B. EXCHANGE RATE INFORMATION

For information regarding the effects of currency fluctuations on TOTAL's results, see "Item 5. Operating and Financial Review and Prospects". Most currency amounts in this Annual Report on Form 20-F are expressed in U.S. dollars ("dollars" or "\$") or in euros ("euros" or "\$"). For the convenience of the reader, this Annual Report on Form 20-F presents certain translations into dollars of certain euro amounts (\$1.30/\$1.00).

The following table sets out the average dollar/euro exchange rates expressed in dollars per €1.00 for the years indicated, based on an average of the daily European Central Bank ("ECB") reference exchange rate. (¹) Such rates are used by TOTAL in preparation of its Consolidated Statement of Income and Consolidated Statement of Cash Flow in its Consolidated Financial Statements. No representation is made that the euro could have been converted into dollars at the rates shown or at any other rates for such periods or at such dates.

DOLLAR/EURO EXCHANGE RATES

Year	Average Rate
2011	1.3920
2012	1.2848
2013	1.3281
2014	1.3285
2015	1.1095

The table below shows the high and low dollar/euro exchange rates for the four months ended December 31, 2015, and for the first months of 2016, based on the daily EGB reference exchange rates published during the relevant month expressed in dollars per $\mathfrak{E}1.00$.

DOLLAR/FURO EXCHANGE RATES

Period	High	Low	
September 2015	1.1419	1.1138	
October 2015	1.1439	1.0930	
November 2015	1.1032	1.0579	
December 2015	1.0990	1.0600	
January 2016	1.0920	1.0742	
February 2016	1.1347	1.0884	
March 2016 ^(a)	1.1119	1.0856	

⁽a) Through March 14, 2016.

The ECB reference exchange rate on March 14, 2016 for the dollar against the euro was \$1.1110/6

C. RISK FACTORS

The Group conducts its activities in an ever-changing environment and is exposed to risks that, if they were to occur, could have a material adverse effect on its business, financial condition, assets and liabilities, results or outlook.

The Group employs a continuous process of identifying and analyzing risks in order to determine those that could prevent it from achieving its objectives. This section presents the significant risks to which the Group believes it is exposed as of the date of this report. However, as of that date, the Group may not be aware of other risks that could, or other risks may not have been considered by the Group as being likely to, have a significant adverse impact on the Group, its business, financial condition, assets and liabilities, results or outlook. For additional information on these conditions, along with TOTAL's approaches to managing certain of these risks, refer to "Item 4 — E. Other Matters", "Item 5. Operating and Financial Review and Prospects", "Item 11. Quantitative and Qualitative Disclosures About Market Risk" and "Item 15 — Controls and Procedures".

The financial performance of TOTAL is sensitive to a number of market-related factors, the most significant being crude oil and natural gas prices, refining margins and exchange rates.

Generally, a decline in crude oil prices has a negative effect on the Group's results due to a decrease in revenues from oil production. Conversely, a rise in crude oil prices increases revenues.

The year 2015 was marked by the continuing sharp fall in oil prices that started in the second half of 2014. For the year 2016, according to the scenarios retained, the Group estimates that a decrease of \$10 per barrel in the price of Brent Crude would decrease annual adjusted net operating income by approximately \$2 billion and cash flow from operations by approximately \$2 billion. Conversely, an increase of \$10 per barrel in the price of Brent Crude would increase annual adjusted net operating income by approximately \$2 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 a decrease in its European Refining Margin Indicator (ERMI) of \$10 per ton would decrease annual adjusted net operating income by approximately \$0.5 billion and cash flow from operations by approximately \$0.6 billion. Conversely, an increase in its ERMI of \$10 per ton would increase annual adjusted net operating income by approximately \$0.5 billion and cash flow from operations by approximately \$0.6 billion.

⁽¹⁾ For the period 2011-2015, the averages of the ECB reference exchange rates expressed in dollars per €1.00 on the last business day of each month during the relevant year are as follows: 2011 – 1.40; 2012 –1.29; 2013 –1.33; 2014 – 1.32; and 2015 – 1.10.

All of the Group's activities are, for various reasons and to varying degrees, estimates that an increase of \$0.10 per euro (weakening of the dollar versus the euro) would decrease adjusted net operating income by approximately \$0.15 billion and cash flow

from operations by approximately \$0.1 billion. Conversely, a decrease of \$0.10 per euro (strengthening of the dollar versus the euro) would increase adjusted net operating income by approximately \$0.15 billion and cash flow from operations by approximately \$0.1 billion.

Market impact environment 2016 ^(a)	Scenario retained	Change	Estimated impact on adjusted net operating income	Estimated impact on cash flow from operations
Brent	50 \$/b	-10 \$/b	-2 B\$	-2 B\$
European refining margin indicator				
(ERMI)	35 \$/t	-10 \$/t	-0.5 B\$	-0.6 B\$
	1.0 \$/	+0.1 \$ per		
\$/€	€	€	-0.15 B\$	-0.1 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 2016 portfolio. Results may differ significantly from the estimates implied by the application of these sensitivities. 85% of the impact of the f(x) sensitivity on net adjusted operating income is attributable to the Refining & Chemicals segment.

In addition to the adverse effect on the Group's revenues, margins and profitability, a prolonged period of low oil and natural gas prices could lead the Group to review its projects and the evaluation of its assets and oil and natural gas reserves.

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 of and demand for 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 that can disrupt supplies or interrupt operations of the Group's facilities.

Low oil and natural gas prices over prolonged periods may reduce the economic viability of projects planned or in development, impact the Group's asset sale program 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.

Prolonged periods of low oil and natural gas prices may reduce the Group's reported reserves and/or result in impairment that could have a significant effect on the Group's results in the period in which it occurs.

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 reflect movements in oil and gas prices. In 2015, the negative effects of the decline of oil prices on the Group's results were partially offset by the results of Refining & Chemicals, which were supported by high refining margins. In 2016, there can be no assurance that the refining margins will remain at such a high

The activities of Trading & Shipping (oil, gas and power trading and shipping activities) are particularly sensitive to market risk and more specifically to price risk as a consequence of the volatility of oil and gas prices, to liquidity risk (inability to buy or sell cargoes at market prices) and to counterparty risk (when a counterparty does not fulfill its contractual obligations). The Group uses various energy derivative instruments to adjust its exposure to price fluctuations of crude oil, refined products, natural gas, power and freight-rates. Although TOTAL believes it has established appropriate risk management procedures, large market fluctuations may adversely affect the activities and operating results of the Group.

Since the second half of 2014, oil prices have declined very significantly. For more detailed information on the impact of the sharp decline in oil prices on the Group's 2015 results, financial condition (including impairments, significant reductions to capital expenditures and operating costs, and divestments completed under the Group's asset sale program) and outlook, refer to "Item 5. Operating and Financial Review and Prospects".

Certain financial risks are detailed in Note 31 to the Consolidated Financial Statements.

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

The Group's 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, that can potentially cause death or injury, or impact natural resources and ecosystems.

The industrial event that could have the most significant impact is a major industrial accident (e.g., blow out, explosion, fire, leakage of highly toxic products resulting in the death or injury of one or several people and/or accidental pollution on a large-scale or at an environmentally sensitive site).

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

Certain 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, particularly during exploration operations that can cause blow outs, explosions and fires and harm the environment as well as lead to a disruption of the Group's operations or reduce its production. In addition to the risks of explosions and fires, the activities of the Refining & Chemicals and Marketing & Services business segments entail risks related to the overall life cycle of the products manufactured, as well as the materials used. With regard to transportation, the likelihood of an operational accident depends not only on the hazardous nature of the products transported, but also on the volumes involved and the sensitivity of the regions through which they are transported (quality of infrastructure, population density, environmental considerations).

TOTAL's workforce and the public are exposed to risks inherent to the Group's operations (loss of life, injuries, property damage, environmental damage) that could result in regulatory action and legal liability against the Group's entities and senior management as well as damage to the Group's reputation. Like most industrial groups, TOTAL is affected by reports of occupational illnesses, particularly those caused by past exposure of Group employees to ashestos.

To manage the operational risks to which it is exposed, the Group maintains worldwide third-party liability insurance coverage for all its subsidiaries. TOTAL also has 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 "Item 4 - E. Other Matters - 3. Insurance and risk management". However, the Group is not insured against all potential risks. In certain cases, such as a major environmental disaster, TOTAL's liability may exceed the maximum coverage provided by its third-party liability insurance. The Group cannot guarantee that it will not suffer any uninsured loss and there can be no guarantee, particularly in the event of a major environmental disaster or industrial accident, that such loss would not have a material adverse effect on the Group.

Crisis management systems are necessary to effectively respond to emergencies, avoid potential disruptions to 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 (refer to "Item 15 — Controls and Procedures"). 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 has also implemented business continuity plans 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.

TOTAL is subject to increasingly stringent environmental, health and safety laws and regulations in numerous countries and may incur material related compliance costs.

The Group's activities are subject to numerous laws and regulations pertaining to health, safety and the environment. In most countries where the Group operates, particularly in Europe and the United States, sites and products are subject to increasingly strict laws governing the protection of the environment (e.g., water, air, soil, noise, protection of nature, waste management, impact assessments), health (e.g., occupational safety, chemical product risk), and the safety of personnel and residents (e.g., major risk facilities).

Product quality and consumer protection are also subject to regulations. 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 operating results, financial position and 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. Such expenditures could have a material adverse effect on the Group's operating results and financial position.

As a further result of, notably, the introduction of 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 operating results.

Moreover, most of the Group's activities will eventually, at site closure, require decommissioning followed by environmental remediation after operations are discontinued, due to compliance with applicable regulations. Costs related to such activities may materially exceed the Group's provisions and adversely impact its operating results. 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). Future expenditures related to asset retirement obligations are accounted for in accordance with the accounting principles described in Note 10 to the Consolidated Financial Statements.

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

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

The scientific community has established a link between climate change and increasing GHG emissions. The worldwide goal to limit global warming has led to the need to gradually reduce fossil fuel use notably through the diversification of the energy mix. The share of natural gas, the least GHG-emitting fossil energy source, represented nearly 50% of TOTAL's production in 2015, compared to approximately 35% in 2005. The Group has ceased its coal production activities and is developing its renewable energy production activities in solar and biomass. Regulations designed to gradually limit fossil fuel use may, depending on the

GHG emission limits and time horizons set, negatively and significantly affect the development of the most emitting projects, as well as the economic value $\frac{1}{2}$ of some of the Group's assets.

In Europe, the regulations concerning the market for ${\rm CO_2}$ emission allowances, the EU 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 (i.e., the least GHG-emitting) within the same sector ("top 10 benchmark"). Lower-performing plants must purchase, at market price, the necessary allowances to cover their emissions over these free allocations. The plants also need to indirectly bear the cost of allowances for all electricity consumed (including electricity generated internally at the facilities).

The European Commission's decision to apply a "cross-sectoral correction factor" (CSCF) has reduced the total amount of free allocations for all sectors combined by an average of 11.6% over phase 3 (2013-2020). However, the revision in 2014 of the list of "sectors exposed to carbon leakage" confirmed that the refining sector in Europe is an exposed sector, which may continue to benefit from free allowances that partially cover its deficits.

In this context, 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 financial risk related to the foreseeable purchase of $\rm CO_2$ emission allowances on the market should remain low for the Group during this period. At year-end 2015, the price of the EU allowances stood at approximately &8/t CO₂ and may reach approximately &8/t CO₂ and may reach approximately $\&20/t^{(1)}$ CO₂ for 2020 due to the combined effects of backloading⁽²⁾, having removed 900 Mt from phase 3 allowance auctions, and the establishment of a "market stability reserve" at the end of this phase.

The physical effects of climate change may adversely affect the Group's business

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. Climate change potentially has multiple effects that could harm the Group's operations. The increasing scarcity of water resources may negatively affect the Group's operations in some regions of the world, high sea levels may harm certain coastal activities, and the multiplication of extreme weather events may damage offshore and onshore facilities. These climate risk factors are continually assessed in TOTAL's management and risk management plans.

The Group believes that it is impossible to guarantee that the contingencies or liabilities related to the matters mentioned above will not have a material adverse impact in the future on its business, assets and liabilities, consolidated financial situation, cash flow or income.

Disruption to or breaches of TOTAL's critical IT services or information security systems could adversely affect the Group's operations.

The Group's activities depend heavily on the reliability and security of its information technology (IT) systems. If the integrity of its IT

systems were compromised due to, for example, technical failure, cyber attack, computer intrusions and viruses, power or network outages or natural disasters, the Group's activities 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 financial condition, including its results.

The Group's production growth and profitability depend on the delivery of its major development projects.

Growth of production and profitability of the Group rely heavily on the successful execution of its major development projects that are increasingly complex and capital-intensive. These major projects are subject to a number of challenges, including, in particular, those related to:

- negotiations with partners, governments, suppliers, customers and others; obtaining project financing;
- controlling operating costs;
- earning an adequate return in a low oil price environment:
- adhering to projects schedules; and
- the timely issuance or renewal of permits and licenses by government

Poor delivery of any major project that underpins production or production growth could adversely affect the Group's financial performance.

The Group's long-term profitability depends on cost-effective discovery acquisition and development of economically viable new reserves; if the is unsuccessful, its operating results and financial condition would be materially and adversely affected.

A large portion of the Group's revenues and operating results are derived from the sale of oil and gas that the Group extracts from underground reserves $\,$ its exploration and production activities. developed as part of 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 environmental challenges, cost projections can be uncertain. For the Upstream $\,$ segment to continue to be profitable, the Group needs to replace its reserves with new proved reserves that can be developed and produced in an economically viable manner.

In addition, 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 unexpected heterogeneities in geological formations;
- the risk of dry holes or failure to find expected commercial quantities of hvdrocarbons:
- the inability of service companies to deliver on contracted services on time and on budget;
- 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;

Company data

Backloading: authorization given to the European Commission to intervene at its own discretion in the CO2 allowance auction calendar.

- 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 eauipment:
- industrial action;
- competition from oil and gas companies for the acquisition and development of assets and licenses;
- increased taxes and royalties, including retroactive claims; and
- disputes related to property titles.

These factors could lead to cost overruns and could impair the ${\tt Group}$'s ability to complete a development project or make production economical. 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 in sufficient quantities to replace the Group's reserves currently being developed, produced and marketed, the Group's financial condition, including its results, would be materially and adversely affected.

The Group's oil and gas reserves data are estimates only and subsequent downward adjustments are possible. If actual production from such reserves proves to be lower than current estimates indicate, the Group's operating results and financial condition would be negatively impacted.

The Group's proved reserves figures are estimates prepared in accordance with SEC rules. Proved reserves are those reserves which, by analysis of geoscience and engineering data, can be estimated with reasonable certainty to be economically recoverable — from a given date forward, from known reservoi 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, 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 geoscience and engineering data (e.g., seismic data, 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.

A variety of factors that are beyond the Group's control 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. These 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; $\frac{1}{2} \left(\frac{1}{2} \right) \left(\frac{1}{$

- 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 deposits.

Group's reserves estimates may therefore require substantial downward revisions should its subjective judgments prove not to have been conservative enough based on the available geoscience 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 financial condition, including its results.

Many of the Group's projects are conducted by equity affiliates or are operated by third parties. For these projects, the Group's degree of control, as well as its ability to identify and manage risks, may be reduced.

A significant number of the Group's projects is 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.

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

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. 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, contractual terms generally provide that the operator, whether an entity of the Group or a third party, 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 financial condition and reputation negatively impact the Group's financial condition and reputation.

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 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 29% of the Group's 2015 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 is one of the main contributing countries to the Group's production of hydrocarbons, and Libya. The Middle East, which represented 21% of the Group's 2015 combined liquids and gas production, has in recent years suffered increased political volatility in connection with violent conflict and social unrest, including Syria, where 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. In Yemen, the deterioration of security conditions in the vicinity of Balhaf have lead the company Yemen LNG, in which the Group holds a stake of 39.62%, to stop its commercial production and export of LNG and to declare force majeure to its various stakeholders. In South America, which represented 6% of the Group's 2015, 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, 2015, 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 the risk factor on economic sanctions, below). 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 potential adverse instable future. 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.

Intervention by host country authorities can adversely effect the Group's activities and its operating results.

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. 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 risks of renegotiation that, in certain cases, can reduce or challenge the protections offered by the initial legal framework.

In addition, the Group's exploration and production activities in such countries are often undertaken in conjunction with state-owned entities, for the conjunction with state-owned entities, and the conjunction with state-owned entities and the conjunction with the conjunction 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 observed governments and state-owned enterprises impose 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, which could potentially have a material adverse effect on its

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 operating costs and could adversely affect financial returns from projects in that country.

The Group operates in a highly competitive environment. Its competitiveness could be adversely impacted if the Group's level of innovation lagged behind its competitors.

TOTAL's main competitors are comprised of national and international oil companies. The evolution of the energy sector has opened the door to new competitors and increased market price volatility.

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 Group's activities are carried out in a constantly changing environment with new products and technologies continuously emerging. The Group may not be able to anticipate these changes, identify and integrate technological developments in order to maintain its competitiveness, maintain a high level of performance and operational excellence, and best meet the needs and demands of its customers. The Group's innovation policy requires significant investment, notably in R&D, of which the expected impact cannot be guaranteed.

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 TOTAL's commitment to business integrity and compliance with all applicable legal requirements and high ethical standards. This commitment is supported by a "zero tolerance" principle. Ethical misconduct or non-compliance with applicable laws and regulations by TOTAL or any third party acting on its behalf could expose TOTAL and/or its employees to criminal and civil penalties and could be damaging to TOTAL's reputation and shareholder value.

In addition, such misconduct or non-compliance may lead the competent authorities to impose other measures, such as the appointment of an independent monitor in charge of assessing the Group's compliance and internal control procedures and, if need be, recommending improvements. 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 "Item 4 — E. Other Matters — 4.3.7.1. Preventing corruption" and "Item 8 — 4. Legal or arbitration proceedings — Iran".

With respect to competition laws, which apply to the Group's companies in the vast majority of countries in which it does business, non-compliance may result in substantial fines and expose the Group and its employees to criminal sanctions and civil suits.

Generally, entities of the Group could potentially be subject to administrative, judicial or arbitration proceedings that could have a material adverse impact on the Group or its financial situation.

TOTAL has activities in certain countries 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 Iran, Syria and Russia, with economic sanctions and other restrictive measures. U.S. and European restrictions relevant to the Group and certain disclosure concerning the Group's limited activities or presence in certain targeted countries are outlined below and in "Item 4 – E. Other Matters – 5. Information concerning certain limited activities in Iran and Syria", respectively.

TOTAL continues to closely monitor the possible impacts of international economic sanctions regimes on its activities. The Group 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 ("EU") and other members of the international community. However, the Group cannot assure that current or future regulations or developments related to economic sanctions will not have a negative impact on its business or reputation. A violation by the

Group of applicable laws or regulations could result in criminal, civil and/or material financial penalties.

- 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. Pursuant to the Iran Sanctions Act ("ISA"), which has been amended and expanded on several occasions since 1996, including by the Comprehensive Iran Sanctions, Accountability and Divestment Act of 2010 ("CISADA"), 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 past investments 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. Excluding the investments made as part of the development of South Pars, TOTAL made investments in Iran in excess of \$20 million in each of the years between 1996 and 2007. These investments are not sanctionable by the U.S. authorities pursuant to a determination made by the U.S. Department of State on September 30, 2010, under the "Special Rule" provision of ISA that allows it to avoid making a determination of sanctionability with respect to any party that provides certain assurances. The U.S. Department of State further indicated that, so long as TOTAL acts in accordance with its commitments, it will not be regarded as a company of concern for its past Iran-related activities. 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. Furthermore, since the applicability of the "Special Rule" to TOTAL

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 regulators have adopted similar initiatives relating to investments by insurance companies. 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 regimes with regard to Iran, including a set of restrictive measures adopted in July and October 2010 that prohibited, among other things, the supply of key equipment and technology in the refining, liquefied natural gas (LNG), and oil and gas exploration and production sectors in Iran, as well as 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