Selected Operating Information continued

	Year ended December 31,				
	2019	2018	2017	2016	2015
Worldwide natural gas sales ⁽¹⁾	73.07	76.71	80.83	86.31	87.72
Electricity sold ⁽²⁾	39.49	37.07	35.33	37.05	34.88
Refinery throughputs ⁽³⁾	22.74	23.23	24.02	24.52	26.41
Balanced capacity of wholly-owned refineries ⁽⁴⁾	388	388	388	388	388
Retail sales (in Italy and rest of Europe) ⁽³⁾	8.25	8.39	8.54	8.59	8.89
Number of service stations at period end (in Italy and rest of Europe)	5,411	5,448	5,544	5,622	5,846
Chemical production ⁽³⁾	8.07	9.48	8.96	8.81	8.67
Average throughput per service station (in Italy and rest of Europe) (5)	1,766	1,776	1,783	1,742	1,754
Employees at period end (number)	32,053	31,701	32,934	33,536	34,196

- (1) Expressed in BCM.
- (2) Expressed in TWh.
- (3) Expressed in mmtonnes.(4) Expressed in KBBL/d.
- (5) Expressed in thousand liters per day.

Risk factors

The Company's performance is affected by volatile prices of crude oil and produced natural gas and by fluctuating margins on the marketing of natural gas and on the integrated production and marketing of refined products and chemical products

The price of crude oil is the single, largest variable that affects the Company's performance. Because it is a commodity business, the price of crude oil has a history of volatility and is influenced by a number of macrofactors that are beyond management's control. Crude oil prices are mainly driven by the balance between global oil supplies and demand and hence the global levels of inventories and spare capacity. Worldwide demand for crude oil is highly correlated to the macroeconomic cycle. A downturn in economic activity normally triggers lower global demand for crude oil and possibly a supply build-up. Whenever global supplies of crude oil outstrip demand, crude oil prices weaken. Other factors which influence demand for crude oil are demographic growth and improving living standards, prices and availability of alternative sources of energy (e.g., nuclear and renewables), technological advances affecting energy efficiency, measures which have been adopted or planned by governments all around the world to fight global warming, including stricter regulations and control on production and consumption of crude oil, or a shift in consumer preferences. The push to reduce worldwide greenhouse gas emissions and an ongoing energy transition towards a low carbon economy, which are widely considered to be irreversible trends, will represent in our view major trends in shaping global demand and supplies of crude oil over the long-term and may lead to lower crude oil demands and consumption; see the section dedicated to the discussion of climate-related risks below. Furthermore, oil demand is subject to several, unpredictable events. Geopolitical tensions, local conflicts, terrorism, attacks, social instability, widespread civil unrest, pandemic diseases could dent consumers' confidence, economic growth and hence global demand for oil.

Historically, the OPEC cartel and lately the OPEC+ agreement, which includes OPEC members and other important oil producers like Russia, have exerted a big influence over global supplies of crude oil and crude oil prices. Saudi Arabia plays a crucial role within the cartel, because it is estimated to hold huge amounts of reserves and a vast majority of worldwide spare production capacity. This explains why geopolitical developments in the Middle East and particularly in the Gulf area, like regional conflicts, acts of war, strikes, attacks, sabotages and social and political tensions can have a big influence on crude oil prices. Also, sanctions imposed by the USA and the EU against certain producing countries may influence trends in crude oil prices. However, we believe that the resurgence of oil production in the USA due to the technology-driven shale oil revolution has somewhat reduced the ability of OPEC to control the global supply of oil. To a lesser extent, factors like adverse weather conditions and operational issues at key petroleum infrastructure can influence crude oil prices.

The price of crude oil has been on a downtrend for the last six years, shedding more than two thirds of its value in this timeframe (from approximately 110 \$/BBL in 2014 to the current level below 30 \$/BBL as of end of March 2020). The development has been mainly driven by a supply glut fuelled by continued grow in the production of tight oil in the USA and the need of US independent producers to recover their investments, at a time when the pace of increase in crude oil demand has moderated. These trends have been exacerbated by the adverse developments recorded in the first quarter 2020 (see below). At the beginning of 2019, crude oil prices rebounded somewhat from another stage of the down cycle recorded in the final part of 2018, when the price of the Brent crude oil benchmark fell to around 50 \$/barrel (Source: Platt's Oilgram), supported by the production cuts implemented by the OPEC+ agreement and by production losses for Venezuela and Iran due to geopolitical factors. Brent prices peaked at 75 \$/barrel in April 2019. Then, a new downward trend commenced pushing crude oil price down to the mid-\$50 range during the summer months of 2019. The correction was driven by a global economic slowdown impacting fuel demand, uncertainties relating to the developments of the United States-China trade dispute and Brexit, and building oversupplies due to rising production levels in the United States and elsewhere. Against this backdrop, the September 2019 air attacks against strategic oil facilities in Saudi Arabia, which were of unprecedented reach and scale and caused a massive albeit temporary production loss, had little effects on crude oil prices because due to large worldwide supplies, no significant disruptions occurred in the marketplace and after a brief spike, crude oil prices reverted to then ongoing downtrend.

In the last part of 2019 and the beginning of 2020, crude oil prices tried to rebound, supported by the renewal of the OPEC+ agreement through the end of March 2020, which provided an increase of 500 KBBL/d in the production cuts to the target of 1.7 million BBL/d, with Saudi Arabia committing itself to cut its production quota by a further 400 KBBL/d. Other factors supportive of crude oil prices were the resurgence of geopolitical tensions in the Gulf area, a de-escalation in the trade dispute between the USA and China and early signs of a strengthening global economy. As a result of these trends, in 2019 the price for the Brent crude oil benchmark averaged 64 \$/barrel, 9% lower than in 2018.

After a solid start in 2020 with Brent prices rising up to 65 \$/barrel, crude oil prices took a hit due to a sudden drop in demand triggered by the outbreak of a pandemic disease known as COVID-19 spreading from China to other countries around the world. The sell-off intensified through February and early March 2020 as governments across the globe stepped up efforts to contain the virus, impacting economic activity and travel. In early March 2020, members of the OPEC+ agreement failed to reach a deal for additional production cuts claimed by some members to counteract the COVID-19 effects. These developments triggered a collapse in crude oil prices. The price of the Brent crude benchmark has fallen by more 50% from the value recorded before the onset of the disease at more than 65 \$/bbl in early January 2020. Depending on how the current COVID-19 crisis unfolds, on how long it takes to contain the virus and on the severity of an ensuing economic downturn, as well as on future developments regarding the willingness of the OPEC+ agreement to support crude oil prices, the ongoing developments could materially and negatively affect the outlook for the Company, its results of operations, cash flow and business prospects including shareholders' returns and the price of Eni's share. More information is disclosed in Item 5-Management expectations of operations.

Management expects oil demand growth to remain subdued in 2020 and possibly to decline due to the effects of COVID-19 on global economic activity and travel. For the medium term, management expects global oil demand to resume growing at a rate in line with historical averages. Global crude oil supplies are expected to grow at a moderate pace. International oil companies are expected to retain a selective approach to investment decisions due to cash flow considerations and also the growth rate in the production of tight oil in the USA is expected to slow down due to greater focus on capital discipline by US independent upstreamers. The cohesion of OPEC+ alliance is a factor of uncertainty to the global balance between supplies and demand.

Lower prices from one year to another negatively affect the Group's consolidated results of operations and cash flow. This is because lower oil prices translate into lower revenues recognised in the Company's Exploration & Production segment at the time of the price change, whereas expenses in this segment are either fixed or less sensitive to changes in crude oil prices than revenues. Based on the current portfolio of oil and gas assets, Eni's management estimates that the Company's consolidated net cash provided by operating activities would vary by approximately €0.15 billion for each one-dollar change in the price of the Brent crude oil benchmark with respect to the price case assumed in Eni's financial projections for 2020.

The price of natural gas generally follows a trend similar to that of crude oil, but it can also exhibit greater movements either upward or downward. In 2019, due to a combination of factors including lower gas demand in Asia due to the downturn and a recovery in Japan's nuclear power production, larger global

supplies of LNG, mild global temperatures and increased US production, gas prices at the main worldwide markets fell by a far bigger amount than crude oil prices. For example, the price of gas at the Italian spot market against which the realized price of our equity gas production in Europe is benchmarked, declined by 34% compared to 9% for the price of crude oil.

In 2019, the Company estimated that lower hydrocarbon prices negatively affected the Exploration & Production operating profit for approximately $\{2.23 \text{ billion}, \text{ with the large majority of this loss deriving from lower gas prices.}$

Lower oil and gas prices over prolonged periods of time or, in the worst of the scenarios, a structural decline in oil and gas prices may have material adverse effects on Eni's performance and business outlook, because such a scenario may limit the Group's funds available to finance expansion projects, further reducing the Company's ability to grow future production and revenues, and to discharge contractual obligations. The Company may also need to review investment decisions and the viability of development projects and capex plans and, as a result of this review, the Company could reschedule, postpone or curtail development projects. A structural decline in hydrocarbon prices could trigger a review of the carrying amounts of oil and gas properties and this could result in recording material asset impairments and also could result in the de-booking of proved reserves, if they become uneconomic in this type of environment. Finally, in response to weakened oil and gas industry conditions and resulting revisions made to rating agency commodity price assumptions, lower commodity prices may also reduce the Group's access to capital and lead to a downgrade or other negative rating action with respect to the Group's credit rating by rating agencies. These downgrades may negatively affect the Group's cost of capital, increase the Group's financial expenses, and may limit the Group's ability to access capital markets and execute aspects of the Group's business plans. All of these risks may adversely and materially impact the Group's results of operations, cash flow, liquidity, business prospects, financial condition, and shareholder returns, including dividends, the amount of funds available for stock repurchases and the price of Eni's share.

Eni estimates that approximately 50% of its current production is exposed to fluctuations in hydrocarbons prices. Exposure to this strategic risk is not subject to economic hedging, except for some specific market conditions or transactions. The remaining portion of Eni's current production is largely unaffected by crude oil price movements considering that the Company's property portfolio is characterised by a sizeable presence of production sharing contracts, whereby the Company is entitled to a portion of a field's reserves, the sale of which is intended to cover expenditures incurred by the Company to develop and operate the field. The higher the reference prices for Brent crude oil used to estimate Eni's proved reserves, the lower the number of barrels necessary to recover the same amount of expenditure and hence production, and vice versa. If oil prices differ significantly from Eni's own forecasts, the result of the above mentioned sensitivity of production to oil price changes may be significantly different.

Margins on the production and sale of fuels and other refined products, chemical commodities, other energy commodities and in the wholesale marketing of natural gas are driven by economic growth, global and regional dynamics in supplies and demands and other competitive factors. Generally speaking, the prices of products mirror that of oil-based feedstock, but they can also move independently. Margins for refined and chemical products depend upon the speed at which products' prices adjust to reflect movements in oil prices. Margins at our business of wholesale marketing of natural gas are driven by the spreads between spot prices at continental hubs to which our procurement costs are indexed and the spot prices at the Italian hub where a large part of our gas sales occur. These spreads can be very volatile.

There is strong competition worldwide, both within the oil industry and with other industries, to supply energy and petroleum products to the industrial, commercial and residential energy markets

Eni faces strong competition in each of its business segments.

The current competitive environment in which Eni operates is characterised by volatile prices and margins of energy commodities, limited product differentiation and complex relationships with state-owned companies and national agencies of the countries where hydrocarbons reserves are located to obtain mineral rights. As commodity prices are beyond the Company's control, Eni's ability to remain competitive and profitable in this environment requires continuous focus on technological innovation, the achievement of efficiencies in operating costs, effective management of capital resources and the ability to provide valuable services to energy buyers. It also depends on Eni's ability to gain access to new investment opportunities, both in Europe and worldwide.

 In the Exploration & Production segment, Eni is facing competition from both international and state-owned oil companies for obtaining exploration and development rights, and developing and

- applying new technologies to maximise hydrocarbon recovery. Because of its smaller size relative to other international oil companies, Eni may face a competitive disadvantage when bidding for large scale or capital intensive projects and it may be exposed to the risk of obtaining lower cost savings in a deflationary environment compared to its larger competitors given its potentially smaller market power with respect to suppliers. Due to those competitive pressures, Eni may fail to obtain new exploration and development acreage, to apply and develop new technologies and to control costs.
- In the Gas & Power segment, Eni is facing strong competition in the European wholesale gas markets to sell gas to industrial customers, the thermoelectric sector and retailer companies from other gas wholesalers, upstream companies, traders and other players both in the Italian market and in markets across Europe. In recent years, competition has been fuelled by muted demand growth, oversupplies and the development of very liquid European spot markets where large volumes of gas are traded daily. Players are competing mainly in terms of pricing and, to a lesser extent, on the ability to offer additional services to the buyers of the commodity, like volume flexibilities, different pricing options, the possibility to change the delivery point and other optionality. Eni's Gas & Power segment also engages in the supply of gas and electricity to customers in the retail markets mainly in Italy, France and other countries in Europe. Customers include households, large residential accounts (hospitals, schools, public administration buildings, offices) and small and medium-sized businesses located in urban areas. The retail market is characterised by strong competition among local selling companies which mainly compete in term of pricing and the ability to bundle valuable services to the supply of the energy commodity. In this segment, competition has intensified in recent years due to the progressive liberalisation of the market and the option on part of residential customers to switch smoothly from one supplier to another. Management believes that competition in the European wholesale and retail gas markets will continue to negatively affect the performance of Eni's Gas & Power segment in future reporting periods.
- Eni is facing strong competitive pressure in its business of gas-fired electricity generation which is largely sold in wholesale markets in Italy. Margins on the sale of electricity have declined in recent years due to oversupplies, weak economic growth and inter-fuel competition. Management believes that these factors will continue to negatively affect crack-spread margins on electricity at Italian wholesale markets and the profitability of this business unit in the foreseeable future.
- In the Refining & Marketing segment, Eni is facing competition both in refining business and in the retail marketing activity. Refining business, in recent years has been negatively affected by a number of structural headwinds due to muted trends in the European demand for fuels and continued competitive pressure from players in the Middle East, the United States and Far East Asia. Those competitors can leverage on larger plant scale and cost economies, availability of cheaper feedstock and lower energy expenses. Eni believes that the competitive environment of the refining sector will remain challenging in the foreseeable future, also considering refining overcapacity in the European area and expectations of a new investment cycle driven by capacity expansion plans announced in Asia and the Middle East, potentially leading to a situation of global oversupplies of refinery products. Furthermore, Eni's refining margins are exposed to the volatility in the spreads between crudes with high sulphur content or sour crudes and the Brent crude benchmark, which is a low-content sulphur crude. Eni complex refineries are able to process sour crudes which typically trade at a discount over the Brent crude. Historically, this discount has supported the profitability of complex refineries, like our plant at Sannazzaro in Italy. However, in the course of 2019, a shortfall in supplies of sour crudes due to the production cuts implemented by OPEC, lower exports from Venezuela and the United States' sanctions against Iran, drove an appreciation of the relative prices of sour crudes as compared to the Brent, which negatively affected the results of our refining business by reducing the advantage of processing sour crudes. This development triggered a revision of the profitability outlook of our complex plants, resulting in the recording of an impairment loss of approximately €684 million at our high-conversion Sannazzaro refinery. Our business of marketing refined products to our service stations network and to large accounts customer (aviation airlines, public administrations, transport and industrial customers, bulk buyers and resellers) is facing competition from other oil companies and newcomers such as low-scale and local operators, un-branded networks with light cost structure. All these operators compete with each other primarily in terms of pricing and, to a lesser extent, service quality.
- In the Chemical business, Eni is facing strong competition from well-established international

players and state-owned petrochemical companies, particularly in the most commoditised market segments such as the production of basic petrochemical products (like ethylene and polyethylene), whose demand is a function of macroeconomic growth. Many of these competitors based in the Far East and the Middle East are able to benefit from cost economies due to larger plant scale, wide geographic moat, availability of cheap feedstock and proximity to end-markets. Excess worldwide capacity of petrochemical commodities has also fuelled competition in this business. Furthermore, petrochemical producers based in the United States have regained market share, as their cost structure has become competitive due to the availability of cheap feedstock deriving from the production of domestic shale gas from which ethane is derived, which is a cheaper raw material for the production of ethylene than the oil-based feedstock utilised by Eni's petrochemical subsidiaries. Finally, rising public concern about the climate change and the preservation of the environment has begun to negatively affect the consumption of single-use plastics. In 2019, the operating performance of the Eni's Chemical business was negative due lower demand from end-user markets, particularly the automotive market, reflecting a global economic slowdown and lower demand for single-use plastics driven by stricter regulations and rising environmental sensitivity. The effects of those trends were exacerbated by the above mentioned competitive dynamics, resulting in a continued pressure on petrochemical products margins. The Company does not expect any meaningful improvement in the trading environment in the short to the medium-term due to competitive headwinds described above and expectations for moderate economic growth.

In case the Company is unable to effectively manage the above described risks deriving from the competition in its business segments, they may adversely impact the Group's results of operations, cash flow, liquidity, business prospects, financial condition, and shareholder returns, including dividends, the amount of funds available for stock repurchases and the price of Eni's share.

Safety, security, environmental and other operational risks

The Group engages in the exploration and production of oil and natural gas, processing, transportation and refining of crude oil, transport of natural gas, storage and distribution of petroleum products and the production of base chemicals, plastics and elastomers. By their nature, the Group's operations expose Eni to a wide range of significant health, safety, security and environmental risks. Technical faults, malfunctioning of plants, equipment and facilities, control systems failure, human errors, acts of sabotage, attacks, loss of containment and adverse weather events can trigger damaging consequences such as explosions, blow-outs, fires, oil and gas spills from wells, pipeline and tankers, release of contaminants and pollutants in the air, the ground and in the water, toxic emissions and other negative events. The magnitude of these risks is influenced by the geographic range, operational diversity and technical complexity of Eni's activities. Eni's future results of operations and liquidity depend on its ability to identify and address the risks and hazards inherent to operating in those industries.

In the Exploration & Production segment, Eni faces natural hazards and other operational risks including those relating to the physical and geological characteristics of oil and natural gas fields. These include the risks of eruptions of crude oil or of natural gas, discovery of hydrocarbon pockets with abnormal pressure, crumbling of well openings, leaks that can harm the environment and the security of Eni's personnel and risks of blowout, fire or explosion.

Eni's activities in the Refining & Marketing and Chemical segment entail health, safety and environmental risks related to the handling, transformation and distribution of oil, oil products and certain petrochemical products. These risks can arise from the intrinsic characteristics and the overall life cycle of the products manufactured and the raw materials used in the manufacturing process, such as oil-based feedstock, catalysts, additives and monomer feedstock. These risks comprise flammability, toxicity, long-term environmental impact such as greenhouse gas emissions and risks of various forms of pollution and contamination of the soil and the groundwater, emissions and discharges resulting from their use and from recycling or disposing of materials and wastes at the end of their useful life.

All of Eni's segments of operations involve, to varying degrees, the transportation of hydrocarbons. Risks in transportation activities depend both on the hazardous nature of the products transported, and on the transportation methods used (mainly pipelines, shipping, river freight, rail, road and gas distribution networks), the volumes involved and the sensitivity of the regions through which the transport passes (quality of infrastructure, population density, environmental considerations). All modes of transportation of hydrocarbons are particularly susceptible to a loss of containment of hydrocarbons and other hazardous materials, and, given the high volumes involved, could present a significant risk to people, the environment and the property.

Eni has material offshore operations relating to the exploration and production of hydrocarbons. In 2019, approximately 60% of Eni's total oil and gas production for the year derived from offshore fields, mainly in Egypt, Libya, Angola, Norway, Congo, Indonesia, the United Arab Emirates, Italy, Ghana, Venezuela, the United Kingdom, Nigeria and the United States. Offshore operations in the oil and gas industry are inherently riskier than onshore activities. Offshore accidents and spills could cause damage of catastrophic proportions to the ecosystem and health and security of people due to objective difficulties in handling hydrocarbons containment, pollution, poisoning of water and organisms, length and complexity of cleaning operations and other factors. Furthermore, offshore operations are subject to marine risks, including storms and other adverse weather conditions and vessel collisions, as well as interruptions or termination by governmental authorities based on safety, environmental and other considerations.

The Company has invested and will continue to invest significant financial resources to continuously upgrade the methods and systems for safeguarding the reliability of its plants, production facilities, transport and storage infrastructures, the safety and the health of its employees, contractors, local communities and the environment; to prevent risks; to comply with applicable laws and policies and to respond to and learn from unforeseen incidents. Eni seeks to manage these operational risks by carefully designing and building facilities, including wells, industrial complexes, plants and equipment, pipelines, storage sites and other facilities, and managing its operations in a safe and reliable manner and in compliance with all applicable rules and regulations, as well as with best available techniques. However, these measures may not ultimately be completely successful in protecting against those risks. Failure to manage these risks could cause unforeseen incidents, including releases or oil spills, blowouts, fire, mechanical failures and other incidents, all of which could lead to loss of life, damage or destruction to properties, environmental damage, legal liabilities and/or damage claims and consequently a disruption in operations and potential economic losses that could have a material and adverse effect on the Group's results of operations, cash flow, liquidity, business prospects, financial condition, and shareholder returns, including dividends, the amount of funds available for stock repurchases and the price of Eni's share.

Eni's operations are often conducted in difficult and/or environmentally sensitive locations such as the Gulf of Mexico, the Caspian Sea and the Arctic. In such locations, the consequences of any incident could be greater than in other locations. Eni also faces risks once production is discontinued, because Eni's activities require the decommissioning of productive infrastructures and environmental sites remediation and clean-up. Furthermore, in certain situations where Eni is not the operator, the Company may have limited influence and control over third parties, which may limit its ability to manage and control such risks. Eni retains worldwide thirdparty liability insurance coverage, which is designed to hedge part of the liabilities associated with damage to third parties, loss of value to the Group's assets related to unfavourable events and in connection with environmental clean-up and remediation. As of the date of this filing, maximum compensation allowed under such insurance coverage is equal to \$1.2 billion in case of offshore incident and \$1.4 billion in case of incident at onshore facilities (refineries). Additionally, the Company may also activate further insurance coverage in case of specific capital projects and other industrial initiatives. Management believes that its insurance coverage is in line with industry practice and is sufficient to cover normal risks in its operations. However, the Company is not insured against all potential risks. In the event of a major environmental disaster, such as the incident which occurred at the Macondo well in the Gulf of Mexico several years ago, for example, Eni's third-party liability insurance would not provide any material coverage and thus the Company's liability would far exceed the maximum coverage provided by its insurance. The loss Eni could suffer in the event of such a 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 Company 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 a loss would not have a material adverse effect on the Company. The occurrence of the above mentioned risks could have a material and adverse impact on the Group's results of operations, cash flow, liquidity, business prospects, financial condition, and shareholder returns, including dividends, the amount of funds available for stock repurchases and the price of Eni's share and could also damage the Group's reputation.

Rising public concern related to climate change has led and could continue to lead to the adoption of national and international laws and regulations which are expected to result in a decrease of demand for hydrocarbons and increased compliance costs for the Company. Eni is also exposed to risks of technological breakthrough in the energy field and risks of unpredictable extreme meteorological events linked to the climate change.

Growing worldwide public concern over greenhouse gas (GHG) emissions and climate change, as well as increasingly stricter regulations in this area,

emerge in the short and medium-term, as well as over the long term. The scientific community has established a link between climate change, global warming and increasing GHG concentration in the atmosphere. International efforts to limit global warming have led, and Eni expects them to continue to lead, to new laws and regulations designed to reduce GHG emissions that are expected to bring about a gradual reduction in the use of fossil fuels over the medium to long-term, notably through the diversification of the energy mix. This trend could accelerate as a number of governments throughout the world have formally pledged to reach net-zero emissions by 2050 or earlier, like in the case of EU, which may lead to a tightening of various measure to constrain use of fossil fuels and this trend could increase both in breadth and severity if more governments follow suit.

Governmental institutions have responded to the issue of climate change on two fronts: on one side, governments can both impose taxes on GHG emissions and incentivise a progressive shift in the energy mix away from fossil fuels, for example, by subsidising the power generation from renewable sources; on the other side they can promote worldwide agreements to reduce the consumption of hydrocarbons.

Some governments have already introduced carbon pricing schemes, which can be an effective measure to reduce GHG emissions at the lowest overall cost to society. Today, about half of the direct GHG emissions coming from Eni operated assets are included in national or supranational Carbon Pricing Mechanisms, such as the European Emission Trading Scheme. Eni expects that more governments will adopt similar schemes and that a growing share of the Group's GHG emissions will be subject to carbon-pricing and other forms of climate regulation in the short to medium term.

Eni is already incurring operating costs related to its participation in the European Emission Trading Scheme, whereby Eni is required to purchase, on the open markets, emission allowances in case its GHG emissions exceed freely-assigned emission allowances. In 2019 to comply with this carbon emissions scheme, Eni purchased on the open market allowances corresponding to 11.6 million tonnes of $\rm CO_2$ emissions for a cash cost of approximately $\rm 2290$ million. For 2020, management expects to purchase allowances to cover approximately 16 million tonnes of $\rm CO_2$ due to stricter regulation on the allotment of free allowances. Due to the likelihood of new regulations in this area, Eni expects additional compliance obligations with respect to the release, capture, and use of carbon dioxide that could result in increased investments and higher project costs for Eni. Eni also expects that governments will require companies to apply technical measures to reduce their GHG emissions.

Eni expects that the achievement of the Paris Agreement goal of holding the increase in global average temperature to less than 2° C above preindustrial levels, or the more stringent goal advocated by the Intergovernmental Panel on Climate Change (IPCC) to limit global warming to 1.5° C, will strengthen the global response to the threat of climate change and spur governments to introduce further measures and policies targeting the reduction of GHG emissions, which will likely reduce local demand for fossil fuels in the long-term, thus negatively affecting global demand for oil and natural gas. Eni's business depends on the global demand for oil and natural gas. If existing or future laws, regulations, treaties, or international agreements related to GHG and climate change, including incentives to conserve energy or use alternative energy sources, technological breakthrough in the field of renewable energies or mass-adoption of electric vehicles trigger a structural decline in the worldwide demand for oil and natural gas, our results of operations and business prospects may be significantly and adversely affected.

The scientific community has concluded that increasing global average temperatures produces significant physical effects, such as the increased frequency and severity of hurricanes, storms, droughts, floods or other extreme climatic events that could interfere with Eni's operations and damage Eni's facilities. Extreme and unpredictable weather phenomena can result in material disruption to Eni's operations, and consequent loss of or damage to properties and facilities, as well as a loss of output, loss of revenues, increasing maintenance and repair expenses and cash flow shortfall.

Finally, there is a reputational risk linked to the fact that oil companies are increasingly perceived by institutions and the general public as entities primarily responsible of the global warming due to GHG emissions across the hydrocarbons value-chain, particularly related with the use of energy products. This could possibly make Eni's shares less attractive to investment funds and individual investors who have been more and more assessing the risk profile of companies against their carbon footprint when making investment decisions. Furthermore, a growing number of financing institutions, including insurance companies, appear to be considering limiting their exposure to fossil fuel projects, as witnessed by a pledge from the World Bank to stop financing upstream oil and gas projects and a proposal from the EU finance minister to reduce the financing granted to oil&gas projects via the EIB. This trend could have a material adverse effect on the price of our securities and our ability to access equity or other capital markets.

Accordingly, our ability to use financing for future projects may be adversely impacted. Further, in some countries, governments and regulators have filed lawsuits seeking to hold fossil fuel companies, including Eni, liable for costs associated with climate change. Losing any of these lawsuits could have a material adverse effect on our business prospects.

As a result of these trends, climate-related risks could have a material an adverse effect the Group's results of operations, cash flow, liquidity, business prospects, financial condition, and shareholder returns, including dividends, the amount of funds available for stock repurchases and the price of Eni's share.

The exploration and production of oil and natural gas is a high-risk business because it is subject to the mining risk, to natural hazards and to other uncertainties, including those relating to the physical characteristics of oil and gas fields. It is a capital-intensive business with significant upfront cash-outs and extended pay-back periods of investments. Finally, it is strictly regulated and subject to conditions imposed by governments throughout the world.

A description of the main risks facing the Company's business in the exploration and production of oil and gas is provided below.

Exploring for finding hydrocarbons reserves may be unsuccessful

Exploration drilling for oil and gas involves numerous risks including the risk of dry holes or failure to find commercial quantities of hydrocarbons. The costs of drilling and completing wells have margins of uncertainty, and drilling operations may be unsuccessful because of a large variety of factors, including geological failure, unexpected drilling conditions, pressure or heterogeneities in formations, equipment failures, well control (blowouts) and other forms of accidents. A large part of the Company exploratory drilling operations is located offshore, including in deep and ultra-deep waters, in remote areas and in environmentally-sensitive locations (such as the Barents Sea, the Gulf of Mexico and the Caspian Sea). In these locations, the Company generally experiences higher operational risks and more challenging conditions and incurs higher exploration costs than onshore. Furthermore, deep and ultra-deep water operations require significant time before commercial production of discovered reserves can commence, increasing both the operational and the financial risks associated with these activities. Because Eni plans to make significant investments in executing exploration projects, it is likely that the Company will incur significant amounts of dry hole expenses in future years. Unsuccessful exploration activities and failure to discover additional commercial reserves could reduce future production of oil and natural gas, which is highly dependent on the rate of success of exploration projects, and could have an adverse impact on Eni's future performance.

Development projects bear significant operational risks which may adversely affect actual returns

Eni is executing or is planning to execute several development projects to produce and market hydrocarbon reserves. Certain projects target the development of reserves in high-risk areas, particularly deep offshore and in remote and hostile environments or in environmentally-sensitive locations. Eni's future results of operations and business prospects depend heavily on its ability to implement, develop and operate major projects as planned. Key factors that may affect the economics of these projects include:

- the outcome of negotiations with joint venture partners, governments and state-owned companies, suppliers, customers or others to define project terms and conditions, including, for example, Eni's ability to negotiate favourable long-term contracts to market gas reserves;
- commercial arrangements for pipelines and related equipment to transport and market hydrocarbons;
- timely issuance of permits and licenses by government agencies;
- the ability to carry out the front-end engineering design in order to prevent the occurrence of technical inconvenience during the execution phase; timely manufacturing and delivery of critical equipment by contractors, shortages in the availability of such equipment or lack of shipping yards where complex offshore units such as FPSO and platforms are built; delays in achievement of critical phases and project milestones;
- risks associated with the use of new technologies and the inability to develop advanced technologies to maximise the recoverability rate of hydrocarbons or gain access to previously inaccessible reservoirs;
- performance in project execution on the part of contractors who are awarded project construction activities generally based on the EPC (Engineering, Procurement and Construction) contractual scheme;
- changes in operating conditions and cost overruns;

- the actual performance of the reservoir and natural field decline; and
- the ability and time necessary to build suitable transport infrastructures to export production to final markets.

The occurrence of any of such risks may negatively affect the time-to-market of the reserves and cause cost overruns and delayed pay-back period, therefore adversely affecting the economic returns of Eni's development projects and the achievement of production growth targets.

Development projects are typically long lead time due to the complexity of the activities and tasks that need to be performed before a project final investment decision is made and commercial production can be achieved. Those activities include the appraisal of a discovery to evaluate the technical and economic feasibility of the development project, obtaining the necessary authorizations from governments, state agencies or national oil companies, signing agreement with the first party regulating a project's contractual terms such as the production sharing, obtaining partners' approval, environmental permits and other conditions, signing long-term gas contracts, carrying out the concept design and the front-end engineering and building and commissioning the related plants and facilities. All these activities normally can take years to perform. As a consequence, rates of return for such projects are exposed to the volatility of oil and gas prices and costs which may be substantially different from those estimated when the investment decision was made, thereby leading to lower return rates. Moreover, projects executed with partners and joint venture partners reduce the ability of the Company to manage risks and costs, and Eni could have limited influence over and control of the operations and performance of its partners. Furthermore, Eni may not have full operational control of the joint ventures in which it participates and may have exposure to counterparty credit risk and disruption $% \left(1\right) =\left(1\right) \left(1\right) \left($ of operations and strategic objectives due to the nature of its relationships.

Finally, if the Company is unable to develop and operate major projects as planned, particularly if the Company fails to accomplish budgeted costs and time schedules, it could incur significant impairment losses of capitalised costs associated with reduced future cash flows of those projects.

Inability to replace oil and natural gas reserves could adversely impact results of operations and financial condition

Unless the Company is able to replace produced oil and natural gas, its reserves will decline. In addition to being a function of production, revisions and new discoveries, the Company's reserve replacement is also affected by the entitlement mechanism in its production sharing agreements ("PSAs"), whereby the Company is entitled to a portion of a field's reserves, the sale of which is intended to cover expenditures incurred by the Company to develop and operate the field. The higher the reference prices for Brent crude oil used to estimate Eni's proved reserves, the lower the number of barrels necessary to recover the same amount of expenditure, and vice versa. Based on the current portfolio of oil and gas assets, Eni's management estimates that production entitlements vary on average by approximately 530 barrels/d for each \$1 change in oil prices based on current Eni's assumptions for oil prices. In 2019, production benefitted marginally of lower oil prices which translated into higher entitlements. In case oil prices differ significantly from Eni's own forecasts, the result of the above mentioned sensitivity of production to oil price changes may be significantly different.

Future oil and gas production is dependent on the Company's ability to access new reserves through new discoveries, application of improved techniques, success in development activity, negotiations with national oil companies and other entities owners of known reserves and acquisitions.

An inability to replace produced reserves by discovering, acquiring and developing additional reserves could adversely impact future production levels and growth prospects. If Eni is unsuccessful in meeting its long-term targets of production growth and reserve replacement, Eni's future total proved reserves and production will decline.

Uncertainties in estimates of oil and natural gas reserves

The accuracy of proved reserve estimates and of projections of future rates of production and timing of development expenditures depends on a number of factors, assumptions and variables, including:

- the quality of available geological, technical and economic data and their interpretation and judgement;
- projections regarding future rates of production and costs and timing of development expenditures;

- changes in the prevailing tax rules, other government regulations and contractual conditions;
- results of drilling, testing and the actual production performance of Eni's reservoirs after the date of the estimates which may drive substantial upward or downward revisions; and
- changes in oil and natural gas prices which could affect the quantities of Eni's proved reserves since the estimates of reserves are based on prices and costs existing as of the date when these estimates are made. Lower oil prices or the projections of higher operating and development costs may impair the ability of the Company to economically produce reserves leading to downward reserve revisions.

Many of the factors, assumptions and variables involved in estimating proved reserves are subject to change over time and therefore affect the estimates of oil and natural gas reserves.

The prices used in calculating Eni's estimated proved reserves are, in accordance with the U.S. Securities and Exchange Commission (the "U.S. SEC") requirements, calculated by determining the unweighted arithmetic average of the first-day-of-the-month commodity prices for the preceding 12 months. For the 12-months ending at December 31, 2019, average prices were based on 63 \$/barrel for the Brent crude oil; it was 71 \$/barrel in 2018. Also the reference price of natural gas was lower than in 2018. Those reductions resulted in us having to remove volumes of proved reserves because they have become uneconomical at the prices of 2019. Furthermore, compared to the 2019 reference price, Brent prices have declined materially in the first quarter of 2020. If such prices do not increase significantly in the coming months, Eni's future calculations of estimated proved reserves will be based on lower commodity prices which would likely result in the Company having to remove non-economic reserves from its proved reserves in future periods.

Accordingly, the estimated reserves reported as of the end of 2019 could be significantly different from the quantities of oil and natural gas that will be ultimately recovered. Any downward revision in Eni's estimated quantities of proved reserves would indicate lower future production volumes.

The development of the Group's proved undeveloped reserves may take longer and may require higher levels of capital expenditures than it currently anticipates or the Group's proved undeveloped reserves may not ultimately be developed or produced

At December 31, 2019, approximately 29% of the Group's total estimated proved reserves (by volume) were undeveloped and may not be ultimately developed or produced. Recovery of undeveloped reserves requires significant capital expenditures and successful drilling operations. The Group's reserve estimates assume it can and will make these expenditures and conduct these operations successfully. These assumptions may not prove to be accurate. The Group's reserve report at December 31, 2019 includes estimates of total future development and decommissioning costs associated with the Group's proved total reserves of approximately $\ensuremath{\mathfrak{c}}35.7$ billion (undiscounted, including consolidated subsidiaries and equity-accounted entities). It cannot be certain that estimated costs of the development of these reserves will prove correct, development will occur as scheduled, or the results of such development will be as estimated. In case of change in the Company's plans to develop those reserves, or if it is not otherwise able to successfully develop these reserves as a result of the Group's inability to fund necessary capital expenditures or otherwise, it will be required to remove the associated volumes from the Group's reported proved reserves.

Oil and gas activity may be subject to increasingly high levels of income taxes and royalties $% \left\{ 1\right\} =\left\{ 1$

Oil and gas operations are subject to the payment of royalties and income taxes, which tend to be higher than those payable in many other commercial activities. Furthermore, in recent years, Eni has experienced adverse changes in the tax regimes applicable to oil and gas operations in a number of countries where the Company conducts its upstream operations. As a result of these trends, management estimates that the tax rate applicable to the Company's oil and gas operations is materially higher than the Italian statutory tax rate for corporate profit, which currently stands at 24%. In 2019 the effective tax rate was 97.3% due to a particularly unfavourable oil and gas price scenario.

Management believes that the marginal tax rate in the oil and gas industry tends to increase in correlation with higher oil prices, which could make it more difficult for Eni to translate higher oil prices into increased net profit. However, the Company does not expect that the marginal tax rate will decrease in response to falling oil prices.

In the current uncertain financial and economic environment, governments are facing greater pressure on public finances, which may induce them to intervene in the fiscal framework for the oil and gas industry, including the risk of increased taxation, windfall taxes, and even nationalisations and expropriations.

The present value of future net revenues from Eni's proved reserves will not necessarily be the same as the current market value of Eni's estimated crude oil and natural gas reserves

The present value of future net revenues from Eni's proved reserves may differ from the current market value of Eni's estimated crude oil and natural gas reserves. In accordance with the SEC rules, Eni bases the estimated discounted future net revenues from proved reserves on the 12-month unweighted arithmetic average of the first-day-of-the-month commodity prices for the preceding twelve months. Actual future prices may be materially higher or lower than the SEC pricing used in the calculations. Actual future net revenues from crude oil and natural gas properties will be affected by factors such as:

- the actual prices Eni receives for sales of crude oil and natural gas;
- · the actual cost and timing of development and production expenditures;
- · the timing and amount of actual production; and
- · changes in governmental regulations or taxation.

The timing of both Eni's production and its incurrence of expenses in connection with the development and production of crude oil and natural gas properties will affect the timing and amount of actual future net revenues from proved reserves, and thus their actual present value. Additionally, the 10% discount factor Eni uses when calculating discounted future net revenues may not be the most appropriate discount factor based on interest rates in effect from time to time and risks associated with Eni's reserves or the crude oil and natural gas industry in general. At December 31, 2019, the net present value of Eni's proved reserves totalled approximately €50.9 billion. The average prices used to estimate Eni's proved reserves and the net present value at December 31, 2019, as calculated in accordance with the SEC rules, were 63 \$/barrel for the Brent crude oil. Actual future prices may materially differ from those used in our year-end estimates. Commodity prices have decreased materially in the first quarter of 2020 compared to the price used in the reserve calculations at 2019 year-end. Holding all other factors constant, if commodity prices used in Eni's year-end reserve estimates at end of 2020 were in line with the pricing environment existing at the end of the first quarter of 2020, Eni's PV-10 at December 31, 2020 would likely decrease significantly.

Oil and gas activity may be subject to increasingly high levels of regulations throughout the world, which may impact our extraction activities and the recoverability of reserves

The production of oil and natural gas is highly regulated and is subject to conditions imposed by governments throughout the world in matters such as the award of exploration and production leases, the imposition of specific drilling and other work obligations, environmental protection measures, control over the development and abandonment of fields and installations, and restrictions on production. These risks can limit the Group access to hydrocarbons reserves or may have the Group to redesign, curtail or cease its oil&gas operation.

In Italy, the activities of hydrocarbon development and production are performed by oil companies in accordance to concessions granted by the Ministry of Economic Development in agreement with the relevant Region territorially involved in the case of onshore concessions. Concessions are granted for an initial twenty-year term; the concessionaire is entitled to a ten-year extension and then to one or more five-year extensions to fully recover a field's reserves on condition that he has fulfilled all obligations related to the work program agreed in the initial concession award. In case of delay in the award of an extension, the original concession remains fully effective until the administrative procedure to grant an extension is finalized. These general rules are to be coordinated with a new law that was enacted on February 12, 2019. This law requires certain Italian administrative bodies to adopt within eighteen months (i.e. by August 2020) a plan intended to identify areas that are suitable for carrying out exploration, development and production of hydrocarbons in the national territory, including the territorial seawaters. Until approval of such a plan, it is established a moratorium on exploration activities, including the award of new exploration leases. Following the plan approval, exploration permits resume their efficacy in areas that have been identified as suitable and new exploration permits can be awarded; on the contrary, in unsuitable areas, exploration permits are repealed, applications for obtaining new exploration permits ongoing at the time of the law enactment are rejected and no new permit application can be filed. As far as development and production concessions are concerned, pending the national plan approval, ongoing concessions retain their efficacy and administrative procedures underway to grant extension to expired concession remain unaffected; instead no applications to obtain new concession can be filed. Once the above mentioned national plan is adopted, development and production concessions that fall in suitable areas can be granted further extensions and applications for new concessions can be filed; on the contrary development and production concessions current at the approval of the national plan that fall in unsuitable areas are repealed

at their expiration and no further extensions can be granted, nor new concession applications can be filed or awarded. According to the statute, areas that are suitable to the activities of exploring and developing hydrocarbons must conform to a number of criteria including morphological characteristics and social, urbanistic and industrial constraints, with particular bias for the hydrogeological balance, current territorial planning and with regard to marine areas for externalities on the ecosystem, reviews of marine routes, fishing and any possible impacts on the coastline.

The Group's largest operated development concession in Italy is Val d'Agri, which has expired on October 26, 2019. Development activities at the concession have continued since then in accordance to the "prorogation regime" described above, within the limits of the work plan approved when the concession was firstly granted. The Company filed an application to obtain a ten-year extension of the concession in accordance to the terms set by the law and before the enactment of the new law on the national plan for hydrocarbons activity. In this application the Company confirmed the same work program as in the original concession award. Other 33 Italian concessions for hydrocarbons development and production have expired, where the Company operations are underway in accordance to the ongoing prorogation regime. The Company has filed requests for extensions within the terms of the law also for those concessions.

As far as proven reserves estimates are concerned, management believes the criteria laid out in the new law to be high-level principles, which make it difficult identifying in a reliable and objective manner areas that might be suitable or unsuitable to hydrocarbons activities before the plan is adopted by Italian authorities. Therefore, management is not currently in the position to make a reliable and fair estimation of future impacts of the new law provisions on the recoverability of the volumes of proved reserves booked in Italy and the associated future cash flows. However, based on the review of all facts and circumstances and on the current knowledge of the matter, management does not expect any material impact on the Group future performance.

Eni's future performance depends on its ability to identify and mitigate the above mentioned risks and hazards which are inherent to its oil&gas business. Failure to properly manage those risks, Company's underperformance at exploration, development and reserve replacement activities or the occurrence of unforeseen regulatory risks may adversely and materially impact the Group's results of operations, cash flow, liquidity, business prospects, financial condition, and shareholder returns, including dividends, the amount of funds available for stock repurchases and the price of Eni's share.

Risks related to political considerations—we are exposed to a range of political developments and consequent changes to the operating and regulatory environment

As of December 31, 2019, approximately 81% of Eni's proved hydrocarbon reserves were located in non-OECD countries, mainly in Africa, Central-East Asia and central-southern America, where the socio-political framework, the financial system and the macroeconomic outlook are less stable than in the OECD countries. In those non-OECD countries, Eni is exposed to a wide range of political risks and uncertainties, which may impair Eni's ability to continue operating in an economically viable way, either temporarily or permanently, and Eni's ability to access oil and gas reserves. Particularly, Eni faces risks in connection with the following, possible issues:

- socio-political instability leading to internal conflicts, revolutions, establishment of non-democratic regimes, protests, attacks, strikes and other forms of civil disorder and unrest, such as strikes, riots, sabotage, acts of violence and similar events. These risks could result in disruptions to economic activity, loss of output, plant closures and shutdowns, project delays, the loss of assets and threat to the security of personnel. They may disrupt financial and commercial markets, including the supply of and pricing for oil and natural gas, and generate greater political and economic instability in some of the geographical areas in which Eni operates. Additionally, any possible reprisals because of military or other action, such as acts of terrorism in Europe, the United States or elsewhere, could have a material adverse effect on the world economy and hence on the global demand for hydrocarbons;
- lack of well-established and reliable legal systems and uncertainties surrounding the enforcement of contractual rights;
- unfavourable enforcement of laws, regulations and contractual arrangements leading, for example, to expropriation, nationalisation or forced divestiture of assets and unilateral cancellation or modification of contractual terms;
- sovereign default or financial instability due to the fact that those countries rely heavily on petroleum revenues to sustain public finance and petroleum revenues have dramatically contracted

in recent years. Financial difficulties at country level often translate into failure on part of state-owned companies and agencies to fulfil their financial obligations towards Eni relating to funding capital commitments in projects operated by Eni or to timely paying supplies of equity oil and gas volumes;

- restrictions on exploration, production, imports and exports;
- tax or royalty increases (including retroactive claims);
- difficulties in finding qualified international or local suppliers in critical operating environments; and
- complex processes of granting authorisations or licences affecting time-to-market of certain development projects.

Areas where Eni operates and where the Company is particularly exposed to political risk include, but are not limited to: Libya, Egypt, Algeria, Nigeria, Angola, Kazakhstan, Venezuela and Iraq.

In recent years, Eni's operations in Libya were materially affected by the revolution of 2011 and a change of regime, which caused a prolonged period of political and social instability, still ongoing. In 2011 Eni's operations in the country experienced an almost one-year long shutdown due to security issues amidst a civil war, causing a material impact on the Group results of operation and cash flow for the year. In subsequent years Eni has experienced frequent disruptions at its operations albeit of a smaller scale than in 2011 due to security threats to its installations and personnel. From the second half of 2018 a resurgence of socio-political instability and a lack of a well-established institutional framework have triggered the resumption of the civil war and armed clashes in the area of Tripoli since April 2019. The situation has continued to escalate and international negotiations aimed at establishing a ceasefire has proven elusive. The Company repatriated its personnel and strengthened security measures at its plants and facilities. Despite the complexity of the operating context, the Company's activities in 2019 progressed smoothly and in accordance to management's plans with achievement of full production plateau at the main ongoing projects of Wafa compression and Bahr Essalam ph. 2. Going forward, management believes that Libya's geopolitical situation will continue to represent a source of risk and uncertainty to Eni's operations in the Country. At the beginning of 2020 oil export terminals in the Southern part of Libya were blocked, forcing the Company to shut down operations at one of its production facilities (the Elephant oilfield). In 2019, Libya represented approximately 16% of the Group's total production; this percentage is forecasted to decrease in the medium term in line with the expected implementation of the Group strategy intended to diversify the Group geographical presence to better balance the geopolitical risk of the portfolio. In the event of major adverse events, such as the escalation of the internal conflict into a full-blown civil war, attacks, sabotage, social unrest, clashes and other forms of civil disorder, Eni could be forced to reduce or to shut down completely its producing activities at its Libyan fields, which would significantly hit results of operations and cash flow.

Venezuela is currently experiencing a situation of financial stress amidst an economic downturn due to lack of resources to support the development of the country's hydrocarbons reserves, which have negatively affected the Country production levels and hence petroleum revenues. The situation has been made worse by certain international sanctions targeting the country's financial system and its ability to export crude oil to the United States' market, which is the main outlet of Venezuelan production (see also "—Sanctions targets" below).

Due to a deteriorated operating environment, the Group was forced to debook its proved undeveloped reserves at its two major petroleum projects in the Country in recent years: the 50%-participated Cardón IV joint venture which is currently operating a natural gas project and is supplying the product to the national oil company, PDVSA, and the PetroJunin oilfield project in joint venture with PDVSA. This latter project was almost entirely written off in 2018. Also the Group has incurred credit losses due to the continued difficulties on part of PDVSA to pay the receivables for the gas supplies of Cardón IV, resulting in a significant amount of overdue receivables. The joint-venture is systematically accounting a loss provision on the revenues accrued. The credit expected loss was based on management's appreciation of the counterparty risk driven by the findings of a review of the past experience of sovereign defaults on which basis a deferral in the collection of the gas revenues has been estimated. In the course of 2019 the situation has stabilized, since the Group was able to collect a percentage of gas receipts which was in line with management's estimates made in 2018 of the expected credit losses and no further credit allowances were recorded. As of December 31, 2019, Eni's invested capital in Venezuela was approximately \$1.3 billion. Eni expects the financial and political outlook of Venezuela to remain a risk factor to its operations in the Country for the foreseeable future.

Nigeria is also undergoing a situation of financial stress, which has translated into continuing delays in collecting overdue trade receivables and credits for the carry of the expenditures of the Nigerian joint operators at projects operated by Eni, resulting in the incurrence of credit losses. Further, Eni's activities in Nigeria have been impacted in recent years by continuing incidences of theft, acts of sabotage and other similar disruptions, which have jeopardised the Company's ability to conduct operations in full security, particularly in the onshore area of the Niger Delta. Eni expects that those risks will continue to affect Eni's operations in Nigeria.

Management expects Eni's credit exposure to Egypt to continue increasing in the foreseeable future due to the planned production ramp-up at the Zohr offshore gas field and to development of existing gas reserves at other projects. Because the whole of the Group's gas production is sold to local state-owned companies, Eni expects a significant increase in the credit risk exposure to Egypt, where we experienced some issues at collecting overdue trade receivables during the oil downturn. Eni will continue to monitor the counterparty risk in future years considering the significant volumes of gas expected to be supplied to Egypt's national oil companies.

In addition to the above risks, the United Kingdom left the European Union (EU) at the end of January 2020. As a result of this decision, it is possible that we may experience delays in moving our products and employees between the UK and EU. Also, additional tariffs and taxes could impact the demand for some of our products and this, combined with the potential adverse changes in macroeconomic conditions in both the EU and UK, could have a material adverse effect on the energy demand.

Eni is closely monitoring political, social and economic risks of the countries in which it has invested or intends to invest, in order to evaluate the economic and financial return of capital projects and to selectively evaluate projects. While the occurrence of these events is unpredictable, the occurrence of any such risks may adversely and materially impact the Group's results of operations, cash flow, liquidity, business prospects, financial condition, and shareholder returns, including dividends, the amount of funds available for stock repurchases and the price of Eni's share.

Sanction targets

In response to the Russia-Ukraine crisis, the European Union and the United States have enacted sanctions targeting, inter alia, the financial and energy sectors in Russia by restricting the supply of certain oil and gas items and services to Russia and certain forms of financing. Eni has adapted its activities to the applicable sanctions and will adapt its business to any further restrictive measures that could be adopted by the relevant authorities. In 2017, the United States' government tightened the sanction regime against Russia by enacting the "Countering America's Adversaries Through Sanctions Act". In response to these new measures, the Company could possibly refrain from pursuing business opportunities in Russia, while currently the Company is not engaged in any upstream projects in Russia. It is possible that wider sanctions targeting the Russian energy, banking and/or finance industries may be implemented. Further sanctions imposed on Russia, Russian citizens or Russian companies by the international community, such as restrictions on purchases of Russian gas by European companies or measures restricting dealings with Russian counterparties, could adversely impact Eni's business, results of operations and cash flow. Furthermore, an escalation of the international crisis, resulting in a tightening of sanctions, could entail a significant disruption of energy supply and trade flows globally, which could have a material adverse effect on the Group's business, financial conditions, results of operations and prospects. In 2017, the United States administration enacted certain financing sanctions against Venezuela, which prohibit any United States person to be involved in all transactions related to, provision of financing for, and other dealings in, among other things, any debt owed to the Government of Venezuela that is pledged as collateral after the effective date, including accounts receivable. Recently, the United States administration has resolved to impose an embargo on the import of crude oil from Venezuela state-owned oil company, PDVSA and has restricted the ability of United States dealers to trade bonds issued by the Government of Venezuela and its affiliates. Further increases of the prohibitions against the Government of Venezuela (and the entities owned or controlled by it) has been enacted during the course of 2019, with inclusion of our Venezuelan partner, PDVSA, in the "Specially Designated Nationals and Blocked Persons List and the introduction of measures intended to freeze the assets of the Venezuelan governments and of its affiliated persons. Even if the current US sanctions are "primary" and therefore substantially dedicated to US persons only, retaliatory measures and other adverse consequences may interest also foreign entities which operate with Venezuelan listed entities as it may occur in the case of transactions which show a US nexus, which may trigger the application of sanctions. Eni is carefully evaluating on a case by case basis the adoption of measures adequate to minimize its exposure to any sanction risk which may affect its business operation. In any case, the US sanction are expected to add further stress to the already complex financial, political and operating outlook of the country, which could limit the ability of Eni to recover its investments.

Risks in the Company's Gas & Power business

Risks associated with the trading environment and competition in the gas \max

Our Gas & Power business comprises the results of the wholesale gas business which has a portfolio of long-term gas supply contracts and other related assets, the trading of LNG on a global scale, the production and marketing of electricity and the marketing of gas and power in the retail sector

The results of our wholesale gas business are subject to global and regional dynamics of gas demand and supplies and to trends in the spreads between the procurement costs of gas, which are linked to spot prices at European hubs or to the price of crude oil, and the selling prices of gas which are mainly indexed to spot prices at the Italian hub. Those spreads can be very volatile. The results of the LNG business are mainly influenced by the global balance between demand and supplies.

Worldwide gas prices have been on a downward path since the second half of 2018 and this trend has deteriorated further throughout the course of 2019. This was driven by a global economic slowdown, which hit severely Asian large gas-consuming countries, like China, South Korea and Japan, also due to a recovery in nuclear production, a build-up in gas supplies due to the entry into service of new Liquefied Natural Gas (" ${
m LNG}"$) projects and rising US production, competition from renewables, mild global temperatures and inventory levels above historic averages. The fall of gas prices at our main European outlet markets was broadly in line with other geographies due to above mentioned dynamics and the growing role of LNG supplies which have enhanced the interconnection among regional markets and markets liquidity. In fact, during the course of 2019 a reduction in LNG imports from Asian markets forced operators to re-direct LNG supplies to Europe, thus making for any slowdown in the Continent's internal production and pressuring gas prices which have levelled across the various geographies. These trends negatively affected the results of our LNG business due to lower traded volumes and margins. The trading environment for LNG has deteriorated further in the first months of 2020 due on ongoing global deceleration in energy demand.

Management believes that gas prices in Europe will remain weak due to the forecast of sluggish economic growth, a muted demand outlook and global oversupplies of gas. Furthermore, several final investment decisions have been made in 2019 relating to large LNG projects with an estimated capacity of 60 million tonnes per year, which are due to come on stream within five-six years adding to already oversupplied markets.

Against the backdrop of a difficult competitive environment, anticipates a number of risk factors to the profitability outlook of the Company's gas marketing business over the four-year planning period, considering the Company's operational constraints dictated by its long-term gas supply contracts with take-or-pay clauses, which expose Eni to a volume risk, as the Company is contractually required to purchase minimum annual amounts of gas or, in case of failure, to pay the corresponding price. Additionally, Eni has booked the transportation rights along the main gas backbones across Europe to deliver its contracted gas volumes to end-markets. Risks to the Gas & Power business include continuing oversupplies, pricing pressures, volatile margins and the risk of deteriorating spreads of Italian spot prices versus continental benchmarks. A reduction of the spreads between Italian and European spot prices for gas could negatively affect the profitability of our business by reducing the total addressable market and by reducing the margin to cover the business's sunk costs and other fixed expenses. Eni's management is planning to continue its strategy of renegotiating the Company's long-term gas supply contracts in order to constantly align pricing terms to current market conditions as they evolve and to obtain greater operational flexibility (volumes, delivery points among others), considering the risk factors described above. The revision clauses provided by these contracts state the right of each counterparty to renegotiate the economic terms and other contractual conditions periodically, in relation to ongoing changes in the gas scenario. Management believes that the outcome of those renegotiations is uncertain in respect of both the amount of the economic benefits that will be ultimately obtained and the timing of recognition of profit. Furthermore, in case Eni and the gas suppliers fail to agree on revised contractual terms, both parties can start an arbitration procedure to obtain revised contractual conditions. All these possible developments within the renegotiation process could increase the level of risks and uncertainties relating the outcome of those renegotiations.

Trends in the LNG business are expected to remain weak in 2020 due to a global glut of LNG.

Current, negative trends in gas demands and supplies may impair the Company's ability to fulfil its minimum off-take obligations in connection with its take-or-pay, long-term gas supply contracts

Eni long-term gas supply contracts with national operators of certain key producing countries, from where most of the European gas supplies are sourced (Russia, Algeria, Libya, the Netherlands and

Norway), include take-or-pay clauses whereby the Company has an obligation to lift minimum, pre-set volumes of gas in each year of the contractual term or, in case of failure, to pay the whole price, or a fraction of that price, up to the minimum contractual quantity. Similar considerations apply to ship-or-pay contractual obligations. Long-term gas supply contracts with take-or pay clauses expose the Company to a volume risk, as the Company is obligated to purchase an annual minimum volume of gas, or in case of failure, to pay the underlying price. Management believes that the current level of market liquidity, the outlook of the European gas sector which is featuring muted demand growth, strong competitive pressures and large supplies, as well as any possible change in sector-specific regulation represent risk factors to the Company's ongoing ability to fulfil its minimum take obligations associated with its long-term supply contracts.

Risks associated with the regulatory powers entrusted to the Italian Regulatory Authority for Energy, Networks and Environment in the matter of pricing to residential customers

Eni's Gas & Power segment is subject to regulatory risks mainly in its domestic market in Italy. The Italian Regulatory Authority for Energy, Networks and Environment (the "Authority") is entrusted with certain powers in the matter of natural gas pricing. Specifically, the Authority retains a surveillance power on pricing in the natural gas market in Italy and the power to establish selling tariffs for the supply of natural gas to residential and commercial users until the market is fully opened. Developments in the regulatory framework intended to increase the level of market liquidity or of de-regulation, or intended to reduce operators' ability to transfer to customers cost increases in raw materials may negatively affect future sales margins of gas and electricity, operating results and cash flow.

Risks related to environmental, health and safety regulations and legal risks

Eni has incurred in the past, and will continue incurring, material operating expenses and expenditures, and is exposed to business risk in relation to compliance with applicable environmental, health and safety regulations in future years, including compliance with any national or international regulation on GHG emissions

Eni is subject to numerous European Union, international, national, regional and local laws and regulations regarding the impact of its operations on the environment and on health and safety of employees, contractors, communities and on the value of properties. Generally, these laws and regulations require acquisition of a permit before drilling for hydrocarbons may commence, restrict the types, quantities and concentration of various substances that can be released into the environment in connection with exploration, drilling and production activities, including refinery and petrochemical plant operations, limit or prohibit drilling activities in certain protected areas, require to remove and dismantle drilling platforms and other equipment and well plug-in once oil and gas operations have terminated, provide for measures to be taken to protect the safety of the workplace and the of plants and infrastructures, and health of employees, contractors and other Company's collaborators and of communities involved by the Company's activities, and impose criminal or civil liabilities for polluting the environment or harming employees' or communities' health and safety resulting from the Group's operations. These laws and regulations control the emission of scrap substances and pollutants, discipline the handling of hazardous materials and set limits to the discharge in the environment of soil, water or ground water contaminants, polluting air emissions and noxious gases resulting from the operation of oil and natural gas extraction and processing plants, petrochemical plants, refineries, service stations, vessels, oil carriers, pipeline systems and other facilities owned or operated by Eni. In addition, Eni's operations are subject to laws and regulations relating to the production, handling, transportation, storage, disposal and treatment of waste. Breaches of environmental, health and safety laws and regulations as in the case of negligent or willful release of pollutants and contaminants into the atmosphere, the soil, water or groundwater or the overcome of concentration threshold of contaminants set by the law expose the Company to the incurrence of liabilities associated with compensation for environmental, health or safety damage and expenses for environmental remediation and clean-up. Furthermore, in the case of violation of certain rules regarding the safeguard of the environment and the health of employees, contractors and other collaborators of the Company, and of communities, the Company may incur liabilities in connection with the negligent or willful violation of laws by its employees as per Italian Law Decree No. 231/2001.

Environmental, health and safety laws and regulations have a substantial impact on Eni's operations. Management expects that the Group will continue to incur significant amounts of operating expenses and expenditures in the foreseeable future to comply with laws and regulations and to safeguard the environment and the health and safety of employees, contractors and communities involved by the Company operations, including:

- costs to prevent, control, eliminate or reduce certain types of air and water emissions and handle waste and other hazardous materials, including the costs incurred in connection with government action to address climate change (see the specific section below on climaterelated risks);
- remedial and clean-up measures related to environmental contamination or accidents at various sites, including those owned by third parties (see discussion below);
- damage compensation claimed by individuals and entities, including local, regional or state administrations, should Eni cause any kind of accident, oil spill, well blowouts, pollution, contamination, emission of GHG and other air pollutants above permitted levels or of any other hazardous gases, water, ground or air contaminants or pollutants, as a result of its operations or if the Company is found guilty of violating environmental laws and regulations; and
- costs in connection with the decommissioning and removal of drilling platforms and other facilities, and well plugging at the end of oil&gas field production.

As a further result of any new laws and regulations or other factors, like the actual or alleged occurrence of environmental damage at Eni's plants and facilities, the Company may be forced to curtail, modify or cease certain operations or implement temporary shutdowns of facilities. For example, in Italy we have experienced in recent years a number of plant shutdowns at our Val d'Agri profit centre due to environmental issues and oil spill overs, causing loss of output and of revenues. The Italian judicial authorities have started legal proceedings to verify alleged environmental crimes or crimes against the public safety and other criminal allegations as described in the notes to the Consolidated Financial Statements.

If any of the risks set out above materialise, they could adversely impact the Group's results of operations, cash flow, liquidity, business prospects, financial condition, and shareholder returns, including dividends, the amount of funds available for stock repurchases and the price of Eni's share.

Eni is exposed to the risk of material environmental liabilities in addition to the provisions already accrued in the consolidated financial statement.

Eni has incurred in the past and may incur in the future material environmental liabilities in connection with the environmental impact of its past and present industrial activities. Eni is also exposed to claims under environmental requirements and, from time to time, such claims have been made against us. Furthermore, environmental regulations in Italy and elsewhere typically impose strict liability. Strict liability means that in some situations Eni could be exposed to liability for clean-up and remediation costs, environmental damage, and other damages as a result of Eni's conduct of operations that was lawful at the time it occurred or of the conduct of prior operators or other third parties. In addition, plaintiffs may seek to obtain compensation for damage resulting from events of contamination and pollution or in case the Company is found liable of violations of any environmental laws or regulations. In Italy, Eni is exposed to the risk of expenses and environmental liabilities in connection with the impact of its past activities at certain industrial hubs where the Group's products were produced, processed, stored, distributed or sold, such as chemical plants, mineral-metallurgic plants, refineries and other facilities, which were subsequently disposed of, liquidated, closed or shut down. At these industrial hubs, Eni has undertaken a number of initiatives to remediate and to clean-up proprietary or concession areas that were allegedly contaminated and polluted by the Group's industrial activities. State or local public administrations have sued Eni for environmental and other damages and for clean-up and remediation measures in addition to those which were performed by the Company, or which the Company has committed to perform. In some cases, Eni has been sued for alleged breach of criminal laws (for example for alleged environmental crimes such as failure to perform soil or groundwater reclamation, environmental disaster and contamination, discharge of toxic materials, amongst others). Although Eni believes that it may not be held liable for having exceeded in the past pollution thresholds that are unlawful according to current regulations but were allowed by laws then effective, nor because the Group took over operations from third parties, it cannot be excluded that Eni could potentially incur such environmental liabilities. Eni's financial statements account for provisions relating to the costs to be incurred with respect to clean-ups and remediation of contaminated areas and groundwater for which a legal or constructive obligation exists and the associated costs can be reasonably estimated in a reliable manner, regardless of any previous liability attributable to other parties. The accrued amounts represent management's best estimates of the Company's existing liabilities. Management believes that it is possible that in the future Eni may incur significant or material environmental expenses and liabilities in addition to the amounts already accrued due to: (i) the likelihood of as yet unknown contamination; (ii) the results of ongoing surveys or surveys to be carried out on the environmental status of certain Eni's industrial sites as required by the applicable regulations on contaminated sites; (iii) unfavourable developments in ongoing litigation on the environmental status of certain of

Company's sites where a number of public administrations and the Italian Ministry of the Environment act as plaintiffs; (iv) the possibility that new litigation might arise; (v) the probability that new and stricter environmental laws might be implemented; and (vi) the circumstance that the extent and cost of environmental restoration and remediation programs are often inherently difficult to estimate leading to underestimation of the future costs of remediation and restoration, as well as unforeseen adverse developments both in the final remediation costs and with respect to the final liability allocation among the various parties involved at the sites. As a result of these risks, environmental liabilities could be substantial and could have a material adverse effect the Group's results of operations, cash flow, liquidity, business prospects, financial condition, and shareholder returns, including dividends, the amount of funds available for stock repurchases and the price of Eni's share.

Risks related to legal proceedings and compliance with anti-corruption legislation

Eni is the defendant in a number of civil and criminal actions and administrative proceedings. In future years Eni may incur significant losses in addition to the amounts already accrued in connection with pending legal proceedings due to: (i) uncertainty regarding the final outcome of each proceeding; (ii) the occurrence of new developments that management could not take into consideration when evaluating the likely outcome of each proceeding in order to accrue the risk provisions as of the date of the latest financial statements or to judge a negative outcome only as possible or to conclude that a contingency loss could not be estimate reliably; (iii) the emergence of new evidence and information; and (iv) underestimation of probable future losses due to the circumstance that they are often inherently difficult to estimate. Certain legal proceedings and investigations in which Eni or its subsidiaries or its officers and employees are defendant involve the alleged breach of anti-bribery and anti-corruption laws and regulations and other ethical misconduct. Such proceedings are described in Note 27 to the Eni's 2019 Annual Report on Form 20-F, under the heading "Legal Proceedings". Ethical misconduct and noncompliance with applicable laws and regulations, including noncompliance with anti-bribery and anti-corruption laws, by Eni, its officers and employees, its partners, agents or others that act on the Group's behalf, could expose Eni and its employees to criminal and civil penalties and could be damaging to Eni's reputation and shareholder value.

Risks from acquisitions

Eni is constantly monitoring the oil and gas market in search of opportunities to acquire individual assets or companies with a view of achieving its growth targets or complementing its asset portfolio. Acquisitions entail an execution risk-the risk that the acquirer will not be able to effectively integrate the purchased assets so as to achieve expected synergies. In addition, acquisitions entail a financial risk-the risk of not being able to recover the purchase costs of acquired assets, in case a prolonged decline in the market prices of oil and natural gas occurs. Eni may also incur unanticipated costs or assume unexpected liabilities and losses in connection with companies or assets it acquires. If the integration and financial risks related to acquisitions materialise, expected synergies from acquisition may fall short of management's targets and Eni's financial performance and shareholders' returns may be adversely affected.

Risks deriving from Eni's exposure to weather conditions

Significant changes in weather conditions in Italy and in the rest of Europe from year to year may affect demand for natural gas and some refined products. In colder years, demand for such products is higher. Accordingly, the results of operations of the Gas & Power segment and, to a lesser extent, the Refining & Marketing business, as well as the comparability of results over different periods may be affected by such changes in weather conditions. Over recent years, this pattern could have been possibly affected by the rising frequency of weather trends like milder winter or extreme weather events like heatwaves or unusually cold snaps, which are possible consequences of climate change.

Eni's crisis management systems may be ineffective

Eni has developed contingency plans to continue or recover operations following a disruption or incident. An inability to restore or replace critical capacity to an agreed level within an agreed period could prolong the impact of any disruption and could severely affect business, operations and financial results. Eni has crisis management plans and the capability to deal with emergencies at every level of its operations. If Eni does not respond or is not seen to respond in an appropriate manner to either an external or internal crisis, this could adversely impact the Group's results of operations, cash flow, liquidity, business prospects, financial condition, and shareholder returns, including dividends, the amount of funds available for stock repurchases and the price of Eni's share.

Disruption to or breaches of Eni's critical IT services or digital infrastructure and security systems could adversely affect the Group's business, increase costs and damage our reputation

The Group's activities depend heavily on the reliability and security of its information technology (IT) systems and digital security. The $\operatorname{Group}'s$ IT systems, some of which are managed by third parties, are susceptible to being compromised, damaged, disrupted or shutdown due to failures during the process of upgrading or replacing software, databases or components, power or network outages, hardware failures, cyber-attacks (viruses, computer intrusions), user errors or natural disasters. The cyber threat is constantly evolving. The oil and gas industry is subject to fast-evolving risks from cyber threat actors, including nation states, criminals, terrorists, hacktivists and insiders. Attacks are becoming more sophisticated with regularly renewed techniques while the digital transformation amplifies exposure to these cyber threats. The adoption of new technologies, such as the Internet of Things (IoT) or the migration to the cloud, as well as the evolution of architectures for increasingly interconnected systems, are all areas where cyber security is a very important issue. The Group and its service providers may not be able to prevent third parties from breaking into the Group's IT systems, disrupting business operations or communications infrastructure through denial-of-service attacks, or gaining access to confidential or sensitive information held in the system. The Group, like many companies, has been and expects to continue to be the target of attempted cybersecurity attacks. While the Group has not experienced any such attack that has had a material impact on its business, the Group cannot guarantee that its security measures will be sufficient to prevent a material disruption, breach or compromise in the future. As a result, the Group's activities and assets could sustain serious damage, services to clients could be interrupted, material intellectual property could be divulged and, in some cases, personal injury, property damage, environmental harm and regulatory violations could occur.

If any of the risks set out above materialise, they could adversely impact the Group's results of operations, cash flow, liquidity, business prospects, financial condition, and shareholder returns, including dividends, the amount of funds available for stock repurchases and the price of Eni's share.

Violations of data protection laws carry fines and expose us and/or our employees to criminal sanctions and civil suits.

Data protection laws and regulations apply to Eni and its joint ventures and associates in the vast majority of countries in which we do business. The EU General Data Protection Regulation (GDPR) came into effect in May 2018, which increased penalties up to a maximum of 4% of global annual turnover for breach of the regulation. The GDPR requires mandatory breach notification, the standard for which is also followed outside the EU (particularly in Asia). Non-compliance with data protection laws could expose us to regulatory investigations, which could result in fines and penalties as well as harm our reputation. In addition to imposing fines, regulators may also issue orders to stop processing personal data, which could disrupt operations. We could also be subject to litigation from persons or corporations allegedly affected by data protection violations. Violation of data protection laws is a criminal offence in some countries, and individuals can be imprisoned or fined.

If any of the risks set out above materialise, they could adversely impact the Group's results of operations, cash flow, liquidity, business prospects, financial condition, and shareholder returns, including dividends, the amount of funds available for stock repurchases and the price of Eni's share.

Exposure to financial risk-We are exposed to treasury and trading risks, including liquidity risk, interest rate risk, foreign exchange risk, commodity price risk and credit risk and we may incur substantial losses in connection with those risks.

Our business is exposed to the risk that changes in interest rates, foreign exchange rates or the prices of crude oil, natural gas, LNG, refined products, chemical feedstocks, power and carbon emission rights will adversely affect the value of assets, liabilities or expected future cash flows.

Exposure to the commodity risk has been described in the paragraph above. The Group has established risk management procedures and enters into derivatives commodity contracts to hedge exposure to the commodity risk relating to commercial activities, which derives from different indexation formula between purchase and selling prices of commodities. However, hedging may not function as expected. In addition, we undertake commodity trading to optimize commercial margins or with a view of profiting from expected movements in market prices. Although Eni believes it has established sound risk management procedures to monitor and control commodity trading, this activity involves elements of forecasting and Eni is exposed to the risks of incurring significant losses if prices develop contrary to management expectations and of default of counterparties.

We are exposed to exchange risks because our consolidated financial statements are prepared in Euros, whereas our main subsidiaries in the Exploration & Production sector are utilizing the US dollar as functional currency. Furthermore, our subsidiaries hold assets and are exposed to liabilities in other currencies, mainly the US dollar. Therefore, movements in the USD versus the euro exchange rate affect year-on-year comparability of results of operations and cash flows. Furthermore, prices of oil, natural gas and refined products generally are denominated in, or linked to, USD, while a significant portion of Eni's expenses are incurred in euros. Accordingly, a depreciation of the USD against the euro generally has an adverse impact on Eni's results of operations and liquidity because it reduces booked revenues by an amount greater than the decrease in USD denominated expenses and may also result in significant translation adjustments that impact Eni's shareholders' equity.

Eni's credit ratings are potentially exposed to risk from possible reductions of sovereign credit rating of Italy. On the basis of the methodologies used by Standard & Poor's and Moody's, a potential downgrade of Italy's credit rating may have a potential knock-on effect on the credit rating of Italian issuers such as Eni and make it more likely that the credit rating of the debt instruments issued by the Company could be downgraded.

We are exposed to the liquidity risk in case the Group fails to access suitable sources of funding, or the Group is unable to sell its assets on the marketplace in order to meet short-term financial requirements and to settle obligations. Such a situation would negatively affect the Group results of operations and cash flows as it would result in Eni incurring higher borrowing expenses to meet its obligations or, under the worst conditions, the inability of Eni to continue as a going concern. Global financial markets are volatile due to a number of macroeconomic risk factors, including the financial situation of certain hydrocarbons-exporting countries whose financial conditions have sharply deteriorated following the protracted downturn in crude oil prices. In the event of extended periods of constraints in the financial markets, or if Eni is unable to access the financial markets (including cases where this is due to Eni's financial position or market sentiment as to Eni's prospects) at a time when cash flows from Eni's business operations may be under pressure, Eni's ability to maintain Eni's long-term investment program may be impacted with a consequent effect on Eni's business prospects and results of operations and cash flows.

The oil and gas industry is capital intensive. Eni makes and expects to continue to make substantial capital expenditures in its business for the exploration, development and production of oil and natural gas reserves. In 2020, Eni expects to make capital expenditures of approximately €4 billion at the planned exchange rate of 1.12 USD/EUR. Historically, Eni's capital expenditures have been financed with cash generated by operations, proceeds from asset disposals, borrowings under its credit facilities and proceeds from the issuance of debt and bonds. The actual amount and timing of future capital expenditures may differ materially from Eni's estimates as a result of, among other things, changes in commodity prices, available cash flows, lack of access to capital, actual drilling results, the availability of drilling rigs and other services and equipment, the availability of transportation capacity, and regulatory, technological and competitive developments. Eni's cash flows from operations and access to capital markets are subject to a number of variables, including but not limited to:

- the amount of Eni's proved reserves;
- the volume of crude oil and natural gas Eni is able to produce and sell from existing wells; the prices at which crude oil and natural gas are sold;
- Eni's ability to acquire, find and produce new reserves; and
- the ability and willingness of Eni's lenders to extend credit or of participants in the capital markets to invest in Eni's bonds.

If revenues or Eni's ability to borrow decrease significantly due to factors such as a prolonged decline in crude oil and natural gas prices, Eni might have limited ability to obtain the capital necessary to sustain its planned capital expenditures. If cash generated by operations, cash from asset disposals, or cash available under Eni's liquidity reserves or its credit facilities is not sufficient to meet capital requirements, the failure to obtain additional financing could result in a curtailment of operations relating to development of Eni's reserves, which in turn could adversely affect its business prospects, results of operations and cash flows. In addition, funding Eni's capital expenditures with additional debt will increase its leverage and the issuance of additional debt will require a growing portion of Eni's cash flows from operations to be used for the payment of interest and principal on its debt.

We are exposed to credit risk; our counterparties could fail or could be unable to pay the amounts owed to us and to meet their performance obligations under contractual arrangements. In the last few years, the Group has experienced a level of counterparty default higher than in previous years due to

the severity of the economic and financial downturn that has negatively affected several Group counterparties, customers and partners and to the fact that Italy, which is still the largest market to Eni's gas wholesale and retail businesses, has underperformed other OECD countries in terms of GDP growth. Management believes that the Gas & Power segment is particularly exposed to credit risk due to its large and diversified customer base, which includes a large number of medium and small-sized businesses and retail customers who have been particularly hit by the financial and economic downturn. Going forward, we expect that an uncertain macroeconomic outlook in Europe and Italy will pose a risk to the Company's ability to collect revenues in its retail gas and power business. Eni's E&P business is significantly exposed to the credit risk because of the deteriorated financial outlook of many oil-producing countries due to continued weak oil prices, which has negatively impacted petroleum revenues of those Countries triggering financial instability. The financial difficulties of those countries have extended to state-owned oil companies and other national agencies who are partnering Eni in the execution of oil&gas projects or who are buying Eni's equity production in a number of oil&gas projects. These trends have limited Eni's ability to fully recover or to collect timely its trade or financing receivable or its investments towards those entities. For further information, see the paragraph "Political Considerations" above. Eni believes that the management of doubtful accounts represents an issue to the Company, which will require management focus and commitment going forward. Eni cannot exclude the recognition of significant provisions for doubtful accounts in the future. In particular, management is closely monitoring exposure to the counterpart risk in its Exploration & Production due to the magnitude of the exposure at risk and to the long-lasting effects of the oil price downturn on its industrial partners.

If any of the risks set out above materialise, they could adversely impact the Group's results of operations, cash flow, liquidity, business prospects, financial condition, and shareholder returns, including dividends, the amount of funds available for stock repurchases and the price of Eni's share.

See "Liquidity and capital resources" on page 105 and Note 27-Financial Risk - to the "Consolidated Financial Statements".

Item 4. INFORMATION ON THE COMPANY History and development of the Company

Eni SpA with its consolidated subsidiaries engages in the exploration, development and production of hydrocarbons, in the supply and marketing of gas, LNG and power, in the refining and marketing of petroleum products, in the production and marketing of basic petrochemicals, plastics and elastomers and in commodity trading. Eni has operations in 66 countries and 32,053 employees as of December 31, 2019.

Eni, the former Ente Nazionale Idrocarburi, a public law agency, established by Law No. 136 of February 10, 1953, was transformed into a joint stock company by Law Decree No. 333 published in the Official Gazette of the Republic of Italy No. 162 of July 11, 1992 (converted into law on August 8, 1992, by Law No. 359, published in the Official Gazette of the Republic of Italy No. 190 of August 13, 1992). The Shareholders' Meeting of August 7, 1992 resolved that the company be called Eni SpA. Eni is registered at the Companies Register of Rome, register tax identification number 00484960588, R.E.A. Rome No. 756453. Eni is expected to remain in existence until December 31, 2100; its duration can however be extended by resolution of the shareholders.

The name of the agent of Eni in the United States is Marco Margheri, Washington DC-USA 601, $13^{\rm th}$ street, NW 20005.

Eni's principal segments of operations are described below.

Eni's Exploration & Production segment engages in oil and natural gas exploration and field development and production, as well as LNG operations, in 41 countries, including Italy, Libya, Egypt, Norway, the United Kingdom, Angola, Congo, Nigeria, Mexico, the United States, Kazakhstan, Algeria, Australia, Iraq, Indonesia, Ghana, Mozambique, Bahrain, Oman and United Arab Emirates. In 2019, Eni average daily production amounted to 1,736 KBOE/d on an available- for-sale basis. As of December 31, 2019, Eni's total proved reserves amounted to 7,268 mmBOE, which include subsidiary undertakings and Eni's share of reserves of equity-accounted and proportionally consolidated entities.

Eni's Gas & Power segment engages in the supply, trading and marketing of gas, LNG and electricity, international gas transport activities and commodity trading and derivatives. This segment also includes the activity of electricity generation that is ancillary to the marketing of electricity. In 2019, Eni's worldwide sales of natural gas amounted to 73.07 BCM, of which 37.85 BCM in Italy. Eni produces power at a number of operated gas-fired plants in Italy with a total installed capacity of 4.7 GW as of December 31, 2019. In 2019, electricity sold totalled 39.49 TWh. The LNG business includes the purchase and marketing of LNG worldwide, with a large incidence of equity LNG supplies. The Group serves the gas and power wholesale and retail markets in Italy and in a number of European markets. As at December 31, 2019 the Gas & Power segment had 9.4 million retail customers. The Gas & Power segment comprises results of the Group activities intended to manage commodity risk of asset-backed trading activities and proprietary trading. Furthermore, this activity includes the result of crude oil and products supply, trading and shipping.

Eni's Refining & Marketing and Chemical segment includes the results of operations of the R&M business and of the chemicals business which have been combined in a single reporting segment because the two businesses exhibit similar characteristics.

The R&M business engages in crude oil supply and refining and marketing of petroleum products in retail and wholesale markets mainly in Italy and in the rest of Europe, as well as in the petrochemical business. As of December 31, 2019, balance refining capacity was 732 KBBL/d including our share of capacity at ADNOC Refining (UAE) where we acquired a 20% interest in 2019. In 2019, processed volumes of crude oil and other feedstock, including renewable feedstock, amounted to 23.05 mmtonnes (of which traditional refinery throughputs were 22.74 mmtonnes and bio refinery throughputs were 0.31 mmtonnes) and sales of refined products were 32.27 mmtonnes, of which 25.56 mmtonnes in Italy. Retail sales of refined products at Eni's service stations amounted to 8.25 mmtonnes in Italy and in the rest of Europe. In 2019, Eni's retail market shares in Italy through its "Eni" branded network of service stations was 23.7%.

In the Chemical business Eni, through its wholly-owned subsidiary Versalis, engages in the production and marketing of basic petrochemical products, plastics and elastomers. Versalis is developing the business of green chemicals. Activities are concentrated in Italy and in Europe. In 2019, production volumes of