorporated 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) Through ADMA (equity affiliate), TOTAL has a 13.33% interest in the operating company, Abu Dhabi Marine Operating Company.
(h) TOTAL holds an interest of 22.5% in the consortium.
(i) TOTAL holds an indirect interest of 4.00% in Petroleum Development Oman LLC, operator of Block 6, via its 10% interest in Private Oil Holdings Oman Ltd. TOTAL also has a 5.54% interest in the Oman LNG facility (trains 1 and 2), and an indirect participation of 2.04% through OLNG in Qalhat LNG (train 3).
(j) TOTAL holds a direct interest of 2.00% in Block 53.

2.1.7.1. Africa

In 2014, TOTAL's production in Africa was 657 kboe/d, representing 31% of the Group's overall production, compared with 670 kboe/d in 2013 and 713 kboe/d in 2012.

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 km², 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, which began in July 2014 and stopped at the beginning of October 2014, should resume when all of the conditions permit.

In addition, the Group holds a technical cooperation license for the Outeniqua Block (100%), which covers approximately 76,000 km² and is located to the southwest of the 11B-12B license in water depths ranging from 400 m to 4,000 m.

In **Algeria**, TOTAL's production was 20 kboe/d during 2014, compared with 21 kboe/d in 2013 and 23 kboe/d in 2012. All of the Group's production in Algeria comes from the Tin Fouyé Tabankort (TFT) field (35%). TOTAL also has a 37.75% stake in the Timimoun gas development project.

- The development of the Timimoun field continued in 2014. The plant construction contract was signed in February 2014 and the drilling rig contract in September 2014.
- TOTAL decided not to implement the Ahnet project and abandoned the Ain Enakhal exploration well.

In **Angola**, the Group's production in 2014 was 200 kboe/d, compared with 186 kboe/d in 2013 and 179 kboe/d in 2012. This production comes primarily from Blocks 0, 14 and 17. Recent highlights include the start-up of production on the Pazflor project in 2011 and the CLOV project in 2014, as well as the acquisition of interests in the 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 producing hubs: Girassol, Dalia, Pazflor and CLOV. CLOV, the newest hub, was launched in 2010, started production in June 2014 and reached its plateau production of 160 kboe/d in September 2014.
- On the ultra-deep offshore Block 32 (30%, operator), the Kaombo project was launched in April 2014 to develop the discoveries in the southeast part of the block via two FPSOs (Floating Production Storage and Offloading facilities) with a capacity of 115 kb/d each. Production start-up is planned for 2017. The exploration and delineation of the center and north parts of the block is ongoing.
- On Block 14 (20%(1)), 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%) is the offshore unitization zone between Angola (Block 14) and the Republic of the Congo (Haute Mer license). Launched in 2012, the development of the Lianzi field will be via a connection to the existing BBLT platform (Block 14). 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 development phase of the Mafumeira field.
- In April 2014, TOTAL sold its entire stake in Block 15/06 (15%).

TOTAL has interests in exploration block 17/06 (30%, operator) in the Lower-Congo basin and blocks 25 (35%, operator), 39 (15%) and 40 (40%, operator) in the deep offshore Kwanza basin. In 2014 and early 2015, the Group drilled pre-salt targets on blocks 25, 39 and 40. TOTAL relinquished its interest in Block 33 (58.67%, operator) in November 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 various technical incidents required the extended shut down of the plant.

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 km² at water depths ranging from 1,000 m to 3,000 m.

On the CI-100 license (60%, operator) located in the Tano basin, an initial exploration well (Ivoire-1X) was drilled in early 2013 at a water depth of more than 2,300 meters.

On the licenses CI-514 (54%, operator), CI-515 (45%) and CI-516 (45%) situated in the San Pedro basin, a 3D seismic survey was carried out in 2012 and three exploration wells were drilled in 2014.

In **Egypt**, TOTAL relinquished Block 4 (East El Burullus Offshore; 50% operator) at the end of the first exploration period in August 2014 after having drilled the Kala-1 well in 2013.

In September 2014, TOTALwas awarded Block 2 (North El Mahala Onshore) located in the Nile delta.

In **Gabon**, the Group's production in 2014 was 58 kboe/d compared with 59 kboe/d in 2013 and 57 kboe/d in 2012. The Group's exploration and production activities in Gabon are mainly carried out by Total Gabon(2).

- As part of the redevelopment project (estimated production capacity 20 kboe/d) of the Anguille field (100%, operator), the AGM North platform was installed in 2012. Production from the platform started in 2013 and fourteen wells are operational.
- In the Torpille field (100%, operator), a 3D seismic survey is underway.
- On the deep offshore Diaba license (42.5%, operator), an initial exploration well (Diaman-1B) was drilled in 2013 at a water depth of more than 1,700 M. This well revealed an accumulation of gas and condensates. A 3D seismic survey was acquired in the western part of the block in the fourth quarter of 2014.
- The Nguongui-updip well drilled on the Mutamba-Iroru license (50%) in 2012 revealed the presence of hydrocarbons.
- On the Nziembou license (20%), the drilling of the Igongo-1X well revealed a multi-layer accumulation of oil and gas and the drilling of the Monbou 1 prospect was completed in early January 2015.

(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 company under Gabonese law listed on Euronext Paris. TOTAL holds 58.28%, the Republic of Gabon holds 25% and the public float is 16.72%.

In **Kenya**, TOTAL has interests on the offshore L5 and L7 licenses (40%) and the L11a, L11b and L12 licenses (30% after selling 10% of the stake in December 2014) and is the operator of the L22 license (70%) located in the Lamu delta in water depths ranging from 1,000 m to 3,500 m.

In 2013, two exploration wells were drilled in Blocks L7 and L11b.

On the offshore L22 license, seabed core drilling operations were carried out in early 2014 and a 3D seismic survey was carried out, benefitting from synergies with the adjacent blocks.

In **Libya**, the Group's production in 2014 was 27 kb/d compared with 50 kb/d in 2013 and 62 kb/d in 2012. TOTAL is a 75%[1] partner in the Mabruk (Blocks 70 and 87) and Al Jurf (Blocks 15, 16 and 32) zones operated by Mabruk Oil Operations, a company held by National Oil Corporation (NOC) and TOTAL. In addition, TOTAL is a partner in the El Sharara zone (which comprises Blocks 129 and 130 (30%[1]) and 130 and 131 (24%[1])). Finally, TOTAL is the operator of the NC191 (100%[1]) exploration block.

The security situation in 2014 led the Group to gradually reduce the number of its personnel in Libya. Beginning in mid-2013 and through to the summer of 2014, production was affected by the blockade of most of the country's terminals and pipelines.

- In the onshore blocks 70 and 87 (Mabruk), production has been stopped since August 2013 due to the blockade of the Es Sider export terminal. Production resumed in September 2014 with the reopening of the terminal before being disrupted again mid-December due to the security situation near the Es Sider terminal; the field has not been producing since then.
- In the onshore blocks 129, 130 and 131 (El Sharara), production was interrupted several times in 2014. Nevertheless, the exploration of these blocks continued in 2014 with the drilling of three wells.
- In the offshore blocks 15, 16 and 32 (Al Jurf), production has not been affected by the social unrest in the country. However, the A1-16/3 exploration well which began drilling at year-end 2013 was plugged and temporarily abandoned in August 2014.

In **Madagascar**, TOTAL is active on the Bemolanga 3102 license (60%, operator). A two-year extension of the exploration phase was approved by the local authorities in August 2014.

In **Morocco**, on the 100,000 km² Anzarane offshore reconnaissance contract which was granted in December 2011 to TOTAL and ONHYM (National Bureau of Petroleum and Mines), an extension was granted until December 2015. The processing and interpretation of a 3D seismic survey, acquired in 2013 in the southern part of the block, is ongoing.

In **Mauritania**, the Group holds exploration interests in the ultra-deep offshore C9 license (90%, operator) and the onshore Ta29 license (72%, operator) in the Taoudenni basin, both acquired in 2012.

- On Block Ta29, following the results of the 2D seismic survey performed in 2012, studies are underway to assess the block. In 2013, TOTAL sold an 18% stake in Block Ta29, reducing its stake to 72%.
- A 3D seismic survey campaign covering 4,700 km² was conducted on Block C9 in 2013.
- Furthermore, at the end of the exploration period in July 2014, Blocks Ta7 and Ta8 (60%, operator) were relinquished to the authorities.

In **Mozambique**, TOTAL acquired a 40% stake in the production sharing contract for offshore zones 3 and 6 in 2012. Located in the Rovuma basin, these two blocks cover an area of 15,250 km² from the coast up to water depths of 2,500 m. Half of the area of the two blocks was relinquished in 2013. A 500 km² 3D seismic survey was carried out between year-end 2014 and beginning of 2015.

In **Nigeria**, the Group's production in 2014 was 257 kboe/d compared with 261 kboe/d in 2013 and 279 kboe/d in 2012. This decline was primarily due to the sharp increase in oil bunkering and a blockade of Nigeria LNG's export cargoes in 2013. Nigeria is the leading contributor to the Group's production.

TOTAL has been present in Nigeria since 1962 and operates five of the thirty seven oil mining leases (OML) in which it has interests and also holds interests in four oil prospecting licenses (OPL).

Regarding the principal variations in TOTAL's permits since 2012:

- In September 2013, TOTAL was granted approval by the authorities to increase its stake in OPL 285 from 26.67% to 60%.
- In May 2013, TOTAL obtained the approval of the authorities for the renewal of OML 99, 100 and 102 for a period of twenty years.
- On OML 138 (20%), TOTAL started production in the Usan offshore field in 2012, reaching 130 kboe/d in 2013. In 2014, the Ukot South-2B and Ukot South-3 exploration wells led to two oil discoveries. The Group is actively pursuing the sale process launched in November 2012, which was not able to close. TOTAL ceased to be the operator of OML 138 in February 2014.
- Block 1 (48.6%, operator) of the Joint Development Zone was relinquished in September 2013, and OPL 221 was relinquished in November 2013.
- In 2012, TOTAL sold its 10% stake in OML 30, 34 and 40, which were operated via the Shell Petroleum Development Company (SPDC) joint venture. Furthermore, new sales processes for four blocks (OML 18, 24, 25 & 29) were launched in early 2014, with the sale of OML 24 finalized in November 2014, and those of OML 18 and OML 29 finalized in March 2015.

TOTAL continues to develop its operated assets, in particular:

- OML 58 (40%, operator): as part of its joint venture with the Nigerian National Petroleum Corporation (NNPC), TOTAL is pursuing a project to increase the block's gas production capacity from 370 Mcf/d to 550 Mcf/d.
- OML 102 (40%, operator): TOTAL achieved the flare-out portion of the Ofon Phase 2 project in December 2014. The associated gas from the Ofon field is now being compressed, evacuated to shore and monetized via Nigeria LNG (NLNG).
- OML 130 (24%, operator): the development of the Egina field (capacity of 200 kboe/d) was launched in June 2013.
- OML 99 (40%, operator): additional studies are underway for the development of the Ikike field.

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

TOTAL is also active in the LNG sector with a 15% stake in Nigeria LNG Ltd, which owns a liquefaction plant with a total capacity of 22 Mt/y. On Brass LNG, since the withdrawal of one of the partners, TOTAL's stake has temporarily increased from 17% to 20.48%. Studies are currently ongoing for a two train liquefaction plant with a 4.5 Mt/y capacity each.

The Group's non-operated production in Nigeria comes mainly from the SPDC joint venture, in which TOTAL holds a 10% stake. The sharp increase of oil bunkering in 2013, which continued in 2014, had a negative impact on onshore production, as well as on the integrity of the joint venture's facilities and the local environment.

In addition, TOTAL holds a stake in the deep offshore OML 118 (12.5%), including the Bonga field, which contributed 15 kboe/d to the Group's production in 2014. On OML 118, a pre-unitization agreement relating to the Bonga South West/Aparo discovery (10%) was signed in December 2013.

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

- On the EA-1 license, a campaign of wells, production tests and a 3D seismic survey were carried out between 2012 and mid-2014. As of year-end 2014, five development plans had been submitted to the authorities: Ngiri (submitted in December 2013), Jobi-Rii (submitted in June 2014) and Mpyo, Gunya and Jobi East (submitted in December 2014).
- The EA-1A license expired in February 2013 following a campaign of five exploration wells that resulted in one discovery (Lyec). With the exception of the area relating to this discovery, the license has been returned to the authorities.
- On the EA-2 license, a campaign of wells and production tests that began in 2012 was completed 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 Kanywataba license expired in 2012 and was returned to the authorities.

In the **Republic of the Congo**, the Group's production in 2014 was 95 kboe/d compared with 93 kboe/d in 2013 and 113 kboe/d in 2012. The reduced production in 2013 was due to a planned shutdown on the Nkossa field. The decrease in production between 2012 and 2014 was due primarily to the natural decline of the fields. In December 2013, Qatar Petroleum International Upstream (QPI) purchased a 15% stake in the capital of Total E&P Congo via a share capital increase of the subsidiary.

- The Moho Bilondo offshore field (53.5%, operator) reached plateau production of 90 kboe/d in mid-2010. The Phase 1b (capacity of 40 kboe/d) and Moho North (capacity of 100 kboe/d) project was launched in March 2013, with production start-up planned in 2015 and 2016, respectively.
- Block 14K (36.75%) corresponds to the offshore unitization zone between the Haute Mer license in the Republic of the Congo and Block 14 in Angola. The development of the Lianzi field was launched in 2012. TOTAL holds a 26.75% interest in the unitized block through Total E&P Congo and a 10% interest through Angola Block 14 BV.
- In July 2013, TOTAL obtained the Haute Mer B license (34.62%, operator). The authorities approved the license in June 2014.
- 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. Following the approval of the authorities in June 2014, TOTAL's interests in these licenses decreased respectively from 50% to 42.50% for Loango and from 35% to 29.75% for Zatchi, with retroactive effect from October 2013.

In the Lake Albert region of the **Democratic Republic of the Congo**, the Block III (66.66%, operator) exploration license was granted in 2012 for an initial three-year period. As a result of the security situation in the eastern part of the country in 2012, the license was extended for one year. The prospecting program is limited to the northern portion of the license, which is outside the Virunga park.

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

2.1.7.2. North America

In 2014, TOTAL's production in North America was 90 kboe/d, representing 4% of the Group's total production, compared with 73 kboe/d in 2013 and 69 kboe/d in 2012.

In **Canada**, the Group's production in 2014 was 12 kboe/d compared to 13 kboe/d in 2013 and 12 kboe/d in 2012.
The Group's oil sands portfolio is focused around two themes: Steam Assisted Gravity Drainage (SAGD) on the Surmont (50%) asset, and mining at Fort Hills (39.2%). In addition, the Group holds stakes in a number of other oil sands leases including Joslyn (38.25%, operator) and Northern Lights (50%, operator).

- On Surmont, in order to optimize production, additional wells were drilled in 2013 and a decision was made to construct an additional steam generation unit.

  The second Surmont development phase is under construction (total capacity of phase 1 and 2 estimated at 130 kb/d).
- The development of the Fort Hills project, with an estimated capacity of 180 kb/d, is under way.
- On the Joslyn and Nothern Lights assets, a final investment decision is not expected in the near future due to the degraded economic environment.
- Due to the current economic environment, the Group impaired its oil sands assets in Canada by $2.2 billion in its 2014 consolidated accounts.
- In 2013, TOTAL finalized the sale of its 49% stake in the Voyageur upgrader project.

In the **United States**, the Group's production in 2014 was 78 kboe/d compared with 60 kboe/d in 2013 and 57 kboe/d in 2012.

- 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 production wells. ;
  - the Chinook 5 well on the deep offshore Chinook project (33.33%) started production in early 2014;
  - the TOTAL (40%) – Cobalt (60%, operator) alliance's exploration campaign, which was launched in 2009, resumed in 2012 with the Ligurian-2 and North Platte wells, resulting in an oil discovery on the latter. A new drilling campaign commenced in February 2015 with the drilling of the North Platte 2 well.
- TOTAL is active in shale gas production in Texas via a 25% stake in a joint venture operated by Chesapeake in the Barnett Shale basin. Drilling operations have been sharply reduced since 2012 (approximately 40 wells were drilled in 2014 compared to approximately 60 in 2013 and approximately 100 in 2012).
- TOTAL is also active in the production of liquids-rich shale gas in the Utica region in Ohio via a joint venture (25%) operated by Chesapeake. Approximately 170 wells were drilled in 2014 (compared to more than 200 wells in 2013 and approximately 100 in 2012) and 207 wells have been connected and have started production (compared with 190 in 2013 and 47 in 2012). In November 2014, TOTAL sold its 25% stake in Cardinal Gas Services LLC, a company providing gas collection and treatment services for Utica.
- The Group holds a 55.7% stake in American Shale Oil LLC (AMSO), which is developing an *in situ* shale oil production technology.
- In 2012, TOTAL entered into a 50/50 joint venture with Red Leaf Resources, which is developing an *ex situ* shale oil production technology. In the summer of 2014, the joint venture launched a production pilot.
- Regarding this shale oil theme, TOTAL acquired approximately 120 km² of additional land in Colorado and Utah in 2012.

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.

2.1.7.3. South America

In 2014, TOTAL's production in South America was 157 kboe/d, representing 7% of the Group's total production, compared with 166 kboe/d in 2013 and 182 kboe/d in 2012.

In **Argentina**, where TOTAL has been present since 1978, the Group operated approximately 30% of the country's gas production in 2014. The Group's production in 2014 was 75 kboe/d compared with 78 kboe/d in 2013 and 83 kboe/d in 2012. In 2012, the Argentinean government concluded gas price agreements with various producers. Under the terms of these agreements, the Argentinean government guarantees the price of gas for quantities above a fixed production level in exchange for 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 operates the Carina and Aries offshore fields (37.5%). A drilling campaign consisting of two additional wells began in 2014 based on the existing platform. The development of the Vega Pleyade field (37.5%, operator) was launched in October 2013 (production capacity of 350 Mcf/d).
- In the Neuquen basin, TOTAL started a drilling campaign on its mining licenses in 2011 in order to assess their shale gas and shale oil potential. This campaign, which started on the Aguada Pichana licenses (27.3%, operator), was subsequently extended to all of the blocks. The initial results of the production tests on the wells drilled during this campaign were all positive. Two pilot developments intended to test the unconventional production potential at the Aguada Pichana and Rincón la Ceniza (42.5%, operator) Blocks have been launched

In **Aruba**, TOTAL acquired a 35% stake in the offshore Aruba license (14,000 km²) in July 2014. A 3D seismic survey covering 3,250 km² was carried out.

In **Bolivia**, the Group's production, primarily gas, was 30 kboe/d in 2014 compared with 28 kboe/d in 2013 and 27 kboe/d in 2012. TOTAL has stakes in seven licenses: three production licenses, San Alberto and San Antonio (15%) and the Tarija Oeste Block XX (41%); two licenses in the development phase, Aquio and Ipati (60%, operator); and two licenses in the exploration phase, Rio Hondo (50%) and Azero (50%, operator of the exploration phase).

- The second development phase of the Itau gas and condensates field located on the Tarija Oeste Block XX started production in January 2014 with a production capacity of 176 Mcf/d.
- Following the discovery of the Incahuasi gas field, located on the Ipati Block, two additional wells were drilled in 2011 and 2013. In April 2013, TOTAL was granted approval by the authorities to start the first development phase of the project, including the connection of three previously drilled wells to a central processing plant with a capacity of 6.5 Mm³/d. An additional well was drilled in 2014 on the Ipati Block. In mid-2014, TOTAL reduced its participation in Aquio and Ipati from 80% to 60%.
- In 2013, TOTAL acquired a 50% stake in the Azero exploration license in the Andean Piedmont, located west of the Ipati and Aquio Blocks and covering an area of more than 7,800 km². The exploration period started in June 2014.

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

- In 2013, TOTAL acquired a 20% stake in the Libra field, located in Brazil's offshore Santos basin, the potential of which is currently being assessed. The field is located in the ultra-deep offshore (2,000 m) approximately 170 km off the coast of Rio de Janeiro and covers an area of 1,550 km². The drilling of two wells began in the third quarter of 2014 in the field's northwest and center zones.
- Following the eleventh bid round organized by the Brazilian authorities in May 2013, TOTAL acquired stakes in ten new exploration licenses. The Group operates five blocks (40%) located in the Foz do Amazonas basin (FZA-M-57, FZA-M-86, FZA-M-88, FZA-M-125 and FZA-M-127) and holds an interest in Block CE-M-661 (45%) located in the Ceara basin. TOTAL also holds a 25% stake in three Blocks (ES-M-669, ES-M-671 and ES-M-743) located in the Espirito Santo basin and a stake in the BAR-M-346 Block (50%) located in the Barreirinhas basin. Seismic survey campaigns were completed in 2014 on the Foz do Amazonas and Espirito Santo basins.
- TOTAL also holds stakes in the Xerelete field, which the Group has operated since 2012. This field is primarily located on

Block BC-2 (41.2%) and extends into Block BM-C-14 (50%). A well targeting both post-salt and pre-salt horizons was drilled and tested in January 2014.

– On the Gato Do Mato field located in Block BM-S-54 (20%) in the Santos basin, a well was drilled in 2012.

In **Colombia**, TOTAL has not had any production since the 2012 sale of its TEPMA BV subsidiary, which held a stake in the Cusiana field. Production was 6 kboe/d in 2012.

On the Niscota license (50%), the drilling program commenced in 2009 is ongoing.

In 2013, TOTAL sold its entire share in the Ocensa pipeline while retaining its transport rights. Subsequently, TOTAL signed an agreement in December 2014 to sell part of its transportation rights in the Ocensa pipeline and closing of this transaction occurred in February 2015.

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 km². At year-end 2011, the authorities extended the exploration license until May 31, 2016.

Further to the discovery of Zaedyus, a drilling campaign was conducted from July 2012 to year-end 2013, but was unable to confirm the extension of a reservoir.

In **Trinidad and Tobago**, TOTAL sold all of its exploration and production interests in 2013. The Group's production in 2013 was 12 kboe/d and 16 kboe/d in 2012.

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 km², are primarily located in the Artigas province in the northwestern part of the country.

– 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 km². A 3D seismic acquisition of the entire block was completed in early 2014.

In **Venezuela**, where TOTAL has had operations since 1980, the Group's production was 52 kboe/d in 2014 compared with 48 kboe/d in 2013 and 50 kboe/d in 2012. TOTAL has equity stakes in PetroCedeno (30.3%), in Yucal Placer (69.5%), and in the offshore exploration Block 4, located in Plataforma Deltana (49%).

The development phase of the southern zone of PetroCedeno continues (86 producing wells were drilled at year-end 2014 compared with 43 wells at year-end 2013), as well as the debottlenecking project for the water separation and treatment facilities. In 2013, the postponement of an additional debottlenecking project combined with a performance study performed on the field led to a revision of PetroCedeno's reserves.

Pursuant to an amendment to the gas sale contract, a new development phase of the Yucal Placer field was launched in 2012. The field's production reached 150 Mcf/d in April 2014 following the commissioning of the first clusters and the debottlenecking of the existing gas treatment train.

2.1.7.4. Asia-Pacific

In 2014, TOTAL's production in Asia-Pacific was 238 kboe/d, representing 11% of the Group's total production, compared with 235 kboe/d in 2013 and 221 kboe/d in 2012.

In **Australia**, where TOTAL has held leasehold rights since 2005, the Group's production was 4 kboe/d in 2014 and in 2013, and 5 kboe/d 2012.

– Following the acquisition of an additional 6% stake in 2013, TOTAL has held a 30% stake in the Ichthys project. Launched in early 2012, the project involves the development of a gas and condensate field in the Browse basin. The development consists of a floating platform designed for gas production, treatment and export, an FPSO (processing capacity of 100 kb/d of condensates) to stabilize and export condensates, an 889 km gas pipeline and an onshore liquefaction plant in Darwin with a capacity of 8.4 Mt/y of LNG and 1.6 Mt/y of LPG (liquified petroleum gas). The LNG has already been sold mainly to Asian buyers under long-term contracts.

– GLNG (27.5%) is an integrated gas production, transport and liquefaction project with a capacity of 7.2 Mt/y, based on the development of coal seam gas from the Fairview, Roma, Scotia and Arcadia fields. The upstream development of the project and the liquefaction plant are nearing completion.

– In 2013, the WA-492 and WA-493 licenses in the Carnarvon basin were awarded to TOTAL (100%, operator). A 2D seismic campaign began in January 2015.

– TOTAL holds a 40% stake in the WA-343-P license.

– At year-end 2012, TOTAL reduced its share in the WA-408 license located in the Browse basin (50%, operator) by disposing of 50% of its stake. Drilled in the first half of 2013, the first exploration well, Basset-1, revealed hydrocarbons. Completed at year-end 2013, the second exploration well has been definitively abandoned.

– On the WA-403 license (60%, operator) located in the Bonaparte basin, a well drilled in 2011 indicated the presence of hydrocarbons. A 3D seismic survey was conducted in 2013. The adjacent Block WA-402-P was relinquished in July 2014.

– In 2012, TOTAL signed an agreement to enter three shale gas exploration licenses in the South Georgina basin in the center of the country. In the second half of 2013, a 2D seismic survey was conducted on these three licenses.

In **Brunei**, where TOTAL has been present since 1986, the Group operates the offshore Maharaja Lela Jamalulalam gas and condensate field located on Block B (37.5%). The Group's production in 2014 was 15 kboe/d compared with 13 kboe/d in 2013 and 12 kboe/d in 2012. The gas is delivered to the Brunei LNG liquefaction plant.

In 2013, the study regarding the additional development south of the field (Maharaja Lela South) was completed. The project was officially launched in early 2014 with the signature of most of the contracts and a 20-year extension of the existing license.

Studies are currently being conducted to reassess the potential of the deep offshore exploration Block CA1 (54%, operator), which includes the Jagus East discovery.

In **China**, TOTAL has been present since 2006 on the South Sulige Block located in the Ordos basin in 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 holds a 49% stake. The authorities approved this development plan in April 2014. After an initial test phase that began in August 2012, the Group's production in 2014 was 12 kboe/d compared with 8 kboe/d in 2013. The drilling of development wells continues.

In March 2013, TOTAL and Sinopec concluded a joint study agreement relating to shale gas potential on the Xuancheng license (4,000 km^2) close to Nanjing. A 2D seismic survey covering 600 km was conducted from October 2013 to February 2014. The drilling of an initial exploration well started in late 2014.

In **Indonesia**, where TOTAL has had operations since 1968, the Group's production was 130 kboe/d in 2014 compared with 131 kboe/d in 2013 and 132 kboe/d in 2012.

TOTAL's operations in Indonesia are primarily concentrated on the Mahakam license (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. These volumes of gas accounted for approximately 80% of Bontang's LNG supply in 2014. 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 license:
  - Tunu: in 2014, additional development wells were drilled in the main reservoir as well as in the shallow gas reservoirs;
  - Peciko: phase 7 drilling operations continue;
  - South Mahakam: production started in 2012 and development drilling operations continued. Phase 3 of the project, which includes the development of the Jempang and Metulang fields, is currently underway; and
  - Sisi-Nubi: 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 with a capacity of approximately 100 Mcf/d. Ruby's production is transported by pipeline for processing and separation at the Senipah terminal operated by TOTAL.
- On the Sadang (30%), Sageri (50%), Arafura Sea (24.5%) and Amborip VI (24.5%) Blocks, the Group has applied to the authorities to withdraw from these 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 December 2014, TOTAL sold a 20% stake in the Bengkulu I-Mentawai Block (80%, operator), located in the Bengkulu offshore basin southwest of Sumatra. An exploration well was drilled on the block in 2014.
- In early 2015, the Group sold its stakes in the two coal bed methane (CBM) Blocks located in the province of East Kalimantan, Kutai II (18.4%) and Kutai Timur (50%).
- The Group also holds a stake in the Telen Block (100%, operator) located in East Kalimantan province.
- The Group has decided to withdraw from the South East Mahakam exploration Block (50%, operator) in East Kalimantan province and the South West Bird's Head exploration Block (90%, operator) located in West Papua.

In **Malaysia**, where TOTAL has been active since 2008, the Group holds stakes in three exploration licenses (SB-N, DW2E, SK 317 B).

In January 2014, the Group acquired a stake in the DW2E license (85%, operator) located in deep offshore. A 3D seismic campaign of 2,050 km^2 was completed late 2014.

On the SK 317 B exploration Block (85%, operator) located in Sarawak's deep offshore, the first exploration well, Pelangi-1, started in December 2013, revealing gaseous hydrocarbons. A second exploration well, Pelangi-2, started in November 2014.

At the end of the exploration period, TOTAL withdrew from the PM324 Block (50%, operator), located in the Malay basin.

In **Myanmar**, the Group's production in 2014 was 17 kboe/d compared with 16 kboe/d in 2013 and 2012.

The Yadana field (31.2%, operator), located on the offshore Blocks M5 and M6, primarily produces gas for delivery to PTT (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. The LCP-Badamyar project, which includes the installation of the Badamyar compression and development platform, connected to the Yadana facilities, was launched in September 2014.

In 2014, the Group was awarded the deep offshore Block YWB (100%, operator) during the offshore round launched by the Burmese authorities. The PSC was signed in February 2015.

On offshore Block M-11, located in the Martaban basin, the Group requested a new two-year exploration phase in October 2014 and, following the withdrawal of a partner, increased its stake from the 40% acquired in 2012 to approximately 47.06%. The first exploration well, Manizawta-1, was drilled in 2013.

In **Papua New Guinea**, where TOTAL has been active since 2012, the Group acquired a stake in Block PRL-15 (40.1%) in March 2014. The Papua New Guinea government retains the right to acquire a 22.5% stake in the block when the final investment decision is made. Following the government's entry, TOTAL's stake would be reduced to 31.1%.

Block PRL15 contains the two major discoveries of Elk and Antelope. A program to delineate these discoveries is currently underway with the drilling of two wells, the first of which started in October 2014, and the second of which started in December 2014. TOTAL has also launched pre-development studies of the Elk and Antelope fields, including the construction of an onshore gas liquefaction plant.

In 2012, TOTAL acquired a 40% stake in the PPL244 offshore license, and secured options to acquire 40% in the PPL234 offshore license, 50% in the PRL10 offshore license and 35% in the PPL338 and PPL339 onshore licenses.

- On the offshore PPL244 license, two exploration wells were drilled in 2013.
- The PPL234 option has not been exercised and the license expired in July 2014.
- On the onshore PPL338 and PPL339 licenses, a 2D seismic survey was conducted in 2013. A gradiometer survey was performed on the onshore PPL339 license. The option related to the onshore PPL338 license that expired in March 2014 was not exercised due to the minimal geological interest on the license.

In the **Philippines**, TOTAL has held since 2012 a 75% stake in the SC56 license located in the deep offshore of the southern Sulu Sea. Following interpretation of the data from a seismic campaign in 2013, TOTAL and its partner have decided to drill an exploration well on the block. In October 2014, TOTAL became the operator of the block.

In **Thailand**, the Group's production in 2014 was 60 kboe/d compared with 63 kboe/d in 2013 and 55 kboe/d in 2012. This production comes from the Bongkot (33.33%) offshore gas and condensate field. PTT purchases all of the natural gas and condensate production from this field.

– In the northern portion of the Bongkot field, new investments are in progress to maintain plateau and meet gas demand:
  - phase 3L (two wellhead platforms) was approved in 2012 and commenced production in 2014;
  - phase 3 m (four wellhead platforms) was approved in 2013; and
  - phase 3N (three wellhead platforms) was approved in 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 living-quarters platform and thirteen production platforms:
  - phase 4A (six wellhead platforms) commenced production in 2012;
  - phase 4B (four wellhead platforms) commenced production in 2014; and
  - phase 4C (three wellhead platforms) is under development.

Exploration on these licenses is ongoing with wells drilled annually (two in 2014).

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

2.1.7.5. Commonwealth of Independent States (CIS)

In 2014, TOTAL's production in the CIS was 249 kboe/d, representing 12% of the Group's total production, compared with 227 kboe/d in 2013 and 195 kboe/d in 2012.

In **Azerbaijan**, where TOTAL has been present since 1996, production, coming entirely from the Shah Deniz field, was 14 kboe/d in 2014 compared with 20 kboe/d in 2013 and 16 kboe/d in 2012.

– In August 2014, TOTAL sold its stake in the Shah Deniz field (10%) as well as its 10% stake in the pipeline held by South Caucasus Pipeline Company (SCPC).

– In September 2014, the Group sold its 10% stake in the Trans Adriatic Pipeline (TAP).

– TOTAL holds a 5% interest in the Baku-Tbilisi-Ceyhan (BTC) pipeline.

TOTAL is the operator for the exploration phase of the Absheron Block (40%) in the Caspian Sea, on which a discovery and commercial declaration was filed in 2012. The development plan for the field is currently being prepared.

In **Kazakhstan**, TOTAL has been active since 1992 in the North Caspian license (16.81%), which covers the Kashagan field.

First phase production from Kashagan(300 kb/d) started in September 2013 and was halted in October, 2013 due to leaks detected on the gas export pipeline. Following investigations carried out by the consortium, a refurbishment plan for the pipelines was approved. The two oil and gas export pipelines will be replaced over 99 km.

In February 2015, TOTAL sold 23.9% of its 75% interest in the Northern and Southern Nurmunai onshore exploration blocks, located in the southwest of the country. The drilling of a well started at the end of February 2015 on Northern Nurmunai Block.

In **Russia**, where TOTAL has had operations since 1991 and where, as of December 31, 2014, the Group held 19% of its proved reserves, the Group's production in 2014 was 235 kboe/d compared with 207 kboe/d in 2013 and 179 kboe/d in 2012. This production comes from the Kharyaga field and from TOTAL's stake in the Russian company OAO Novatek (18.24%)[1], which is listed in Moscow and London (hereafter, "Novatek"). In 2014, international economic sanctions related to the situation in Ukraine were imposed by the United States, the EU and other countries. TOTAL complies with sanctions applicable to its activities. For additional information, refer to point 3.9.1.3. of chapter 4 (Risk factors).

– On the Kharyaga field (40%, operator), the development of phases 3 and 4 is ongoing

– In addition to its shareholding in Novatek, TOTAL currently participates via a direct stake in two projects:
  - Termokarstovoye(onshore gas and condensate field 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 the field started in late 2011 (estimated capacity of 65 kboe/d).

– Yamal LNG: Launched in December 2013, the aim of this project is the development of the onshore South Tambey field (gas and condensate) located in the Yamal Peninsula via the construction of a three-train LNG liquefaction plant with a capacity of 16.5 Mt/y. In order to comply with international economic sanctions, the financing plan for the Yamal LNG project is being reviewed, and the project's partners are engaged in efforts to develop a financing plan in line with the applicable regulations. In parallel, the development of the project is progressing in a satisfactory manner. The OAO Yamal LNG company is jointly owned by Novatek (60%), Total E&P Yamal (20%) and, since January 2014, CNODC (20%), a subsidiary of CNPC.

In May 2014, TOTAL signed a strategic cooperation agreement with OAO LUKOIL in order to develop shale oil resources in the Bazhenov basin, located in the province of Kanthy Mansiysk. In addition to the licenses covered by this agreement, TOTAL acquired six new licenses in the basin in 2014. The international economic sanctions imposed in the summer of 2014 have led the partners to put this project on hold.

In January 2014, Novatek increased its stake in the Severenergia company by acquiring ENI's shares through Arcticgaz (50/50 joint venture between Novatek and Gazpromneft). In December 2013, Novatek exchanged its interest held in Sibneftegas for all of Rosneft's interests in Severenergia in which it now has a 54.9% stake. Novatek has held a 50% stake in the company ZAO Nortgaz since June 2013.

(1) The Group held an 18.24% stake in OAO Novatek as of December 31, 2014.

In **Tajikistan**, TOTAL launched its activities in the country by acquiring a 33.3% stake in the Bokhtar Block in the first half of 2013. Environmental and societal studies were carried out in 2014. A 2D seismic campaign covering 800 km started in 2014.

2.1.7.6. Europe

In 2014, TOTAL's production in Europe was 364 kboe/d, representing 17% of the Group's total production, compared with 392 kboe/d in 2013 and 427 kboe/d in 2012.

In **Bulgaria**, the Khan Asparuh license, which covers 14,220 km² in the Black Sea, was awarded to TOTAL in 2012. In March 2013, TOTAL sold 60% of its stake, retaining a 40% interest. A 2D and 3D seismic survey was performed from June 2013 to January 2014 and the data is currently being processed and interpreted. TOTAL became the operator of the block in April 2014.

In **Cyprus**, TOTAL has been present since 2013 in the deep offshore exploration Block 10 (100%, operator) and Block 11 (100%, operator) located southwest of the country. Following a 3D seismic survey carried out on Block 11 in 2013, a 2D seismic survey on Block 10 was conducted in February 2014.

In **Denmark**, TOTAL has since 2010 held an 80% stake and operated the 1/10 (Nordjylland) and 2/10 (Nordsjaelland) licenses. These onshore licenses, whose shale gas potential continues to be assessed, cover areas of 3,000 km² and 2,300 km², respectively.

Following geoscience surveys on license 1/10 in 2011, the decision was made to drill a well.

On license 2/10, a gravimetric survey was completed in 2013.

In **France**, the Group's production in 2014 was 2 kboe/d compared with 9 kboe/d in 2013 and 13 kboe/d in 2012.

In October 2013, TOTAL ended commercial gas operations on Lacq, which had begun in 1957. The transfer of the Lacq concession was approved by French authorities in October 2014.

On the Lacq field, the CO_2 capture, injection and storage pilot commissioned in 2010 ended in 2013.

The Montelimar exclusive exploration license awarded to TOTAL in 2010 to assess, in particular, the shale gas potential of the area, was abrogated 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. An appeal filed in December 2011 with the administrative court requesting that the judge cancel the revocation of the license is pending.

In **Italy**, TOTAL holds a stake in two exploration licenses and in the Tempa Rossa field (50%, operator), discovered in 1989 and located on the Gorgoglione concession (Basilicate region). The final investment decision for Tempa Rossa was made in July 2012 and development is ongoing. The Gorgoglione well was tested in 2012 and confirmed the results obtained from the other wells. A sidetrack was drilled at the TR-2 well and another started in June 2014 on the TR-1 well.

In 2013, TOTAL sold 25% of its 75% stake in Tempa Rossa, thereby reducing its stake to 50%.

In **Norway**, where the Group has had operations since 1965, TOTAL has equity stakes in 96 production licenses on the Norwegian maritime continental shelf, 29 of which it operates. In 2014, the Group's production was 242 kboe/d, compared to 243 kboe/d in 2013 and 275 kboe/d in 2012. The decrease in production between 2013 and 2014 was mainly due to the natural decline of mature fields

- In the Norwegian North Sea, the most substantial contribution to the Group's production, comes from the non-operated Greater Ekofisk Area (Ekofisk, Eldfisk, Embla, etc.).
- In the southern Norwegian North Sea:
  In the Greater Ekofisk Area, the Group owns a 39.9% stake in the Ekofisk and Eldfisk fields. Production started in October 2013 at Ekofisk South, and in January 2015 at Eldfisk II (capacity of 70 kboe/d each).
- In the central part of the Norwegian North Sea:
  The development of the Gina Krog field (30%) located north of Sleipner was approved in 2013.
- In the northern part of the Norwegian North Sea:
  The Islay field (100%, operator) started production in 2012. This field extends on each side of the Norwegian/UK border and the Group's interest in the Norwegian part is 5.51%.

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

  On license PL120 (7.7%), the fast-track development of Visund North allowed production to start in 2013.

  On the Greater Hild Area (51%, operator), the Martin Linge development (capacity of 80 kboe/d) was approved by the authorities in 2012.

  In 2013, the authorities approved the Oseberg Delta phase 2 project (14.7%), located on production licenses PL104 and PL79. The Oseberg East TSV project (14.7%) was approved in 2014.
- In the Norwegian Sea, the Haltenbanken area includes the Tyrihans (23.2%), Mikkel (7.7%) and Kristin (6%) fields, as well as the Åsgard field (7.7%) and its satellites.

  The Norwegian authorities approved the Åsgard sub-sea compression project in 2012. The main contracts have all been signed and various components were installed during the summer of 2014.

  The Polarled project (5.11%), approved in 2012, involves the installation of a 481 km long pipeline from the Aasta Hansen field to the Nyhamna terminal, as well as expansion of the terminal.
- In the Barents Sea, a project intended to improve the performance of the Snøhvit gas liquefaction plant (18.4%, 4.2 Mt/y capacity) was launched in 2012. The plant is supplied with gas from the Snøhvit, Albatross and Askeladd fields.

Several exploration wells were drilled on a number of licenses during the 2012-14 period with discoveries on Helene (PL120, 11%) and Trell (PL102G, 40%, operator) in 2014, on Smørbukk North (PL479, 7.68%) and Rhea (PL120, 7.68%) in 2013, as well as on Garantiana (PL554, 40%, operator) and King Lear (PL146 and 333, 22.2%) in 2012. In 2014, the well drilled on Garantiana enabled an increase in estimated oil volumes.

In addition, the Group continues to optimize its portfolio in Norway by obtaining new licenses and divesting a number of non-strategic assets. To this end, in October 2014, TOTAL concluded an agreement to sell an 8% stake in the Gina Krog field, thereby reducing its stake to 30%, and all of its interests in the Vilje (24.24%), Vale (24.24%) and Morvin (6%) fields. The transaction was approved by the Norwegian authorities in December 2014.

In **the Netherlands**, TOTAL has conducted natural gas exploration and production operations since 1964 and currently holds interests in twenty-four offshore production licenses, including twenty that it operates, and two offshore exploration licenses, E17c (16.92%) and K1c (30%). In 2014, the Group's production was 31 kboe/d compared with 35 kboe/d in 2013 and 33 kboe/d in 2012.

– In September 2014, the Dutch authorities awarded the F12 exploration Block to TOTAL.

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

– A 3D seismic survey of several offshore licenses covering an area of 3,500 km² was conducted in 2012.

– In August 2013, the K4-Z development project (50%, operator) started production.

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. In February 2014, the licenses were relinquished, and since then the Group no longer holds any exploration interests in the country.

In the **United Kingdom**, where TOTAL has had operations since 1962, the Group's production was 89 kboe/d in 2014 compared with 105 kboe/d in 2013 and 106 kboe/d in 2012. About 90% of production comes from operated fields located in two main zones: the Alwyn zone in the northern North Sea, and the Elgin/Franklin zone in the Central Graben.

– In the Alwyn zone (100%), the start-up of satellite fields or new reservoir compartments partially compensated for the natural decline in production. The N54 and N53 wells were put into production in 2012 and 2011, respectively. In addition, the N55 well, which was drilled in 2012 in the Brent South West panel, was put into production in the second quarter of 2014 and the N56 well (Alwyn Statfjord) in the third quarter of 2014.

On the Dunbar field (100%), a new development phase (Dunbar phase IV) including three well work-overs and the drilling of six new wells is underway.

The Islay field (100%, operator) was put into production in 2012. This field extends on either side of the border between the United Kingdom (94.49%) and Norway (5.51%). Production from the field is processed on the Alwyn North platform.

– In Central Graben, TOTAL holds stakes in the Elgin, Franklin and West Franklin fields (46.2%, operator). 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, the G4 well was definitively secured. 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). A redevelopment project involving the drilling of five new infill wells on Elgin and Franklin started in July 2013.

In 2014, TOTAL acquired an additional interest (9.5%) in the Glenelg field, thereby increasing its interest from 49.5% to 58.7%.

In addition, the West Franklin Phase II development project continued with the start-up of production of the first well in January 2015.

– In addition to Alwyn and the Central Graben, a third hub, West of Shetland, is under development. This hub includes the Laggan and Tormore fields (80%, operator) and the P967 license (50%, operator), which includes the Tobermory gas discovery. Production on the Laggan and Tormore fields is expected to start in 2015 with an expected capacity of 90 kboe/d.

Close to Laggan and Tormore, the development of the Edradour East (80%, operator) gas and condensate discovery was sanctioned in 2012. A second well (Spinnaker), near the Edradour East discovery, was drilled in early 2014.

In July 2014, TOTAL acquired an 80% stake and the operatorship in the Glenlivet field located north of Edradour. The proximity of the two fields resulted in reduced development costs, which enabled the launch of a joint development.

In addition, TOTAL purchased an additional 5% stake in the Edradour field in 2014 and now holds 80% of the four fields currently under development: Laggan, Tormore, Edradour and Glenlivet.

TOTAL also holds a stake in three non-operated fields: Bruce (43.25%), Keith (25%), and Markham (7.35%). The Group's stakes in other non-operated fields (Seymour, Alba, Armada, Maria, Moira, Mungo/Monan and Everest) were divested in 2012.

TOTAL was awarded six new licenses in the 28th Round in November 2014. Four of these licenses are in the West of Shetland area, one in the northern North Sea and one non-operated in the Central Graben.

In early 2014, TOTAL acquired a 40% stake in two onshore shale gas exploration and production licenses (PEDL 139 and 140) located in the Gainsborough Trough basin of the East Midlands, and signed an agreement enabling the Group to acquire a 50% stake in the PEDL 209 license located in the same area. A 70 km² 3D survey campaign was carried out in March and April 2014.

2.1.7.7. Middle East

In 2014, TOTAL's production in the Middle East was 391 kboe/d, representing 18% of the Group's total production, compared with 536 kboe/d in 2013 and 493 kboe/d in 2012.

In the **United Arab Emirates**, where TOTAL has had operations since 1939, the Group's production was 127 kboe/d in 2014 compared with 260 kboe/d in 2013 and 246 kboe/d in 2012. The decrease in production in 2014 was due to the expiry of the Abu Dhabi Company for Onshore oil Operations (ADCO) license in January 2014, in which TOTAL held a 9.5% interest. In January 2015, TOTAL signed an agreement granting it a 10% participation as from January 1, 2015 in the new ADCO concession for 40 years. This concession covers the fifteen main onshore fields of Abu Dhabi and represents more than half of the Emirate's production.

TOTAL holds a 75% stake (operator) in the Abu Al Bukhoosh field and a 13.3% stake in Abu Dhabi Marine Operating Company (ADMA-OPCO), which operates two fields offshore Abu Dhabi. TOTAL also holds a 15% stake in Abu Dhabi Gas Industries (GASCO), which produces NGL and condensates from the associated gas produced by ADCO as well as from the gas and condensates produced by ADMA-OPCO. In addition, TOTAL holds stakes of 5% in Abu Dhabi Gas Liquefaction Company (ADGAS), which processes the associated gas produced by ADMA-OPCO in order to produce LNG, NGL and condensates, and 5% in National Gas Shipping Company (NGSCO), which owns eight LNG tankers and exports the LNG produced by ADGAS.

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 commenced operations in July 2013, enabling FERTIL to more than double its production capacity to 2 Mt/y.

In **Iraq**, the Group's production in 2014 was 12 kboe/d compared with 7 kboe/d in 2013 and 6 kboe/d in 2012.

On the Halfaya field in Missan province, following the completion of a negotiation in October 2014,TOTAL's stake increased from 18.75% to 22.5% in the consortium that was awarded the development and production contract. Production of phase 1 of the project started in June 2012 and phase 2 started in August 2014, enabling production to reach 200 kb/d in the second half of 2014.

In early 2014,TOTAL increased its stake from 35% to 80% and became operator of the Safen Block (424 km²) located northwest of Erbil in the Kurdistan region. A 2D seismic survey of 275 km was conducted in 2014.

In early 2013, TOTAL acquired an 80% stake and became operator of the Baranan exploration Block (729 km²), southeast of Sulaymaniyah, in the Kurdistan region. A 2D seismic survey of 213 km was completed in January 2014.

Since 2012, TOTAL has held a 35% stake in the Harir exploration Block (705 km²) located northeast of Erbil, as well as a 20% stake in the Taza Block (505 km²), located southwest of Sulaymaniyah. Following three exploration wells in 2013 that led to two discoveries on the Taza Block and on the Harir Block (Mirawa), an exploration well was drilled in 2014 resulting in the Jisik discovery.

In **Iran**, the Group has had no production since 2010. For additional information, refer to point 3.9. of chapter 4 (Risk factors).

In **Oman**, the Group's production in 2014 was 36 kboe/d, stable compared with 2013 and 2012. TOTAL primarily produces oil on Block 6 (4%)(1) as well as on Block 53 (2%)(2). The Group also produces LNG through its stake in the Oman LNG (5.54%)/Qalhat LNG (2.04%)(3) 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 which a seabed core drilling campaign was carried out.

In **Qatar**, where TOTAL has had operations since 1936, the Group's production was 132 kboe/d in 2014 compared with 137 kboe/d in 2013 and 139 kboe/d in 2012.

The Group operates the Al Khalij field and participates in the production, processing and export of gas from the North Field through its stakes in the Qatargas 1 and Qatargas 2 Liquefied Natural Gas (LNG) plants and in Dolphin Energy.

– Al Khalij (40%, operator): in 2012, TOTAL and state-owned Qatar Petroleum signed a new agreement extending their partnership on the Al Khalij field for an additional 25-year period as of February 1, 2014. According to the terms of this contract, TOTAL will continue to be the operator (40%) alongside Qatar Petroleum (60%).

– Qatargas 2 (16.7%): the production capacity of train 5 of Qatargas 2 is 8 Mt/y. TOTAL offtakes part of the LNG produced under the 2006 contracts which provide for the purchase of 5.2 Mt/y of LNG by the Group. In addition, the Group holds a stake in the Qatargas 1 liquefaction plant (10%) as well as a stake in the corresponding upstream block NFB (20%).

– Dolphin Energy (24.5%): 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 Group became a partner in the offshore BC exploration license (25%) in 2011. Drilling of the first exploration well started in May 2014 and was completed in December 2014.

In **Syria**, TOTAL has a 100% stake in the Deir Ez Zor license, 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 has had no production in the country since December 2011, when TOTAL suspended its hydrocarbon production activities in Syria in compliance with the European Union's regulations regarding this country. For additional information, refer to point 3.9. of chapter 4 (Risk factors).

In **Yemen**, where TOTAL has had operations since 1987, the Group's production was 84 kboe/d in 2014 compared with 95 kboe/d in 2013 and 65 kboe/d in 2012.

The security situation in Yemen remains unstable, however this had only a marginal effect on the production from the Group's assets in 2014. Security measures are regularly reviewed in view of the evolving risks.

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, and connected via a 320 km gas pipeline. Rockets were launched towards the Balhaf plant in December 2013, January 2014 and December 2014. However, production was not impacted and security measures have been strengthened.

TOTAL also has stakes in two oil blocks: Block 10 East Shabwa license (28.57%, operator) in the Masila basin and Block 5 Jannah license (15%) in the Marib basin.

TOTAL owns stakes in five onshore exploration licenses: Block 69 (40%, the exploration period has expired and the block is in the process of being relinquished), Block 71 (40%), Block 70 (50.1%, operator), Block 72 (36%, operator), and Block 3 (40%, operator).

(1) TOTAL holds an indirect 4% stake in Petroleum Development Oman LLC, operator of Block 6 via its 10% stake in Private Oil Holdings Oman Ltd.
(2) TOTAL holds a 2% stake in Block 53.
(3) TOTAL has an indirect stake via Oman LNG's stake in Qalhat LNG.

2.1.8. Oil and gas acreage

As of December 31, (in thousands of acres)		2014 Undeveloped acreage[(a)]	2014 Developed acreage
Europe	Gross	10,601	692
	Net	5,197	143
Africa	Gross	122,385	1,306
	Net	79,562	350
Americas	Gross	25,081	962
	Net	11,375	299
Middle East	Gross	34,375	1,215
	Net	9,908	129
Asia (excl. Russia)	Gross	50,076	705
	Net	26,930	253
Russia	Gross	3,419	1,370
	Net	1,334	215
Total	**Gross**	**245,937**	**6,250**
	Net[(b)]	**134,306**	**1,389**

(a) Undeveloped acreage includes leases and concessions.
(b) Net acreage equals the sum of the Group's equity stakes in gross acreage.

2.1.9. Number of productive wells

As of December 31,		2014 Gross productive wells	2014 Net productive wells[(a)]
Europe	Oil	370	101
	Gas	279	82
Africa	Oil	2,297	619
	Gas	158	49
Americas	Oil	961	295
	Gas	3,817	782
Middle East	Oil	5,540	355
	Gas	107	20
Asia (excl. Russia)	Oil	140	57
	Gas	2,063	732
Russia	Oil	137	31
	Gas	410	67
Total	**Oil**	**9,445**	**1,458**
	Gas	**6,834**	**1,732**

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

2.1.10. Number of net productive and dry wells drilled

As of December 31,	2014			2013			2012		
	Net productive wells drilled [(a) (b)]	Net dry wells drilled [(a) (c)]	Net total wells drilled [(a) (c)]	Net productive wells drilled [(a) (b)]	Net dry wells drilled [(a) (c)]	Net total wells drilled [(a) (c)]	Net productive wells drilled [(a) (b)]	Net dry wells drilled [(a) (c)]	Net total wells drilled [(a) (c)]
Exploratory									
Europe	1.4	0.2	1.6	1.5	0.2	1.7	0.9	3.3	4.2
Africa	2.0	3.3	5.3	1.5	5.1	6.6	4.9	2.8	7.7
Americas	2.1	0.3	2.4	2.9	1.4	4.3	3.9	0.6	4.5
Middle East	0.3	0.3	0.6	0.6	0.7	1.3	-	-	-
Asia (excl. Russia)	1.2	1.1	2.3	1.6	4.3	5.9	2.4	1.4	3.8
Russia	-	0.3	0.3	-	-	-	-	-	-
Total	**7.0**	**5.5**	**12.5**	**8.1**	**11.7**	**19.8**	**12.1**	**8.1**	**20.2**
Development									
Europe	8.8	-	8.8	6.9	0.3	7.2	6.0	0.7	6.7
Africa	24.6	1.0	25.6	19.7	0.4	20.1	22.7	-	22.7
Americas	128.1	0.2	128.3	98.0	-	98.0	70.6	-	70.6
Middle East	36.1	0.2	36.3	42.7	0.3	43.0	43.3	-	43.3
Asia (excl. Russia)	106.2	0.5	106.7	184.2	-	184.2	121.5	-	121.5
Russia	28.8	0.8	29.6	13.8	-	13.8	6.3	-	6.3
Total	**332.6**	**2.7**	**335.3**	**365.3**	**1.0**	**366.3**	**270.4**	**0.7**	**271.1**
Total	**339.6**	**8.2**	**347.8**	**373.4**	**12.7**	**386.1**	**282.5**	**8.8**	**291.3**

(a) Net wells equal the sum of the Group's fractional interests in gross wells.
(b) Includes certain exploratory wells that were abandoned, but which would have been capable of producing oil in sufficient quantities to justify completion.
(c) For information: service wells and stratigraphic wells drilled within oil sands operations in Canada are not reported in this table (90.0 wells in 2014, 86.2 wells in 2013 and 131.7 in 2012).

2.1.11. Wells in the process of being drilled (including wells temporarily suspended)

As of December 31,	2014 Gross	2014 Net [(a)]
Exploratory		
Europe	6	2.1
Africa	32	9.6
Americas	12	4.0
Middle East	13	4.2
Asia (excl. Russia)	12	3.4
Russia	-	-
Total	**75**	**23.3**
Other wells [(b)]		
Europe	36	13.9
Africa	47	12.6
Americas	370	159.3
Middle East	128	14.0
Asia (excl. Russia)	797	206.4
Russia	203	32.5
Total	**1,581**	**438.7**
Total	**1,656**	**462.0**

(a) Net wells equal the sum of the Group's equity stakes in gross wells. Includes 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 were drilled.
(b) Other wells are development wells, service wells, stratigraphic wells and extension wells.

2.1.12. Interests in pipelines

The table below sets forth interests of the Group's entities (excluding equity affiliates) in oil and gas pipelines as of December 31, 2014.

Pipeline(s)	Origin	Destination	% interest	Operator	Liquids	Gas
Europe						
Norway						
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	
Polarled	Asta Hansteen/Linnorm	Nyhamna	5.11			x
The Netherlands						
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
United Kingdom						
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
Africa						
Gabon						
Mandji Pipes	Mandji fields	Cap Lopez Terminal	100.00 [(a)]	x	x	
Rabi Pipes	Rabi fields	Cap Lopez Terminal	100.00 [(a)]	x	x	
Americas						
Argentina						
TGN	Network (Northern Argentina)		15.40			x
TGM	TGN	Uruguyana (Brazil)	32.68			x
Brazil						
TBG	Bolivia-Brazil border	Porto Alegre via São Paulo	9.67			x
Asia-Pacific						
Yadana	Yadana (Myanmar)	Ban-I Tong (Thai border)	31.24	x		x
Rest of world						
BTC	Baku (Azerbaijan)	Ceyhan (Turkey, Mediterranean)	5.00		x	

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

2.2. 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, LNG, 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.

2.2.1. Liquefied Natural Gas

A pioneer in the LNG industry, TOTAL today is one of the world's leading players[(1)] in the sector and has sound and diversified positions both in the upstream and downstream portions of the LNG chain. LNG development is a key element of the Group's strategy, with TOTAL strengthening its positions in most major production zones and markets.

Through its stakes in liquefaction plants[(2)] 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 global markets. The share of LNG production sold by TOTAL in 2014 remained stable at 12.2 Mt, (12.3 Mt in 2013). The Group's upcoming 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 downstream LNG portfolio for its trading, marketing and transport operations as well as re-gasification terminals.

2.2.1.1. 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 the 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 1.17 Mt/y over a 20-year period starting in 2009.

TOTAL also holds a 20.48% stake in the Brass LNG project, on which studies are ongoing for a gas liquefaction plant with two LNG trains with a capacity of about 4.5 Mt/y each. In 2006, TOTAL signed a preliminary agreement with Brass LNG Ltd setting forth the principal terms of an LNG purchase agreement for 2.15 Mt/y. 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 20-year period primarily intended for North America and Europe. LNG deliveries started in 2007.

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

In **Yemen**, TOTAL signed a contract 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.

Since 2009, a growing 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 more buoyant Asian markets.

The new LNG sources described below are expected to support the 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 involves 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. The start of production is scheduled for the end of 2016 and the first LNG deliveries to long-term customers are expected to start in 2017.

In **Russia**, TOTAL owns a 20% direct stake in Yamal LNG, which is developing the South Tambey gas and condensates field and building a gas liquefaction plant with three trains and an LNG production capacity of 16.5 Mt/y. The final investment decision was made in December 2013. Concurrently, TOTAL signed two LNG purchase agreements with the project, amounting respectively to 3 Mt/y over a 23-year period and 1 Mt/y over a 15-year period.

In the **United States**, TOTAL entered into an agreement in 2012 with Kogas (Korea Gas Corporation) for the purchase of 0.7 Mt/y of LNG over a 20-year period from train 3 of the Sabine Pass gas terminal in Louisiana. LNG deliveries are expected to start in 2017. At the same time, 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 2019. This agreement is conditional on, among other things, the final investment decision for the project and the obtaining of export and construction permits by Sabine Pass Liquefaction LLC, the entity which owns and operates the terminal. Finally, TOTAL concluded a contract with Mitsui in 2014 for the purchase of 0.5 Mt/y of LNG from the Cameron gas terminal in Louisiana, over a 10-year period starting from the date of commissioning of train 1, scheduled for 2018.

2.2.1.2. Long-term Group LNG sales

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

In **Spain**, TOTAL signed an LNG sales agreement with Cepsa Gas Comercializadora (CGC). Under this agreement, TOTAL supplies 0.74 Mt/y to CGC over a 17-year period starting from 2006.

In **China**, TOTAL signed an LNG sales agreement with China National Offshore Oil Corporation (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.

(1) Company data, based on upstream and downstream LNG portfolios in 2014.

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.

In **Japan**, TOTAL signed an LNG sales agreement in 2011 with Inpex. Under this agreement, TOTAL will deliver up to 0.2 Mt/y of LNG to Inpex over a 15-year period. Deliveries are expected to start in 2017.

In **Singapore**, TOTAL signed an LNG sales agreement in 2014 with Pavilion. Under this agreement, TOTAL will supply up to 0.7 Mt/y of LNG to Pavilion from 2018 over a 10-year period, as well as several cargoes before 2018. This agreement is subject to Pavilion obtaining an import license.

2.2.1.3. LNG shipping

With regard to LNG transport operations, TOTAL has been using since 2006 a 145,000 m³ capacity LNG tanker, the Arctic Lady, under a long-term charter, to ship its share of production from the Snøhvit liquefaction plant in Norway. In late 2011, TOTAL signed a second long-term contract for the chartering of a 165,000 m³ LNG tanker, the Meridian Spirit, in order to strengthen its transport capacities with regard to its purchase commitments in Norway, as mentioned above.

The Group continues to develop its fleet. TOTAL signed a long-term charter agreement in April 2013 in this regard with SK Shipping and Marubeni for two 180,000 m³ LNG tankers. 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 the canal's expansion due to be completed 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. Since then, TOTAL has sold its entire stake through the initial public offering (IPO) of GTT's shares on Euronext Paris at the end of February 2014 and through a direct sale agreement in December 2014.

2.2.2. Trading

In 2014, TOTAL continued 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 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 access suppliers more freely, in turn leading to marketing arrangements that are more flexible than traditional long-term contracts, TOTAL is developing trading, marketing and logistics businesses to market its natural gas and LNG production directly to customers.

The Group also has operations in electricity trading and the marketing of LPG and coal. Furthermore, TOTAL has marketed the petcoke produced at the Port Arthur refinery in the United States since 2011 and a part of the petcoke produced at the Jubail refinery in Saudi Arabia since 2014.

Gas & Power's trading teams, which are located in London, Houston, Geneva and Singapore, 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.

2.2.2.1. Gas and electricity

TOTAL's gas and electricity trading operations in Europe and North America sell the Group's production, supply its gas marketing subsidiaries and support other activities of the Group.

In **Europe**, TOTAL marketed 911 Bcf (25.8 Bm³) of natural gas in 2014 compared to 1,194 Bcf (33.8 Bm³) in 2013 and 1,488 Bcf (42.1 Bm³) in 2012, including approximately 12.1% from its own production in 2014. TOTAL also supplied 44.8 TWh of electricity primarily from external resources in 2014, compared to 53.0 TWh in 2013 and 53.3 TWh in 2012.

In **North America**, TOTAL marketed 593 Bcf (16.8 Bm³) of natural gas from its own production or external resources in 2014, compared to 938 Bcf (26.6 Bm³) in 2013 and 1,256 Bcf (36 Bm³) in 2012.

2.2.2.2. LNG

TOTAL has LNG trading operations through spot sales and fixed-term contracts as described in section 2.2.1. of this chapter. Major purchase and sale agreements have significantly helped develop the Group's LNG marketing operations, particularly in Asia's most buoyant markets: China, India, Japan, and South Korea. 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 2014, TOTAL purchased 87 contractual cargoes from Qatar, Yemen, Nigeria and Norway and 7 spot cargoes from France, Trinidad & Tobago and Nigeria, compared to, respectively, 89 and 9 in 2013 and 87 and 8 in 2012.

2.2.2.3. LPG

TOTAL traded and sold approximately 5.5 Mt of LPG (butane and propane) worldwide in 2014, compared to 5.6 Mt in 2013 and 6 Mt in 2012. Approximately 20% of these quantities came from fields or refineries operated by the Group. LPG trading involved the use of 10 time charters, 290 voyages were necessary in 2014 to transport the negotiated quantities, of which 195 voyages were by TOTAL time charters, and 95 by spot charters.

2.2.2.4. Coal

TOTAL marketed 8.5 Mt of coal on the international market in 2014 the same quantity as in both 2013 and 2012. More than 70% of this coal came from South Africa. Approximately 70% of the volume was sold in Asia, where coal is used primarily to generate electricity. The remaining volume was marketed primarily in Europe.

2.2.2.5. Petcoke

TOTAL began to market the petcoke produced by the coker at the Port Arthur refinery in the United States in 2011. Approximately 1.3 Mt of petcoke was sold on the international market in 2014, compared to 1.2 Mt in 2013 and 1.1 Mt in 2012, to cement plants and electricity producers mainly in India, Turkey, Mexico, Brazil and other Latin American countries.

In 2014, TOTAL began to market the petcoke produced by the Jubail refinery in Saudi Arabia. Approximately 100 kt was sold mainly in the Asian market.

2.2.3. Marketing

To consolidate its position throughout the value chain and to leverage the synergies of the Group's other activities, TOTAL has been developing an activity to market gas as well as electricity and coal to end consumers in the United Kingdom, France, Spain, Germany, Belgium and the Netherlands.

In the **United Kingdom**, TOTAL markets gas and electricity to the industrial and commercial segments through its subsidiary Total Gas & Power Ltd. In 2014, volumes of gas sold amounted to 135 Bcf (3.8 Bm^3), compared to 142 Bcf (4.0 Bm^3) in 2013 and 146 Bcf (4.2 Bm^3) in 2012. Sales of electricity totaled approximately 5.3 TWh in 2014, compared to 4.7 TWh in 2013 and 3.9 TWh in 2012.

In **France**, TOTAL markets natural gas through its subsidiary Total Énergie Gaz (TEGAZ), the overall sales of which were 95 Bcf (2.7 Bm^3) in 2014, compared to 141 Bcf (4.0 Bm^3) in 2013 and 176 Bcf (5.0 Bm^3) in 2012. This decrease is a consequence of TEGAZ's strategic repositioning on the SME market due to deteriorating margins and a more stringent regulatory environment. The Group also markets coal to its French customers through its subsidiary CDF Energie, with sales of approximately 0.7 Mt in 2014, compared to 0.81 Mt in 2013 and 0.97 Mt in 2012.

In **Spain**, TOTAL markets natural gas to the industrial and commercial segments through Cepsa Gas Comercializadora, in which it holds a 35% stake. In 2014, volumes of gas sold amounted to 94 Bcf (2.7 Bm^3), compared to 101 Bcf (2.9 Bm^3) in 2013 and 2012.

In **Germany**, Total Energie Gas GmbH, TOTAL's marketing subsidiary created in 2010, marketed 24 Bcf (0.7 Bm^3) of gas in 2014 to industrial and commercial customers, compared to 14 Bcf (0.4 Bm^3) in 2013 and 5 Bcf (0.15 Bm^3) in 2012.

At the end of 2012, the Group enlarged its European marketing coverage by creating two marketing subsidiaries: Total Gas & Power in **Belgium**, and Total Gas & Power Nederland B.V. in the **Netherlands**. These two subsidiaries began to market natural gas to industrial and commercial customers in 2013, whereas the marketing of electricity has not yet started. The volume of gas supplied in 2014 was not substantial.

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.

2.2.4. Gas facilities

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

2.2.4.1. Natural gas transport, natural gas and LPG storage

In **France**, TOTAL, through its 28.05% direct stake in Géométhane, owns natural gas storage in a salt cavern in Manosque with a capacity of 10.5 Bcf (0.3 Bm^3). A 7 Bcf (0.2 Bm^3) increase in storage capacity is scheduled to be commissioned in 2018.

In **South America**, TOTAL owns interests in several natural gas transport companies in Argentina and Brazil. 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. GasAndes, a company in which TOTAL held a 56.5% stake, was sold in October 2014.

In **India**, TOTAL holds a 50% stake in South Asia LPG Limited (SALPG), a company that operates an LPG import and underground storage 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 2014, inbound vessels transported 1,069 kt of LPG, compared to 940 kt in 2013 and 950 kt in 2012.

2.2.4.2. 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 market 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 27.5% stake in the company Fosmax and has, through its subsidiary Total Gas & Power Ltd., a re-gasification capacity of 78 Bcf/y (2.25 Bm^3/y). The terminal received 46 vessels in 2014, compared to 53 in 2013 and 56 in 2012.

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^3/y). Trade agreements have also been signed that allow TOTAL to reserve up to 2 Bm^3/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^3/y) and an equivalent right of use to the terminal. In 2014, the terminal re-gasified 67 cargoes, compared to 52 in 2013 and 68 in 2012.

In **Mexico**, TOTAL has reserved 25% of the capacity of the Altamira re-gasification terminal, *i.e.*, 59 Bcf/y (1.7 Bm^3/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^3/y) at the Sabine Pass terminal in Louisiana over a 20-year period ending in 2029. In 2012, the Sabine Pass terminal received the authorization to export LNG from four liquefaction trains, which would involve converting the re-gasification plants into liquefaction plants in the future.
As a result, TOTAL negotiated a modification to the conditions of the financial compensation owed to Cheniere, the terminal's operator, in relation to the commissioning of the successive liquefaction trains for the reservation of re-gasification capacity.

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^3/y). The terminal, located on the west coast of India in 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^3/y).

2.2.5. 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 gas-fired power plant, which is owned by Gulf Total Tractebel Power Company (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^3 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 holds a stake in the Afam VI power plant through its 10% interest in the Shell Petroleum Development Company (SPDC) joint venture. This plant is part of the government's plan to develop power generation and increase the share of natural gas production for domestic use.

In **Thailand**, TOTAL owns 28% of Eastern Power and Electric Company Ltd, which operates the combined-cycle gas power plant in Bang Bo with 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.

2.2.6. 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 2014, TCSA produced 3.3 Mt of coal.

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

In July 2014, TOTAL signed an agreement for the sale of TCSA with Exxaro, a mining company based in South Africa. The sale is pending approval of the relevant authorities. This transaction is expected to be finalized in 2015.

3. Refining & Chemicals segment

Refining & Chemicals is a large industrial segment that encompasses refining, petrochemicals and specialty chemicals operations. This segment, created on January 1, 2012[1] following the reorganization of the Downstream and Chemicals segments, also includes Trading & Shipping activities.

Among the world's ten largest integrated producers[2]

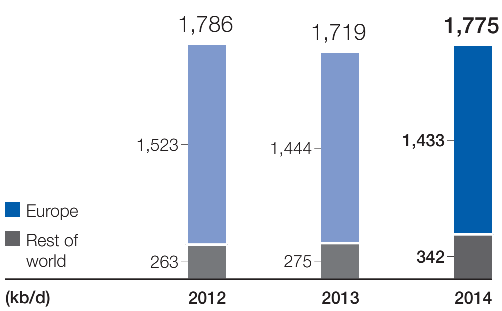
Refining capacity of 2.2 Mb/d at year-end 2014

One of the leading traders of oil and refined products worldwide

$2 billion invested in 2014

50,534 employees present

Refinery throughput



In 2014, refinery throughput increased slightly by 3% compared to 2013, essentially due to the startup of the SATORP refinery in Saudi Arabia.

Refining & Chemicals segment financial data

(M$)	2014	2013	2012
Non-Group sales	106,124	114,483	117,067
Adjusted operating income[a]	2,739	1,766	1,873
Adjusted net operating income[a]	2,489	1,857	1,768
including Specialty Chemicals	*629*	*583*	*491*

(a) Adjusted results are defined as income at replacement cost, excluding non-recurring items, and excluding the impact of fair value changes.

In 2014, adjusted net operating income from the Refining & Chemicals segment was 2,489 M$, an increase of 34% compared to 2013 while the refining margin increased by only 4% to 18.7 $/t in 2014 compared to 17.9 $/t in 2013. The synergies and efficiency plans are bearing fruit and the segment was able to adapt to the lower European margins in the first half and subsequently take advantage of a more favorable refining and chemicals environment in the second half of the year. The petrochemicals environment was more favorable in 2014, especially in the United States.

The year also saw the successful startup of SATORP, which has operated at full capacity since August 2014 and represents a new strategic platform for the Group.

With a ROACE[3] of 15.0% for the full year 2014 compared to 9.2% for the full year 2013, the segment attained its profitability objective one year earlier than planned.

(1) As a result of the reorganization, certain information has been restated.
(2) Based on publicly available information, production capacities at year-end 2013.

3.1. 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, polystyrene and hydrocarbon resins). The specialty chemicals business includes elastomer processing and electroplating chemistry. The volume of its Refining & Chemicals activities places TOTAL among the top ten integrated chemical producers in the world(1).

Against the backdrop of rising worldwide demand for oil and petrochemicals driven by non-OECD countries and the entry of new capacities into the market, 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 large integrated platforms;
- consolidating industrial means of production and searching 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 feedstocks and to benefit from market growth.

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

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: safety, availability of facilities, cost control, and energy efficiency. These ongoing action plans, combined with development projects on the major integrated platforms, perimeter changes and the growth of specialty chemicals, have already boosted Refining & Chemicals' results and should continue to improve the profitability of operations with the goal of making the most of the division's assets.

In December 2014, TOTAL completed the divestment of its subsidiary CCP Composites (100%), a player in the composite resins segment. In June 2013, TOTAL completed the divestment of its Fertilizers activity (Base Chemicals) in Europe, mainly through the sale of all of its shares in GPN S.A., a leading producer of nitrogen fertilizers in France, and in the Belgian company Rosier S.A.(2)

On February 2, 2015, TOTAL finalized the divestment of its wholly-owned subsidiary Bostik, specialized in adhesive chemicals, to the Arkema group. This divestment follows the offer received in September 2014. Bostik has approximately 4,900 employees over forty-eight production sites in the world and its sales were €1.5 billion ($2 billion) in 2014.

3.1.1. Refining & Petrochemicals

TOTAL's refining capacity was 2,187 kb/d as of December 31, 2014, compared to 2,042 kb/d at year-end 2013 and 2,048 kb/d at year-end 2012. The Group's worldwide refined products sales (including trading operations) in 2014 were 3,769 kb/d, compared to 3,521 kb/d in 2013 and 3,561 kb/d in 2012.

TOTAL has equity stakes in twenty-one refineries (including nine operated by companies of the Group), located in Europe, the United States, the French West Indies, Africa, the Middle East and China.

The Refining & Chemicals segment manages the refining operations located in Europe (excluding the TotalErg joint venture in Italy), the United States, the Middle East and Asia, with a capacity of 2,098 kb/d at year-end 2014 (*i.e.*, 96% of the Group's total capacity(3)).

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 2014 was marked by the end of the startup period of the SATORP complex in Saudi Arabia, now fully operational. 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.

Moreover, through its equity interest in Samsung Total Petrochemicals Co. Ltd (50%), which operates the Daesan petrochemical complex, TOTAL completed the construction of two new EVA(4) and aromatics production units in 2014.

Finally, in Europe, TOTAL continued to develop its major investment project launched in 2013 on the Antwerp platform in Belgium, and completed the modernization of the Normandy platform in France with a new desulphurization unit that started up in August 2014. In February 2015, the Group announced a plan to adapt and secure the future of its Lindsey refinery in the United Kingdom.

3.1.1.1. Europe

TOTAL is the largest refiner in Western Europe(5).

Western Europe accounts for 79% of the Group's refining capacity, *i.e.*, 1,736 kb/d at year-end 2014 and year-end 2013 compared to 1,742 kb/d at year-end 2012. 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.

(1) Based on publicly available information, production capacities at year-end 2013.
(2) 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.
(3) 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.
(4) Ethylene and vinyl acetate copolymers.
(5) Based on publicly available information, 2013 refining capacities

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). Western Europe accounts for 50% of the Group's petrochemicals capacity, *i.e.*, 10,909 kt at year-end 2014 compared to 10,899 kt at year-end 2013 and 11,803 kt at year-end 2012. The decrease in 2013 was due essentially to the closure of one steam cracker in Antwerp.

– 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 implemented its industrial plan intended to reconfigure the Gonfreville refinery in Normandy, France, between 2009 and 2014 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 complete shutdown of the refinery. The project was completed in August 2014 with the startup of a new diesel desulfurization unit. Lastly, in November 2014, the Group announced a project to modernize the specialties production scheme of the Normandy complex, including a decrease in the base oils production capacity and an investment in the linear polyethylene (LPE) production line.

  At the same time, the project to modernize petrochemical operations on the Normandy platform 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 an investment plan in September 2013 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 **Germany**, TOTAL holds equity stakes in the Leuna (100%) and Schwedt (16.7%)[1] refineries.

  In petrochemicals, in February 2015, the Group acquired the majority stake in Polyblend, a German manufacturer of polyolefin compounds used mainly in the automotive industry.
  This acquisition will enable synergies to be developped with the Carling site, located 150 km away.

– In **Belgium**, the Group announced the launch of a major project in 2013 to modernize its Antwerp platform. This project consists of two parts:
  - the construction of new conversion units in response to the shift in demand towards lighter oil products with a very low sulfur content, and
  - the construction of a new unit to convert part of the combustible gases recovered from the refining process into raw materials for petrochemical units.

  As part of this modernization plan, two of the site's oldest production units were shut down: a steam cracker in 2013 and a polyethylene production line in November 2014.

  TOTAL built a unit in Feluy, which started up in 2014, that produces latest-generation expandable polystyrene for the fast-growing insulation market.

  Moreover, in 2012, TOTAL acquired 35% of Fina Antwerp Olefins, thus becoming the sole owner of Europe's second largest base petrochemicals (monomers) production plant[2], renamed Total Olefins Antwerp.

– In the **United Kingdom**, in February 2015, TOTAL launched a plan to adapt and secure the future of its Lindsey refinery. In addition to shutting down one of the two crude distillation units and associated units, which will reduce its capacity by 5 Mt/y, the plan entails revamping the conversion block, adapting logistics operations and simplifying the refinery's organization. The initial outlay will be $50 million, followed by an investment of $220 million over the next five years for maintenance and other improvements required to comply with changing regulations.

  In 2013, TOTAL shut down its 70 kt/y polystyrene production site at Stalybridge, while continuing its commercial activity for polymers.

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

3.1.1.2. 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).

Located on the same site in Port Arthur, TOTAL wholly owns a 169 kb/d capacity refinery as well as a 40% stake in a steam cracker (BASF Total Petrochemicals, BTP). The Group is working to strengthen the synergies between these two plants.

The new pipeline connecting the Port Arthur refinery with the Sun terminal in Nederland was commissioned in 2014, allowing easy access to all domestic crudes, at an advantage compared with the international market.

As a result of the investments made to adapt its furnaces and build a tenth ethane furnace, which was commissioned in March 2014, the BTP cracker is now able to produce more than 1 Mt/y of ethylene, including more than 85% from advantaged feedstock (mainly ethane, propane, butane). BTP thus benefits from favorable market conditions in the United States. Furthermore, TOTAL has initiated studies regarding the construction of a new ethane steam cracker on the Port Arthur site, in synergy with the refinery and BTP steam cracker. The investment decision is expected to be made in 2016.

3.1.1.3. 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.

(1) End 2014, the Group signed a memorandum of understanding to sell this stake in the Schwedt refinery.
(2) Based on publicly available information, capacities at year-end 2013.

In **Saudi Arabia**, the joint venture Saudi Aramco Total Refining and Petrochemical Company (SATORP), created in 2008 by TOTAL (37.5%) and Saudi Aramco (Saudi Arabian Oil Company, 62.5%), built and operates a 400 kb/d refinery in Jubail. Saudi Aramco plans to retain a 37.5% interest in SATORP, with the remaining 25% expected to be listed on the Saudi stock exchange. Most of the various units of SATORP were gradually commissioned in 2013 and the commercial exports of petroleum products started in September 2013. The startup phase was successfully completed in the first half of 2014 and production reached full capacity in 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 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 200 kt/y capacity polystyrene plant in Foshan in the Guangzhou region. A new polystyrene compounds unit started up on this site in the first quarter of 2013. In September 2014, TOTAL also successfully began production on a new 200 kt/y polystyrene plant in Ningbo in the Shanghai region.

Finally, TOTAL is continuing to study a project in Inner Mongolia to produce polyolefins from coal (refer to point 3.1.1.8.1. below, Coal to polymers).

In **South Korea**, TOTAL holds a 50% stake in Samsung Total Petrochemicals Co. Ltd. (STC), which operates the petrochemical complex in Daesan (condensate splitter, steam cracker, styrene, paraxylene, polyolefins). To keep up with growth in Asian markets, two major construction projects were completed in 2014, thereby doubling the site's capacity compared to 2011. The following two units were thus started up successfully in February and July 2014, respectively:

– a new EVA unit with about 240 kt/y capacity; and

– a new aromatics unit with a capacity of 1.5 Mt/y of paraxylene and benzene, the raw material of which is supplied by a new condensate splitter that also produces kerosene (1.5 Mt/y) and diesel (1.0 Mt/y).

The site's paraxylene production capacity increased as a result of these new units to 1.8 Mt/y.

In November 2014, Samsung, which holds a 50% stake in STC, announced the divestment of 81% of its interest in the SGC company, which holds its interest in STC. This divestment is expected to be completed by mid-2015. The Group does not expect this transaction to have a material impact on the joint venture's operations.

In **Qatar**, the Group holds interests[1] in two ethane-based steam crackers (Qapco, Ras Laffan Olefin Cracker (RLOC)) and four polyethylene lines (Qapco, Qatofin), including the Qatofin linear low-density polyethylene plant in Messaied with a capacity of 450 kt/y 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. The construction project to double the refinery's capacity started in April 2014 and is expected to be completed in 2016. The project also includes a new diesel hydrotreating unit, which was commissioned in May 2014.

In **Singapore**, the Group sold its 95 kt/y capacity polystyrene production site in November 2014.

3.1.1.4. Crude oil refining capacity

The table below sets forth TOTAL's crude oil refining capacity[a]:

As of December 31, (kb/d)	2014	2013	2012
Nine refineries operated by Group companies			
Normandy (100%)	247	247	247
Provence-La Mède (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
Subtotal	**1,770**	**1,770**	**1,770**
Other refineries in which the Group has equity stakes[b]	417	272	278
Total	**2,187**	**2,042**	**2,048**

(a) 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.
(b) TOTAL's share in the twelve refineries in which it has equity stakes ranging from 10% to 55% (one each in the Netherlands, Germany, China, Qatar, Saudi Arabia, Italy and Martinique and five in Africa). In September 2014, TOTAL signed an agreement to sell its 50% stake in *Société Anonyme de la raffinerie des Antilles* (SARA) in Martinique. This transaction is subject to the approval of the relevant competition authorities.

(1) TOTAL interests: Qapco (20%); Qatofin (49%); RLOC (22.5%).

3.1.1.5. Refined products

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

(kb/d)	2014	2013	2012
Gasoline	344	340	351
Aviation fuel [b]	148	146	153
Diesel and heating oils	787	739	734
Heavy fuels	134	133	160
Other products	329	322	338
Total	**1,742**	**1,680**	**1,736**

(a) For refineries not 100% owned by TOTAL, the production shown is TOTAL's equity share in the site's overall production.
(b) Avgas, jet fuel and kerosene.

3.1.1.6. Utilization rate

The tables below set forth the utilization rate of the Group's refineries:

On crude and other feedstock [a] [b]	2014	2013	2012
France	77%	78%	82%
Rest of Europe	88%	87%	88%
Americas	106%	100%	99%
Asia and the Middle East	50%	75%	67%
Africa	77%	78%	75%
Average	**81%**	**84%**	**86%**

(a) Including equity share of refineries in which the Group has a stake.
(b) Crude + crackers' feedstock/distillation capacity at the beginning of the year (2014: SATORP's capacity included from January 1).

On crude [a] [b]	2014	2013	2012
Average	**77%**	80%	82%

(a) Including equity share of refineries in which the Group has a stake.
(b) Crude/distillation capacity at the beginning of the year (2014: SATORP's capacity included from January 1).

NB: Ras Laffan refinery contribution is included in above utilization rates from 2013.

3.1.1.7. Petrochemicals: breakdown of TOTAL's main production capacities

As of December 31,

(in thousands of tons)				2014	2013	2012
	Europe	North America	Asia and Middle East [a]	Worldwide	Worldwide	Worldwide
Olefins [b]	4,949	1,345	1,498	7,791	7,654	8,039
Aromatics [c]	2,893	1,512	2,368	6,773	5,635	5,795
Polyethylene	1,120	445	773	2,338	2,289	2,239
Polypropylene	1,350	1,200	400	2,950	2,895	2,875
Polystyrene	597	700	508	1,805	1,530	1,595
Other [d]	-	-	63	63	63	358
Total	**10,909**	**5,202**	**5,609**	**21,720**	**20,065**	**20,900**

(a) Including interests in Qatar, 50% of Samsung Total Petrochemicals Co. Ltd. and 37.5% of SATORP in Saudi Arabia.
(b) Ethylene + propylene + butadiene.
(c) Including monomer Styrene.
(d) Mainly monoethylene glycol (MEG) and cyclohexane.

3.1.1.8. Development of new avenues for the production of fuels and polymers

In addition to optimizing existing processes, TOTAL is exploring new ways for monetizing 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.

3.1.1.8.1. 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 targeted market (*e.g.*, fuels through Fischer-Tropsch process, methanol or syngas), particularly in terms of energy optimization, water consumption and carbon capture.

TOTAL is studying a coal-to-olefin (CTO) conversion project that would be located in Inner Mongolia in China in partnership with the China Power Investment Corporation utility company. This project, with a capacity of about 800 kt/y of olefins, would use the innovative methanol-to-olefins/olefins cracking process (MTO/OCP), which the Group successfully tested in 2013 on a demonstration unit at Feluy, Belgium. The Chinese authorities gave their initial approval of the project in November 2013. The project anticipates submitting its environmental impact assessment to the Ministry of the Environment mid-2015, followed by the start of its FEED studies.

3.1.1.8.2. 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 studying innovative potential routes of gas monetization. TOTAL is also conducting research into small-scale concepts, such as flared gas solutions.

3.1.1.8.3. 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 Futerro, 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. Several projects are under study based on these technologies.

3.1.1.8.4. Biomass to fuels

In Europe, TOTAL produces biofuel, namely hydrogenated vegetable oils for incorporation into diesel, and ether produced from ethanol and isobutene for incorporation into gasoline.

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 fuel resources. This development involves an initial pilot demonstration phase located on the Dunkirk site in France for which construction was started in September 2014.

In 2014, the Group incorporated:

- In gasoline, 473 kt of ethanol[1] at its European refineries and several depots[2]; and
- In diesel, 1,800 kt of VOME or HVO[3] at its European refineries and several depots[2].

3.1.2. Specialty Chemicals

The specialty chemicals businesses include elastomer processing (Hutchinson) and electroplating chemistry (Atotech). They primarily serve the automotive, construction, electronics, aerospace and convenience goods markets, for which marketing strategy, 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 2014, consolidated worldwide sales of specialty chemicals activities (excluding Bostik) totaled €4.4 billion ($5.9 billion), a 6% increase compared to 2013 and up 7% compared to 2012.

On February 2, 2015, TOTAL finalized the divestment of its wholly-owned subsidiary Bostik, specialized in adhesive chemicals, to the Arkema group. This divestment follows the offer received from Arkema in September 2014. Bostik counts approximately 4,900 employees over forty-eight global production sites with sales of €1.5 billion ($2 billion) in 2014.

3.1.2.1. Elastomer processing

Hutchinson designs and provides innovative and tailor-made solutions to support automotive and aircraft manufacturers and major industries (defense, energy) across the world. Among the industry's leaders worldwide[4], the company mainly develops anti-vibration and fluid management systems as well as sealing solutions that combine performance and energy efficiency.

Hutchinson has more than ninety production sites and 28,900 employees across the world to cater to its customers.

Hutchinson's sales were €3.5 billion in 2014 ($4.6 billion), up 6% compared to 2013.

This growth was due to the strong performance of the world's automotive markets, especially German and Asian manufacturers. In July 2013, Hutchinson entered into a joint venture with the Japanese company, Nichirin, in the automobile brake hose segment at Palamos in Spain.

In 2014, Hutchinson also performed well on its other markets, particularly civil aeronautics and helicopters. To consolidate its position, at the end of 2012, Hutchinson acquired Marquez, a Canadian company specializing in composite air-conditioning circuits. Moreover, to enhance its product portfolio for the oil and gas industry, Hutchinson acquired Gasket International in July 2013, a company that specializes in the production of sealing parts for valves.

Since 2014, all Hutchinson entities that previously operated under twenty-six different brand names have been marketed under a unique Hutchinson brand name for greater consistency and visibility.

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(1) Including ethanol from ETBE (ethyl-tertio-butyl-ether) and biomethanol from bio-MTBE (methyl-tertio-butyl-ether), expressed in ethanol equivalent and biomethanol. Reference for bio content of ETBE and bio-MTBE is the EU Renewable Energy Directive.
(2) Zeeland refinery included (TOTAL share).
(3) VOME: vegetable-oil-methyl-ester. HVO: hydrotreated vegetable oil.
(4) Based on publicly available information, 2014 consolidated sales.

3.1.2.2. Electroplating

Atotech is the leading company in the electroplating sector based on worldwide sales[1]. 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.

The Company's sales totaled €0.95 billion in 2014 ($1.3 billion), up by 7% compared to 2013, primarily due to the growth in sales of electroplating equipment for the electronics market.

In 2014, Atotech successfully pursued its strategy to differentiate its products through a comprehensive service provided to its customers in terms of equipment, processes, design of facilities and chemical products and through the development of green, innovative technologies to reduce environmental footprint. This strategy relies on global coverage provided by its technical centers located near customers.

Atotech intends to continue to grow in Asia, which already represents approximately 67% of its global sales.

In order to strengthen its position in the electronics market, Atotech plans to increase and modernize its production capacity in Asia with two major projects in Malaysia and China. By relocating production as close as possible to its markets, these two projects are also part of its cost-cutting strategy.

3.2. Trading & Shipping

Trading & Shipping focuses on serving the Group by:

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

3.2.1. Trading

TOTAL is one of the world's largest traders of crude oil and refined products on the basis of volumes traded. Trading of physical volumes of crude oil and refined products amounted to 4.9 Mb/d in 2014.

The table below sets forth selected information for each of the past three years with respect to Trading's worldwide crude oil sales and supply sources, and refined products sales.

Trading's crude oil sales and supply and refined products sales [a]

(kb/d)	2014	2013	2012
Group's worldwide liquids production	**1,034**	**1,167**	**1,220**
Purchased by Trading from Exploration & Production	791	916	976
Purchased by Trading from external suppliers	2,227	1,994	1,904
Total of Trading's supply	**3,018**	**2,910**	**2,880**
Sales by Trading to Refining & Chemicals and Marketing & Services segments	1,520	1,556	1,569
Sales by Trading to external customers	1,498	1,354	1,311
Total of Trading's sales	**3,018**	**2,910**	**2,880**
Total of Trading's refined products sales	**1,854**	**1,628**	**1,608**

(a) Including condensates.

(1) Based on publicly available information, 2014 consolidated sales.

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) with the aim of adjusting 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 (refer to chapter 10, point 7.).

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

		2014	2013	2012	2014/13	min 2014		max 2014	
Brent ICE -1st Line[a]	($/b)	99.45	108.70	111.68	-8.5%	57.33	(29 Dec)	115.06	(19 Jun)
Brent ICE -12th Line[b]	($/b)	98.30	103.04	106.66	-4.6%	65.50	(16 Dec)	109.19	(24 Jun)
Backwardation time structure (12th-1st)	($/b)	1.15	5.67	5.01	-79.7%	7.00	(13 Jun)	-8.37	(30 Dec)
WTI NYMEX -1st Line[a]	($/b)	92.91	98.05	94.15	-5.2%	53.27	(24 Jun)	107.26	(02 Jan)
WTI vs. Brent 1st Line	($/b)	-6.54	-10.66	-17.53	-38.7%	-14.95	(13 Jan)	1.11	(27 Nov)
Gasoil ICE -1st Line[a]	($/t)	840.09	918.98	953.42	-8.6%	512.25	(30 Dec)	940.75	(01 Jan)
ICE Gasoil vs ICE Brent	($/b)	13.31	14.65	16.30	-9.1%	6.85	(12 Jun)	18.00	(28 Nov)
VLCC Ras Tanura Chiba - BITR[c]	($/t)	13.32	11.83	12.82	12.7%	8.98	(30 May)	22.64	(17 Dec)

(a) 1st Line: prices on ICE (Intercontinental Exchange) or NYMEX (New York Mercantile Exchange) Futures for delivery in month M+1.
(b) 12th Line: prices on ICE Futures for delivery in month M+12.
(c) VLCC: Very Large Crude Carrier. BITR: Baltic International Tanker Routes.

In 2014, the activities of Trading were affected by the economic environment and the world oil market situation as described below.

The increasing surplus supply in the world oil market led to a steady drop in prices from mid-year, decreasing by more than 40% by the end of December. The surplus caused crude prices to flip from backwardation[1] in the first half of the year to contango thereafter. The surplus resulted from continued strong growth in North American oil production in 2014, which substantially outstripped weak growth in global oil demand. North America accelerated the construction of infrastructure (pipelines and rail networks) to move rising supply from the center of the continent and the southwest of Texas to refineries located on the American coast of the Gulf of Mexico and the east coast of the United States.

In a less favorable world economic context, the growth in world demand for oil slowed from +1.2 Mb/d[2] in 2013 to +0.5 Mb/d[2] in 2014, due notably to slower growth in natural gas liquids (NGL) demand in the United States and slower growth in demand for gasoil east of the Suez and in Europe, as well as the slowdown in the growth in demand for gasoline in the United States and the Middle East. Demand for fuel oil continued its decline both in onshore uses and in marine bunkers. The wave of extreme cold that gripped North America in the first quarter of 2014 stimulated demand for heating oil but depressed demand for other products (notably NGL) as the cold-snap slowed economic activity. In Europe, the mild temperatures recorded in the first quarter of 2014 decreased heating oil consumption. The slowdown in economic activity and the drop in coal mining and related transportation of coal led to a decline in the use of diesel in China. In the Middle East, diesel and gasoline consumption fell as the conflict in northern Iraq interrupted supply to local consumers.

Estimated global oil supply increased to +1.6 Mb/d in 2014 compared to +0.6 Mb/d in 2013. Non-OPEC production grew by approximately +1.9 Mb/d, with an increase of +1.6 Mb/d in North America (United States, Canada and Mexico), +0.2 Mb/d in Latin America, and +0.1 Mb/d in the North Sea. In the other regions, production either declined or stagnated. Overall OPEC crude oil production continued to contract (-0.3 Mb/d compared with -1.0 Mb/d in 2013), as the losses recorded in Libya and Iraq were not offset by the increases generated in other member countries. During most of the year, crude oil production capacity of approximately 2.5 Mb/d was rendered unavailable in several OPEC and non-OPEC countries by political tensions, conflicts and sanctions imposed on certain countries. Saudi production, at approximately 9.6 Mb/d, was stable in 2014 compared to 2013.

As supply growth greatly exceeded demand growth in 2014, surplus supply *vis-à-vis* demand increased to reach approximately +1.0 Mb/d versus +0.1 Mb/d in 2013. This imbalance contributed to the fall in prices in the second half of the year.

In the first half of the year, prompt prices for Brent ICE (1st line) fluctuated primarily between $105/b and $110/b, peaking at $115.1/b in mid-June and averaging around $109/b. Subsequently, Brent ICE prices fell steadily, reaching $57.3/b on December 31 and this drop continued in January 2015 before climbing back to $60/b in February. As prices declined, the ICE Brent price structure flipped from backwardation to contango, supporting commercial storage of crude and better refinery margins in the second half of 2014.

The continuing development of rail and pipeline infrastructure in the United States to move the increasing supply surplus from the mid-continent to refineries on the coasts contributed to a marked contraction in the price spread between WTI and Brent in 2014 (from -$10.7/b in 2013 to -$6.5/b in 2014). In 2014, the launch between January and April of the Marketlink pipeline connecting Cushing (Oklahoma) to the Gulf of Mexico in Texas and the commissioning in the third and fourth quarters of other pipelines in the Permian region in west Texas to the Gulf of Mexico helped restore balance to the crude market in the center of the United States. WTI was discounted by only -$3.9/b vs. Brent in the fourth quarter of 2014.

(1) 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 referred to as contango.

While global refining capacity grew by approximately +1.3 Mb/d in 2014, estimated crude throughputs increased by only about +0.6 Mb/d, held back by the slowdown in demand growth and weaker refining margins outside of North America in the first half of the year. Margins increased with the flip in crude oil prices to contango, leading to a slight growth in throughputs in the second half of 2014 compared to 2013. Most new refining capacity was concentrated in China (+0.9 Mb/d) and the Middle East (+0.5 Mb/d). Structurally robust, refining margins in the United States pushed local refineries to maximize their throughputs to reach exceptionally high operating rates, which supported a high level of diesel exports. The ICE gasoil premium to Brent in northwest Europe began the year at a sustained level due to the wave of extreme cold in North America, but then deteriorated considerably in mid-year due to the weakness in demand and substantial international supply. It closed the year much stronger as demand improved late in the year while refinery maintenance tightened supply.

3.2.2. Shipping

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

In 2014, Shipping chartered nearly 3,000 voyages to transport approximately 122 Mt of crude oil and refined products, compared to 115 Mt in 2013. As of December 31, 2014, Shipping employed a fleet of forty-eight vessels (including seven LPG carriers), none of which were single-hulled, that were chartered under long-term or medium-term agreements. The fleet has an average age of less than six years.

Freight rate averages of three representative routes for crude transportation

		2014	2013	2012	min 2014		max 2014	
VLCC Ras Tanura Chiba-BITR [a]	($/t)	13.32	11.83	12.82	8.98	(May 30)	22.64	(Dec 17)
Suezmax Bonny Philadelphia-BITR	($/t)	16.29	13.41	14.44	11.36	(Feb 13)	31.83	(Nov 19)
Aframax Sullom Voe Wilhemshaven-BITR	($/t)	8.46	7.02	6.48	6.44	(Mar 7)	17.01	(Jan 22)

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

In 2014, the shipping market witnessed a positive turnaround in oil transport activities, especially for larger crude and product tankers. Conditions were less favorable, meanwhile, for medium-sized petroleum product carriers, although year-end brought a slight improvement to the economic environment. During the second half of 2014, marine bunker prices, driven by decreasing crude prices, substantially dropped, which considerably improved ship owners' results. However, transport costs benefited little from this situation.

After contracting in 2013, global demand for the transport of crude oil maintained the same level in 2014. The decrease in North American imports, driven by the sharp increase in domestic production, was once again offset by the growing transport needs in Asia. This continent continued to diversify its supplies from more distant regions (South America, West Africa). At the same time, the growth in the fleet slowed to a level that had not been seen for many years. This context rebalanced supply and demand and resulted in a return to high volatility and freight rates that were, on average, higher than in 2013.

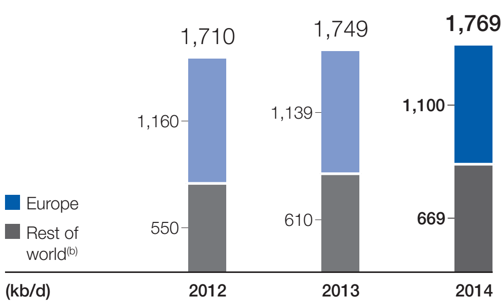
The situation in the petroleum product maritime shipping market continued to be good overall for larger vessels, which benefited from the lengthening of trips. On the one hand, arbitrages in favor of routes to Asia, particulary the flows of naphtha from Europe which continued at the same pace as in 2013, and on the other hand, exports from new Middle-East and Far-East refineries, contributed to a strong growth in demand. The freight rates were somewhat weaker for medium-size product carriers due to the delivery of many new tankers.

4. 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[1].

Historically among the largest marketers in Western Europe[2]	N°1 marketer in Africa[3]	14,829 service stations at year-end 2014 (excluding AS24 service stations)	$1.8 billion invested in 2014	28,107 employees present

2014 refined products sales[a]



(a) Excludes trading and refining bulk sales, including share of TotalErg.
(b) Rest of world: Africa, Middle East, Americas, Asia.

Sales volumes in 2014 increased slightly compared to 2013, due to higher sales in sales in growth areas (notably in Africa and the Middle East) and offset by lower sales in Europe, mainly due to the impact of weather conditions.

Marketing & Services segment financial data

(M$)	2014	2013	2012
Non-Group sales	106,509	110,873	111,281
Adjusted operating income[a]	1,709	2,152	1,740
Adjusted net operating income[a]	1,254	1,554	1,069
Including New Energies	*10*	-	*(212)*

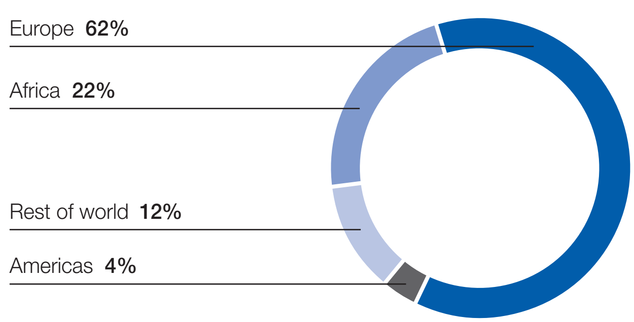
(a) Adjusted results are defined as income using replacement cost, adjusted for special items, excluding the impact of changes for fair value.

The Marketing & Services segment's non-Group sales were 106 B$ in 2014, a 4% decrease compared to 2013.

Adjusted net operating income for the Marketing & Services segment in 2014 was 1,254 M$, a decrease of 19% compared to 2013. Other than the accounting effect in the fourth quarter mentioned above, the decrease is mainly due to weather conditions in the first half in Europe, and lower margins in 2014, notably in the European network.

The ROACE[4] for the Marketing & Services segment was 13.3% for 2014, compared to 16.1% for 2013.

2014 refined products sales by geographical area: 1,769 kb/d[a]



(a) Excludes trading and refining bulk sales, includes share of TotalErg.

(1) As a result of the reorganization, information relating to previous comparative periods has been restated.
(2) Data published by the companies based on quantities sold in 2014.
(3) PFC Energy and Company data 2014.
(4) Calculated based on adjusted net operating income and average capital employed, using replacement cost.

4.1. Marketing & Services

Since January 1, 2012, the Marketing & Services (M&S) business segment has been a coherent structure dedicated to the development of TOTAL's oil products distribution activities (and related services) throughout the world. Present in more than 150 countries[1], M&S relays TOTAL's brand image to its customers, both private and professional. TOTAL's highly visible, innovative and assertive lineup of solutions is presented to its customers through large advertising campaigns, substantial R&D expenses and an ambitious digital transformation plan.

M&S follows a proactive, primarily organic, development strategy involving a geographic repositioning towards high-growth areas. This repositioning is accelerated by the sale of certain business activities in Europe (sale in progress of the LPG marketing subsidiary in France and the LPG/commercial sales activity in Switzerland).

TOTAL is one of the leading distributors of petroleum products in Western Europe[2] and the leading distributor[3] on the African continent.

M&S' three main areas of activity are:

– a network of slightly more than 15,500 service stations. M&S aims to consolidate its market share in the mature areas of Western Europe and further develop its position in high-growth markets. The network's market share in Africa increased from 15% in 2012 to 18% in 2014;

– the production and sales of lubricants, areas in which M&S is expanding its partnerships internationally to support growth. The M&S global market share has increased from 4.2% in 2012 to 4.5%[4] in 2014; and

– the distribution of products and services for professional markets: M&S is a major player in the market for jet fuel, special fluids, bitumen, heavy fuel oils, marine bunker and LPG.

As part of its activities, M&S holds stakes in five refineries in Africa, one in Europe through its share in TotalErg (49%) and one in the Caribbean through its 50% stake in SARA (Société anonyme de la raffinerie des Antilles), which is in the process of being sold.

4.1.1. Sales of refined products

The following table presents the Group's refined products sales by geographic area:

(kb/d)	2014	2013	2012
Europe	1,100	1,139	1,160
France	547	575	566
Europe, excluding France	553	564	594
Americas	78	86	53
Africa	380	326	307
Rest of the world [a]	211	198	190
Total excluding international Trading and refinery bulk sales	**1,769**	**1,749**	**1,710**
International Trading	1,385	1,155	1,161
Refinery bulk sales [b]	615	617	690
Total including international Trading and refinery bulk sales	**3,769**	**3,521**	**3,561**

(a) Includes Asia-Pacific and Middle East.
(b) Data for UK procurement/exchange reprocessed for 2012 and 2013.

For data on biofuels, refer to point 3.1.1.8. of Chapter 2.

4.1.2. Service stations

The table below sets forth the number of Group service stations:

As of December 31,	2014	2013	2012
Europe [a]	8,557	8,875	9,111
France [b]	3,727	3,813	3,911
Europe, excluding France	4,830	5,062	5,200
of which TotalErg	2,749	3,017	3,161
Africa	3,991	3,726	3,601
Rest of the world [c]	2,281	2,219	2,013
AS24 network	740	731	700
Total	**15,569**	**15,551**	**15,425**

(a) Excluding AS24 network.
(b) TOTAL, Total Access, Elf and Elan-branded service stations.
(c) Including the Americas, Asia-Pacific and the Middle East.

4.1.3. Europe

In Europe, the Group continues to optimize its Marketing activities while growing in growth markets and segments.

In **Western Europe**, TOTAL has a network of more than 8,500 service stations[5] spread over France, Belgium, the Netherlands, Luxembourg, Germany and Italy. TOTAL is regaining market share in these areas (+1% [4] over the 2012-2014 period) by developing an innovative and diversified line of products and services.

(1) Including via national distributors.
(2) Publicly available information, based on quantities sold in 2014.
(3) PFC Energy and Company data 2014.
(4) Company data.
(5) Excluding AS24 network.

In **France**, the dense retail network includes 1,570 TOTAL-branded service stations, more than 650 Total Access stations (service station concept combining low prices and premium TOTAL-branded fuels and services) and approximately 1,500 Elan service stations, which are located mainly in rural areas. Since its launch in 2011, Total Access has led to the Group regaining more than 2%(1) market share.

In addition, TOTAL offers an expanded fuel and service offering to 131,000 vehicle fleets (*i.e.*, 1.9 million GR card holders).

TOTAL holds stakes in twenty-eight depots in France, five of which are operated by Group companies.

In **Germany**, TOTAL is the country's fourth largest operator and continues to expand its network. With more than 1,160 service stations at year-end 2014, the Group has gained 1% in market share in two years.

In **Italy**, TOTAL holds a 49% stake in TotalErg, which is the country's fourth largest operator with close to 2,800 service stations. 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.

To distribute its specialty products, the Group benefits from an extensive network in Europe and relies on numerous industrial facilities to produce lubricants (mainly Rouen in France and Ertvelde in Belgium), special fluids (Oudalle in France) and bitumen (Brunsbüttel in Germany).

In **Northern, Central and Eastern Europe**, TOTAL accelerated the growth of its positions in 2014 in the growing markets of Eastern Europe, especially for lubricants and specialty bitumen products.

In Europe, the Group is a major player in the market for fuel-payment cards, with nearly 3.3 million cards issued.

With the AS24 card, TOTAL has a dedicated offering for the heavy-duty vehicles segment in twenty-nine European countries. Bolstered by a network of more than 740 service stations, AS24 is expected to continue to grow primarily through expansion in the Mediterranean basin and Eastern Europe and through its toll payment card service, which covers nearly twenty countries.

4.1.4. Africa & the Middle East

TOTAL is the leading marketer of petroleum products on the African continent and select Middle Eastern countries, with a market share averaging 16%(2) in 2014. The Group's networks in these high-growth markets grew from 4,500 service stations in 2013 to 4,800 in 2014, spread over close to fifty countries. The Group operates major networks in South Africa, Turkey, Nigeria, Kenya, Egypt and Morocco.

In **Egypt**, TOTAL acquired the Shell and Chevron service station networks and wholesale business in 2013, allowing the Group to become in 2014 the second largest private operator in Africa's largest market, with a 14% network market share(3).

In **Jordan**, TOTAL continued developing its service station network and wholesale business following its acquisition of a distribution license in 2012, enabling the Group to reach a market share of 33.8%(1) in 2014 (159 service stations).

In the **Côte d'Ivoire**, **Senegal** and **Burkina Faso**, M&S acquired in 2014 the networks of independent oil and gas companies to increase its market share in these countries.

Finally, to strengthen its local presence, M&S began a process of opening up the share capital of select subsidiaries to regional investors, particularly in Morocco and Senegal.

TOTAL is pursuing a strategy for growth in specialty products markets in Africa and the Middle East. M&S, which relies in particular on a lubricants blending plant in Dubai, started up new plants of this type in Egypt in 2012 and in Saudi Arabia in 2013.

Moreover, TOTAL has become a leading partner for mining customers in Africa by delivering supply chain and management solutions for fuels and lubricants.

Finally, TOTAL continued to develop its *Awango by Total* solar solutions, expanding this line to four new countries on the African continent in 2014 (for additional information, refer to point 3.4. of Chapter 7).

4.1.5. Asia-Pacific

At year-end 2014, TOTAL was present in more than twenty countries in the Asia-Pacific region and continues to strengthen its position in the distribution of fuels and specialty products. TOTAL operates service station networks in China, Pakistan, the Philippines, Cambodia and Indonesia, and is a significant player in the Pacific islands. The Group's network continued to grow, reaching slightly more than 1,000 service stations at year-end 2014. Ground transportation lubricant sales in the area increased by 2.5% in 2014 compared with 2013.

In **China**, the Group was operating approximately 200 service stations at year-end 2014 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**, TOTAL, with its local partner PARCO, is in the process of acquiring Chevron's distribution network. This acquisition should expand TOTAL's network by more than 500 service stations and strengthen the Group's distribution and logistics capacities in Pakistan.

In **Singapore**, one of the Group's largest lubricants blending plants, featuring a capacity of 310 kt/y, is currently under construction. Operations are scheduled to start in mid-2015.

In **India**, TOTAL continued to strengthen its positions in the lubricants and LPG sectors with the expansion of its LPG network to 48 stations. In 2012, TOTAL 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.

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(1) Company data.
(2) Market share in the countries where the Group operates, based on 2013 publicly available information on quantities sold.
(3) PFC Energy 2013

4.1.6. Americas

In the **Americas**, TOTAL is active directly in more than twenty countries and indirectly (via distributors) in approximately twenty additional countries. TOTAL operates a large number of industrial units in these countries including, in particular, the production of lubricants and the storage and bottling of LPG. In addition, since 2012, the Group has opened new distribution subsidiaries in Colombia, Peru and the Dominican Republic, in 2012, 2013 and 2014, respectively.

In the **Caribbean**, the Group operates on several islands and has a significant position in the fuel distribution business with more than 400 service stations.

In **Latin America**, TOTAL continues to pursue its specialty products (primarily lubricants and special fluids) growth strategy.

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 in 2015.

4.1.7. Product and services developments

In 2014, TOTAL continued its technical partnerships in racing, in particular with Renault (Renault Sport F1) and PSA Citroën (WRC and WTCC). These partnerships demonstrate TOTAL's technical excellence in the formulation of fuels and lubricants under extreme conditions and requirements to reduce fuel consumption. At end-2014, TOTAL and Renault renewed their global partnership for the next five years, in the areas of R&D, business relations with Renault after-sales networks and Formula 1.

In order to respond to developments in world markets and prepare tomorrow's growth opportunities, TOTAL develops energy solutions in collaboration with its consumer and professional customers that optimize their energy bills such as the Total Écosolutions product and service label (refer to point 2.2.4. of chapter 7). These solutions integrate a diversified range of energy sources (fuels, gas, photovoltaics and wood pellets, the sales capacities of which increased in Europe in 2014) as well as consumption auditing, monitoring and management services. In 2012, TOTAL launched the Tenag joint venture in Germany, in which the Group holds 49%, and in 2014 acquired BHC Energy in France, both devoted to energy efficiency.

TOTAL also supports the development of alternative fuels other than conventional fossil energies:

- **Hydrogen**: Through its "Clean Energy Partnership" (CEP) in Germany, TOTAL participates in the development of a network of hydrogen stations with the goal of developing fifty hydrogen stations by year-end 2015. In addition, TOTAL and its partners in the "*H2 Mobility Germany*"(1) initiative signed an agreement to create a joint venture with the aim of constructing a network of approximately 400 hydrogen stations by 2023, subject to deployment of more than 250,000 fuel-cell electric vehicles.
- **Electro-mobility**: TOTAL has approximately twenty prototype electric vehicle refueling stations in the Netherlands, Belgium and Germany. The development and demonstration of the distribution of electricity (fast charge) intended for electric vehicles continued in 2014 in TOTAL's European subsidiaries through industrial partnerships with Renault, Nissan, BMW, Volkswagen, EDF and Tesla.
- **LNG**: TOTAL's European subsidiaries continued to monitor the potential of LNG as a fuel for heavy duty vehicles in 2014.

4.2. New Energies

New Energies is committed to developing renewable energies that will, in combination with hydrocarbons, help respond to the challenge of climate change by developing a diversified energy mix while also generating lower CO_2 emissions. To this end, TOTAL is focusing on two main themes of development: solar energy, which benefits from unlimited energy resources, particularly in certain geographical areas where the Group has a significant presence, and the conversion of biomass through biotechnology, which aims to develop new biosourced product solutions for transport and chemicals. In addition, the Group actively monitors other renewable energies it does not currently prioritize for development.

4.2.1. 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 furthermore pursuing R&D investments in this field through several industrial and academic partnerships.

Photovoltaic solar energy has come of age and its growth is accelerating. The steady reduction in photovoltaic electricity costs is increasing solar competitiveness in an ever-growing number of markets, in solar farms and residential and commercial applications.

4.2.1.1. SunPower

As of December 31, 2014, TOTAL held 59.77% of SunPower, an American company listed on NASDAQ and based in San Jose, California. SunPower is an integrated player that designs, manufactures and supplies cells as well as the highest-efficiency crystalline silicon-based solar panels in the market. SunPower is also active in the design and construction of large turnkey power plants and in the marketing of integrated solar solutions for decentralized electricity generation.

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 constantly optimizing its production process to reduce costs while maintaining its technological leadership through its 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/y expansion in capacity was approved at the end of 2013 for a production start-up in 2015.

Downstream, SunPower markets its panels worldwide for applications ranging from residential and commercial roof tiles to large solar power plants.

(1) Daimler, Shell, OMV, Air Liquide and Linde.
(2) Fraunhofer study.

In 2014, SunPower pursued the construction, in the United States, of the world's largest solar farm, Solar Star (709 MWp), and continued its international development, building solar power plants in Chile (70 MWp), in which TOTAL has a 20% stake, and South Africa (33 MWp). In South Africa, the construction of another 86 MWp solar farm will start in early 2015.

SunPower is pursuing its development in residential and commercial markets, in particular in the United States, by increasing its service offerings for solar power production, management and financing. SunPower is also developing its Smart Energy activity to allow its residential customers to optimize their power consumption. In 2014, SunPower signed several agreements with companies developing solutions in this domain. The acquisition in 2014 of SolarBridge Technologies, Inc., a micro-inverter producer, will allow the conversion of direct current into alternating current at the panel level and monitoring of each panel's production, thus optimizing power production.

4.2.1.2. Other solar assets

In Abu Dhabi, the Shams 1 solar power plant (109 MW of parabolic concentrated solar power) was commissioned in September 2013 with production being sold to the Abu Dhabi Water Electricity Company (ADWEC). TOTAL (20%) is involved in its operation for a 25-year period.

TOTAL owns a 50% interest in the French company Sunzil, which markets photovoltaic panels in French overseas territories.

The Group is developing projects to install decentralized solar solutions in rural electrification initiatives in a number of countries, including in South Africa via Kwazulu Energy Services Company (KES), in which TOTAL holds a 35% stake (for more information, refer to point 3.4. of chapter 7).

4.2.1.3. New solar technologies

In order to strengthen its technological leadership in the crystalline silicon value chain, 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 develop and optimize the photovoltaic solar power chain (silicon, wafers, cells, modules and systems) by cutting production costs and multiplying its applications, while increasing the efficiency and reliability of the components, as well as developing downstream systems, products and services beyond solar power production. New Energies is also strengthening its expertise in solar resource evaluation and prediction.

In this regard, TOTAL is working with the Interuniversity MicroElectronics Center (IMEC) in Belgium and the *École Polytechnique*'s Laboratory of physics of interfaces and thin layers (LPICM) in France, which specializes in low-temperature plasma deposition processes. Further to this partnership, TOTAL participates in the Institut Photovoltaïque d'Île-de-France (IPVF) project, which aims to eventually become one of the reference centers worldwide conducting research into latest-generation photovoltaic devices.

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 notably to develop new battery technologies, and is also investing in start-ups such as Ambri (12.3%), founded by MIT.

4.2.2. 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.

In 2010, Amyris Inc., an American company listed on NASDAQ, was TOTAL's first significant equity investment in biotechnology. At year-end 2014, TOTAL held 17.2% of the company. A collaboration agreement with Amyris was signed covering research, development, production and marketing of biosourced molecules. Amyris owns a cutting-edge industrial synthetic biology platform designed to improve and optimize microorganisms that can convert sugars into molecules of interest through fermentation. Amyris also owns a research laboratory and pilot units in California and Brazil. Amyris has successfully started and operates a plant in Brazil that converts 30 million liters of sugarcane juice into molecules of interest for perfumes and cosmetics as well as farnesene, a molecule of interest for a number of chemical or downstream oil markets, including specialty products and fuels (diesel or jet). In June 2014, the bio-sourced jet fuel produced by Amyris received the certification required to be sold to airlines (for blends of up to 10% in jet fuel derived from hydrocarbons), allowing its use in commercial flights in the second half of 2014, in partnership with Air France and KLM, as well as GOL between the United States and Brazil, thereby providing the technical demonstration of this new jet fuel source. Large-scale deployment will take several years, as a cost reduction program is necessary to make the molecule competitive with fossil jet fuel.

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 (now wholly-owned, United States), the University of Wageningen (the 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 microalgae bioengineering and associated processes.

4.2.3. 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 24.1% share in Scotrenewables Tidal Power, located in the Orkney Islands in Scotland. Following successful tests on a 250 kW prototype completed in 2013, a 2 MW commercial model is currently under construction.

5. Investments

5.1. Major investments over the 2012-2014 period[1]

(M$)	2014	2013	2012
Upstream	26,520	29,750	25,200
Refining & Chemicals	2,022	2,708	2,502
Marketing & Services	1,818	1,814	1,671
Corporate	149	159	102
Total	**30,509**	**34,431**	**29,475**

Organic investments, including net investments in equity affiliates and non-consolidated subsidiaries, amounted to $26.4 billion in 2014 compared with $28.3 billion in 2013, a 7% decrease. The Group's organic investments reached a high in 2013, as provided in the Group's roadmap, and the commitment made to reduce investments was fulfilled. Most of the major projects that will support the Group's production growth through 2017 were launched, with investments reducing as projects start up.

In 2014, most investments in the Upstream segment were geared toward the development of new hydrocarbon production facilities and exploration operations. Development expenditure mainly pertained to major projects that drive the Group's growth, such as GLNG and Ichthys in Australia, Surmont in Canada, the Ekofisk and Eldfisk areas in Norway, the Laggan-Tormore project in the United Kingdom, Moho North in the Republic of the Congo, CLOV in Angola, Ofon II and Egina in Nigeria and Yamal in Russia.

In the Refining & Chemicals segment, investments were made in facilities maintenance and safety, as well as in projects aimed at improving the plants' competitiveness, particularly their energy efficiency. 2014 was marked by the startup of the new SATORP refinery in Saudi Arabia and the new petrochemicals plants in Daesan, South Korea. In addition, the investment project in Antwerp, Belgium and the adaptation project in Carling, France are currently underway. In the Marketing & Services segment, investments in 2014 mainly concerned the network, logistics and specialty products production and storage facilities.

While mobilizing its teams for the startups in the Upstream segment over the next two years, the Group is preparing for the future beyond 2017 by expanding its acreage and acquiring stakes in new promising assets. Acquisitions were $2.5 billion, comprised principally of the acquisition of an interest in the Elk and Antelope discoveries in Papua New Guinea, the acquisition of an additional stake in OAO Novatek[2] and the carry on the Utica gas and condensate field in the United States.

Gross investments (including acquisitions and changes in non-current loans) therefore fell by 12% to $29.0 billion in 2014 compared with $32.8 billion in 2013.

The Group also continued its asset sale program with the finalization of sales totaling $4.65 billion in 2014, comprised essentially of the sale of interests in Shah Deniz and the associated pipelines in Azerbaijan, Block 15/06 in Angola, GTT (Gaztransport et Technigaz) and the Cardinal midstream assets in the United States. Asset sales were $4.75 billion in 2013.

The 2012-14 asset sale target of $15 to $20 billion was met with the completion of $17.5 billion in sales during the period. In addition, the sale of Bostik was completed in February 2015 and the pending sales of the coal mines in South Africa and Totalgaz are awaiting approval from the authorities.

Net investments were therefore $24.1 billion in 2014, compared to $25.9 billion in 2013, a decrease of 7%. This decrease was mainly due to the reduction in investments[1], since asset sales varied by only 2% between 2013 and 2014.

(1) Including acquisitions. The main acquisitions in fiscal years 2012-2014 are detailed in Note 3 to the Consolidated Financial Statements of this Registration Document.
(2) The Group held an 18.24% stake in OAO Novatek as of December 31, 2014.

5.2. Major planned investments

Taking into account the current economic environment, the organic investment budget has decreased by more than 10% from $26.4 billion in 2014 to $23-24 billion in 2015. In particular, the Group has reduced investments in brownfield developments that have become less profitable due to the decline in Brent. The decrease in investments is part of the Group's strong and immediate response to reduce its cash break-even point by 40 $/b without compromising the priority to safety.

Investments in the Upstream segment are expected to amount to $20 billion and will mainly be allocated to major development projects, including Ichthys in Australia, Surmont and Fort Hills in Canada, Moho North in the Republic of the Congo, Kaombo in Angola, Egina in Nigeria and Yamal in Russia. A significant portion of the segment's budget will also be allocated to maintenance and integrity work on assets already in production.

The Refining & Chemicals segment has an investment budget of approximately $1.5 billion, which is expected to be allocated to the refining, petrochemicals and specialty chemicals businesses. The modernization of the integrated platform in Antwerp, Belgium is the largest investment in the segment in 2015. A significant portion of the segment's budget will also be allocated to the maintenance and safety investments required for these types of industrial activities.

The Marketing & Services segment has an investment budget of approximately $1.5 billion, which is expected to finance, in particular, the service station network, logistics, specialty products production and storage facilities (lubricants, LPG, etc.) and the development of its activities in New Energies. Most of the Marketing & Services budget will be allocated to growth areas (Africa, Middle East, Asia and Latin America).

After 2015, TOTAL expects investments to be in line with more moderate post-2017 growth from a larger production base. The Group monitors the evolution of the Brent price and will consequently adapt its investments without compromising its medium-term objectives.

TOTAL self-finances most of its investments from its excess cash from operations (refer to the consolidated statement of cash flows, point 5. of Chapter 10), which is mainly supplemented by accessing the bond market on a regular basis, when conditions on the financial markets are favorable (refer to Note 20 to the Consolidated Financial Statements, point 7. of Chapter 10). However, investments for certain joint ventures between TOTAL and external partners are funded through specific project financing.

Active management of the asset portfolio, which is fully integrated into the Group's strategy, creates value and TOTAL has confirmed its 2015-17 asset sale program of $10 billion. In addition, the Group makes targeted acquisitions. As the first international company to enter the new ADCO concession in Abu Dhabi, TOTAL demonstrated its ability to access resources under good conditions and create strong partnerships in a strategic region offering various development opportunities.

As part of certain project financing arrangements, TOTAL S.A. has provided guarantees. These guarantees ("Guarantees given on borrowings") as well as other information on the Group's off-balance sheet commitments and contractual obligations appear in Note 23 to the Consolidated Financial Statements (point 7. of Chapter 10). The Group currently believes that neither these guarantees nor the other off-balance sheet commitments of TOTAL S.A. or of any other Group company have, or could reasonably have in the future, a material effect on the Group's financial position, income and expenses, liquidity, investments or financial resources.

The sale of TOTAL's stake in offshore Block OML 138 in Nigeria, including the Usan field, announced in November 2012 was not able to close. The Group is actively pursuing efforts to sell this asset.

6. Organizational structure

6.1. Position of the Company within the Group

TOTAL S.A. is the Group's parent company. As of December 31, 2014, there were 903 consolidated subsidiaries, of which 818 were fully consolidated and 85 were accounted for under the equity method.

The decision of TOTAL S.A.'s major subsidiaries to declare dividends is made by their relevant Shareholders' Meetings and is subject to the provisions of applicable local laws and regulations. As of December 31, 2014, there is no restriction under such provisions that would materially restrict the distribution to TOTAL S.A. of the dividends declared by those subsidiaries.

The Group's businesses are organized as indicated on the chart in point 8. of this chapter. The Group's businesses receive assistance from Corporate divisions (Finance, Legal, Ethics, Insurance, Strategy & Business Intelligence, Human Resources and Communications) that are grouped within the parent company, TOTAL S.A.

6.2. Company subsidiaries

A list of the major subsidiaries directly or indirectly held by the Company is given in Note 35 to the Consolidated Financial Statements (Scope of Consolidation) in point 7. of chapter 10 of this Registration Document.

7. Property, plant and equipment

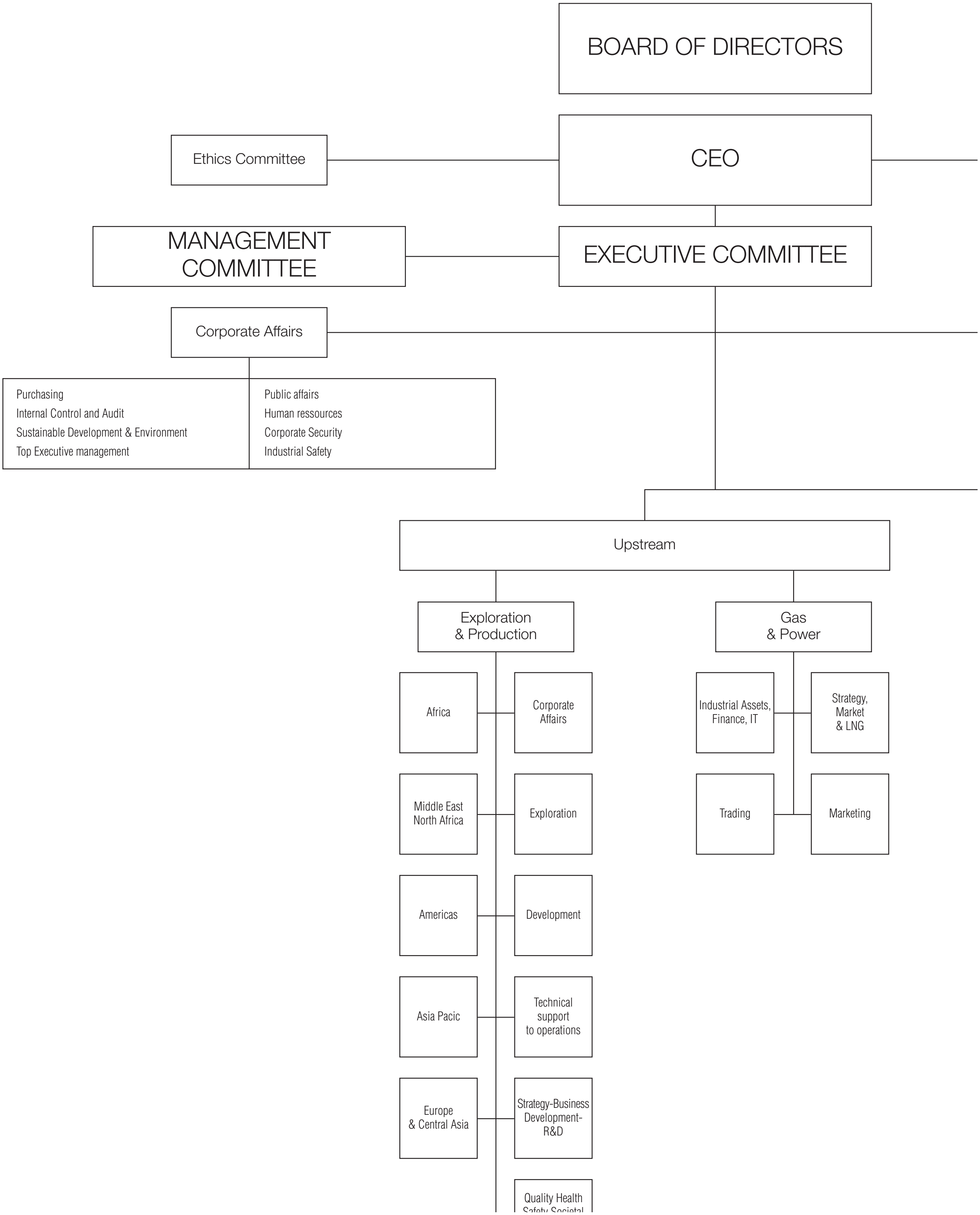
TOTAL has freehold and leasehold interests in over 130 countries throughout the world. Operations in properties, oil and gas fields or any other industrial, commercial or administrative facility, as well as the production capacities and utilization rates of these facilities, are described in this chapter for each business segment (Upstream, Refining & Chemicals, Marketing & Services).

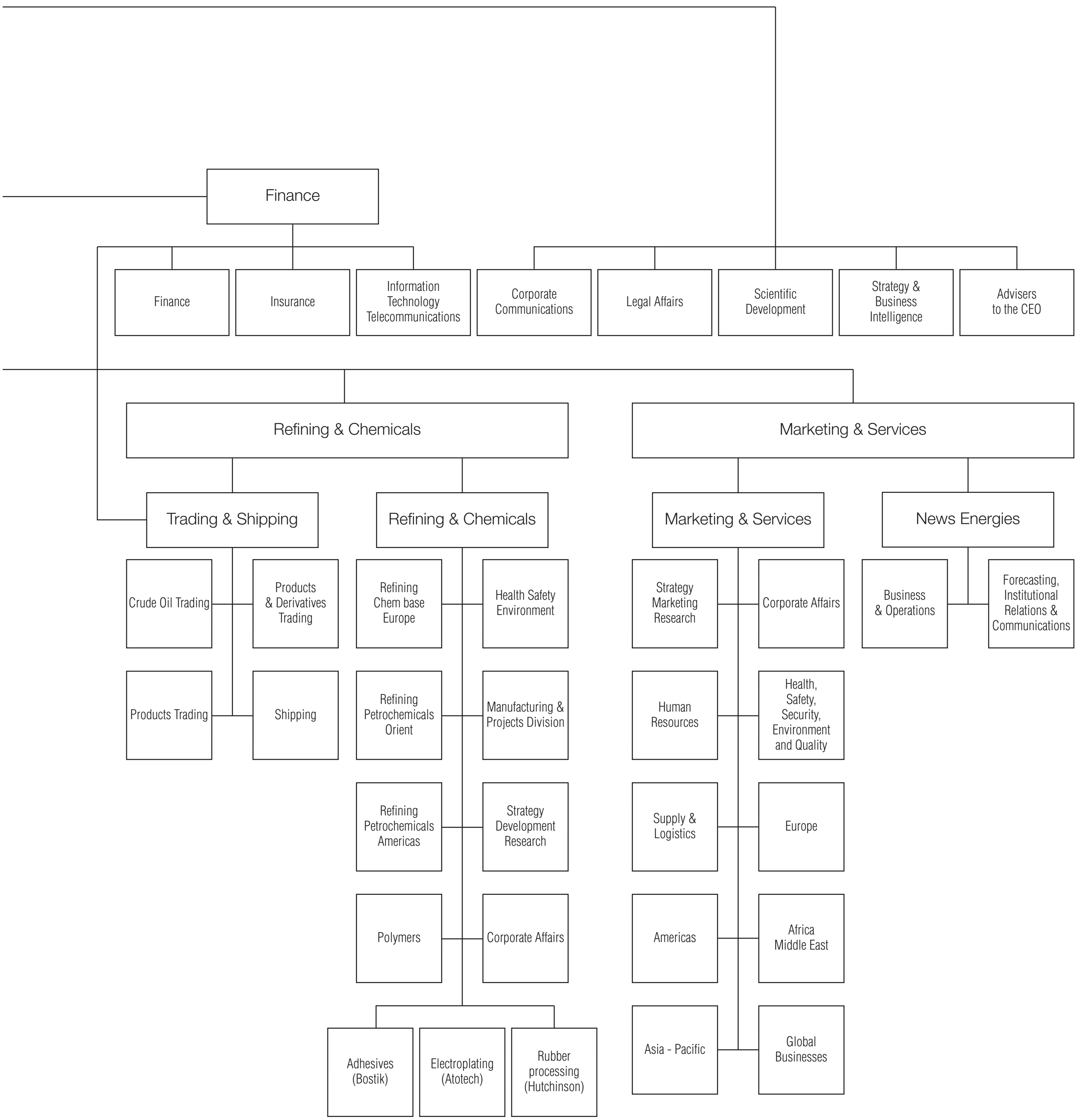
A summary of the Group's property, plant and equipment and their main related expenses (depreciation and impairment) is included in Note 11 to the Consolidated Financial Statements (point 7. of chapter 10).

Minimum royalties from finance lease agreements regarding properties, service stations, vessels and other equipment are given in Note 22 to the Consolidated Financial Statements (point 7. of chapter 10).

Information about the Company's environmental policy, in particular that related to the Group's industrial sites or facilities, is presented in chapter 7 – Social and environmental information of this Registration Document

8. Organization chart as of December 31, 2014




Finance
Finance
Insurance
Information Technology Telecommunications
Corporate Communications
Legal Affairs
Scientific Development
Strategy & Business Intelligence
Advisers to the CEO
Refining & Chemicals
Marketing & Services
Trading & Shipping
Refining & Chemicals
Marketing & Services
News Energies
Crude Oil Trading
Products & Derivatives Trading
Products Trading
Shipping
Refining Chem base Europe
Health Safety Environment
Refining Petrochemicals Orient
Manufacturing & Projects Division
Refining Petrochemicals Americas
Strategy Development Research
Polymers
Corporate Affairs
Adhesives (Bostik)
Electroplating (Atotech)
Rubber processing (Hutchinson)
Strategy Marketing Research
Corporate Affairs
Human Resources
Health, Safety, Security, Environment and Quality
Supply & Logistics
Europe
Americas
Africa Middle East
Asia - Pacific
Global Businesses
Business & Operations
Forecasting, Institutional Relations & Communications

Management Report

The items of the Management report including points 1. to 4. were approved by the Board of Directors on February 11, 2015 and have not been updated with subsequent events.

1. Summary of results and financial position

1.1. Overview of the 2014 fiscal year for TOTAL

The year 2014 was marked by the sharp decline in oil prices in the second half, which continued in early 2015. Brent oil prices ended the year 2014 below 60 $/b after a long period of stability at around 110 $/b, due to a substantial increase in oil supply while growth in demand was lower than expected. At the same time, the euro was driven down against the dollar by the September 2014 FED decision in the US and the anticipation of the decisions of the European Central Bank that were eventually taken in January 2015.

Global oil demand increased by +0.6 Mb/d [(1)] compared with +1.1 Mb/d in 2013, which was lower than anticipated primarily due to a slowdown in Chinese growth. Global oil supply rose significantly in 2014 by +1.9 Mb/d after a moderate increase of +0.4 Mb/d in 2013. Growth in production was mainly due to a dramatic increase of unconventional production in North America. Brent oil prices thus averaged 99.0 $/b in 2014 compared with 108.7 $/b in 2013.

In Asia, where the gas price is indexed to oil, prices dropped steeply in the second half of the year and the annual price averaged 14 $/Mbtu, compared with 16 $/Mbtu in 2013. Gas prices in Europe were affected by a very mild winter in 2013-2014 and fell by more than 20% to 8 $/Mbtu. Finally, American gas, highly abundant due to shale gas development, was cheaper at 4 $/Mbtu on average over the year. In the downstream, the year was marked by volatile refining margins. The margins were very low in the first half of the year and almost tripled in the second half, benefiting from the fall in Brent oil prices. On an annual average, the margins remained low due to overcapacity, particularly in Europe, and the European Refining Margin Indicator (ERMI) [(2)] was 18.7 $/t in 2014, compared with 17.9 $/t in 2013. Petrochemicals margins were very good in 2014, particularly in the United States, supported by falling raw material prices, while the polymer market remained favorable. The environment for Marketing & Services was less favorable than in 2013, particularly in the European networks.

In this context, TOTAL generated adjusted net results of $12.8 billion in 2014, down 10% from 2013. This decline essentially reflects the fall in Brent prices, which was partly offset by the increase in the income of the Refining & Chemicals segment, which benefited from its restructuring and took advantage of the volatile margins. Given the economic environment at the end of the year, the Group recognized after-tax impairments of about $6.5 billion in the fourth quarter 2014, essentially related to Canadian oil sands, unconventional gas, notably in the United States, and refining in Europe.

Adjusted net operating income from the Upstream segment in 2014 was $10,504 million compared to $12,450 million in 2013, a decrease of 16%, which was due essentially to the decrease in the average realized price of hydrocarbons.

Adjusted net operating income from the Refining & Chemicals segment in 2014 was $2,489 million, an increase of 34% compared to 2013, while the refining margin increased by only 4%. The synergies and efficiency plans supported the ability of the segment to adapt to the lower European margins in the first half of 2014 and subsequently take advantage of a more favorable refining & chemicals environment in the second half of the year. The petrochemicals environment was more favorable in 2014, especially in the United States.

Adjusted net operating income from the Marketing & Services segment in 2014 was $1,254 million, a decrease of 19% compared to 2013. This decline was mainly due to weather conditions in the first half in Europe, and lower margins in 2014, notably in the European network.

Acquisitions in 2014 were $2.5 billion, comprised principally of the acquisition of an interest in the Elk and Antelope discoveries in Papua New Guinea, the acquisition of an additional stake in OAO Novatek [(3)] and the carry on the Utica gas and condensate field in the United States. Asset sales were $4.7 billion [(4)], comprised essentially of the sale of interests in Shah Deniz and the associated pipelines in Azerbaijan, Block 15/06 in Angola, the Cardinal midstream assets in the United States and GTT (Gaztransport & Technigaz).

Investments excluding acquisitions amounted to $26 billion in 2014, down $2 billion from 2013. TOTAL financed its investments and dividends while maintaining a solid balance sheet and ended 2014 with a net-debt-to-equity ratio of 31.3%, compared to 23.3% in 2013. The increase is partly due to the higher level of net debt linked to lower cash flow from operations as well as the incomplete status on December 31, 2014, of the sales of Bostik, Totalgaz and the South African coal mines, and partly due to the decrease in equity linked mainly to variations in foreign exchange and to the impact of impairments.

The Group further improved its safety performance, with a 16% drop in TRIR [(5)] compared with 2013. 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.

(1) EIA's estimates, production including crude oil, condensates, LPGs, unconventional oils and other sources.
(2) TOTAL's margin indicator.
(3) The Group held an 18.24% stake in OAO Novatek as of December 31, 2014.
(4) Excluding other transactions with non-controlling interests.
(5) Total Recordable Injury Rate

In the Upstream segment, the year 2014 saw the start-up of CLOV in Angola, which reached its plateau production ahead of schedule and is a testament to the Group's deep offshore expertise. TOTAL also launched the Kaombo project in Angola after optimizing the project design and reducing the investment by $4 billion. The Group also continued its exploration program and made discoveries in the Kurdistan region in Iraq and in Côte d'Ivoire, where potential is under review.

The Refining & Chemicals segment's net income continued to grow and the segment is one year ahead in the implementation of its synergy and efficiency programs. Industrial performance improved and helped take full advantage, in the second half of the year, of the more favorable environment for European refining and attractive petrochemicals margins.

Between 2012 and 2014, the Marketing & Services segment increased its market shares in the networks where it operates from 12% to 13% in Europe and from 15% to 18% in Africa. TOTAL's market share in the lucrative lubricants segment also rose to 4.5% in 2014 compared with 4.2%[1] in 2012. In New Energies, the Group is expanding in the field of solar energy through its subsidiary SunPower, which has won tenders in recent years in Chile and South Africa. SunPower's net income also benefited from significant cost cutting measures and the improved efficiency of solar panels.

In 2014, TOTAL dedicated $1,353 million to Research and Development (R&D), compared with $1,260 million in 2013. The Group continues to invest strongly to improve its technological expertise in the exploration and development of oil and gas resources, as well as to develop its competencies in the fields of solar energy, biomass and carbon capture and contribute to the evolution of global energy supply.

1.2. 2014 Group results

(M$)	2014	2013	2012
Sales	236,122	251,725	257,037
Adjusted operating income from business segments (a)	21,604	27,618	31,946
Adjusted net operating income from business segments (a)	14,247	15,861	17,153
Net income (Group share)	4,244	11,228	13,648
Adjusted net income (Group share) (a)	12,837	14,292	15,772
Fully-diluted weighted-average shares (millions)	2,281	2,272	2,267
Adjusted fully-diluted earnings per share (dollars) (a) (b)	5.63	6.29	6.96
Dividend per share (euros) (c)	2.44	2.38	2.34
Net-debt-to-equity ratio (as of December 31)	31.3%	23.3%	21.9%
Return on Average Capital Employed (ROACE) (d)	11.1%	13.0%	15.5%
Return on Equity (ROE)	13.5%	14.9%	17.7%
Cash flow from operating activities	25,608	28,513	28,858
Investments (e)	30,509	34,431	29,475
Divestments (at sale price)	6,190	6,399	7,543

(a) Adjusted results are defined as income at replacement cost, excluding non-recurring items and excluding the impact of fair value changes.
(b) Based on fully-diluted weighted-average number of common shares outstanding during the period.
(c) Dividend 2014 is subject to approval at the May 29, 2015 Annual Shareholders' Meeting.
(d) Based on adjusted net operating income and average capital employed at replacement cost.
(e) Including acquisitions.

Market environment	2014	2013	2012
Exchange rate €-$	1.33	1.33	1.28
Brent ($/b)	99.0	108.7	111.7
European Refinery Margin Indicator (ERMI) (a) ($/t)	18.7	17.9	36.0

(a) ERMI is an indicator intended to represent the margin after variable costs for a hypothetical complex refinery located around Rotterdam in Northern Europe. The indicator margin may not be representative of the actual margins achieved by TOTAL in any period because of TOTAL's particular refinery configurations, product mix effects or other Company-specific operating conditions.

(1) Company data.

Adjustments to operating income

(M$)	2014	2013	2012
Special items affecting operating income	(8,205)	(1,630)	(3,008)
Restructuring charges	-	(376)	(3)
Impairments	(7,979)	(1,043)	(1,891)
Other	(226)	(211)	(1,114)
Effect of changes in fair value	31	(74)	(12)
Pre-tax inventory effect (FIFO vs. replacement cost) [(a)]	(3,469)	(1,065)	(301)
Total adjustments affecting operating income	**(11,643)**	**(2,769)**	**(3,321)**

(a) Refer to Note 1N to the Consolidated Financial Statements.

Adjustments to net income (Group share)

(M$)	2014	2013	2012
Special items affecting net income (Group share)	(6,165)	(2,278)	(1,914)
Gain (loss) on asset sales	1,209	(117)	764
Restructuring charges	(20)	(567)	(99)
Impairments	(7,063)	(773)	(1,426)
Other	(291)	(821)	(1,153)
Effect of changes in fair value	25	(58)	(9)
After-tax inventory effect (FIFO vs. replacement cost) [(a)]	(2,453)	(728)	(201)
Total adjustments affecting net income (Group share)	**(8,593)**	**(3,064)**	**(2,124)**

(a) Refer to Note 1N to the Consolidated Financial Statements.

1.2.1. Sales

Consolidated sales in 2014 were $236,122 million compared with $251,725 million in 2013, a decrease of 6%.

1.2.2. Operating income from business segments

The average Brent price decreased by 9% to 99 $/b in 2014. The European Refining Margin Indicator (ERMI) was 18.7 $/t compared to 17.9 $/t in 2013, an increase of 4%. The environment for petrochemicals also improved, notably in the United States. The euro-dollar exchange rate was 1.33 $/€, unchanged compared to 2013.

In this context, the adjusted operating income from the business segments was $21,604 million, a decrease of 22% from 2013. The effective tax rate [(1)] for the business segments was 51.2% compared to 55.5% in 2013.

Adjusted net operating income from the business segments was $14,247 million compared to $15,861 million in 2013, a decrease of 10%. This decrease was due essentially to the impact of lower Brent prices on Upstream results, partially offset by a higher contribution from downstream activities.

1.2.3. Net income (Group share)

The adjusted net income was $12,837 million compared with $14,292 million in 2013, a decrease of 10%, essentially due to the fall in Brent prices. Adjusted net income excludes the after-tax inventory effect, special items and the effect of changes in fair value:

– The after-tax inventory effect had a negative impact of $2,453 million in 2014 and a negative impact of $728 million in 2013.

– The effect of changes in fair value had a positive impact of $25 million in 2014 compared to a negative impact of $58 million in 2013.

– Other special items in the net income had a negative impact of $6,165 million in 2014, mainly including $7.1 billion of impairments. Taking into account the current economic environment, the Group impaired its oil sands assets in Canada by approximately $2.2 billion, its unconventional gas notably in the United States by $2.1 billion, its refining in Europe by $1.4 billion, as well as certain other assets in the Upstream. These impairments were partially offset by the gain on the sale of the Group's interests in Shah Deniz in Azerbaijan and GTT (Gaztransport et Technigaz). Special items had a negative impact of $2,278 million in 2013.

In this context, the net income (Group share) was $4,244 million compared to $11,228 million in 2013, a decrease of 62%.

The effective tax rate for the Group was 53.0%, compared to 56.8% in 2013. This variation is due principally to the benefit of tax allowances in the UK in the second quarter 2014 which lowered the average rate in the Upstream and the higher contribution from downstream, which benefits from a lower tax rate.

On December 31, 2014, there were 2,285 million fully-diluted shares compared to 2,276 million shares on December 31, 2013.

The adjusted fully-diluted earnings per share, based on 2,281 million fully-diluted weighted-average shares, was $5.63 compared with $6.29 in 2013.

Expressed in euros, adjusted fully-diluted earnings per share was €4.24, a decrease of 11%.

(1) Defined as: (tax on adjusted net operating income)/(adjusted net operating income – income from equity affiliates – dividends received from investments + tax on adjusted net operating income)

1.2.4. Investments – divestments

Investments, excluding acquisitions and including changes in non-current loans, were $26.4 billion in 2014, a decrease of 7% compared to 2013.

Acquisitions were $2,539 million in 2014, comprised principally of the acquisition of an interest in the Elk and Antelope discoveries in Papua New Guinea, the acquisition of an additional stake in OAO Novatek (1) and the carry on the Utica gas and condensate field in the United States.

In 2014, asset sales were $4,650 million, comprised essentially of the sale of interests in Shah Deniz and the associated pipelines in Azerbaijan, Block 15/06 in Angola, GTT (Gaztransport & Technigaz) and the Cardinal midstream assets in the United States.

Net investments (2) were $24.1 billion compared with $25.9 billion in 2013, a decrease of 7%.

1.2.5. Profitability

The ROACE in 2014 was 11.1% for the Group, a decrease of 1.9% compared to 2013. Return on Equity (ROE) was 13.5% in 2014, compared to 14.9% in 2013.

1.3. Upstream segment results

Environment

Liquids and gas price realizations [a]	2014	2013	2012
Brent ($/b)	99.0	108.7	111.7
Average liquids price ($/b)	89.4	103.3	107.7
Average gas price ($/Mbtu)	6.57	7.12	6.74
Average hydrocarbon price ($/boe)	66.2	74.8	77.3

(a) Consolidated subsidiaries, excluding fixed margins. Effective first quarter 2012, includes over/under-lifting valued at market prices.

Market conditions were less favorable in 2014 given the fall in oil prices in the second half. The average realized price of liquids fell by 13% and the average realized price of gas by 8% compared to 2013.

Hydrocarbon production	2014	2013	2012
Liquids (kb/d)	1,034	1,167	1,220
Gas (Mcf/d)	6,063	6,184	5,880
Combined production (kboe/d)	2,146	2,299	2,300

In 2014, hydrocarbon production was 2,146 kboe/d, a decrease of 7% from 2013, due to the following:

- -6% essentially for the expiration of the ADCO license in the United Arab Emirates,
- -2% for natural decline and higher maintenance in 2014, notably in the first half, partially offset by production growth in the Utica in the United States, and
- +1% for production growth from start-ups, essentially CLOV in Angola.

In 2014, excluding ADCO, hydrocarbon production was virtually stable compared to 2013.

Reserves

As of December 31,	2014	2013	2012
Liquids (Mb)	5,303	5,413	5,686
Gas (Bcf)	33,590	33,026	30,877
Hydrocarbon reserves (Mboe)	11,523	11,526	11,368

Proven hydrocarbon reserves based on SEC rules (based on Brent at 101.3 $/b) were 11,523 Mboe at December 31, 2014. Based on the 2014 average rate of production, the reserve life is more than thirteen years.

The proved reserve replacement rate (3), based on SEC rules, was 100%.

The organic proved reserve replacement rate (4) was 125%.

At year-end 2014, TOTAL had a solid and diversified portfolio of proved and probable reserves (5) representing more than twenty years of reserve life based on the 2014 average production rate, and resources (6) representing about fifty years of production.

(1) The Group held an 18.24% stake in OAO Novatek as of December 31, 2014.
(2) Net investments = investments including acquisitions and changes in non-current loans – sales – other transactions with non-controlling interests.
(3) Change in reserves excluding production: (revisions + discoveries, extensions + acquisitions – divestments)/production for the period.
(4) The reserve replacement rate in a constant oil price environment of 108.02 $/b (reference price in 2013), excluding acquisitions and divestments.
(5) Limited to proved and probable reserves covered by Exploration & Production contracts on fields that have been drilled and for which technical studies have demonstrated economic development in a 100 $/b Brent environment, including projects developed by mining.
(6) Proved and probable reserves plus contingent resources (potential average recoverable reserves from known accumulations – Society of Petroleum Engineers – 03/07)

Results

(M$)	2014	2013	2012
Adjusted operating income	17,156	23,700	28,333
Adjusted net operating income	10,504	12,450	14,316
Cash flow from operations	16,666	21,857	24,354
Adjusted cash flow from operations	18,667	22,011	23,521
Investments	26,520	29,750	25,200
Divestments (at sale price)	5,764	5,786	3,595
Return on Average Capital Employed (ROACE)	10.7%	13.8%	18.1%

Adjusted net operating income from the Upstream segment in 2014 was $10,504 million compared to $12,450 million in 2013, a decrease of 16%, which was due essentially to the decrease in the average realized price of hydrocarbons. The effective tax rate for the Upstream segment was 57.1% in 2014, compared to 60.0% in 2013. The lower rate reflects mainly the benefit of tax allowances in the United Kingdom in the second quarter 2014.

Technical costs for consolidated subsidiaries, calculated in accordance with ASC 932 (1), were 28.3 $/boe in 2014 compared to 26.1 $/boe in 2013, an increase due principally to the increase in depreciation of fixed assets and the increase in production costs, mainly maintenance costs.

The Return on Average Capital Employed (ROACE (2)) for the Upstream segment was 10.7% in 2014 compared to 13.8% in 2013.

1.4. Refining & Chemicals results

Operational data (a)	2014	2013	2012
Total refinery throughput (kb/d)	1,775	1,719	1,786

(a) Including share of TotalErg. Results for refineries in South Africa, French Antilles and Italy are reported in the Marketing & Services segment.

In 2014, refinery throughput increased slightly by 3% compared to 2013, essentially due to the start-up of the SATORP refinery in Saudi Arabia which reached full capacity in August 2014.

Results

(M$)	2014	2013	2012
Adjusted operating income	2,739	1,766	1,873
Adjusted net operating income	2,489	1,857	1,768
including Specialty Chemicals	629	583	491
Cash flow from operations	6,302	4,260	2,726
Adjusted cash flow from operations	4,028	2,974	2,789
Investments	2,022	2,708	2,502
Divestments	192	365	392
Return on Average Capital Employed (ROACE)	15.0%	9.2%	8.7%

In 2014, adjusted net operating income from the Refining & Chemicals segment was $2,489 million, an increase of 34% compared to 2013 while the refining margin increased by only 4% to 18.7 $/t in 2014. The synergies and efficiency plans are bearing fruit and the segment was able to adapt to the lower European margins in the first half and subsequently take advantage of a more favorable refining & chemicals environment in the second half of the year. The petrochemicals environment was more favorable in 2014, especially in the United States.

With a ROACE (2) of 15% in 2014, the segment attained its profitability objective one year earlier than the schedule fixed in 2011.

(1) FASB Accounting Standards Codification Topic 932, Extractive industries – Oil and Gas.
(2) Based on adjusted net operating income and average capital employed at replacement cost.

1.5. Marketing & Services results

Operational data [a]	2014	2013	2012
Refined products sales (kb/d)	1,769	1,749	1,710

(a) Excludes trading and bulk Refining sales, includes share of TotalErg.

Sales volumes in 2014 increased slightly compared to 2013 due to higher sales in growth areas and offset by lower sales in Europe, mainly due to the impact of weather conditions.

Results

(M$)	2014	2013	2012
Sales	106,509	110,873	111,281
Adjusted operating income	1,709	2,152	1,740
Adjusted net operating income	1,254	1,554	1,069
including New Energies	10	-	(212)
Cash flow from operations	2,721	2,557	1,456
Adjusted cash flow from operations	2,016	2,497	1,533
Investments	1,818	1,814	1,671
Divestments	163	186	196
Return on Average Capital Employed (ROACE)	13.3%	16.1%	11.8%

Adjusted net operating income for Marketing & Services in 2014 was $1,254 million, a decrease of 19% compared to 2013. This decrease is mainly due to the impact of weather conditions on sales in the first half of the year in Europe and lower margins in 2014, notably in the European network.

The ROACE [1] for the Marketing & Services segment was 13.3% in 2014 compared to 16.1% in 2013.

1.6. TOTAL S.A. results in 2014

The net profit of TOTAL S.A., the parent company, was €6,045 million in 2014 compared to €6,031 million in 2013.

1.7. Proposed dividend

After closing the 2014 accounts, the Board of Directors decided on February 11, 2015, to propose to the Annual Shareholders' Meeting on May 29, 2015 an annual dividend of 2.44 €/share for 2014, an increase of 2.5% compared to 2013. Taking into account the interim dividends for the first three quarters of 2014 approved by the Board of Directors, the remaining 2014 dividend is 0.61 €/share, equal to the three 2014 interim dividends. The Board of Directors also decided to propose to the shareholders the option of receiving the remaining 2014 dividend payment in new shares benefiting from a 10% discount [2]. Pending the approval at the Annual Shareholders' Meeting, the ex-dividend date would be June 8, 2015, and the payment date for the cash dividend or the delivery of the new shares, depending on the election of the shareholder, would be set for July 1, 2015.

TOTAL's dividend pay-out ratio, based on the adjusted net income for 2014, would be 58%.

(1) Based on adjusted net operating income and average capital employed at replacement cost.
(2) The issuance price of each new share will be equal to 90% of the average opening price of TOTAL S.A.'s shares on Euronext Paris over the twenty trading days preceding the Annual

2. Liquidity and capital resources

2.1. Long-term and short-term capital

Long-term capital
As of December 31,

(M$)	2014	2013	2012
Adjusted shareholders' equity [(a) (b)]	91,845	101,471	93,901
Non-current financial debt	45,481	34,574	29,392
Hedging instruments of non-current financial debt	(1,319)	(1,418)	(2,145)
Total net non-current capital	**136,007**	**134,627**	**121,148**

(a) The decline in adjusted shareholders' equity in 2014 is mainly due to the recognition of $(6,315) million as currency translation adjustments, including $(2,608) million for the rouble and $(2,438) million for the euro.
(b) Based on a 2014 dividend of €2.44 per share.

Short-term capital
As of December 31,

(M$)	2014	2013	2012
Current borrowings	10,942	11,193	14,535
Net current financial assets	(1,113)	(358)	(1,829)
Net current financial debt	**9,829**	**10,835**	**12,706**
Cash and cash equivalents	(25,181)	(20,200)	(20,409)

2.2. Cash flow

(M$)	2014	2013	2012
Cash flow from operating activities	25,608	28,513	28,858
Investments	(30,509)	(34,431)	(29,475)
Divestments	6,190	6,399	7,543
Other transactions with non-controlling interests	179	2,153	-
Net cash flow [(1)]	**1,468**	**2,634**	**6,926**
Dividends paid	(7,462)	(7,284)	(6,793)
Share buybacks	(289)	(238)	(88)
Net-debt-to-equity ratio at December 31	31%	23%	22%

Cash flow from operations was $25,608 million in 2014, a 10% drop compared to 2013, mainly due to the fall in Brent oil prices.

Adjusted cash flow [(2)] was $24,597 million in 2014, a decrease of 9% compared to 2013.

The Group's net cash flow was $1,468 million in 2014 compared to $2,634 million in 2013. This decrease was essentially due to lower cash flow from operations between the two periods, partially compensated by lower net investments.

The net-debt-to-equity ratio was 31.3% on December 31, 2014 compared to 23.3% on December 31, 2013. The increase is partly due to the higher level of net debt linked to lower cash flow from operations as well as the incomplete status on December 31, 2014, of the sales of Bostik, Totalgaz and the South African coal mines, and partly due to the decrease in equity linked mainly to variations in foreign exchange and to the impact of impairments.

(1) Net cash flow = cash flow from operations – net investments (including other transactions with non-controlling interests).
(2) Cash flow from operations at replacement cost before changes in working capital.

2.3. Borrowing requirements and funding structure

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 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.

The non-current debt is generally raised by the corporate treasury entities either directly in dollars or euros or in other currencies which are then exchanged for dollars or euros through swap issues to appropriately match general corporate needs.

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 the market capitalization 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 Group also entered into margin call contracts with its significant counterparties.

2.4. External financing available

As of December 31, 2014, the aggregate amount of the major confirmed credit facilities granted by international banks to the Group's companies (including TOTAL S.A.) was $11,064 million (compared to $11,581 million on December 31, 2013), of which $10,764 million were unused ($11,421 million unused as of December 31, 2013).

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, 2014, these credit facilities amounted to $10,514 million (compared to $11,031 million on December 31, 2013), of which $10,514 million were unused ($11,031 million unused as of December 31, 2013).

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.

Credit facilities 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.

As of December 31, 2014, no restrictions applied to the use of the Group companies' capital (including TOTAL S.A.) that could significantly impact the Group's activities, directly or indirectly.

2.5. Anticipated sources of financing

Investments, working capital and dividend payments are financed essentially by the cash flow generated from operating activities, asset disposals and, if necessary, by net borrowings.

For the coming years and based on the current financing conditions, the Company intends to maintain this method of financing the Group's investments and activities.

3. Research & Development

In 2014, TOTAL dedicated $1,353 million to Research and Development (R&D), compared with $1,260 million in 2013 and $1,034 million in 2012. The process initiated in 2004 to increase R&D budgets continued.

In 2014, 4,840 people were dedicated to R&D activities, compared with 4,684 in 2013 and 4,110 in 2012.

R&D at TOTAL focuses on six major axes:

- 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, gas, 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 or new analytic techniques.

These issues are addressed within a portfolio of projects in order to capture synergies. Various aspects may be looked at independently by different divisions.

The portfolio managed by the entity tasked with developing small and medium-sized enterprises (SMEs) specialized in innovative energy technologies and cleantechs has grown regularly since 2009. In addition, a loan facility was introduced for innovative SMEs that develop technologies of interest for the Group.

3.1. Upstream

In Exploration & Production, in addition to continuously optimizing the development of deep offshore projects and gas resources, TOTAL continues to improve its exploration, seismic acquisition and imagery technologies 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 carbonate reservoirs.

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 lower environmental impacts are also subjects involving active research.

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 fracking. In addition, new technologies for the exploitation of oil shales by pyrolysis are being developed, both *in situ* and *ex situ*.

The CO_2 oxycombustion 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 capturing solutions.

Finally, R&D continues to devote considerable efforts to technologies for water management associated to the production of hydrocarbons. This subject is now part of a larger program dedicated to sustainable development.

In Gas & Power, the program to develop new LNG (Liquefied Natural Gas) solutions is ongoing.

3.2. Refining & Chemicals

3.2.1. Refining & Chemicals (excluding Specialty 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 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 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_2, R&D is developing technologies to reduce greenhouse gas emissions through carbon capture and recovery by 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.

3.2.2. Specialty Chemicals

R&D has strategic importance for Specialty Chemicals. It is closely linked to the needs of subsidiaries and industrial customers.

Material innovation at Hutchinson is opening up new growth opportunities: development of advanced rubber or thermoplastic formulas, development of new material formulations based on composite structures, or thermal applications.

In addition, growth and R&D focus on topics such as weight reduction, more electric vehicles, mechatronics and energy efficiency. Hutchinson set up two new platforms in 2014 within its research center: CTeC dedicated to composite structures, and MHuST dedicated to embedded mechatronic developments.

Atotech is one of the world leaders in 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.

3.3. Marketing & Services

3.3.1. Marketing & Services

In 2014, Marketing & Services' R&D fine-tuned its roadmap in line with its ambitions and revised its internal organization.

Two major thematic platforms were identified: reducing the environmental footprint of products and improving the durability of its end users' equipment. They include the following development work: fuel economy for customers (fuels, lubricants, additives), competitiveness and new offers (lubricants, bitumens, special fluids), anticipation of regulatory developments (marine lubricants, aviation lubricants), and incorporation of bio-sourced molecules (lubricants, racing fuels).

Fundamental research provides the ideas necessary for designing and developing breakthrough products, which are one of the objectives that Marketing & Services has set for R&D. International secondments were put in place for the first time to incorporate the best scientific expertise into Marketing & Services' know-how.

The number of international scientific cooperations grew sharply in 2014, and several researchers of foreign nationalities were recruited for the Solaize Research Center.

The Technical Center of Asia-Pacific, based in India, yielded results for the first time in 2014, mainly for lubricants, but also for special fluids, bitumens, fuel additives and fuels themselves. It is also the global

In 2014, the development of a new *Excellium* fuel formulas was completed and the benefits for customers were demonstrated. These developments focused on "engine cleanliness" and incorporate a new detergent technology developed internally. UTAC-CERAM Group's assessment of the *Excellium* formula on trucks, in compliance with the Energy Economy Certificate (CEE) protocol, showed a 4% consumption savings.

The results produced by *Excellium* development work also served as basis for the new *Total Traction Premier* formulation developed for Total France.

In the field of refining specification additives, new block copolymers were synthesized to improve the cold flow properties of distillates at low temperatures.

The *Fuel Economy* range of lubricants continues to expand with many new products added to comply with the specifications of manufacturers targeted by the Total Lubricants business line in all fields of application (automotive, marine and industries). New marine lubricants for two-stroke engines are being developed to anticipate changes in fuel (very low sulfur in coastal areas) and emissions requirements. Research in lubricants also seeks to drive international development and the growth of the volume of lubricants sold. The number of manufacturers whose engines are being installed on the research center's engine test benches for the assessment of their lubricants is growing constantly with a peak for German manufacturers in 2014.

To meet the challenges of competitiveness, sustainable logistics and geographic development, researchers focused on optimizing bitumen formulas for roads, undertaking studies on the possibility of transporting bitumen in solid form and developing Styrelf formulas in Russia. Work on the formulation and industrialization of a specialty bitumen for industrial application was pursued successfully.

The Federal Aviation Administration (FAA) has selected the proposed unleaded Avgas, which will be assessed comparatively with three other competing proposals.

With a better understanding of the fluid catalytic production process and its applications, new patent applications were filed.

Lastly, thanks to their know-how and responsiveness, the researchers achieved success in racing fuels by developing products suitable for the new Renault V6 Formula 1 engine, particularly fuels containing biohydrocarbons which were instrumental in the victories at the Canadian, Belgian and Hungarian Grands Prix.

3.3.2. New Energies

New Energies' R&D effort is focused on the solar value chain from silicon to photovoltaic electricity management systems and on the development of biotechnological methods of converting biomass into products for the Group's markets.

In the field of solar energy, R&D is striving to improve SunPower's methods of producing cells and modules, in order to reduce costs while enhancing their efficiency and reliability. It is also preparing future generation photovoltaic cells within the framework of several strategic partnerships between TOTAL and renowned academic research institutes. In particular, TOTAL is the founding partner of the Ile de France Photovoltaic Institute, an ambitious project set up in the Paris-Saclay campus.

Downstream in the solar value chain, R&D is monitoring the development of low-cost stationary storage technologies. It is also preparing solutions for supplying solar power and associated services to residential markets, by developing software tools and algorithms for the intelligent management of domestic electricity production and consumption, but also by integrating and testing systems combining photovoltaics, storage, control of demand as well as pilots for assessing and improving systems and algorithms in contact with customers.

With regard to biotechnologies, the Group is developing methods for converting sugars into biofuels and molecules of interest for chemicals, as well as processes for the deconstruction of lignocellulose into sugars. The Group has set up its own laboratories, including a competence center on fermentation and a joint laboratory with Marketing & Services devoted to bio-sourced specialties, and a dedicated research team. This research team manages a network of partnerships with research laboratories and startups in the United States and in Europe. The Group's leading partner is Amyris, a U.S. company listed on the NASDAQ, in which the Group held a 17.23% stake as of December 31, 2014.

3.4. 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 with regard to:

- 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_2 on the natural environment;
- detection and reduction of discharges into the air and simulation of their dissemination;
- prevention of soil contamination and regulatory compliance with regard to historical aspects and the remediation of sites; and
- changes in the Group's different products and management of their life cycle, in particular in compliance with the Registration, Evaluation, Authorisation and Restriction of Chemicals Directive (REACH).

Refer to point 2.2. of chapter 7 for more details.

3.5. R&D organization

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-two R&D sites worldwide and has developed approximately 1,000 partnerships with other industrial groups and academic or highly specialized research institutes. TOTAL also has a permanently renewed network of scientific advisors worldwide who monitor and advise on matters of interest 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 SMEs 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 2014, more than 300 new patent applications were filed by the Group.

4. Trends and outlook

4.1. Outlook

In response to the recent fall in the oil price, TOTAL has launched an ambitious mitigation plan. The plan includes significant reductions to organic investments[1], operating costs and the exploration budget, as well as an acceleration of its asset sale program.

The Group plans to lower its organic investments by more than 10% from $26.4 billion in 2014 to $23-24 billion in 2015, by reducing investments in brownfield developments that have become less profitable. For operating costs, the 3-year program targeting savings of $2 billion in 2017 has been reinforced in the Upstream segment from 2015. The initial target of $800 million has been raised to $1.2 billion in 2015, an increase of 50%. The exploration budget has been reduced by about 30%, to $1.9 billion in 2015.

Having achieved its 2012-14 asset sale target of $15-20 billion, TOTAL plans to accelerate its 2015-17 asset sale program of $10 billion by selling $5 billion of assets in 2015, in addition to benefiting from the completion of about $4 billion of asset sales that were already signed and pending at the start of the year.

In the Upstream segment, the Group is focused on the execution and delivery of its major projects and plans eight start-ups this year, of which three already started production in January. These start-ups, plus the new ADCO volumes, will contribute to production growth for the Group of more than 8% in 2015.

In addition, refining overcapacity remains an issue in Europe, and the Group is progressing in its restructuring plans by launching a capacity reduction program at its Lindsey refinery in the United Kingdom and will announce a new plan for its refining activities in France in the spring of 2015.

With the decline in oil prices, the petroleum industry has entered a new cycle. In this context, TOTAL is implementing a strong and immediate response generating $8 billion in cash in 2015, thereby reducing its cash break-even point by 40 $/b without compromising the priority to safety.

Finally, despite intensive investments made for future growth, the Group's balance sheet remains strong, allowing it access to financial markets under very favorable conditions.

As it has demonstrated in the past, TOTAL will make the adjustments necessary to successfully adapt to this period of low prices, while at the same time being prepared to take advantage of a recovery, for the benefit of its shareholders.

4.2. Risks and uncertainties

Due to the nature of its business, the Group's activities remain subject to the usual market risks (sensitivity to the environmental parameters of the oil and financial markets), industrial and environmental risks related to its operations, and to political or geopolitical risks stemming from the global presence of most of its activities.

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 General Management, which provide for regular pooling of available cash balances, open positions and management of the financial instruments.

Detailed information is given in the Risk Factors section (chapter 4) of this Registration Document. For more information, also refer to the Chairman's report in point 1.10. of chapter 5.

(1) Investments excluding acquisitions and including changes in non-current loans.

4.3. Sensitivity of the 2015 results to market environment

Market environment[(a)]	Scenario retained	Change	Estimated impact on adjusted operating income	Estimated impact on adjusted net operating income
$/€	1.30 $/€	-0.1 $ per €	+0.7 B$	+0.2 B$
Brent	60 $/b	+10 $/b	+3.1 B$	+1.7 B$
European refining margin (ERMI)	25 $/t	+1 $/t	0.08 B$	0.05 B$

(a) Sensitivities revised once per year upon publication of the previous year's fourth quarter results. Indicated sensitivities are approximate and based upon TOTAL's current view of its 2015 portfolio. Results may differ significantly from the estimates implied by the application of these sensitivities. The impact of the €-$ sensitivity on adjusted operating income attributable to the Exploration & Production segment is 60%. The impact of the €-$ sensitivity on net adjusted operating income attributable to the Refining & Chemicals segment is 90%.

5. Significant changes

On January 29, 2015, TOTAL acquired a 10% stake in the new ADCO concession in Abu Dhabi (United Arab Emirates) for a forty-year period starting from January 1, 2015. It covers the fifteen main onshore fields in Abu Dhabi and represents more than half of the Emirate's production. TOTAL has been appointed Asset Leader for the Bu Hasa field and the Southeast group of fields (covering Sahil, Asab, Shah, Qusahwira and Mender fields), which represent approximately two-thirds of ADCO's production. In 2015, ADCO's entire production is expected to be approximately 1.6 million barrels per day (Mb/d), with an objective to increase output to 1.8 Mb/d from 2017. As the first international company to enter the new ADCO concession in Abu Dhabi, TOTAL demonstrates its ability to access resources under good conditions and create strong partnerships in a strategic region with numerous development opportunities.

On February 2, 2015, TOTAL completed the sale of its adhesive subsidiary Bostik to Arkema. The accounting effects of this sale, which occurred after the close of the Consolidated Financial Statements for the year ended December 31, 2014 will be reflected in TOTAL S.A.'s intermediate Consolidated Financial Statements for the first quarter of 2015.

Except for the events mentioned above in the Management Report (chapter 3), in the Business overview (chapter 2), or in the description of legal and arbitration procedures (point 4. of chapter 4), no significant changes in the Group's financial or commercial position have occurred since December 31, 2014, the end of the last fiscal year for which audited financial statements have been published by the Company.

Risk factors

1. Financial risks

Financial risks are detailed in Note 31 to the Consolidated Financial Statements (point 7. of chapter 10).

1.1. Sensitivity to market environment

The financial performance of TOTAL is sensitive to a number of factors, the most significant being crude oil and natural gas prices, refining margins 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. For the year 2015, according to the scenarios retained, the Group estimates that an increase or decrease of $10 per barrel in the price of Brent crude would respectively increase or decrease the annual adjusted net operating income by approximately $1.7 billion and cash flow from operations by approximately $2 billion. The impact of changes in crude oil prices on downstream operations depends upon the speed at which the prices of finished products adjust to reflect these changes. The Group estimates that an increase or decrease in its European Refining Margin Indicator (ERMI) of $1.00 per ton would increase or decrease annual adjusted net operating income by approximately $0.05 billion and cash flow from operations by approximately $0.07 billion.

All of the Group's activities are, to various degrees, sensitive to fluctuations in the dollar/euro exchange rate. The Group estimates that a decrease of 0.10 dollars per euro (strengthening of the dollar versus the euro) would increase adjusted net operating income by approximately $0.2 billion, and vice versa, while the impact on cash flow from operations is estimated to be not significant.

The Group's results, particularly in the Chemicals activity, also depend on the overall economic environment.

The year 2014 was marked by a sharp oil price decline in the second half, which continued in early 2015. For more detailed information on this oil price decline and its impact on the Group's 2014 results, financial position and outlook, refer to chapter 3.

Market environment 2015 [(a)]	Scenario retained	Change	Estimated impact on adjusted operating income	Estimated impact on adjusted net operating income
$/€	1.30 $/€	-0.1 $ per €	+0.7 B$	+0.2 B$
Brent	60 $/b	+10 $/b	+3.1 B$	+1.7 B$
European refining margin (ERMI)	25 $/t	+1 $/t	0.08 B$	0.05 B$

(a) Sensitivities revised once per year upon publication of the previous year's fourth quarter results. Indicated sensitivities are approximate and based upon TOTAL's current view of its 2015 portfolio. Results may differ significantly from the estimates implied by the application of these sensitivities. The impact of the €-$ sensitivity on adjusted operating income attributable to the Exploration & Production segment is 60%. The impact of the €-$ sensitivity on net adjusted operating income attributable to the Refining & Chemicals segment is 90%.

1.2. Oil and gas market related risks

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 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
2014	**12.9**	**3.3**	**7.7**	**5.1**
2013	12.9	4.5	8.2	9.8
2012	16.1	4.9	9.5	7.2

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
2014	**15.4**	**3.2**	**6.0**	**4.0**
2013	11.4	3.0	5.8	6.2
2012	26.7	3.5	9.5	3.7

The Group has implemented strict policies and procedures to manage and monitor these market risks. These are based on the separation of the 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.

1.3. 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.

1.4. Counterparty risk

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 risk of market value on its commitments, in particular for swaps set as part of bonds issuance, the Treasury Department also concluded margin call contracts with significant counterparties.

1.5. Currency exposure

The Group generally seeks to minimize the currency exposure of each entity to its functional currency (primarily the dollar, the euro, 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, the Group has a hedging policy of financing these assets in their functional 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.

1.6. 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.

1.7. 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.

1.8. 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, 2014, 2013, and 2012.

Assets/(Liabilities) (M$)	Carrying amount	Estimated fair value	Change in fair value due to a change in interest rate by: +10 basis points	-10 basis points
As of December 31, 2014				
Bonds (non-current portion, before swaps)	(43,088)	(44,079)	292	(286)
Swaps hedging fixed-rates bonds (liabilities)	*(944)*	*(944)*	-	-
Swaps hedging fixed-rates bonds (assets)	*1,319*	*1,319*	-	-
Total swaps hedging fixed-rates bonds (assets and liabilities)	375	375	(153)	149
Current portion of non-current debt after swap (excluding capital lease obligations)	4,411	4,411	5	(4)
Other interest rates swaps	2	2	3	(3)
Currency swaps and forward exchange contracts	318	318	(0)	-
As of December 31, 2013				
Bonds (non-current portion, before swaps)	(33,138)	(33,966)	54	(54)
Swaps hedging fixed-rates bonds (liabilities)	*(325)*	*(325)*	-	-
Swaps hedging fixed-rates bonds (assets)	*1,418*	*1,418*	-	-
Total swaps hedging fixed-rates bonds (assets and liabilities)	1,092	1,092	(39)	37
Current portion of non-current debt after swap (excluding capital lease obligations)	5,218	5,218	6	(6)
Other interest rates swaps	(1)	(1)	(1)	1
Currency swaps and forward exchange contracts	17	17	-	-
As of December 31, 2012				
Bonds (non-current portion, before swaps)	(28,163)	(28,426)	128	(128)
Swaps hedging fixed-rates bonds (liabilities)	*(15)*	*(15)*	-	-
Swaps hedging fixed-rates bonds (assets)	*2,145*	*2,145*	-	-
Total swaps hedging fixed-rates bonds (assets and liabilities)	2,131	2,131	(76)	76
Current portion of non-current debt after swap (excluding capital lease obligations)	5,608	5,608	5	(5)
Other interest rates swaps	-	-	3	(3)
Currency swaps and forward exchange contracts	(66)	(66)	-	-

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$)	2014	2013	2012
Cost of net debt	(640)	(804)	(735)
Interest rate translation of:			
+ 10 basis points	(19)	(15)	(14)
– 10 basis points	19	15	14
+ 100 basis points	(193)	(150)	(136)
– 100 basis points	193	150	136

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 euro and the ruble, 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 consolidated shareholders' equity which, over the course of the last three years, is essentially related to the fluctuation of the euro, the ruble and the pound sterling and is set forth in the table below:

	Dollar/Euro exchange rates	Dollar/Pound sterling exchange rates	Dollar/Ruble exchange rates
As of December 31, 2014	**0.82**	**0.64**	**59.58**
As of December 31, 2013	0.73	0.60	32.87
As of December 31, 2012	0.76	0.62	30.57

As of December 31, 2014 (M$)	Total	Euro	Dollar	Pound sterling	Ruble	Other currencies
Shareholders' equity at historical exchange rate	97,810	26,056	50,179	6,762	6,489	8,324
Currency translation adjustment before net investment hedge	(7,480)	(2,290)	-	(894)	(3,215)	(1,081)
Net investment hedge – open instruments	-	-	-	-	-	-
Shareholders' equity at exchange rate as of December 31, 2014	90,330	23,766	50,179	5,868	3,274	7,243

As of December 31, 2013 (M$)	Total	Euro	Dollar	Pound sterling	Ruble	Other currencies
Shareholders' equity at historical exchange rate	101,444	30,444	50,053	6,776	6,960	7,211
Currency translation adjustment before net investment hedge	(1,203)	148	-	(543)	(607)	(201)
Net investment hedge – open instruments	-	-	-	-	-	-
Shareholders' equity at exchange rate as of December 31, 2013	100,241	30,592	50,053	6,233	6,353	7,010

As of December 31, 2012 (M$)	Total	Euro	Dollar	Pound sterling	Ruble	Other currencies
Shareholders' equity at historical exchange rate	95,665	32,299	41,821	6,673	6,147	8,725
Currency translation adjustment before net investment hedge	(1,696)	(1,020)	-	(688)	(164)	176
Net investment hedge – open instruments	-	-	-	-	-	-
Shareholders' equity at exchange rate as of December 31, 2012	93,969	31,279	41,821	5,985	5,983	8,901

1.9. 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.

1.10. 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, 2014, these lines of credit amounted to $10,514 million, of which $10,514 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, 2014, the aggregate amount of the principal confirmed lines of credit granted by international banks to Group companies, including TOTAL S.A., was $11,064 million, of which $10,764 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, 2014, 2013 and 2012 (see Note 20 to the Consolidated Financial Statements).

As of December 31, 2014

(M$) Assets/(Liabilities)	Less than one year	1-2 years	2-3 years	3-4 years	4-5 years	More than 5 years	Total
Non-current financial debt (notional value excluding interests)	-	(4,793)	(4,547)	(4,451)	(4,765)	(25,606)	(44,162)
Current borrowings	(10,942)	-	-	-	-	-	(10,942)
Other current financial liabilities	(180)	-	-	-	-	-	(180)
Current financial assets	1,293	-	-	-	-	-	1,293
Assets and liabilities available for sale or exchange	56	-	-	-	-	-	56
Cash and cash equivalents	25,181	-	-	-	-	-	25,181
Net amount before financial expense	**15,408**	**(4,793)**	**(4,547)**	**(4,451)**	**(4,765)**	**(25,606)**	**(28,754)**
Financial expense on non-current financial debt	(901)	(833)	(783)	(718)	(624)	(1,960)	(5,819)
Interest differential on swaps	369	167	(31)	(127)	(154)	(790)	(566)
Net amount	**14,876**	**(5,459)**	**(5,361)**	**(5,296)**	**(5,543)**	**(28,356)**	**(35,139)**

As of December 31, 2013

(M$) Assets/(Liabilities)	Less than one year	1-2 years	2-3 years	3-4 years	4-5 years	More than 5 years	Total
Non-current financial debt (notional value excluding interests)	-	(4,647)	(4,528)	(4,159)	(4,361)	(15,461)	(33,156)
Current borrowings	(11,193)	-	-	-	-	-	(11,193)
Other current financial liabilities	(381)	-	-	-	-	-	(381)
Current financial assets	739	-	-	-	-	-	739
Assets and liabilities available for sale or exchange	179	-	-	-	-	-	179
Cash and cash equivalents	20,200	-	-	-	-	-	20,200
Net amount before financial expense	**9,544**	**(4,647)**	**(4,528)**	**(4,159)**	**(4,361)**	**(15,461)**	**(23,612)**
Financial expense on non-current financial debt	(1,005)	(912)	(764)	(701)	(616)	(1,783)	(5,781)
Interest differential on swaps	483	392	138	(33)	(110)	(710)	160
Net amount	**9,022**	**(5,167)**	**(5,154)**	**(4,893)**	**(5,087)**	**(17,954)**	**(29,233)**

As of December 31, 2012

(M$) Assets/(Liabilities)	Less than one year	1-2 years	2-3 years	3-4 years	4-5 years	More than 5 years	Total
Non-current financial debt (notional value excluding interests)	-	(5,056)	(4,572)	(2,804)	(4,124)	(10,691)	(27,247)
Current borrowings	(14,535)	-	-	-	-	-	(14,535)
Other current financial liabilities	(232)	-	-	-	-	-	(232)
Current financial assets	2,061	-	-	-	-	-	2,061
Assets and liabilities available for sale or exchange	(997)	-	-	-	-	-	(997)
Cash and cash equivalents	20,409	-	-	-	-	-	20,409
Net amount before financial expense	**6,706**	**(5,056)**	**(4,572)**	**(2,804)**	**(4,124)**	**(10,691)**	**(20,541)**
Financial expense on non-current financial debt	(984)	(824)	(685)	(534)	(464)	(1,423)	(4,914)
Interest differential on swaps	490	443	297	140	82	(47)	1,405
Net amount	**6,212**	**(5,437)**	**(4,960)**	**(3,198)**	**(4,506)**	**(12,161)**	**(24,050)**

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, 2014, 2013 and 2012 (see Note 28 to the Consolidated Financial Statements).

As of December 31 (M$) Assets/(Liabilities)	2014	2013	2012
Accounts payable	(24,150)	(30,282)	(28,563)
Other operating liabilities	(7,935)	(8,191)	(7,784)
including financial instruments related to commodity contracts	*(1,073)*	*(848)*	*(602)*
Accounts receivable, net	15,704	23,422	25,339
Other operating receivables	10,792	9,917	8,126
including financial instruments related to commodity contracts	*2,502*	*1,278*	*899*
Total	**(5,589)**	**(5,134)**	**(2,882)**

These financial assets and liabilities mainly have a maturity date below one year.

1.11. Credit risk

Credit risk is defined as the risk of the counterparty to a contract failing to perform or pay the amounts due.

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.

The following table presents the Group's maximum credit risk exposure:

As of December 31 (M$) Assets/(Liabilities)	2014	2013	2012
Loans to equity affiliates *(Note 12)*	4,626	3,554	3,114
Loans and advances *(Note 14)*	3,326	3,575	2,912
Hedging instruments of non-current financial debt *(Note 20)*	1,319	1,418	2,145
Accounts receivable *(Note 16)*	15,704	23,422	25,339
Other operating receivables *(Note 16)*	10,792	9,917	8,126
Current financial assets *(Note 20)*	1,293	739	2,061
Cash and cash equivalents *(Note 27)*	25,181	20,200	20,409
Total	**62,241**	**62,825**	**64,106**

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, 2014, the net amount received as part of these margin calls was $1,437 million (compared to $1,105 million as of December 31, 2013 and $2,157 million as of December 31, 2012).

The Group has established a number of programs for the sale of trade receivables, without recourse, with various banks, primarily to reduce its exposure to such receivables. As a result of these programs the Group retains no risk of payment default after the sale, but may continue to service the customer accounts as part of a service arrangement on behalf of the buyer and is required to pay to the buyer payments it receives from the customers relating to the receivables sold. As of December 31, 2014, the net value of receivables sold amounted to $3,036 million. No financial asset or liability remains recognized in the consolidated balance sheet after the date of sale.

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 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.

  Trading & Shipping 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 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.

2. Industrial and environmental risks

2.1. Types of risks

TOTAL is exposed to risks related to the safety and security of its operations.

TOTAL engages in a broad range of industrial activities, including, 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). Moreover, most of the Group's activities will eventually require environmental site remediation, closure and decommissioning after operations are 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 cause death, harm human health, 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 activities and could cause harm to people, the environment and property.

Like most industrial groups, TOTAL is affected 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, 2014, 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 of the Group face specific additional risks.

TOTAL's Upstream segment faces, notably, risks related to the physical characteristics of oil and 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 death, injury 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 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 processes, or waste elimination).

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.

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, avoid potential disruptions in TOTAL's business and operations and minimize impacts on third parties and the environment.

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 point 2.2.3. below.

TOTAL is 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 health, safety and the environment.

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 could have a material effect on the results of operations of the Group and its financial position.

Furthermore, in countries where the Group operates or plans to operate, the introduction of new laws and regulations, stricter enforcement or new 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 complementary 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 obligations" and "Provisions for environmental contingencies" sections of the Group's Consolidated Balance Sheet (refer to Note 19 to the Consolidated Financial Statements, chapter 10, point 7.). 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 (chapter 10, point 7.).

Laws and regulations related to climate change and its physical effects may adversely affect the Group's business.

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.

The regulations concerning the market for CO_2 emission allowances in Europe, the European Union Emissions Trading System (EU-ETS), 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 revision in 2014 to the list of "sectors exposed to carbon leakage" confirmed that the refining sector in Europe is an exposed sector and, as such, it may continue to benefit from free allowances. However, performance for 2013 showed that this sector, which produces significant amounts of CO_2, is almost the only sector with a free allowance deficit exceeding 20%. This deficit resulted mainly from effects of an ambitious sectoral benchmark and the CSCF, which is expected to become more severe year by year, thereby increasing the refining sector's deficit to more than 30% by 2020.

The Group has taken legal actions in relevant local courts having jurisdiction for its concerned industrial sites to contest national decisions granting free allowances. In addition, the courts of different Member States brought the matter before the Court of Justice of the European Union for a preliminary ruling on the procedures for determining the free allowances.

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 (€7/t CO_2). Nevertheless, due to important regulatory changes that occurred in phase 3, such as the authorization given to the allowance auction calendar (backloading), or due to possible future regulatory changes, such as the establishment of a "market reserve", prices for CO_2 allowances could increase substantially, which could cause a significant adverse impact on the results of the Group's refining operations.

In addition, more of TOTAL's future production could come from unconventional sources in order to help meet the world's growing demand for energy. Since the energy intensity of oil and gas production from unconventional sources can be higher than that of production from conventional sources, the CO_2 emissions produced by the Group's activities may increase. Therefore, TOTAL may need to incur additional costs related to certain projects.

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.

2.2. Management and monitoring of industrial and environmental risks

2.2.1. TOTAL's policies regarding health, safety and the environment

TOTAL has developed a "Safety Health Environment Quality Charter" (refer to point 2. of chapter 7) that sets out the basic principles applicable within the Group regarding the protection of people, property and the environment. This charter is implemented at several levels within the Group by means of its management systems.

Along these lines, TOTAL has developed safety, environmental and quality management systems that it seeks 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 health, safety and environmental protection to which TOTAL ensures compliance. The main laws and regulations include:

1) In Europe: Integrated pollution prevention and control (IPPC) and large combustion plants directives (recast by the Industrial emissions directive (IED)), Seveso directive, pressure equipment directive, water framework directive, waste directive, ETS directive (CO_2 allowances), Fuel Directive, Registration, Evaluation, Authorization and Restriction of Chemicals (REACH) and Classification, Labelling and Packaging (CLP) regulations.
2) In France: regulations on natural and technological risks.
3) In the United States: Occupational Safety and Health Administration/Process safety management of highly hazardous materials (OSHA/PSM), Clean Air Act, Clean Water Act and the Comprehensive Environmental Response, Compensation, and Liablity Act (also known as CERCLA or Superfund).

2.2.2. Assessment

As part of its policy, TOTAL performs regular assessments, following various procedures, of risks and impacts in the areas of industrial safety (particularly process safety), the environment and the protection of workers and local residents, including:

- prior to approving new projects, investments, acquisitions and disposals (refer to chapter 5, point 1.10.);
- periodically during operations (safety studies, environmental impact assessments, 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 (refer to chapter 7, point 2.2.3.).

2.2.3. 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 environmental remediation.

In addition to developing 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 identified risk scenarios.

The Group has a crisis management process that relies on a permanent on-call system, regular exercises conducted at the industrial sites of its main entities, a benchmark of the best practices of international companies and training courses in crisis management, as well as procedures, emergency booklets and tools that can be used in the event of a crisis.

The organization set up in the event of a crisis is deployed at two closely-coordinated levels:

- at the local level (country, site or entities), a crisis unit is responsible for ensuring operational management and implementations of emergency plans; and
- at the head office level, a crisis unit consisting of a multi-disciplinary team is tasked with assessing the situation and overseeing crisis management. This central unit provides the necessary expertise and mobilizes additional resources to assist the local crisis unit when necessary.

In addition, 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 (refer to point 2.2.3. of chapter 7).

At the Group level, TOTAL has set up an organization structured around the Plan to Mobilize Resources Against Pollution (PARAPOL) 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 entities 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 Centre for Documentation, Research and Experimentation on Accidental Water Pollution (CEDRE).

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.

The task forces have now finalized their work and the Group continues to roll out solutions to minimize such risks. Detailed information on TOTAL's initiatives in the fields of safety and protection of the environment is provided in chapter 7.

TOTAL 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.

To manage the operational risks to which the Group is exposed, TOTAL maintains worldwide third-party liability insurance coverage for all its subsidiaries. TOTAL also maintains insurance to protect against the risk of damage to Group property and/or business interruption at its main refining and petrochemical sites. TOTAL's insurance and risk management policies are described in point 5. of this chapter ("Insurance and risk management").

3. Other risks

3.1. Economic environment

The operating results and future rate of growth of the Group are exposed to the effects of changing commodity prices.

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

– variations in global and regional supply and demand of energy;

– 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 the 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 and shale oil, which may affect the Group's realized prices, notably under its long-term gas sales contracts and asset valuations, particularly 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 significantly and adversely affect TOTAL's results of operations by reducing its profits. The year 2014 was marked by a sharp oil price decline in the second half, which continued in early 2015. For more detailed information on this oil price decline and its impact on the Group's 2014 results, financial position and outlook, refer to chapter 3. In addition, sensitivity to market environments are described above and discussed in greater detail in point 1.1. of this chapter.

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 assets 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, 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 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.

Conversely, in a high oil and gas price environment, the Group can experience significant increases in cost and government take, and, under some production-sharing contracts, the Group's production rights 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

3.2. Risks related to oil and gas exploration and production

The Group's long-term profitability depends on cost effective discovery, acquisition and development of new reserves; if the Group is unsuccessful, its 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 results are derived from the sale of oil and gas that the Group extracts from underground reserves developed as part of its Exploration & Production activities. The development of oil and gas fields, the construction of facilities and the drilling of production or injection wells is capital intensive and requires advanced technology. Due to constantly changing market conditions and difficult environmental challenges, cost projections can be uncertain. In order for the Upstream segment 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;
- the inability of service companies to deliver on contracted services;
- the inability of the Group's partners to execute or finance projects in which the Group holds an interest;
- equipment failures, fires, blow-outs or accidents;
- the Group's inability to develop or implement new technologies that enable 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 oil and gas companies for the acquisition and development of assets and licenses (refer to point 3.10. "Risks related to Competition");
- increased taxes and royalties, including retroactive claims; and
- disputes related to property titles.

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 or acquired 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.

The Group's 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, the Group's results of operations and financial condition would be negatively impacted.

The Group's proved reserves figures 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 recoverable – 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:

- 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 is 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 proved reserves based on SEC rules were 11,523 Mboe at December 31, 2014, based on the average monthly Brent price of $101.3/b. If the Brent price were to continue to remain low in 2015 compared to 2014, proved reserves at year-end 2015 could decline.

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.

3.3. Major projects and production growth

The Group's production growth depends on the delivery of its major development projects.

The Group's targeted production growth relies heavily on the successful execution of major development projects that are increasingly 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.

3.4. Equity affiliates

Many of the Group's projects are conducted by equity affiliates. This may reduce the Group's degree of control, as well as its ability to identify and manage risks.

A significant and growing number of the Group's projects are conducted by equity affiliates. In cases where the Group's company is not the operator, such company 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 prosecuted 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. These partners may also not have the financial capacity to fully indemnify the Group in the event of an incident.

For additional information concerning equity affiliates, refer to Note 12 ("Equity affiliates: investments and loans") to the Consolidated Financial Statements (chapter 10, point 7.).

3.5. Risks related to economic or political factors

TOTAL has significant production and reserves located in politically, economically and socially unstable areas, where the likelihood of material disruption of the Group's 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, actions of terrorist groups and the application of international economic sanctions. Any of these conditions alone or in combination could disrupt the Group's operations in any of these regions, causing substantial declines in production or revisions to reserves estimates. In Africa, which represented 31% of the Group's 2014 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 18% of the Group's 2014 combined liquids and gas production, has in recent years 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 2014 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. In Russia, where, as of December 31, 2014, the Group held 19% of its proved reserves, members of the international community have, since July 2014, adopted economic sanctions against certain Russian persons and entities, including various entities operating in the financial, energy and defense sectors, in response to the situation in Ukraine (for additional information, refer to point 3.9.1.3. of this chapter). 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.

TOTAL's activities are subject to intervention by the government of host countries, which could have an adverse effect on the Group's results of operations.

TOTAL has significant exploration and production activities, and in some cases refining, marketing or chemicals operations, in 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 activities in such countries are 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;
- the imposition of increased local content requirements;
- payment delays; and
- currency exchange restrictions or currency devaluation.

Imposition of any of these factors by a host government 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.

3.6. Ethical misconduct and non compliance risks

Ethical misconduct or breaches of applicable laws by employees of the Group could expose TOTAL to criminal and civil penalties and be damaging to TOTAL's reputation and shareholder value.

The Group's Code of Conduct, which applies to all of its employees, defines the Group's commitment to business integrity, compliance with all applicable legal requirements and high ethical standards. The Code also defines the behavior and actions expected of the businesses and people of the Group wherever it operates. Ethical misconduct or non-compliance with applicable laws and regulations, including non-compliance with anti-bribery and anti-corruption 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 laws 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. For an overview of the settlements between TOTAL, the SEC and the Department of Justice (DoJ) providing for the appointment of an independent monitor, refer to point 4. of chapter 4 (Legal and arbitration proceedings – Iran), point 1.10.2. of chapter 5 (Prevention of corruption risks) and point 3.7. of chapter 7 (Fair operating practices).

The Group's General Management has prioritized the deployment throughout the Group of extensive ethics and compliance policies and programs since 2009. For more information, refer to point 1.10. of chapter 5 of this Registration Document.

3.7. Legal aspects of the Group's activities

3.7.1. Legal aspects of the Upstream segment's activities

TOTAL's Upstream segment conducts activities in various countries that are 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.

Licenses, permits and contracts governing the Group's ownership of oil and gas interests have terms that vary from country to country and 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 host country, 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 country, which is generally represented by a state-owned company. The latter can thus be involved in operating decisions, cost accounting and production allocation.

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 is intended to cover its incurred expenses (capital 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 the host country or state-owned company, on the other hand.

In some instances, concession agreements and PSCs coexist, sometimes in the same country or even on the same block. Even though there are other contractual models, TOTAL’s license portfolio is comprised mainly of concession agreements.

On most licenses, the partners and/or the authorities of the host country, 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 PSCs. However, the profit oil is replaced by a defined cash monetary remuneration, agreed by contract, which depends notably on field performance parameters such as the amount of barrels 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 relinquish 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, PSCs 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 is generally 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. In addition to the uncertainties surrounding enforcement of contractual rights, new regulations requiring detailed disclosure of payments made by the Group’s companies to public entities in connection with its mining operations (including hydrocarbons) may adversely impact the activities of the Group, its results or its reputation.

3.7.2. Legal aspects of the Group’s other activities

The activities of the Group’s Refining & Chemicals and Marketing & Services segments are also subject to a wide range of regulations.

In European countries and in the United States, sites and products are subject to regulations concerning the protection of the environment (water, air, soil, noise, protection of biodiversity, waste management, impact studies, etc.), health (on-the-job safety, chemical product risks) and safety (safety of personnel and residents, major risk facilities). Product quality and consumer protection are also subject to regulations. Within the European Union, EU regulations must be transposed into Member States’ national laws or directly enforced. In such Member States, EU legislation and regulations may be in addition to national and local government regulations. In addition, in all Member States, industrial facilities operate pursuant to licenses issued by competent local authorities that are based on national laws and EU regulations. The United States features the same complex regulatory environment, where local state rules must be considered in addition to federal rules.

In other countries where the Group operates, legislation is often modeled after EU and U.S. regulations, with certain regulations being more fully developed depending on the country (*e.g.*, regulations pertaining to the protection of water, nature and health).TOTAL has developed standards inspired by best practices existing in countries with strong regulations. These standards are being progressively deployed by the relevant entities of the Group depending on the context. In addition, depending on the country where the Group operates, its other activities are subject to specific sector requirements that impose constraints with respect to, for example, strategic oil reserves holding requirements and shipping capacities owned or chartered.

3.7.3. 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 (refer to point 1.10. of chapter 5). Its implementation is based on a dedicated organization, the involvement of hierarchies and staff, and an alert procedure.

3.8. Critical IT system services and information security

Disruption of TOTAL's critical IT services or breaches of information security could adversely affect the Group's 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 Group's business operations and assets 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.

TOTAL's IT department has developed and distributed governance and security rules that describe the recommended infrastructure, organization and procedures to maintain information systems that are appropriate to the organization's needs and to limit information security risks. These rules are implemented across the Group under the responsibility of the various business segments.

3.9. Countries targeted by economic sanctions

TOTAL has activities in certain countries that are targeted by economic sanctions. If the Group's activities are not conducted in accordance with applicable laws and regulations, TOTAL could be sanctioned or otherwise penalized.

Various members of the international community have targeted certain countries, including Cuba, Iran, Sudan, Syria and Russia, with economic sanctions and other restrictive measures. This section focuses on certain U.S. and European restrictions relevant to the Group (refer to point 3.9.1.) and certain disclosure concerning the Group's limited activities or presence in certain targeted countries (refer to point 3.9.2.).

3.9.1. U.S. and European legal restrictions

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. Since mid-2014, both the United States and the EU have adopted economic sanctions against various persons and entities in Russia in response to the situation in Ukraine. A violation by the Group of applicable laws or regulations could result in criminal and material financial penalties.

The U.S. Treasury Department's Office of Foreign Assets Control (referred to as "OFAC") administers and enforces economic sanctions programs against the countries identified as state sponsors of terrorism, as well as other targeted 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 details of each particular sanctions program. Civil and criminal penalties, which are imposed on a per transaction basis for apparent violations, can be substantial. These OFAC sanctions apply to U.S. persons, activities taking place in the United States, and activities that are otherwise subject to U.S. jurisdiction.

TOTAL continues to closely monitor the possible impacts on all of its activities of the different economic sanctions regimes. TOTAL does not believe that its activities in targeted countries are in violation of applicable international economic sanctions administered by the United States, the European Union and other members of the international community. TOTAL cannot assure that current or future regulations or developments related to economic sanctions will not have a negative impact on its business or reputation.

Set forth below is additional information concerning U.S. and EU restrictions adopted against Iran, Syria and Russia.

3.9.1.1. Restrictions against Iran

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 has been amended and expanded since 1996, 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 impose sanctions against persons found, amongst other activities, to have knowingly made investments of $20 million or more in Iran's petroleum sector in any 12-month period. 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 sanctioned by the U.S. authorities, provided that TOTAL meets certain commitments pursuant to a determination made by U.S. authorities under a "Special Rule" on September 30, 2010, as further described below. Since 2008, TOTAL's position in Iran essentially has consisted of 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 restrictive measures available. TOTAL 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 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. TOTAL does not conduct activities that it believes would be sanctionable under these measures.

The Iran Threat Reduction and Syria Human Rights Act of 2012 ("ITRA") added Section 13(r) to the Securities Exchange Act of 1934, as amended ("U.S. 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 (refer to point 3.9.2.2., below). For any annual report that contains responsive Section 13(r) disclosure, an "Iran Notice" must be 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.

Moreover, many U.S. states have adopted legislation with respect to Iran requiring, in certain conditions, 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.

The EU has also adopted sanctions measures with regard to Iran, including a set of restrictive measures adopted in July and October 2010. 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 (LNG), 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 €400,000 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.

TOTAL continues to closely monitor the Joint Plan of Action announced late 2013 among Iran and the P5+1 countries (China, France, Russia, the United Kingdom and the United States, as well as Germany) regarding limits on Iran's nuclear activities and the suspension of certain United States and EU sanctions regarding Iran. Negotiations between Iran and the P5+1 were extended in November 2014 and are ongoing.

3.9.1.2. Restrictions against Syria

With respect to Syria, the EU adopted measures in May 2011 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 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 Ez Zor licence) and the Tabiyeh contract. The United States also has various measures regarding Syria. Since early December 2011, the Group has ceased its activities that contributed to oil and gas production in Syria.

3.9.1.3. Restrictions against Russia

Since July 2014, members of the international community have adopted economic sanctions against certain Russian persons and entities, including various entities operating in the financial, energy and defense sectors, in response to the situation in Ukraine.

Among other things, OFAC has adopted economic sanctions targeting OAO Novatek, a Russian company listed on the Moscow Interbank Currency Exchange and the London Stock Exchange in which the Group held an 18.24% interest as of December 31, 2014 through its subsidiary Total E&P Holdings Russia, and entities in which OAO Novatek (individually or with other similarly targeted persons or entities collectively) owns an interest of at least 50%. The OFAC sanctions applicable to OAO Novatek prohibit U.S. persons from transacting in, providing financing for or otherwise dealing in debt issued after July 16, 2014 of greater than 90 days maturity, including OAO Yamal LNG, which is jointly-owned by OAO Novatek (60%), Total E&P Yamal (20%) and CNODC (20%), a subsidiary of CNPC. Consequently, the use of the U.S. dollar for such financing is effectively prohibited.

In order to comply with these sanctions, the financing plan for the Yamal LNG project is being reviewed, and the project's partners are engaged in efforts to develop a financing plan in line with the applicable regulations.

TOTAL continues to closely monitor the different international economic sanctions with respect to its activities in Russia. Within this framework, the Group is filing the requests for prior authorizations required by EU restrictive measures concerning technical assistance, brokering services, financing and financial assistance related to certain technologies. The Treasury Department of the French Ministry of Finance, the competent authority on the subject, issued authorizations specifically for the projects of Yamal LNG, Kharyaga and Termokarstovoye. The United States has also imposed export controls and restrictions on the export of goods, services, and technologies for use in certain Russian energy projects that may affect TOTAL's activities in Russia.

As of December 31, 2014, the Group held 19% of its proved reserves in Russia.

3.9.2. Cuba, Iran and Syria

Provided in this section is certain information concerning TOTAL's activities related to Iran in 2014 that is required to be disclosed pursuant to Section 13(r) of the U.S. Exchange Act. In addition, information for 2014 is provided concerning the various types of payments made by Group affiliates to the government of any country identified by the United States as a state sponsor of terrorism (currently, Cuba, Iran, Syria and Sudan[1]) or any entity controlled by those governments. For more information on certain U.S. and EU restrictions relevant to TOTAL in these jurisdictions, see point 3.9.1. above.

3.9.2.1. Cuba

In 2014, Marketing & Services had limited marketing activities for the sale of specialty products to entities in Cuba and paid taxes of approximately $256,000 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 €58,000 (approximately $63,000[2]). In addition, Trading & Shipping purchased hydrocarbons pursuant to spot contracts from a state-controlled entity for approximately €124 million (approximately $134 million) and paid approximately €7 million (approximately $8 million) to this entity via put option transactions with this entity.

3.9.2.2. Iran

Section 13(r) of the U.S. Exchange Act requires the Company to disclose whether it or any of its affiliates engaged during the 2014 calendar year in certain Iran-related activities. While neither TOTAL S.A. nor any of its affiliates have engaged in any activity that would be required to be disclosed pursuant to subparagraphs (A), (B) or (C) 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), as discussed below.

Upstream

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 were completed in 2010 and the Group is no longer involved in the operation of these fields. In 2014, Total E&P Iran (100%), Elf Petroleum Iran (99.8%), Total Sirri (100%) and Total South Pars (99.8%) collectively made payments of approximately €0.3 million (approximately $0.3 million) to (i) the Iranian administration for taxes and social security 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 by these affiliates in 2015. Neither revenues nor profits were recognized from the aforementioned activities in 2014.

Total E&P UK Limited ("TEP UK"), a wholly-owned affiliate of TOTAL, holds a 43.25% interest in a joint venture at the Bruce field in the UK with BP (37.5%, operator), BHP Billiton Petroleum Great Britain Ltd (16%) and Marubeni Oil & Gas (North Sea) Limited (3.75%). This joint venture and TEP UK's Frigg UK Association pipeline (100%) are parties to agreements (the "Rhum Agreements") governing certain transportation, processing and operation services provided to a joint venture at the Rhum field in the UK that is co-owned by BP (50%, operator) and the Iranian Oil Company UK Ltd ("IOC"), a subsidiary of NIOC (50%). To TOTAL's knowledge, provision of all services under the Rhum Agreements was initially suspended in 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 were permitted by EU sanctions regulations. 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"). Since that date all correspondence in respect of the IOC's interest in the Rhum Agreements has been with the UK government in its capacity as temporary manager of IOC's interests and TEP UK has had no contact with IOC in 2014 regarding the Rhum Agreements. On December 6, 2013, the UK government authorized TEP UK, among others, 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. 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. Following receipt of all necessary authorizations, the Rhum field resumed production on October 26, 2014 with IOC's interest in the Rhum field and the Rhum Agreements subject to the UK government's temporary management pursuant to the Hydrocarbons Regulations. Services have been provided by TEP UK under the Rhum Agreements since that date and TEP UK has received tariff income from BP and the UK government (in its capacity as temporary manager of IOC's interest in the Rhum field) in accordance with the terms of the Rhum Agreements. In 2014, these activities generated for TEP UK gross revenue of approximately £1.7 million (approximately $2.5 million) and net profit of approximately £670,000 (approximately $1 million). TEP UK intends to continue such activities so long as they continue to be permissible under UK and EU law and not be in breach of applicable international economic sanctions.

(1) Since the independance of the Republic of South Sudan on July 9, 2011, TOTAL is no longer present in Sudan.
(2) All non-USD currencies presented in this point 3.9.2. converted to USD using the prevailing exchange rates available on March 20, 2015

Downstream

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 lubricants retail 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., received, on behalf of TOTAL S.A., royalty payments of approximately IRR 24 billion (approximately $86 million) from Beh Tam in 2014 for such license. These payments were based on Beh Tam's sales of lubricants during the previous calendar year. Representatives of the Group and Beh Tam met several times in 2014 to discuss the local lubricants market and further discussions are expected to take place in the future. Similar payments are expected to be received from Beh Tam in 2015.

Total Marketing Middle East FZE ("TMME"), a wholly-owned affiliate of the Group, sold lubricants to Beh Tam in 2014. The sale in 2014 of approximately 4,805 t of lubricants generated gross revenue of approximately AED 47.6 million (approximately $13 million) and a net profit of approximately AED 9.3 million (approximately $2.5 million). TMME expects to continue such activity in 2015.

Total Ethiopia Ltd ("TEL"), an Ethiopian company held 99.99% by the Group and the rest by three Group employees, paid approximately ETB 154,000 (approximately $7,500) in 2014 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 stopped pursuing this activity in May 2014.

Total Deutschland GmbH ("Total Deutschland"), a German company wholly-owned by the Group, provided in 2014 fuel payment cards to Iranian diplomatic missions in Germany for use in the Group's service stations. In 2014, these activities generated gross revenue of approximately €2,350 (approximately $2,540) and a net profit of less than €50 (less than $54). Total Deutschland terminated these arrangements effective April 30, 2014.

Total Marketing Services ("TMS"), a French company wholly-owned by TOTAL S.A. and six Group employees, provided in 2014 fuel payment cards to the Iranian embassy in France for use in the Group's service stations. In 2014, these activities generated gross revenues of approximately €30,200 (approximately $32,700) and net income of approximately €1,100 (approximately $1,200). TMS expects to continue this activity in 2015.

Caldeo, a French company wholly-owned by TMS, sold in 2014 domestic heating oil to the Iranian embassy in France, which generated gross revenues of approximately €6,300 (approximately $6,800) and net income of approximately €300 (approximately $325). Caldeo expects to continue this activity in 2015.

3.9.2.3. 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 2014, TOTAL made payments of approximately €0.35 million (approximately $0.38 million) to Syrian government agencies in the form of taxes and contributions for public services rendered in relation to the maintenance of the aforementioned office and its personnel. In late 2014, the Group initiated a downsizing of its Damascus office and reduced its staff to a few employees.

3.10. Risks related to competition

TOTAL's main competitors are comprised of national oil companies and international oil companies. The evolution of the energy sector has 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 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 increasingly compete in the downstream value chain with established distribution companies, including those that belong to the Group. Increased competitive pressure could have a significant negative effect on the 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 include ExxonMobil, Royal Dutch Shell, Chevron and BP. As of December 31, 2014, TOTAL ranked fourth among these companies in terms of market capitalization[1].

(1) Based on market capitalization (in dollars), as of December 31, 2014.

4. Legal and 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.

The main legal proceedings in which the Group's companies are involved are described below.

4.1. Antitrust investigations

The principal antitrust proceedings in which the Group's companies are involved are described below.

4.1.1. Refining & Chemicals segment

As part of the spin-off of Arkema [1] 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 exclude the possibility that the relevant authorities could commence additional proceedings involving Arkema regarding events prior to the spin-off.

4.1.2. Marketing & Services segment

- 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 Netherlands, a civil proceeding was 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. At this stage, the plaintiffs have still 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 proceeding follows practices that had been sanctioned by the Italian competition authority in 2006. The proceeding has not progressed; the existence and the assessment of the alleged damages in this proceeding involving multiple defendants remain 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.

4.2. 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,

(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.

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. On January 13, 2015, the French Supreme Court (*Cour de cassation*) fully quashed the decision of September 24, 2012. The impugned decision is set aside and the parties find themselves in the position they were in before the decision was rendered. The case is referred back to the Court of Appeal of Paris for a new criminal trial. The trial date has not yet been set.

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 €10.3 million reserve remains booked in the Group's Consolidated Financial Statements as of December 31, 2014.

4.3. 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 $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.

4.4. 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 the appointment of a French independent compliance monitor to review the Group's compliance program and to recommend possible improvements. For more information, refer to point 1.10.2. of chapter 5 (Prevention of corruption risks) and point 3.7. (Fair operating pratices).

With respect to the same facts, TOTAL and its late Chairman and Chief Executive Officer, who was President of the Middle East division 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. This position was reiterated by the Prosecutor's office in June 2014. By order notified in October 2014, the investigating magistrate decided to refer the case to trial.

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.

4.5. 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. 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 late Chairman and Chief Executive Officer, formerly President of the Group's Exploration & Production division, 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 late 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 late 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 late Chairman and Chief Executive Officer's acquittal issued on July 8, 2013 was irrevocable since the Prosecutor's office did not appeal this part of the Criminal Court's decision. The appeal hearing is expected to start in October 2015.

4.6. 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 subjects of an investigation related to certain calls for tenders that Total Italia made for the preparation and development of an oil field.

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 in September 2012.

4.7. 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 for 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. Rivunion's insolvency proceedings was terminated on December 4, 2014 and the company was removed from the Geneva commercial register on December 11, 2014.

4.8. 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 partial tax collection procedure was suspended on March 5, 2014 further to the action that Total Gabon engaged before the Tax Administration.

Discussions with the Gabonese authorities led to the termination in early November 2014 of the tax assessment procedure to which Total Gabon was subject. Net income for Total Gabon as of September 30, 2014 includes the impact of the closing of this procedure, following which Total Gabon obtained a tax clearance for the relevant period, extended to and including the years 2011 to 2013.

4.9. Kashagan

In Kazakhstan, the start-up of production of the Kashagan field, in which TOTAL holds an interest of 16.81%, occurred on September 11, 2013. Following the detection of a gas leak from the export pipeline, production was stopped on September 24, 2013. Production was resumed but then stopped again shortly thereafter following the detection of another leak. Pressure tests were performed in a fully controlled environment revealing some other potential leaks/cracks. The production of the field was stopped and a thorough investigation was launched.

After the identification of a significant number of anomalies in the oil and gas export lines, it was decided to replace both pipelines.

The remedial work will be conducted according to best international oil and gas field practices and strict HSE requirements in order to address, mitigate and remedy all problems prior to the restart of production.

On December 13, 2014, the Republic of Kazakhstan and the co-venturers of the consortium settled the disputes raised over the last several years concerning a number of operational, financial and environmental matters. This settlement agreement definitively closed these proceedings without a significant impact on the Group's financial situation or consolidated results.

4.10. Djibouti

Following the confirmation of their conviction by a final judgment of the facts regarding pollution that occurred in the port of Djibouti in 1997, Total Djibouti S.A. and Total Marketing Djibouti S.A. each received in September 2014 an order to pay €53.8 million to the Republic of Djibouti. The amounts were contested by the two companies which, unable to deal with the liability, in accordance with local law, filed declarations of insolvency with the court on October 7, 2014. With respect to Total Djibouti S.A., the insolvency proceeding comprised a recovery plan.

Following a judgment delivered on November 18, 2014, the recovery plan proposed by Total Djibouti S.A. was rejected and the two companies were put into liquidation.

Total Djibouti S.A., a wholly-owned subsidiary of TOTAL S.A., fully holds the capital of Total Marketing Djibouti S.A.

5. Insurance and risk management

5.1. 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 2014, the net amount of risk retained by ORC after reinsurance was a maximum of $53 million per onshore third-party liability insurance claim, or $77 million per offshore third-party liability insurance claim on the one hand and $75 million per property damage and/or business interruption insurance claim, on the other hand. 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 $152 million per occurrence.

5.2. 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 financial risk from such events to be either covered internally by the Group or transferred to the insurance market.

5.3. 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).

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: 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 2014, the Group's third-party liability insurance for any liability (including potential accidental environmental liabilities) was capped at $900 million (onshore) and $800 million (offshore).
- Property damage and business interruption: the amounts insured vary by sector and by site and are based on the estimated cost and scenarios of reconstruction under maximum loss situations and on insurance market conditions. The Group subscribed for business interruption coverage in 2014 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 2014 the insurance limit for the Group share of the installations was approximately $1.7 billion for the Refining & Chemicals segment and approximately $2 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 in connection with 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.

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.