



PJSC LUKOIL

**MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL
CONDITION AND RESULTS OF OPERATIONS**

for the years ended 31 December 2016, 2015 and 2014

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The following report contains a discussion and analysis of the financial position of PJSC LUKOIL at 31 December 2016 and the results of its operations for each of the years ended 31 December 2016, 2015 and 2014, as well as significant factors that may affect its future performance. It should be read in conjunction with our International Financial Reporting Standards (“IFRS”) consolidated financial statements, including notes and supplementary information on oil and gas exploration and production activities.

References to “LUKOIL,” “the Company,” “the Group,” “we” or “us” are references to PJSC LUKOIL and its subsidiaries and equity affiliates. All ruble amounts are in millions of Russian rubles (“RUB”), unless otherwise indicated. Income and expenses of our foreign subsidiaries were translated to rubles at rates which approximate actual rates at the date of the transaction. Tonnes of crude oil and natural gas liquids produced were translated into barrels using conversion rates characterizing the density of crude oil from each of our oilfields and the actual density of liquids produced at our gas processing plants. Hydrocarbon extraction expenses per barrel were calculated using these actual production volumes. Other operational indicators expressed in barrels were translated into barrels using an average conversion rate of 7.33 barrels per tonne. Translations of cubic meters to cubic feet were made at the rate of 35.31 cubic feet per cubic meter. Translations of barrels of crude oil into barrels of oil equivalent (“BOE”) were made at the rate of 1 barrel per BOE and of cubic feet – at the rate of 6 thousand cubic feet per BOE.

This report includes forward-looking statements – words such as “believes,” “anticipates,” “expects,” “estimates,” “intends,” “plans,” etc. – that reflect management’s current estimates and beliefs, but are not guarantees of future results. Please see “Forward-looking statement” on page 39 for a discussion of some factors that could cause actual results to differ materially.

Business overview

LUKOIL is one of the world’s largest publicly traded vertically integrated energy companies in terms of hydrocarbon reserves that amounted under SEC standards to 16.4 billion BOE at 31 December 2016 and comprised of 12.5 billion barrels of crude oil and 23.5 trillion cubic feet of gas. Most of our reserves are conventional. Our daily hydrocarbon production in 2016 amounted to 2.2 million BOE with liquid hydrocarbons representing approximately 85% of our overall production volumes.

The primary activities of LUKOIL and its subsidiaries are oil exploration, production, refining, marketing and distribution.

Our operations are divided into three main business segments:

- **Exploration and Production** – which includes our exploration, development and production operations related to crude oil and gas. These activities are primarily located within Russia, with additional activities in Azerbaijan, Kazakhstan, Uzbekistan, the Middle East, Northern and Western Africa, Norway, Romania and Mexico.
- **Refining, Marketing and Distribution** – which includes refining, petrochemical and transport operations, marketing and trading of crude oil, natural gas and refined products, generation, transportation and sales of electricity, heat and related services.
- **Corporate and other** – which includes operations related to our headquarters (which coordinates the operations of Group companies), finance activities, production of diamonds and certain other activities.

Each of our segments is dependent on the other, with a portion of the revenues of one segment being a part of the costs of the other. In particular, our Refining, Marketing and Distribution segment purchases crude oil from our Exploration and Production segment. As a result of certain factors considered in the “Domestic crude oil and refined products prices” section on p. 6, benchmarking crude oil market prices in Russia cannot be determined with certainty. Therefore, the prices set for inter-segment purchases of crude oil reflect a combination of market factors, primarily international crude oil market prices, transportation costs, regional market conditions, the cost of crude oil refining and other factors. Accordingly, an analysis of either of these segments on a stand-alone basis could give a misleading impression of those segments’ underlying financial position and results of operations. For this reason, we do not analyze either of our main segments separately in the discussion that follows. However, we present the financial data for each in Note 32 “Segment information” to our consolidated financial statements.

Key financial and operational results

| | 2016 | Change to 2015, % | 2015 | Change to 2014, % | 2014 |
|--|-----------|----------------------|-----------|----------------------|-----------|
| (millions of rubles) | | | | | |
| Sales..... | 5,227,045 | (9.1) | 5,749,050 | 4.4 | 5,504,856 |
| EBITDA ⁽¹⁾ , including | 730,731 | (10.5) | 816,705 | 15.8 | 705,386 |
| Exploration and production segment..... | 521,190 | (12.5) | 595,408 | 17.2 | 507,917 |
| Refining, marketing and distribution segment .. | 233,297 | (0.4) | 234,211 | 20.0 | 195,108 |
| EBITDA ⁽¹⁾ net of West Qurna-2 project | 691,263 | 1.7 | 679,539 | 15.7 | 587,266 |
| Profit for the period attributable to LUKOIL shareholders | 206,794 | (29.0) | 291,135 | (26.4) | 395,525 |
| Capital expenditures, including non-cash transactions | 511,525 | (15.8) | 607,205 | (0.6) | 611,106 |
| Free cash flow ⁽²⁾ | 255,117 | 2.7 | 248,333 | 229.2 | 75,435 |
| (thousand BOE per day) | | | | | |
| Production of hydrocarbons, including our share in equity affiliates..... | 2,202 | (7.4) | 2,379 | 2.8 | 2,314 |
| Crude oil and natural gas liquids | 1,875 | (8.6) | 2,052 | 3.0 | 1,992 |
| Gas available for sale..... | 327 | – | 327 | 1.6 | 322 |
| Refinery throughput | 1,323 | 2.2 | 1,295 | (3.1) | 1,337 |
| Hydrocarbon proved reserves including our share in equity affiliates (millions of BOE)..... | 16,398 | (1.0) | 16,558 | (5.8) | 17,585 |

⁽¹⁾ Profit from operating activities before depreciation, depletion and amortization.

⁽²⁾ Cash flow from operating activities less capital expenditures.

Our financial results for 2016 were affected by lower average hydrocarbon prices as well as by significant strengthening of ruble to US dollar and euro during 2016. They were also affected by an increase in the crude oil extraction tax base rate and a decline in domestic refining margins.

In 2016, our EBITDA amounted to 731 billion RUB, a decrease of 10.5% to 2015. In 2015, we were compensated for most of the costs incurred within the West Qurna-2 project and therefore, in 2016, we were eligible for significantly lower volumes of compensation crude oil compared to 2015 that significantly affected our EBITDA. Net of the West Qurna-2 project, the Group's EBITDA increased by 1.7% compared to 2015. Our EBITDA was supported by the decrease in the annual average ruble exchange rate to US dollar and Euro, higher international refinery throughput volumes and substantial improvement in the refined product slate.

In 2016, profit attributable to LUKOIL shareholders amounted to 207 billion RUB, a decrease of 29.0% to 2015. The profit was affected by foreign exchange loss in 2016 compared to foreign exchange gain in 2015 that resulted from ruble exchange rate volatility.

In 2016, we continued generating strong free cash flow that amounted to 255 billion RUB, compared to 248 billion RUB in 2015. Our free cash flow was supported by a decrease in our capital expenditures as a result of the completion of our refineries' upgrade investment program and lower spending on international upstream projects.

The Group's average daily hydrocarbon production in 2016 decreased by 7.4% compared to 2015, which was primarily driven by lower volume of compensation crude oil from the West Qurna-2 project, as well as natural production decline at our brown fields in Western Siberia. We reviewed our investment program in 2016 towards the increase in drilling volumes in Western Siberia in order to substantially reduce production decline rates.

Key operational developments

Exploration and production

- 15 new oil and gas fields were brought into production (2015 – 14 oil and gas fields).
- 13 new oilfields discovered.
- In the third quarter of 2016, production started at the Company's two major green fields, the V. Filanovsky field in the Caspian Sea and the Pyakyakhinskoye field in Western Siberia. As a result, the Group's daily hydrocarbon production increased by 3.3% in December 2016 compared to July 2016. Production at the newly launched fields is subject to special tax rates, which results in substantially higher contribution of the projects to the financial results relative to their contribution to our overall production volumes.

Refining

- In the second quarter of 2016 construction works were finalized at the hydrocracking facility at the Volgograd refinery, which is the last major facility built as part of the major refinery upgrade program. Launches of new secondary processing facilities resulted in substantial enhancement of the product slate with a respective positive impact on the refining margins.

These and other achievements in 2016 are described in detail further in this report.

Changes in Group structure

In February 2017, LUKOIL completed the sale of wholly owned subsidiary – LUKOIL Chemical B.V. (the Netherlands), which owns petrochemical plant «Karpatneftekhim» located in Ivano-Frankovsk area of Ukraine.

In December of 2016, the Company entered into a contract with a company of the “Otkrytie Holding” group to sell the Group's 100% interest in JSC “Arkhangelskgeoldobycha” (“AGD”), a company exploring the diamond field named after V.P. Grib located in Arkhangelsk region of Russia. The value of the transaction is the ruble equivalent of \$1.45 billion, including debt repayment by AGD to the Group. This value may be adjusted for changes in working capital at the transaction closing date. The closing of the transaction is expected after government authorities approvals.

In line with the Company's strategy of optimizing its downstream operations in Europe, we sold petrol station networks in Poland, Latvia, Lithuania and Cyprus in 2016 and petrol stations networks in Ukraine and Estonia in 2015.

In August 2015, a Group company closed the transaction to sell its 50% interest in Caspian Investment Resources Ltd, an exploration and production company operating in Kazakhstan, to a Sinopec group company for \$1,067 million (70.1 billion RUB). Related structural decrease in the Group's crude oil production amounted to approximately 20 thousand barrels per day.

OPEC and non-OPEC agreed production cut

In November 2016, OPEC and some of the non-OPEC countries, including Russia, agreed to cut production from October 2016 levels in order to stabilize the global crude oil market. Although our crude oil production volumes in Russia are also affected, on our estimates this will not have a significant impact on our financial results.

Sectorial sanctions against the Russian companies

In July-September 2014, the United States (“US”), the European Union (“EU”) and other countries imposed a set of economic sanctions on Russia, including certain sectoral sanctions which affect Russian oil and gas companies. Such sectoral sanctions prohibit US and the EU companies and individuals from providing, exporting, or re-exporting directly or indirectly, goods, services (except for financial services), or technology in support of exploration or production for deepwater, Arctic offshore, or shale projects on the territory of the Russian Federation.

The Company is not subject to any financial restrictions and is not currently involved in deepwater, Arctic offshore or shale projects in Russia. That is why we assess the impact of the sanctions on the Company's activities as immaterial.

Main macroeconomic factors affecting our results of operations

International crude oil and refined products prices

The price at which we sell crude oil and refined products is the primary driver of the Group's revenues.

The dynamics of our realized prices on international markets generally matches the dynamics of commonly used spot benchmarks such as Brent crude oil price, however our average prices are usually different from such benchmarks due to different delivery terms, quality mix, as well as specifics of regional markets in case of petroleum product sales.

For example, despite substantially all the crude oil we export from Russia is Urals blend, our average realized crude oil prices can materially deviate from the average Urals benchmark, as in addition to exports from Russia we also sell various crude oil blends on various delivery terms within our international trading activity.

During 2016, the price for Brent crude oil fluctuated between \$26 and \$55 per barrel, reached its minimum of \$25.98 in the end of January and then maximum of \$55.41 in the end of December, and averaged 16.5% less than in 2015, that represented the lowest level for the last 12 years. Such oil price weakness was primarily due to crude oil oversupply driven by production growth in Iran, Iraq, Saudi Arabia and Russia that totaled more than 1.5 million barrels per day in 2016. Nevertheless, as a result of the decrease in annual average ruble exchange rate, the prices expressed in rubles decreased less significantly.

The following tables show the average crude oil and refined product prices.

| | 2016 | Change to 2015, % | 2015 | Change to 2014, % | 2014 |
|---|--------|----------------------|--------|----------------------|--------|
| (in US dollars per barrel, except for figures in percent) | | | | | |
| Brent crude..... | 43.73 | (16.5) | 52.39 | (47.1) | 98.95 |
| Urals crude (CIF Mediterranean) | 42.52 | (18.0) | 51.87 | (47.0) | 97.95 |
| Urals crude (CIF Rotterdam) | 41.68 | (18.2) | 50.97 | (47.6) | 97.23 |
| (in US dollars per metric tonne, except for figures in percent) | | | | | |
| Fuel oil 3.5% (FOB Rotterdam)..... | 207.64 | (19.0) | 256.23 | (51.4) | 527.06 |
| Diesel fuel 10 ppm (FOB Rotterdam) | 396.99 | (20.5) | 499.55 | (41.6) | 855.17 |
| High-octane gasoline (FOB Rotterdam)..... | 467.05 | (18.0) | 569.25 | (38.0) | 918.87 |

Source: Platts.

| | 2016 | Change to 2015, % | 2015 | Change to 2014, % | 2014 |
|---|--------|----------------------|--------|----------------------|--------|
| (in rubles per barrel, except for figures in percent) | | | | | |
| Brent crude..... | 2,931 | (8.2) | 3,193 | (16.0) | 3,802 |
| Urals crude (CIF Mediterranean) | 2,850 | (9.9) | 3,162 | (16.0) | 3,764 |
| Urals crude (CIF Rotterdam) | 2,794 | (10.1) | 3,107 | (16.8) | 3,736 |
| (in rubles per metric tonne, except for figures in percent) | | | | | |
| Fuel oil 3.5% (FOB Rotterdam)..... | 13,919 | (10.9) | 15,619 | (22.9) | 20,251 |
| Diesel fuel 10 ppm (FOB Rotterdam) | 26,612 | (12.6) | 30,451 | (7.3) | 32,857 |
| High-octane gasoline (FOB Rotterdam)..... | 31,309 | (9.8) | 34,700 | (1.7) | 35,305 |

Translated into rubles using average exchange rate for the period.

Domestic crude oil and refined products prices

Substantially all crude oil produced in Russia is produced by vertically integrated oil companies such as ours. As a result, most transactions are between affiliated entities within vertically integrated groups. Thus, there is no concept of a benchmark domestic market price for crude oil. The price of crude oil that is produced but not refined or exported by one of the vertically integrated oil companies is generally determined on a transaction-by-transaction basis against a background of world market prices, but with no direct reference or correlation. At any time there may exist significant price differences between regions for similar quality crude oil as a result of competition and economic conditions in those regions.

Domestic prices for refined products may deviate significantly from export netbacks and they also vary between different regions of Russia which is driven by supply demand balance on regional markets.

The table below represents average domestic wholesale prices of refined products.

| | 2016 | Change to 2015, % | 2015 | Change to 2014, % | 2014 |
|---|--------|----------------------|--------|----------------------|--------|
| (in rubles per metric tonne, except for figures in percent) | | | | | |
| Fuel oil..... | 7,525 | 13.9 | 6,604 | (29.3) | 9,342 |
| Diesel fuel..... | 28,899 | (1.1) | 29,215 | 3.6 | 28,206 |
| High-octane gasoline (Regular) | 33,784 | 5.2 | 32,120 | 3.6 | 30,993 |
| High-octane gasoline (Premium) | 35,491 | 5.6 | 33,612 | 4.9 | 32,050 |

Source: InfoTEK (excluding VAT).

Changes in ruble exchange rate and inflation

A substantial part of our revenue is either denominated in US dollars or euro or is correlated to some extent with US dollar crude oil prices, while most of our costs are settled in Russian rubles. Therefore, a devaluation of the ruble against the US dollar and euro generally causes our revenues to increase in ruble terms, and vice versa. Ruble inflation also affects the results of our operations.

The following table provides data on inflation in Russia and change in the ruble-dollar and ruble-euro exchange rates.

| | 2016 | 2015 | 2014 |
|--------------------------------------|------|------|------|
| Ruble inflation (CPI), % | 5.4 | 12.0 | 11.4 |
| Ruble to US dollar exchange rate | | | |
| Average for the period | 67.0 | 61.0 | 38.4 |
| At the beginning of the period | 72.9 | 56.3 | 32.7 |
| At the end of the period..... | 60.7 | 72.9 | 56.3 |
| Ruble to euro exchange rate | | | |
| Average for the period | 74.2 | 67.8 | 50.8 |
| At the beginning of the period | 79.7 | 68.3 | 45.0 |
| At the end of the period..... | 63.8 | 79.7 | 68.3 |

Taxation

In 2015-2017, the Russian Government is implementing the tax manoeuvre in the oil industry which envisages reduction of export duty rate and increase in the crude oil extraction tax and excise tax rates. Changes within this tax manoeuvre effective from January and April 2016 had a negative impact on our upstream, refining and marketing margins. Changes effective from January 2017 may have a positive impact on our upstream margins and a negative impact on our refining and marketing margins, and we expect the overall impact of tax changes on our financial results not to be significant.

The rates of taxes specific to the oil industry in Russia are linked to international crude oil prices and are changed in line with them. The methods to determine the rates for such taxes are presented below.

Crude oil extraction tax rate is changed monthly. Crude oil extraction tax is payable in rubles for metric tonnes extracted and is calculated according to the formula below:

$$Rate = Base Rate \times (Price - 15) \times \frac{Exchange Rate}{261} - Incentive + Fixed Component,$$

where *Price* is a Urals blend price in US dollars per barrel and *Exchange Rate* is an average ruble exchange rate to US dollar during the period. The *Base Rates* and *Fixed Components* (where applicable) are presented below:

| | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 |
|----------------------|------|------|------|------|------|------|------|
| (in rubles) | | | | | | | |
| Base Rate | 493 | 766 | 857 | 919 | 919 | 919 | 919 |
| Fixed Component..... | – | – | – | 306 | 357 | 428 | 0 |

There are different types of tax *Incentives* on the mineral extraction tax on crude oil applied to our fields and deposits:

- A special reducing coefficient is applied to the standard tax rate depending on location, depletion, type of reserves, size and complexity of a particular field. This type of incentive with different coefficients is applied to our highly depleted fields (more than 80% depletion), our Yu. Korchagin field located in the Caspian offshore, the Permian layers of our Usinskoye field in Timan-Pechora producing high-viscous crude oil, our Pyakyakhinskoye field located in the Yamal-Nenets region of Western Siberia, a number of fields in the Nenets Autonomous region. as well as to our new small-sized fields (recoverable reserves less than 5 million tonnes) and fields and deposits with low permeability like V.N. Vinogradov field and Tyumen deposits;
- A fixed tax rate of 15% of the international Urals price is applied to our V. Filanovsky field. located in the Caspian offshore;
- A zero tax rate is applied to our Yaregskoye field producing extra-viscous crude oil, as well as to unconventional deposits (Bazhenov and others).

Some of the mineral extraction tax incentives are limited in time or by cumulative oil production volumes.

The table on the p. 9 illustrates the impact of crude oil extraction tax incentives on the tax rate at \$50 per barrel Urals price.

The tax rate is zero when the average international Urals price is less than, or equal to, \$15.00 per barrel. In 2016, each \$1.00 per barrel increase in the international Urals price above \$15.00 per barrel results in an increase in the tax rate by \$0.45 per barrel (\$0.40 per barrel in 2015, \$0.26 per barrel in 2014).

Natural gas extraction tax rate. Starting from 1 July, 2014, the rate is calculated using a special formula depending on average wholesale natural gas price in Russia, share of gas production in total hydrocarbon production, regional location and complexity of particular gas field. Previously, the rate was fixed and amounted to 471 rubles per thousand cubic meters of gas extracted in the first half of 2014.

In 2016, actual average natural gas extraction tax rate for our major gas field – Nakhodkinskoe in Western Siberia amounted to 208 rubles per thousand cubic meters (162 rubles per thousand cubic meters in 2015). In the first half of 2014, the rate was 471 rubles per thousand cubic meters and in the second half of 2014 it amounted to 132 rubles per thousand cubic meters. The rate for this field is subject to a special regional reducing coefficient.

Associated petroleum gas and reinjected natural gas are subject to zero extraction tax rate.

Crude oil export duty rate is denominated in US dollars per tonne of crude oil exported and is calculated on a progressive scale according to the table below.

| International Urals price | Export duty rate |
|---|--|
| Less than, or equal to, \$109.50 per tonne (\$15.00 per barrel) | \$0.00 per tonne |
| Above \$109.50 but less than, or equal to, \$146.00 per tonne (\$20.00 per barrel) | 35% of the difference between the actual price and \$109.50 per tonne (or \$0.35 per barrel per each \$1.00 increase in the Urals price over \$15.00) |
| Above \$146.00 but less than, or equal to, \$182.50 per metric tonne (\$25.00 per barrel) | \$12.78 per tonne plus 45% of the difference between the actual price and \$146.00 per tonne (or \$1.75 plus \$0.45 per barrel per each \$1.00 increase in the Urals price over \$20.00) |
| Above \$182.50 per metric tonne (\$25.00 per barrel) | 2014: \$29.20 per tonne plus 59% of the difference between the actual price and \$182.50 per tonne (or \$4.00 plus \$0.59 per barrel per each \$1.00 increase in the Urals price over \$25.00) 2015–2016: \$29.20 per tonne plus 42% of the difference between the actual price and \$182.50 per tonne (or \$4.00 plus \$0.42 per barrel per each \$1.00 increase in the Urals price over \$25.00) Starting from 1 January 2017: \$29.20 per tonne plus 30% of the difference between the actual price and \$182.50 per tonne (or \$4.00 plus \$0.30 per barrel per each \$1.00 increase in the Urals price over \$25.00) |

The export duty rate changes every month with the rate for the next month being based on average Urals price for the period from the 15th day of the previous month to the 14th day of the current month.

Crude oil produced at some of our fields is subject to special export duty rates calculated according to special formulas, which are lower than standard rates. A reduced rate is applied to crude oil produced at our Yaregskoye field producing extra-viscous crude oil and our Yu. Korchagin field in the Caspian offshore. A zero rate applies to crude oil of our V. Filanovsky field also located in the Caspian offshore.

The table below illustrates the impact of tax incentives for different fields and deposits in our portfolio at \$50 per barrel Urals price.

| | Mineral extraction tax | Export duty | Total | As % of oil price |
|---|---------------------------|-------------|-------------|----------------------|
| (in US dollars per barrel, except for figures in percent) | | | | |
| Under 2016 tax formulas | | | | |
| Standard | 15.7 | 14.5 | 30.2 | 60.5 |
| Yaregskoye field | 0.0 | 1.8 | 1.8 | 3.6 |
| Yu. Korchagin field..... | 5.5 | 0.0 | 5.5 | 10.9 |
| V. Filanovsky field..... | 7.5 | 0.0 | 7.5 | 15.0 |
| Usinskoye (Permian layers) | 5.5 | 14.5 | 20.0 | 39.9 |
| Pyakakhinskoye field | 5.5 | 14.5 | 20.0 | 39.9 |
| V. Vinogradova field..... | 7.5 | 14.5 | 22.0 | 44.1 |
| Highly depleted fields | 8.6-15.7 | 14.5 | 23.1-30.2 | 46.1-60.5 |
| Small sized fields | 9.3-15.7 | 14.5 | 23.8-30.2 | 47.6-60.5 |
| Tyumen deposits | 13.7 | 14.5 | 28.2 | 56.4 |
| Under 2017 tax formulas | | | | |
| Standard | 17.5 | 11.5 | 29.0 | 58.1 |
| Yaregskoye field | 0.0 | 1.8 | 1.8 | 3.6 |
| Yu. Korchagin field..... | 7.3 | 0.0 | 7.3 | 14.5 |
| V. Filanovsky field..... | 7.5 | 0.0 | 7.5 | 15.0 |
| Usinskoye (Permian layers) | 7.3 | 11.5 | 18.8 | 37.5 |
| Pyakakhinskoye field | 7.3 | 11.5 | 18.8 | 37.5 |
| V. Vinogradova field..... | 9.3 | 11.5 | 20.8 | 41.6 |
| Highly depleted fields | 10.4-17.5 | 11.5 | 21.9-29.0 | 43.7-58.1 |
| Small sized fields | 11.1-17.5 | 11.5 | 22.6-29.0 | 45.2-58.1 |
| Tyumen deposits | 15.5 | 11.5 | 27.0 | 54.0 |

Export duty rates on refined products are calculated by multiplying the current crude oil export duty rate by a coefficient according to the table below.

| | 2017 and further | 2016 | 2015 | 2014 |
|------------------------------------|------------------|------|------|------|
| Multiplier for: | | | | |
| Light and middle distillates | 0.30 | 0.40 | 0.48 | 0.66 |
| Diesel fuel | 0.30 | 0.40 | 0.48 | 0.65 |
| Gasolines..... | 0.30 | 0.61 | 0.78 | 0.90 |
| Straight-run gasoline..... | 0.55 | 0.71 | 0.85 | 0.90 |
| Fuel oil..... | 1.00 | 0.82 | 0.76 | 0.66 |

Crude oil and refined products exports from Russia are subject to two steps of customs declaration and duty payments: temporary and complete. A temporary declaration is submitted based on preliminary exports volumes and the duty is paid in rubles translated from US dollars at the date of the temporary declaration. A complete declaration is submitted after receiving the actual data on the exported volumes, but no later than six months after the date of the temporary declaration. The final amount of the export duty is adjusted depending on the actual volumes, the US dollar exchange rate at the date of the complete declaration (except for pipeline deliveries when the exchange rate at the temporary declaration date is used) and the export duty rate. If temporary and complete declarations are submitted in different reporting periods, the final amount of the export duty is adjusted in the period of submission of the complete declaration. The high volatility of the ruble-dollar exchange rates may lead to significant adjustments. For the purposes of the IFRS consolidated financial statements, data from temporary declarations at the reporting period end is translated to rubles from US dollars using the period-end exchange rate.

Crude oil and refined products exported to member countries of the Customs Union in the Eurasian Economic Union of Russia, Belarus, Kazakhstan, Armenia and the Kyrgyz Republic (Customs Union) are not subject to export duties.

The following tables represent average enacted rates for taxes specific to the oil industry in Russia for the respective periods.

| | 2016 | Change to 2015, % | 2015 | Change to 2014, % | 2014 |
|--|-------|----------------------|--------|----------------------|--------|
| (in US dollars per tonne, except for figures in percent) | | | | | |
| Export duties on crude oil | 75.72 | (37.1) | 120.31 | (67.2) | 366.53 |
| Export duties on refined products | | | | | |
| Light and middle distillates | 30.25 | (47.6) | 57.70 | (76.1) | 241.88 |
| Fuel oil | 62.05 | (32.1) | 91.39 | (62.2) | 241.88 |
| Gasoline | 46.14 | (50.8) | 93.80 | (71.6) | 329.83 |
| Straight-run gasoline | 53.71 | (47.5) | 102.22 | (69.0) | 329.83 |
| Diesel fuel | 30.25 | (47.6) | 57.70 | (75.8) | 238.52 |
| Mineral extraction tax | | | | | |
| Crude oil ⁽¹⁾ | 86,18 | (16.8) | 103,55 | (31.7) | 151,67 |
| (in rubles per tonne, except for figures in percent) | | | | | |
| Export duties on crude oil ⁽¹⁾ | 5,076 | (30.8) | 7,334 | (47.9) | 14,083 |
| Export duties on refined products ⁽¹⁾ | | | | | |
| Light and middle distillates | 2,028 | (42.3) | 3,517 | (62.2) | 9,293 |
| Fuel oil | 4,160 | (25.3) | 5,571 | (40.1) | 9,293 |
| Gasoline | 3,093 | (45.9) | 5,718 | (54.9) | 12,673 |
| Straight-run gasoline | 3,601 | (42.2) | 6,231 | (50.8) | 12,673 |
| Diesel fuel | 2,028 | (42.3) | 3,517 | (61.6) | 9,164 |
| Mineral extraction tax | | | | | |
| Crude oil | 5,777 | (8.5) | 6,312 | 8.3 | 5,827 |

⁽¹⁾ Translated from and to rubles using average exchange rate for the period.

Excise on refined products. The responsibility to pay excises on refined products in Russia is imposed on refined product producers (except for straight-run gasoline). Only domestic sales volumes are subject to excises.

In other countries where the Group operates, excises are paid either by producers or retailers depending on the local legislation.

Excise rates on refined products in Russia are tied to the ecological class of fuel. Average excise tax rates for 2016, 2015 and 2014 are listed below.

| | 2016 | Change to 2015, % | 2015 | Change to 2014, % | 2014 |
|--|--------|----------------------|--------|----------------------|--------|
| (in rubles per tonne, except for figures in percent) | | | | | |
| Gasoline | | | | | |
| Below Euro-3 | 12,454 | 70.6 | 7,300 | (34.3) | 11,110 |
| Euro-3 | 12,454 | 70.6 | 7,300 | (31.9) | 10,725 |
| Euro-4 | 12,454 | 70.6 | 7,300 | (26.4) | 9,916 |
| Euro-5 | 9,484 | 71.5 | 5,530 | (14.3) | 6,450 |
| Diesel fuel | | | | | |
| Euro-3 and below | 5,009 | 45.2 | 3,450 | (46.5) | 6,446 |
| Euro-4 | 5,009 | 45.2 | 3,450 | (36.4) | 5,427 |
| Euro-5 | 5,009 | 45.2 | 3,450 | (27.6) | 4,767 |
| Motor oils | 6,000 | (7.7) | 6,500 | (21.3) | 8,260 |
| Straight-run gasoline | 12,454 | 10.2 | 11,300 | 0.4 | 11,252 |

In 2016, excise rates in Russia were increased twice, on 1 January and 1 April.

Excise tax rates starting from 2017 are listed below.

| | 2019 and further | 2018 | 2017 |
|------------------------------|-----------------------------|-------------|-------------|
| (in rubles per tonne) | | | |
| Gasoline | | | |
| Below Euro-5 | 13,100 | 13,100 | 13,100 |
| Euro-5 | 10,957 | 10,535 | 10,130 |
| Diesel fuel | | | |
| All ecological classes | 7,355 | 7,072 | 6,800 |
| Motor oils..... | 5,400 | 5,400 | 5,400 |
| Straight-run gasoline | 13,100 | 13,100 | 13,100 |

Income tax. Until 2017, the federal income tax rate was 2.0% and the regional income tax rate varied between 13.5% and 18.0%. In 2017–2020, the federal income tax rate is 3.0% and the regional income tax rate may vary between 12.5 and 17.0%. The Group’s foreign operations are subject to taxes at the tax rates applicable to the jurisdictions in which they operate.

The Company and its Russian subsidiaries file income tax returns in Russia. A number of Group companies in Russia are paying income tax as a consolidated taxpayers’ group (“CTG”). This allows taxpayers to offset taxable losses generated by certain participants of a CTG against taxable profits of other participants of the CTG.

Transportation tariffs on crude oil, natural gas and refined products in Russia

The main Russian crude oil production regions are remote from the main crude oil and refined products markets. Therefore, access by crude oil production companies to the markets is dependent on the extent of diversification of the transport infrastructure and access to it. As a result, transportation cost is an important factor affecting our profit.

Transportation of crude oil produced in Russia to refineries and export destinations is primarily through the trunk oil pipeline system of the state-owned company, Transneft, or by railway transport.

Transportation of refined products in Russia is by railway transport and the pipeline system of Transnefteproduct. The Russian railway infrastructure is owned and operated by Russian Railways. Both these companies are state-owned. We transport the major part of our refined products by railway transport.

In Russia, gas is mostly sold at the wellhead and then transported through the Unified Gas Supply System (“UGSS”). The UGSS is responsible for gathering, transporting, dispatching and delivering substantially all natural gas supplies in Russia and is owned and operated by Gazprom.

Transneft, Transnefteproduct, Russian Railways and Gazprom are state-controlled natural transportation infrastructure monopolies and their tariffs are regulated by the Federal Antimonopoly Service of Russia and set in rubles.

The following table sets forth the changes in the average tariffs charged by the state-controlled transportation service providers in Russia.

| | 2016 | 2015 | 2014 |
|---|-------------|-------------|-------------|
| Transneft | | | |
| Crude oil | 5.8% | 6.8% | 0.0% |
| Transnefteproduct | | | |
| Refined products | 4.6% | 8.0% | 18.7% |
| Russian Railways | | | |
| Crude oil and refined products, except for diesel fuel..... | 9.0% | 18.4% | 5.3% |
| Diesel fuel..... | 6.8% | 12.2% | 5.0% |

Operational highlights

Reserves base

The table below summarizes the net proved reserves of consolidated subsidiaries and our share in equity affiliates under the standards of the US Securities and Exchange Commission (until the economic limit of commercial production is reached) that have been derived from our reserve reports audited by Miller and Lents Ltd, our independent reservoir engineers, at 31 December 2016 and 2015.

| | 31 December 2016 | Changes in 2016 | | | 31 December 2015 |
|--|---------------------|---------------------------|---|--------------------------------------|---------------------|
| | | Production ⁽¹⁾ | Extensions, discoveries and changes in structure | Revision of previous estimates | |
| (millions of BOE) | | | | | |
| Western Siberia..... | 8,563 | (375) | 186 | 34 | 8,718 |
| Timan-Pechora..... | 2,337 | (141) | 88 | 16 | 2,374 |
| Ural region..... | 2,215 | (125) | 218 | (93) | 2,215 |
| Volga region..... | 1,073 | (65) | 42 | (21) | 1,117 |
| Other in Russia..... | 182 | (12) | 7 | (6) | 193 |
| Outside Russia..... | 2,028 | (115) | 15 | 187 | 1,941 |
| Proved oil and gas reserves | 16,398 | (833) | 556 | 117 | 16,558 |
| Probable oil and gas reserves ... | 6,684 | | | | 6,760 |
| Possible oil and gas reserves | 2,981 | | | | 3,216 |

⁽¹⁾ Gas production shown before own consumption.

The Company's proved reserves at 31 December 2016 amount to 16,398 million BOE and comprise of 12,482 million barrels of crude oil and 23,493 billion cubic feet of gas.

The increase in proved reserves related to geological exploration and production drilling totaled 556 million BOE and was mostly related to the traditional regions of the Group's operations in Russia.

Positive revision of previous estimates outside of Russia mainly related to the West Qurna-2 project and our gas projects in Uzbekistan.

Hydrocarbon production

The table below summarizes the results of our exploration and production activities.

| | 2016 | 2015 | 2014 |
|---|------------------------|----------------|----------------|
| Crude oil and natural gas liquids⁽¹⁾ | (thousand BOE per day) | | |
| Consolidated subsidiaries | | | |
| Western Siberia | 838 | 914 | 970 |
| Timan-Pechora | 339 | 336 | 313 |
| Ural region | 322 | 317 | 308 |
| Volga region..... | 142 | 139 | 136 |
| Other in Russia..... | 36 | 37 | 38 |
| Total in Russia..... | 1,677 | 1,743 | 1,765 |
| Iraq ⁽²⁾ | 95 | 201 | 114 |
| Other outside Russia..... | 45 | 40 | 37 |
| Total outside Russia..... | 140 | 241 | 151 |
| Total consolidated subsidiaries..... | 1,817 | 1,984 | 1,916 |
| Our share in equity affiliates | | | |
| in Russia | 21 | 16 | 11 |
| outside Russia..... | 37 | 52 | 65 |
| Total share in equity affiliates..... | 58 | 68 | 76 |
| Total crude oil and natural gas liquids | 1,875 | 2,052 | 1,992 |
| Natural and petroleum gas available for sale | | | |
| Consolidated subsidiaries | | | |
| Western Siberia | 149 | 174 | 187 |
| Timan-Pechora | 16 | 13 | 14 |
| Ural region | 13 | 19 | 19 |
| Volga region..... | 26 | 6 | 6 |
| Total in Russia..... | 204 | 212 | 226 |
| Total outside Russia..... | 113 | 104 | 85 |
| Total consolidated subsidiaries..... | 317 | 316 | 311 |
| Share in equity affiliates | | | |
| in Russia | 1 | 1 | 1 |
| outside Russia..... | 9 | 10 | 10 |
| Total share in production of equity affiliates..... | 10 | 11 | 11 |
| Total natural and petroleum gas available for sale | 327 | 327 | 322 |
| Total daily hydrocarbon production | 2,202 | 2,379 | 2,314 |
| | (millions of rubles) | | |
| Hydrocarbon extraction expenses | 211,454 | 217,174 | 173,809 |
| - in Russia..... | 165,641 | 155,373 | 142,582 |
| - outside Russia ⁽³⁾ | 14,582 | 14,524 | 8,491 |
| - in Iraq..... | 31,231 | 47,277 | 22,736 |
| Mineral extraction tax in Russia | 388,835 | 470,013 | 420,946 |
| | (ruble per BOE) | | |
| Hydrocarbon extraction expenses ⁽³⁾ | 241 | 222 | 196 |
| - in Russia | 241 | 218 | 196 |
| - outside Russia ⁽³⁾ | 251 | 276 | 192 |
| | (US dollar per BOE) | | |
| Hydrocarbon extraction expenses ⁽³⁾ | 3.62 | 3.65 | 5.10 |
| - in Russia..... | 3.61 | 3.59 | 5.11 |
| - outside Russia ⁽³⁾ | 3.73 | 4.50 | 4.99 |

⁽¹⁾ Natural gas liquids produced at the Group gas processing plants.

⁽²⁾ Compensation oil that represented approximately 23% of production from the West Qurna-2 field in 2016, 52% in 2015 and 55% in 2014.

⁽³⁾ Excluding expenses at the West Qurna-2 field.

We undertake exploration for and production of crude oil and natural gas in Russia and internationally. In Russia, our major oil producing regions are Western Siberia, Timan-Pechora, Ural and Volga region. Our international upstream segment includes stakes in PSA's and other projects in Kazakhstan, Azerbaijan, Uzbekistan, Romania, Iraq, Egypt, Ghana, Cote d'Ivoire, Norway, Cameroon, Nigeria and Mexico.

Crude oil and natural gas liquids production. In 2016, we produced (including the Company's share in equity affiliates) 92.0 million tonnes or 676.3 million barrels of crude oil, compared to 100.7 million tonnes or 736.5 million barrels of crude oil in 2015 and 97.2 million tonnes or 713.1 million barrels of crude oil in 2014.

In 2016, the output of natural gas liquids at the Group gas processing plants in Western Siberia, Ural and Volga regions of Russia was 10.0 million BOE, compared to 12.7 million BOE in 2015 and 13.9 million BOE in 2014.

The following table presents our crude oil production in 2016 and 2015 by major regions.

| (thousands of tonnes) | Change to 2015 | | | | 2015 |
|---|----------------|--------------|---------------------|----------------|----------------|
| | 2016 | Total, % | Change in structure | Organic change | |
| Western Siberia..... | 41,037 | (7.2) | – | (3,168) | 44,205 |
| Timan-Pechora..... | 17,150 | 1.0 | – | 174 | 16,976 |
| Ural region..... | 15,248 | 1.5 | – | 228 | 15,020 |
| Volga region..... | 6,939 | 2.6 | – | 178 | 6,761 |
| Other in Russia..... | 1,832 | (3.8) | – | (72) | 1,904 |
| Crude oil produced in Russia..... | 82,206 | (3.1) | – | (2,660) | 84,866 |
| Iraq ⁽¹⁾ | 5,064 | (52.8) | – | (5,661) | 10,725 |
| Other outside Russia..... | 2,037 | 7.9 | – | 150 | 1,887 |
| Crude oil produced outside Russia..... | 7,101 | (43.7) | – | (5,511) | 12,612 |
| Total crude oil produced by consolidated subsidiaries..... | 89,307 | (8.4) | – | (8,171) | 97,478 |
| Our share in crude oil produced by equity affiliates: | | | | | |
| in Russia..... | 971 | 30.2 | – | 225 | 746 |
| outside Russia..... | 1,714 | (30.4) | (663) | (87) | 2,464 |
| Total crude oil produced..... | 91,992 | (8.6) | (663) | (8,033) | 100,688 |

⁽¹⁾ Compensation oil that represented approximately 23% of production from the West Qurna-2 field in 2016 and 52% in 2015.

The main oil producing region for the Company is Western Siberia where we produced 46.0% of our crude oil in 2016 (45.3% in 2015).

Crude oil production in Western Siberia continued to decline due to natural depletion of reserves, increase in water cut and the Company's decision to reallocate capital to higher return projects in other regions of Russia, in particular those benefiting from tax incentives. This decision was made in 2014, when oil prices went sharply downwards. In 2016, after successful launch of the green fields and completion of the refinery upgrade program, the Company made a decision to intensify production drilling in Western Siberia, which we expect to result in substantial decrease in the production decline rates at our brown fields in this region in the future.

Production growth in Timano-Pechora was primarily driven by ramp-up of production at the Yaregskoye and Usinskoe fields, as well as the fields in Denisovskaya depression.

Production growth in Ural region was primarily driven by successful drilling on existing brownfields and launch of new small sized fields.

In October 2016, we started commercial production at two new major fields, the V. Filanovsky field in the Caspian Sea (Volga region) and the Pyakyakhinskoye field in the Bolshekhetskaya depression (Western Siberia). Launch of these fields enabled us to increase our daily hydrocarbon production in the fourth quarter of 2016. We expect these fields to have a major positive impact on our financial results due to high quality reserve base and tax incentives. In 2016, the Group produced 883 thousand tonnes of crude oil at the V. Filanovsky field and 340 thousand tonnes of liquids at the Pyakyakhinskoye field.

The decrease in our international production was a result of lower volumes of production from the West Qurna-2 oilfield in Iraq attributable to the Company. We were compensated for most of the costs incurred within the construction stage of the project and therefore were eligible for less volumes of compensation crude oil compared to 2015 (for details see p. 15).

The increase in our share in crude oil produced by equity affiliates in Russia was due to an increase in production at the Trebs and Titov oilfields by Bashneft-Polus, where the Group holds a 25.1% interest.

The decrease in our share in crude oil produced by equity affiliates outside Russia mainly resulted from the disposal of our 50% share in Caspian Investment Resources Ltd in the middle of 2015.

Natural and petroleum gas production. In 2016, we produced (including our share in equity affiliates) 24,922 million cubic meters (146.7 million BOE) of gas, that is 4.0% more than in 2015. Our available for sale gas production amounted to 20,315 million cubic meters (119.6 million BOE), compared to 20,251 million cubic meters (119.2 million BOE) in 2015.

The following table presents our available for sale gas production in 2016 and 2015 by major regions.

| (millions of cubic meters) | Change to 2015 | | | | 2015 |
|---|----------------|--------------|---------------------|----------------|---------------|
| | 2016 | Total, % | Change in structure | Organic change | |
| Western Siberia..... | 9,261 | (14.3) | – | (1,544) | 10,805 |
| Timan-Pechora..... | 984 | 21.0 | – | 171 | 813 |
| Ural region | 802 | (31.7) | – | (373) | 1,175 |
| Volga region | 1,608 | 329.9 | – | 1,234 | 374 |
| Other in Russia..... | 21 | (8.7) | – | (2) | 23 |
| Gas produced in Russia | 12,676 | (3.9) | – | (514) | 13,190 |
| Gas produced outside Russia | 7,056 | 9.4 | – | 606 | 6,450 |
| Total available for sale gas produced by consolidated subsidiaries | 19,732 | 0.5 | – | 92 | 19,640 |
| Our share in gas produced by equity affiliates: | | | | | |
| in Russia | 63 | 40.0 | – | 18 | 45 |
| outside Russia | 520 | (8.1) | (77) | 31 | 566 |
| Total available for sale gas produced | 20,315 | 0.3 | (77) | 141 | 20,251 |
| Total gas produced⁽¹⁾ | 24,922 | 4.0 | (107) | 1,063 | 23,966 |

⁽¹⁾ excluding reinjected gas and gas used in production of natural gas liquids

Our major gas production field is the Nakhodkinskoe field in Western Siberia, which is in natural decline. Our production at the field was 6,817 million cubic meters of natural gas in 2016 (7,469 million cubic meters in 2015). The increase in production in Volga region was due to the commencement of commercial gas production at the Yu. Korchagin field in the Caspian Sea. Decrease in production in Ural region was largely a result of increase in own gas consumption following the launch of new power generation unit at the Perm refinery.

Our international gas production (including our share in affiliates' production) increased by 8.0%, compared to 2015, which resulted from the increase in production in Uzbekistan and Azerbaijan. Growth of gas production in Uzbekistan was due to launching new wells and a compressor booster station at the Gissar field. We are currently involved in construction of gas treatment facilities and gas treatment complex in the region, which completion together with further field development will enable us to significantly increase gas production in Uzbekistan.

West Qurna-2 project

The West Qurna-2 field in Iraq is one of the largest crude oil fields discovered in the world, with estimated recoverable oil reserves of 12.9 billion barrels (1.8 billion tonnes). Service agreement for the West Qurna-2 field development and production was signed on 31 January 2010. Currently, the parties of the project are Iraq's state-owned South Oil Company and a consortium of contractors, consisting of a Group company (75% interest) and Iraq's state-owned North Oil Company (25% interest).

The Group launched the "Mishrif Early Oil" stage on the West Qurna-2 field and reached the production of 120 thousand barrels per day in March 2014. According to the service agreement, starting from the second quarter of 2014, we receive cost compensation. The project's target production level is 1.2 million barrels per day and the total term of the contract is 25 years.

Accounting for the cost compensation within the West Qurna-2 project in our consolidated statement of financial position and consolidated statement of profit or loss and other comprehensive income is as follows.

Capital expenditures are recognized in *Property, plant and equipment*. Extraction expenses are recognized in *Operating expenses* in respect of all the volume of crude oil production at the field regardless of the volume of compensation crude oil the Group is eligible for. As the compensation revenue is recognized, capitalized costs are amortized.

There are two steps of revenue recognition:

- The Iraqi party, on a quarterly basis, approves invoice for cost recovery and remuneration fee for which the Group is eligible in the reporting period. Amount of the invoice depends on crude oil production volumes during the period and current crude oil market prices. Approved invoice amount and the remuneration fee for the reporting quarter are recognized in crude oil sales revenue.
- Based on the approved invoices, the Iraqi party arranges schedule of crude oil shipments against its liability for cost compensation and remuneration. As this crude oil is actually shipped, its cost is recognized at current market price in Cost of purchased crude oil, gas and products. Further, revenue from sales of this crude oil, or products from its refining, is recognized in *Sales*. Unsold crude oil and refined products are recognized in *Inventories*.

The following table summarizes data on capital and operating cost incurred, compensation crude oil received, costs yet unrecovered and remuneration fee.

| | Costs incurred ⁽¹⁾ | Remuneration fee | Crude oil received | Crude oil to be received |
|---|-------------------------------|---------------------|-----------------------|-----------------------------|
| | (millions of US dollars) | | | |
| Cumulative at 31 December 2015 | 6,801 | 198 | 5,169 | 1,830 |
| Change during 2016 | 731 | 128 | 2,106 | (1,247) |
| Income tax | – | (54) | – | (54) |
| Cumulative at 31 December 2016 | 7,532 | 272 | 7,275 | 529 |

⁽¹⁾ Including prepayments.

The West Qurna-2 project's summary is presented below:

| | 2016 | | 2015 | | 2014 | |
|---|-------------------------|--------------------------------|-------------------------|--------------------------------|-------------------------|--------------------------------|
| | (thousand barrels) | (thousand tonnes) | (thousand barrels) | (thousand tonnes) | (thousand barrels) | (thousand tonnes) |
| Total production ⁽¹⁾ | 149,341 | 21,770 | 140,071 | 20,418 | 75,655 | 11,030 |
| Production related to cost compensation and remuneration ⁽¹⁾ .. | 34,742 | 5,064 | 73,574 | 10,725 | 41,749 | 6,087 |
| Shipment of compensation crude oil ⁽¹⁾⁽²⁾ | 61,005 | 8,893 | 71,802 | 10,467 | 29,746 | 4,337 |
| | (millions of rubles) | (millions of US dollars) | (millions of rubles) | (millions of US dollars) | (millions of rubles) | (millions of US dollars) |
| Cost compensation ⁽³⁾ | 62,998 | 914 | 176,791 | 2,928 | 138,934 | 3,616 |
| Remuneration fee | 8,612 | 128 | 8,087 | 132 | 2,536 | 66 |
| | 71,610 | 1,042 | 184,878 | 3,060 | 141,470 | 3,682 |
| Cost of compensation crude oil, received as liability settlement (included in <i>Cost of purchased crude oil, gas and products</i>) ⁽²⁾ | 140,392 | 2,106 | 184,665 | 3,068 | 80,686 | 2,100 |
| Extraction expenses | 31,231 | 462 | 47,277 | 780 | 22,736 | 592 |
| Depreciation, depletion and amortization | 31,438 | 447 | 127,071 | 2,109 | 114,497 | 2,980 |
| EBITDA | 39,468 | 566 | 137,166 | 2,273 | 118,120 | 3,074 |

⁽¹⁾ Translated into barrels using conversion rate characterizing the density of the field.

⁽²⁾ This crude oil is sold to third party customers or delivered to our refineries. After realization of these products, respective sales revenues are recognized.

⁽³⁾ Excluding deferred income in the amount of \$30 million in 2016.

The Group is exposed to various risks due to its operations in Iraq. Management monitors the risks associated with the projects in Iraq and believes that there is no adverse effect on the Group's financial position that can be reasonably estimated at present.

Refining, marketing and trading

Refining and petrochemicals. We own and operate four refineries located in European Russia and three refineries located outside Russia – in Bulgaria, Romania, and Italy. Moreover, we have a 45% interest in the Zeeland refinery in the Netherlands.

We own two petrochemical plants in Russia and petrochemical capacity at our refineries in Bulgaria and Italy. In February 2017, we divested our petrochemical plant in Ukraine, operations at which have been suspended since 2012 due to adverse economic and political environment in the country.

Compared to 2015, the total volume of refined products produced by the Group increased by 2.4%.

In Russia, our production volumes did not change significantly. Despite unfavorable macroeconomic environment, our Russian refineries posted strong results in 2016 due to completed upgrade program and throughput optimization. Launch of new secondary processing units in 2015 and 2016 enabled us to substantially enhance our refined product slate by reducing production of fuel oil and vacuum gas oil in favor of light products. In order to optimize refining depth, in 2016, we also redirected dark products produced at our Perm and Ukhta refineries from export deliveries to supply catalytic cracking unit at our refinery in Nizhny Novgorod. We also partially substituted purchased additives with additives of own production that resulted in optimization of operating expenses.

Internationally, the production increased by 7.1% against the background of low output in the first quarter of 2015 due to overhauls at our Italian refinery as well as strong refining margins.

Along with our own production of refined products we refine crude oil at third party refineries depending on market conditions and other factors. In the periods considered, we processed our crude oil at third party refineries in Belarus and Kazakhstan.

The following table summarizes key figures for our refining activities:

| | 2016 | 2015 | 2014 |
|---|-----------------------|---------------|----------------|
| | (thousands of tonnes) | | |
| Refinery throughput at the Group refineries | 66,061 | 64,489 | 66,570 |
| - in Russia | 41,752 | 41,855 | 45,285 |
| - outside Russia, including | 24,309 | 22,634 | 21,285 |
| - crude oil | 20,356 | 18,832 | 16,886 |
| - refined products | 3,953 | 3,802 | 4,399 |
| Refinery throughput at third party refineries | 744 | 896 | 1,849 |
| Total refinery throughput | 66,805 | 65,385 | 68,419 |
| Production of the Group refineries in Russia | 39,623 | 39,692 | 43,673 |
| - diesel fuel | 12,889 | 12,674 | 13,129 |
| - gasoline | 7,773 | 6,989 | 7,066 |
| - fuel oil | 5,995 | 8,004 | 9,749 |
| - jet fuel | 2,188 | 2,220 | 2,587 |
| - motor oils | 1,015 | 928 | 1,109 |
| - other products | 9,763 | 8,877 | 10,033 |
| Production of the Group refineries outside Russia | 22,720 | 21,208 | 20,445 |
| - diesel fuel | 9,779 | 8,756 | 8,367 |
| - gasoline | 4,984 | 4,807 | 4,603 |
| - fuel oil | 3,215 | 3,271 | 2,677 |
| - jet fuel | 922 | 849 | 704 |
| - motor oils | 208 | 201 | 154 |
| - other products | 3,612 | 3,324 | 3,940 |
| Refined products produced by the Group | 62,343 | 60,900 | 64,118 |
| Refined products produced at third party refineries | 726 | 850 | 1,687 |
| Total refined products produced | 63,069 | 61,750 | 65,805 |
| Products produced at petrochemical plants and facilities | 1,270 | 1,073 | 668 |
| - in Russia | 895 | 686 | 310 |
| - outside Russia | 375 | 387 | 358 |
| | (millions of RUB) | | |
| Refining expenses at the Group refineries | 90,673 | 94,449 | 84,816 |
| - in Russia | 43,742 | 44,145 | 41,280 |
| - outside Russia | 46,931 | 50,304 | 43,536 |
| | (ruble per tonne) | | |
| Refining expenses at the Group refineries | 1,373 | 1,465 | 1,274 |
| - in Russia | 1,048 | 1,055 | 912 |
| - outside Russia | 1,931 | 2,223 | 2,045 |
| | (US dollar per tonne) | | |
| Refining expenses at the Group refineries | 20.57 | 24.04 | 33.16 |
| - in Russia | 15.74 | 17.35 | 23.73 |
| - outside Russia | 28.88 | 36.43 | 53.24 |
| | (millions of RUB) | | |
| Capital expenditures | 38,421 | 73,595 | 102,400 |
| - in Russia | 28,357 | 55,312 | 73,907 |
| - outside Russia | 10,064 | 18,283 | 28,493 |

Marketing and trading. We are marketing our own and third-party crude oil and refined products through our wholesale and retail channels in Russia, Europe, South-East Asia, Central and North America and other regions.

In addition to our production, we purchase crude oil in Russia and on international markets. In Russia, we primarily purchase crude oil from affiliated producing companies and other producers. Then we either refine or export purchased crude oil. Crude oil purchased on international markets is normally used for trading activities, for supplying our international refineries or for processing at third party refineries.

In Russia, we purchase refined products on occasion, primarily to manage supply chain bottlenecks. Refined products purchases outside Russia are either traded or supplied to our international refineries.

We undertake trading operations on international markets through our 100% subsidiary LITASCO. We use traditional physical volumes hedging techniques to hedge our trading operations to secure trading margin. As a result of price volatility, during 2016, loss on hedging amounted to 60 billion RUB that was offset by corresponding increase in prices for physical deliveries.

The following table shows the volumes of crude oil purchases by the Group during the periods considered.

| | 2016 | 2015 | 2014 |
|--|-----------------------|---------------|---------------|
| | (thousands of tonnes) | | |
| Crude oil purchases | | | |
| in Russia | 849 | 1,806 | 1,034 |
| for trading internationally | 28,385 | 18,826 | 16,559 |
| for refining internationally | 15,213 | 12,669 | 12,070 |
| Shipment of the West Qurna-2 compensation crude oil..... | 8,893 | 10,467 | 4,337 |
| Total crude oil purchased..... | 53,340 | 43,768 | 34,000 |

The table below summarizes figures for our refined products marketing and trading activities.

| | 2016 | 2015 | 2014 |
|---|-----------------------|----------------|----------------|
| | (thousands of tonnes) | | |
| Retail sales | 13,916 | 14,063 | 15,543 |
| Wholesale sales..... | 105,344 | 111,199 | 102,684 |
| Total refined products sales | 119,260 | 125,262 | 118,227 |
| Refined products purchased in Russia | 1,594 | 1,674 | 2,041 |
| Refined products purchased internationally..... | 60,581 | 68,536 | 58,910 |
| Total refined products purchased | 62,175 | 70,210 | 60,951 |

In 2016, in line with the strategy to optimize our downstream operations, a Group company sold distribution companies operating in Poland, Lithuania, Latvia and Cyprus. In July 2015, we sold petrol station network in Estonia, and in April 2015 –in Ukraine.

Exports of crude oil and refined products from Russia. The volumes of crude oil and refined products exported from Russia by our subsidiaries and export revenues (both to the Group companies and third parties) are summarized as follows:

| | 2016 | 2015 | 2014 |
|---|-----------------------|----------------|----------------|
| | (thousands of tonnes) | | |
| Exports of crude oil to Customs Union..... | 3,007 | 3,852 | 3,809 |
| Exports of crude oil beyond Customs Union | 30,899 | 30,332 | 26,024 |
| Total crude oil exports..... | 33,906 | 34,184 | 29,833 |
| Exports of crude oil through Transneft and other 3 rd party infrastructure.. | 25,865 | 26,585 | 24,216 |
| including volumes exported through ESPO pipeline..... | 1,215 | 1,519 | 1,499 |
| Exports of crude oil through the Group's transportation infrastructure | 8,041 | 7,599 | 5,617 |
| Total crude oil exports..... | 33,906 | 34,184 | 29,833 |
| | (millions of RUB) | | |
| Exports of crude oil to Customs Union..... | 44,117 | 56,235 | 47,249 |
| Exports of crude oil beyond Customs Union | 581,138 | 634,714 | 668,544 |
| Total crude oil exports | 625,255 | 690,949 | 715,793 |

| | 2016 | 2015 | 2014 |
|--|-----------------------|----------------|----------------|
| | (thousands of tonnes) | | |
| Refined products exports | | | |
| - diesel fuel | 8,030 | 7,328 | 7,273 |
| - gasoline | 408 | 283 | 171 |
| - fuel oil | 3,697 | 6,801 | 8,090 |
| - jet fuel | 202 | 159 | 117 |
| - motor oils | 605 | 576 | 638 |
| - other products..... | 5,197 | 5,299 | 7,088 |
| Total refined products exports..... | 18,139 | 20,446 | 23,377 |
| | (millions of RUB) | | |
| Total refined products exports..... | 375,722 | 439,874 | 581,445 |

In 2016, the volume of our crude oil exports from Russia decreased by 0.8%, and we exported 41.2% of our domestic crude oil production (40.3% in 2015 and 34.8% in 2014) and 458 thousand tonnes of crude oil purchased from our affiliates and third parties (1,581 thousand tonnes in 2015 and 862 thousand tonnes in 2014). The decrease in crude oil exports was a result of lower domestic production. The volume of our refined products exports decreased by 11.3% compared to 2015 due to higher domestic sales volumes driven by favorable netbacks.

Substantially, we use the Transneft infrastructure to export our crude oil. Nevertheless, a sizeable amount of crude oil is exported through our own infrastructure. All the volume of crude oil exported that bypassed Transneft was routed beyond the Customs Union.

The Company also exports its light crude oil through the Caspian Pipeline Consortium and Eastern Siberia – Pacific Ocean pipelines that allows us to preserve the premium quality of crude oil and thus enables us to achieve higher netbacks compared to traditional exports.

Priority sales channels. We develop our priority sales channels aiming at increasing our margin on sale of refined products produced by the Group.

We own petrol stations in 18 countries. Most of our retail networks are located close to our refineries. In 2016, we sold 9.8 million tonnes of motor fuels via our domestic retail network, or approximately 48% of our domestic motor fuel output, that represents an increase of 2.9% against 2015. Compared to 2015, our domestic sales volumes of premium ECTO branded motor fuels increased by 33.8%.

In 2016, retail sales outside Russia decreased to 4.1 million tonnes, or by 9.4%, mostly as a result of divestment of our retail networks in Poland and the Baltic states. At the same time, ECTO branded sales volumes outside Russia increased by 10.3%.

We supply jet fuel to airports in and outside Russia. In 2016, jet fuel sales volumes amounted to 2.7 million tonnes, which is in line with 2015.

We supply bunker fuel to sea and river ports in Russia. In 2016, these sales increased by 35.6% to 3.3 million tonnes as a result of expansion of our market share on the Black and Baltic seas and launch of new premium products.

We produce motor oils at our refineries in Russia and undertake motor oil blending and packaging in Russia and abroad. We focus on premium branded motor and industrial oils that sales volumes increased by 22.4% in 2016.

Power generation. We established a vertically integrated chain from generation to transportation and sale of power and heat for third party customers (commercial generation) and own consumption. We own commercial generation facilities in the Southern regions of European Russia. We also own renewable energy capacity in Russia and abroad. In 2016, our total output of commercial electrical energy was 18.1 billion kW-h (17.8 billion kW-h in 2015 and 17.1 billion kW-h in 2014), and our total output of commercial heat energy was approximately 12.4 million Gcal (12.8 million Gcal in 2015 and 14.1 million Gcal in 2014).

Results of operations for the years ended 31 December 2016, 2015 and 2014

The table below sets forth data from our consolidated statements of profit or loss and other comprehensive income for the periods indicated.

| | 2016 | 2015 | 2014 |
|---|----------------------|-----------------|-----------------|
| | (millions of rubles) | | |
| Revenues | | | |
| Sales (including excise and export tariffs) | 5,227,045 | 5,749,050 | 5,504,856 |
| Costs and other deductions | | | |
| Operating expenses | (456,433) | (446,719) | (368,505) |
| Cost of purchased crude oil, gas and products | (2,609,764) | (2,891,674) | (2,781,856) |
| Transportation expenses..... | (299,017) | (297,977) | (215,198) |
| Selling, general and administrative expenses | (196,156) | (168,669) | (146,550) |
| Depreciation, depletion and amortization | (311,588) | (350,976) | (293,052) |
| Taxes other than income taxes | (443,338) | (522,620) | (467,732) |
| Excise and export tariffs | (483,313) | (575,509) | (807,401) |
| Exploration expenses | (8,293) | (29,177) | (12,228) |
| Profit from operating activities..... | 419,143 | 465,729 | 412,334 |
| Finance income | 14,756 | 17,763 | 10,999 |
| Finance costs..... | (47,030) | (48,224) | (29,727) |
| Equity share in income of affiliates..... | 7,967 | 7,047 | 19,888 |
| Foreign exchange (loss) gain | (111,976) | 110,912 | 167,235 |
| Other expenses | (10,345) | (164,123) | (95,874) |
| Profit before income taxes..... | 272,515 | 389,104 | 484,855 |
| Current income taxes | (58,170) | (100,335) | (103,303) |
| Deferred income taxes | (6,703) | 3,976 | 12,524 |
| Total income tax expense..... | (64,873) | (96,359) | (90,779) |
| Profit for the period..... | 207,642 | 292,745 | 394,076 |
| Profit for the period attributable to non-controlling interests..... | (848) | (1,610) | 1,449 |
| Profit for the period attributable to PJSC LUKOIL shareholders... | 206,794 | 291,135 | 395,525 |
| Earning per share of common stock attributable to PJSC LUKOIL shareholders (in Russian rubles): | | | |
| Basic | 290.06 | 408.36 | 554.79 |
| Diluted | 290.06 | 405.15 | 541.90 |

The analysis of the main financial indicators of the financial statements is provided below.

Sales revenues

| Sales breakdown | 2016 | 2015 | 2014 |
|--|----------------------|------------------|------------------|
| | (millions of rubles) | | |
| Crude oil | | | |
| Export and sales on international markets other than Customs Union.... | 1,238,836 | 1,155,900 | 1,077,111 |
| Export and sales to Customs Union..... | 42,888 | 49,177 | 60,550 |
| Domestic sales..... | 94,985 | 145,688 | 128,431 |
| | 1,376,709 | 1,350,765 | 1,266,092 |
| Cost compensation and remuneration at the West Qurna-2 project..... | 71,610 | 184,878 | 141,470 |
| | 1,448,319 | 1,535,643 | 1,407,562 |
| Refined products | | | |
| Export and sales on international markets | | | |
| Wholesale..... | 2,474,829 | 2,909,618 | 2,810,780 |
| Retail..... | 295,266 | 328,721 | 371,618 |
| Domestic sales | | | |
| Wholesale..... | 245,063 | 244,404 | 269,735 |
| Retail..... | 381,570 | 360,283 | 343,800 |
| | 3,396,728 | 3,843,026 | 3,795,933 |
| Petrochemicals | | | |
| Export and sales on international markets..... | 34,711 | 34,490 | 32,231 |
| Domestic sales..... | 38,092 | 28,248 | 10,346 |
| | 72,803 | 62,738 | 42,577 |
| Gas and gas products | | | |
| Export and sales on international markets..... | 81,626 | 100,097 | 83,025 |
| Domestic sales..... | 34,723 | 38,229 | 42,406 |
| | 116,349 | 138,326 | 125,431 |
| Sales of energy and related services | | | |
| Sales on international markets..... | 14,178 | 12,516 | 7,583 |
| Domestic sales..... | 61,920 | 58,237 | 54,922 |
| | 76,098 | 70,753 | 62,505 |
| Other | | | |
| Sales on international markets..... | 69,881 | 57,430 | 38,662 |
| Domestic sales..... | 46,867 | 41,134 | 32,186 |
| | 116,748 | 98,564 | 70,848 |
| Total sales..... | 5,227,045 | 5,749,050 | 5,504,856 |

| Sales volumes | 2016 | 2015 | 2014 |
|--|-----------------------|----------------|----------------|
| | (thousands of tonnes) | | |
| Crude oil | | | |
| Export and sales on international markets other than Customs Union.... | 62,318 | 54,077 | 40,222 |
| Export and sales to Customs Union..... | 2,942 | 3,298 | 4,665 |
| Domestic sales..... | 7,124 | 10,840 | 11,086 |
| | 72,384 | 68,215 | 55,973 |
| Crude oil volumes related to cost compensation and remuneration at the West Qurna-2 project..... | 5,064 | 10,725 | 6,087 |
| | 77,448 | 78,940 | 62,060 |
| Refined products | | | |
| Export and sales on international markets | | | |
| Wholesale..... | 94,024 | 100,952 | 91,088 |
| Retail..... | 4,079 | 4,501 | 5,772 |
| Domestic sales | | | |
| Wholesale..... | 11,320 | 10,247 | 11,596 |
| Retail..... | 9,837 | 9,562 | 9,771 |
| | 119,260 | 125,262 | 118,227 |
| Petrochemicals | | | |
| Export and sales on international markets..... | 747 | 657 | 593 |
| Domestic sales..... | 730 | 543 | 240 |
| | 1,477 | 1,200 | 833 |
| Total sales volume..... | 198,185 | 205,402 | 181,120 |

Realized average sales prices

| | | 2016 | 2015 | 2014 |
|---|--------------|-------------|-------------|-------------|
| Average realized price international | | | | |
| Crude oil (beyond Customs Union) ⁽¹⁾ | (RUB/barrel) | 2,712 | 2,916 | 3,653 |
| Crude oil (Customs Union) | (RUB/barrel) | 1,989 | 2,034 | 1,771 |
| Refined products | | | | |
| Wholesale | (RUB/tonne) | 26,321 | 28,822 | 30,858 |
| Retail..... | (RUB/tonne) | 72,387 | 73,031 | 64,384 |
| Petrochemicals..... | (RUB/tonne) | 46,467 | 52,496 | 54,377 |
| | | | | |
| Crude oil (beyond Customs Union) | (\$/barrel) | 40.46 | 47.84 | 95.09 |
| Crude oil (Customs Union) | (\$/barrel) | 29.67 | 33.37 | 46.09 |
| Refined products | | | | |
| Wholesale | (\$/tonne) | 392.65 | 472.81 | 803.13 |
| Retail..... | (\$/tonne) | 1,079.84 | 1,198.06 | 1,675.70 |
| Petrochemicals..... | (\$/tonne) | 693.18 | 861.18 | 1,415.25 |
| | | | | |
| Average realized price within Russia | | | | |
| Crude oil..... | (RUB/barrel) | 1,819 | 1,834 | 1,580 |
| Refined products | | | | |
| Wholesale | (RUB/tonne) | 21,649 | 23,851 | 23,263 |
| Retail..... | (RUB/tonne) | 38,789 | 37,679 | 35,185 |
| Petrochemicals..... | (RUB/tonne) | 52,181 | 52,040 | 43,151 |

⁽¹⁾ Excluding cost compensation and remuneration at the West Qurna-2 project.

In 2016, our revenues decreased by 522 billion RUB, or by 9.1%, compared to 2015. Our revenues from crude oil sales decreased by 87 billion RUB, or by 5.7%, and our revenues from sales of refined products decreased by 446 billion RUB, or by 11.6%. The main reason for the decrease in revenue was the decrease in international hydrocarbon prices as well as the decrease in refined products trading volumes. That was partially compensated for by the effect of the decrease in the annual average ruble exchange rate on our revenues denominated in other currencies.

*Sales of crude oil***2016 vs. 2015**

Our international crude oil sales revenue decreased by 7.2%, or by 83 billion RUB, compared to 2015. Our international sales volumes (beyond the Customs Union) increased by 8,241 thousand tonnes, or by 15.2%, in 2016 mainly due to higher volumes of crude oil trading. Our average international ruble realized prices decreased by 7.0% compared to 2015.

Our realized domestic crude oil sales price did not change compared to 2015, while our domestic sales volumes decreased by 3,716 thousand tonnes, or by 34.3%, following the decrease in production in Russia. As a consequence, in 2016, our domestic sales revenue decreased by 34.8%, or by 51 billion RUB.

2015 vs. 2014

Our international sales revenue increased by 7.3%, or by 79 billion RUB, compared to 2014. Our international sales volumes (beyond the Customs Union) increased by 13,855 thousand tonnes, or by 34.4%, in 2015 as a result of the increase in crude oil exports from Russia and increased volumes of crude oil trading. At the same time, that was partially offset by the sharp decrease in the international crude oil prices by 49.7% compared to 2014. Nevertheless, as a result of the sharp ruble devaluation, international crude oil price expressed in rubles only decreased by 20.2%.

Our realized domestic crude oil price increased by 16.0%, compared to 2014. The significant increase in exports from Russia was compensated by the decrease in the throughput at the domestic refineries and increase of crude oil purchases in Russia. Thus, our domestic sales volumes decreased relatively insignificantly by 246 thousand tonnes, or by 2.2%. As a consequence, in 2015, our domestic sales revenue increased by 13.4%, or by 17 billion RUB.

Cost compensation and remuneration at the West Qurna-2 project

Included in Group's revenue is the cost compensation and remuneration fee related to the West Qurna-2 project in Iraq.

2016 vs. 2015

In 2016, the volumes of crude oil related to cost compensation and remuneration fee significantly decreased to the respective period of 2015. Therefore the amount of cost compensation and remuneration fee decreased by 113 billion RUB. For details see p. 15.

2015 vs. 2014

In 2015, the amount of cost compensation and remuneration fee related to the West Qurna-2 project increased by 43 billion RUB compared to 2014.

Sales of refined products

2016 vs. 2015

Compared to 2015, our revenue from the wholesale of refined products outside Russia decreased by 435 billion RUB, or by 14.9%, that was both price and volume driven. Our sales volumes decreased by 6.9%, largely as a result of the decrease in volumes of trading. Our dollar and ruble realized prices decreased by 17.0% and 8.7%, respectively.

In 2016, our dollar and ruble realized retail prices outside Russia decreased by 9.9% and 0.9%, respectively. Our sales volumes decreased by 9.4% as a consequence of sale of our retail networks in Eastern Europe. As a result, our international retail revenue decreased by 33 billion RUB, or by 10.2%, compared to 2015.

In 2016, our revenue from the wholesale of refined products on the domestic market didn't change significantly. Our realized prices decreased by 9.2%, but our sales volumes increased by 10.5%.

In 2016, our revenue from refined products retail sales in Russia increased by 21 billion RUB, or by 5.9%. Our average domestic retail prices and volumes both increased by 2.9%.

2015 vs. 2014

Compared to 2014, our revenue from the wholesale of refined products outside of Russia increased by 3.5%, or by 99 billion RUB. Our dollar and ruble realized prices decreased by 41.1% and 6.6%, respectively. That was offset by the increase in sales volumes by 10.8% as a result of higher volumes of trading.

In 2015, our ruble realized retail prices outside of Russia increased by 13.4% and sales volumes decreased by 22.0%, that resulted in the decrease in retail revenue by 43 billion RUB, or by 11.5%, compared to 2014.

In 2015, our revenue from the wholesale of refined products on the domestic market decreased by 9.4%, or by 25 billion RUB. Our realized prices increased by 2.5% and our sales volumes decrease by 11.6%. The decrease in volumes was due to lower domestic production.

In 2015, our revenue from retail sales in Russia increased by 16 billion RUB, or by 4.8%. Our average domestic retail prices increased by 7.1%, while retail volumes decreased by 2.1%.

Sales of petrochemical products

2016 vs. 2015

In 2016, our revenue from sales of petrochemical products increased by 10 billion RUB, or by 16.0%, largely due to an increase in domestic output against the background of low production as a consequence of a fire at our plant in the Stavropol region of Russia at the end of the first quarter of 2014. Production at the plant was resumed in early April 2015.

2015 vs. 2014

In 2015, our revenue from sales of petrochemical products increased by 20 billion RUB, or by 47.4%, largely due to the increase in sales volumes by 44.1% against the background of low productions as a consequence of a fire at our plant in the Stavropol region of Russia at the end of the first quarter of 2014.

Sales of gas and gas products

2016 vs. 2015

Compared to 2015, sales of gas and gas refined products decreased by 22 billion RUB, or by 15.9%, mainly as a result of the decrease in sales prices.

In 2016, natural gas sales revenue decreased by 12 billion RUB, or by 16.6%. Gas products revenue decreased by 10 billion RUB, or by 15.1%.

2015 vs. 2014

Sales of gas and gas refined products increased by 13 billion RUB, or by 10.3%, compared to 2014.

Natural gas sales revenue increased by 16 billion RUB, or by 28.4%, as a result of the increase in international gas production by the Group. Gas products revenue decreased by 3 billion RUB, or by 4.7%.

Sales of energy and related services

2016 vs. 2015

In 2016, revenue from sales of energy and related services increased by 5 billion RUB, or by 7.6%. In Russia, the increase was largely due to putting in operation a combined cycle gas turbine with a capacity of 135 MW at the Group's power plant in the Stavropol region of Russia in March 2015. Our international revenue increased as a result of the increase in volumes of electricity sales in Sicily, Italy.

2015 vs. 2014

In 2015, our revenue from sales of electricity, heat and related services increased by 8 billion RUB, or by 13.2%. In Russia, the increase was due to putting in operation a combined cycle gas turbine with a capacity of 135 MW at the Group's power plant in the Stavropol region of Russia in March 2015. Internationally, the increase was a result of the acquisition of ISAB Energy in the third quarter of 2014 and of the ruble devaluation.

Other sales

Other sales include non-petroleum sales through our retail network, transportation services, rental revenue, crude oil extraction services, and other revenue of our production and marketing companies from sales of goods and services not related to our primary activities.

2016 vs. 2015

In 2016, revenue from other sales increased by 18 billion RUB, or by 18.4%, compared to 2015. The non-petrol revenue of our retail network increased by 2 billion RUB, or by 5.4%. Our revenue from transportation services increased by 4 billion RUB, or by 29.5%. In 2016 and 2015, our other sales also included revenue from sales of diamonds in the amount of 20 billion RUB and 11 billion RUB, respectively.

2015 vs. 2014

In 2015, revenue from other sales increased by 28 billion RUB, or by 39.1%, compared to 2014. The non-petrol revenue of our retail network increased by 4 billion RUB, or by 14.3%. Since the second quarter of 2014, we increased the volume of rendering crude oil extraction services in Russia, by 3 billion RUB, or by 63.4%. Revenue from transportation services increased by 6 billion RUB, or by 75.4%. In 2015 and 2014, our other sales also included revenue from sales of diamonds in the amount of 11 billion RUB and 1 billion RUB, respectively.

Operating expenses

Operating expenses include the following:

| | 2016 | 2015 | 2014 |
|--|----------------------|----------------|----------------|
| | (millions of rubles) | | |
| Hydrocarbon extraction expenses ⁽¹⁾ | 180,223 | 169,897 | 151,073 |
| Extraction expenses at the West Qurna-2 field | 31,231 | 47,277 | 22,736 |
| Own refining expenses..... | 90,673 | 94,449 | 84,816 |
| Refining expenses at third parties refineries | 1,959 | 2,604 | 2,900 |
| Expenses for crude oil transportation to refineries..... | 46,349 | 41,698 | 39,220 |
| Power generation and distribution expenses | 39,406 | 36,292 | 32,430 |
| Petrochemical expenses | 12,758 | 10,993 | 7,036 |
| Other operating expenses | 53,834 | 43,509 | 28,294 |
| Total operating expenses | 456,433 | 446,719 | 368,505 |

⁽¹⁾ Excluding extraction expenses at the West Qurna-2 field.

The method of allocation of operating expenses above differs from the approach used in preparing the data for Note 32 “Segment information” to our consolidated financial statements. Expenditures in the segment reporting are grouped depending on the segment to which a particular company belongs. Operating expenses for the purposes of this analysis are grouped based on the nature of the costs incurred.

2016 vs. 2015

Compared to 2015, our operating expenses increased by 10 billion RUB, or by 2.2%, largely as a result of inflation in Russia and the effect of the decrease in the annual average ruble exchange rate to US dollar and Euro on the ruble value of foreign subsidiaries’ expenses that was partially offset by the decrease in expenses at the West Qurna-2 oilfield.

2015 vs. 2014

In 2015, our operating expenses increased by 78 billion RUB, or by 21.2%, compared to 2014, largely a result of inflation in Russia and the effect of the ruble devaluation on the ruble value of foreign subsidiaries’ expenses.

Hydrocarbon extraction expenses

Our extraction expenses include expenditures related to repairs of extraction equipment, labor costs, expenses on artificial stimulation of reservoirs, fuel and electricity costs, cost of extraction of natural gas liquids, property insurance of extraction equipment and other similar costs.

2016 vs. 2015

In 2016, our extraction expenses increased by 10 billion RUB, or by 6.1%.

Our average hydrocarbon extraction expenses increased from 222 RUB per BOE in 2015 to 241 RUB per BOE in 2016, or by 8.6%. In Russia, average hydrocarbon extraction expenses increased by 10.6% to 241 RUB per BOE. Our domestic expenses increased driven by higher costs of materials and services and shift towards more cost-intensive projects benefiting from tax incentives.

2015 vs. 2014

In 2015, our extraction expenses increased by 19 billion RUB, or by 12.5%, largely, as a result of the impact of the ruble devaluation on the ruble value of expenses of our foreign subsidiaries. Our domestic expenses also increased driven by higher costs of materials and services.

Our average hydrocarbon extraction expenses increased from 196 RUB per BOE in 2014 to 222 RUB per BOE in 2015, or by 13.3%. In Russia, average hydrocarbon extraction expenses increased by 11.2% to 218 RUB per BOE in 2015.

Crude oil extraction expenses at the West Qurna-2 field

Crude oil extraction expenses at the West Qurna-2 field represent expenses related to 100% production from the field, while we are only eligible for a share of production that compensates our historically incurred costs and expenses. For details see p. 15.

2016 vs. 2015

The decrease in expenses in 2016 was a result of completion of commissioning stage of the field development and consecutive decrease in personnel involved and associated transportation, security and other related services provided.

2015 vs. 2014

The increase in expenses in 2015 was a result of the scale-up of our operations at the West Qurna-2 field.

Own refining expense

2016 vs. 2015

In 2016, our own refining expenses decreased by 4 billion RUB, or by 4.0%.

Despite the inflation, refining expenses at our domestic refineries decreased by 0.9%, that was largely a result of consumption of additives of own production as a result of our refineries' upgrade.

Refining expenses at our refineries outside Russia decreased by 3 billion RUB, or by 6.7%, compared to the 2015, largely due to lower overhaul expenses.

2015 vs. 2014

In 2015, our own refining expenses increased by 10 billion RUB, or by 11.4%.

Despite the decrease in production volumes, refining expenses at our domestic refineries increased by 6.9%, or by 3 billion RUB, as a result of increased overhaul costs.

Refining expenses at our refineries outside of Russia increased by 7 billion RUB, or by 15.5%, as a result of the euro appreciation to the Russian ruble and increased overhaul costs.

Expenses for crude oil transportation to refineries

Expenses for crude oil transportation to refineries include pipeline, railway, freight and other costs related to delivery of crude oil and refined products to refineries for further processing.

2016 vs. 2015

Our expenses for crude oil transportation to refineries increased by 5 billion RUB, or by 11.2%, compared to 2015, largely as a result of the increase in transportation tariffs, international refining volumes and the effect of the decrease in the annual average ruble exchange rate.

2015 vs. 2014

Our expenses for crude oil transportation to refineries increased by 2 billion RUB, or by 6.3%. The decrease in crude oil refining volumes in Russia and in supplies of own crude oil to the Group's refineries abroad was offset by the increase in ruble value of transportation costs incurred internationally.

Petrochemical expenses

2016 vs. 2015

In 2016, operating expenses of our petrochemical plants increased by 2 billion RUB, or by 16.1%, due to the increase in domestic production volumes after commencement of production at our petrochemical plant in the Stavropol region of Russia in April 2015 (the plant's operations were limited after a fire in the first quarter of 2014).

2015 vs. 2014

In 2015, operating expenses of our petrochemical plants increased by 4 billion RUB, or by 56.2%, due to the increase of domestic production volumes after commencement of production at our petrochemical plant in the Stavropol region of Russia in April 2015.

Other operating expenses

Other operating expenses include expenses of the Group's upstream and downstream entities that do not relate to their core activities, namely rendering of transportation and extraction services, costs of other services provided and goods sold by our production and marketing companies, and of non-core businesses of the Group.

2016 vs. 2015

In 2016, other operating expenses increased by 10 billion RUB, or by 23.7%, largely as a result of the increased cost of transportation services provided to third parties, non-petrol sales of our retail network and the increase in the ruble value of other operating expenses of our foreign subsidiaries.

2015 vs. 2014

In 2015, other operating expenses increased by 15 billion RUB, or by 53.8%, largely as a result of the increased cost of non-petrol sales of our retail network, increase in expenses related to production of diamonds and the increase of the ruble value of other operating expenses of our foreign subsidiaries.

Cost of purchased crude oil, gas and products

Cost of purchased crude oil, gas and products includes the cost of crude oil and refined products purchased for trading or refining, gas and fuel oil to supply our power generation entities and the result of hedging of crude oil and refined products sales.

| | 2016 | 2015 | 2014 |
|--|----------------------|------------------|------------------|
| | (millions of rubles) | | |
| Cost of purchased crude oil in Russia..... | 12,046 | 22,943 | 11,808 |
| Cost of purchased crude oil outside Russia | 869,090 | 670,723 | 740,323 |
| Compensation crude oil related to West Qurna-2 project | 140,392 | 184,665 | 80,686 |
| | 1,021,528 | 878,331 | 832,817 |
| Cost of purchased refined products in Russia | 44,599 | 48,651 | 57,270 |
| Cost of purchased refined products outside Russia | 1,549,039 | 1,940,718 | 1,845,302 |
| | 1,593,638 | 1,989,369 | 1,902,572 |
| Other purchases..... | 50,270 | 50,198 | 35,109 |
| Net loss (gain) from hedging of trading operations..... | 60,487 | (82,670) | (72,231) |
| Change in oil and petroleum products inventory | (116,159) | 56,446 | 83,589 |
| Total cost of purchased crude oil, gas and products | 2,609,764 | 2,891,674 | 2,781,856 |

2016 vs. 2015

In 2016, the cost of purchased crude oil, gas and products decreased by 282 billion RUB, or by 9.7%, following the decrease in hydrocarbon prices and refined products trading volumes. Crude oil purchases also included 140 billion RUB related to 8,893 thousand tonnes of compensation crude oil received from Iraq's state-owned South Oil Company within the West Qurna-2 project (185 billion RUB related to 10,467 thousand tonnes of compensation crude oil in 2015).

2015 vs. 2014

In 2015, the cost of purchased crude oil, gas and products increased by 110 billion RUB, or by 3.9%. The sharp decrease in hydrocarbon prices was offset by the effect of the ruble devaluation and the increase in crude oil and refined products trading volumes. Crude oil purchases in 2015 also included 185 billion RUB related to 10,467 thousand tonnes of compensation crude oil received from Iraq's state-owned South Oil Company within the West Qurna-2 project (81 billion RUB related to 4,337 thousand tonnes of crude oil in 2014).

Transportation expenses

| | 2016 | 2015 | 2014 |
|---|----------------------|----------------|----------------|
| | (millions of rubles) | | |
| Crude oil transportation expenses..... | 91,628 | 91,251 | 59,728 |
| Refined products transportation expenses..... | 182,241 | 186,680 | 141,446 |
| Other transportation expenses..... | 25,148 | 20,046 | 14,024 |
| Total transportation expenses..... | 299,017 | 297,977 | 215,198 |

2016 vs. 2015

In 2016, our transportation expenses didn't change significantly compared to 2015.

Our expenses for transportation of crude oil in Russia decreased mostly due to the decrease in domestic sales volumes that was partially offset by the increase in tariffs. Outside of Russia, increase in crude oil transportation expenses was driven primarily by the increase in sales volumes.

Our domestic expenses for transportation of refined products increased largely as a result of the increase in tariffs. Outside of Russia, the decrease compared to 2015 was mainly a result of the decrease in trading volumes.

Other transportation expenses were mostly represented by the expenses for transportation of gas. In Russia, the increase to 2015 was mainly due to higher volumes of transportation of gas from the Yu. Korchagin field in the Caspian Sea. Internationally, the increase that resulted from higher transportation volumes as a result of the increase in gas production was amplified by the decrease in annual average ruble exchange rate.

2015 vs. 2014

In 2015, our transportation expenses increased by 83 billion RUB, or by 38.5%, compared to the previous year as a result of the increase in domestic transportation tariffs and higher volumes of crude oil transportation driven by increased crude oil trading and exports from Russia, amplified by the effect of the ruble devaluation.

Selling, general and administrative expenses

Selling, general and administrative expenses include payroll costs (excluding extraction entities' refineries' and power generation entities' production staff costs), insurance costs (except for property insurance related to extraction and refinery equipment), costs of maintenance of social infrastructure, movement in bad debt provision and other expenses. Our selling, general and administrative expenses are roughly equally split between domestic and international operations.

2016 vs. 2015

Our selling, general and administrative expenses increased by 27 billion RUB, or by 16.3%. In Russia, expenses increased by 25 billion RUB, or by 29.3%, as a result of inflation and higher accruals within share-based compensation program due to LUKOIL share price growth. Internationally, our expenses outside Russia increased by 2 billion RUB, or by 3.1%, largely as a result of the effect of the decrease in annual average ruble exchange rate on the expenses of our foreign subsidiaries.

2015 vs. 2014

In 2015, our selling, general and administrative expenses increased by 22 billion RUB, or by 15.1%. The increase was triggered by inflation in Russia and the effect of the ruble devaluation on the expenses of our foreign subsidiaries.

Depreciation, depletion and amortization

2016 vs. 2015

Our depreciation, depletion and amortization expenses decreased by 39 billion RUB, or by 11.2%. The effect of the increase in the depreciation rate of upstream assets following the decrease in hydrocarbon proved reserves was offset by the decrease of expenses related to the West Qurna-2 project. Our depreciation, depletion and amortization expenses for 2016 and 2015 included 31 billion RUB and 127 billion RUB, respectively, related to the West Qurna-2 field. Other international subsidiaries' depreciation, depletion and amortization expenses increased as a result of the effect of the decrease in annual average ruble exchange rate. Depreciation, depletion and amortization expenses of our downstream assets increased following the increase in value of depreciable assets.

2015 vs. 2014

Our depreciation, depletion and amortization expenses increased by 58 billion RUB, or by 19.8%, compared to 2014. Our depreciation, depletion and amortization expenses for 2015 and 2014 included 127 billion RUB and 114 billion RUB, respectively, related to the West Qurna-2 field. Other international subsidiaries' depreciation, depletion and amortization increased as a result of the effect of the ruble devaluation.

Equity share in income of affiliates

The Group has investments in equity method affiliates and corporate joint ventures. These companies are primarily engaged in crude oil exploration, production, marketing and distribution operations in the Russian Federation, crude oil production and marketing in Kazakhstan. Currently, our largest affiliates are Tengizchevroil, exploration and production company, operating in Kazakhstan, Bashneft-Polus, an exploration and production company that develops the Trebs and Titov oilfields in Timan-Pechora, Russia, South Caucasus Pipeline Company and Caspian Pipeline Consortium, midstream companies in Azerbaijan and Kazakhstan. One of our major affiliates was Caspian Investments Resources Ltd. which was sold in August 2015.

2016 vs. 2015

Our share in income of affiliates increased by 1 billion RUB, or by 13.1%, compared to 2015.

2015 vs. 2014

Our share in income of affiliates decreased by 13 billion RUB, or by 64.6%, compared to 2014, largely as a result of the decrease in income of our upstream affiliates in Kazakhstan.

Taxes other than income taxes

| | 2016 | 2015 | 2014 |
|---|----------------------|----------------|----------------|
| | (millions of rubles) | | |
| In Russia | | | |
| Mineral extraction taxes..... | 388,835 | 470,013 | 420,946 |
| Social security taxes and contributions | 22,863 | 21,183 | 17,462 |
| Property tax..... | 18,437 | 18,364 | 16,874 |
| Other taxes | 2,402 | 2,459 | 3,810 |
| Total in Russia..... | 432,537 | 512,019 | 459,092 |
| International | | | |
| Social security taxes and contributions | 6,016 | 5,812 | 4,506 |
| Property tax..... | 1,122 | 1,916 | 1,268 |
| Other taxes | 3,663 | 2,873 | 2,866 |
| Total internationally | 10,801 | 10,601 | 8,640 |
| Total..... | 443,338 | 522,620 | 467,732 |

2016 vs. 2015

Our taxes other than income taxes decreased by 79 billion RUB, or by 15.2%, compared to 2015. This was largely driven by the decrease in the mineral extraction tax rate in Russia resulted from the decrease in crude oil prices.

2015 vs. 2014

In 2015, our taxes other than income taxes increased by 55 billion RUB, or by 11.7%, compared to 2014, largely driven by the increase in the mineral extraction tax rate.

The following table summarizes data on application of reduced and zero mineral extraction tax rates for crude oil and natural gas produced in Russia (excluding V. Filanovsky field).

| | 2016 | 2015 | 2014 |
|--|-----------------------|---------------|---------------|
| | (millions of rubles) | | |
| Decrease in extraction taxes from application of reduced and zero rates for crude oil and gas production | 59,527 | 72,300 | 83,162 |
| | (thousands of tonnes) | | |
| Volume of crude oil production subject to: | | | |
| zero rates..... | 977 | 808 | 7,807 |
| reduced rates (tax holidays for specific regions and high viscosity oil)..... | 4,854 | 6,127 | – |
| reduced rates (depleted fields) | 14,202 | 14,928 | 16,025 |
| reduced rates (other) | 3,480 | 2,661 | 1,668 |
| Total volume of production subject to reduced or zero rates..... | 23,513 | 24,524 | 25,500 |

Excise and export tariffs

| | 2016 | 2015 | 2014 |
|---|----------------------|----------------|----------------|
| | (millions of rubles) | | |
| In Russia | | | |
| Excise tax on refined products | 95,692 | 55,451 | 71,093 |
| Crude oil export tariffs | 136,126 | 212,899 | 353,109 |
| Refined products export tariffs..... | 54,444 | 112,871 | 230,145 |
| Total in Russia..... | 286,262 | 381,221 | 654,347 |
| International | | | |
| Excise tax and sales taxes on refined products..... | 196,484 | 192,070 | 145,098 |
| Crude oil export tariffs | 81 | 46 | 57 |
| Refined products export tariffs..... | 486 | 2,172 | 7,899 |
| Total internationally | 197,051 | 194,288 | 153,054 |
| Total | 483,313 | 575,509 | 807,401 |

2016 vs. 2015

In 2016, export tariffs decreased by 137 billion RUB, or by 41.7%, due to the sharp decrease in export duty rates for crude oil and refined products in Russia amplified by the decrease in refined products export volumes. Compared to 2015, the volumes of crude oil export beyond the Customs Union increased by 1.9%, but the volumes of the refined products exports decreased by 11.3%. The increase in excise tax expenses in Russia was driven by increase in rates, while international excise expenses increased due to the decrease in annual average ruble exchange rate.

2015 vs. 2014

In 2015, export tariffs decreased by 263 billion RUB, or by 44.5%, due to the sharp decrease in export duty rates for crude oil and refined products, offset to some extent by the ruble devaluation. Compared to 2014, the volumes of crude oil export beyond the Customs Union increased by 16.6% while the volumes of the refined products exports decreased by 12.5%. The increase in international excise expenses was due to the ruble devaluation.

Foreign exchange (loss) gain

Foreign exchange loss mostly related to revaluation of US dollar and euro net monetary position of Russian subsidiaries that mostly consists of accounts receivables and loans to our foreign subsidiaries.

2016 vs. 2015

In 2016, ruble to US dollar exchange rate decreased from 72.9 rubles per dollar to 60.7 rubles per dollar that resulted in a 112 billion RUB foreign exchange loss. In 2015, ruble to US dollar exchange rate increased from 56.3 rubles per dollar to 72.9 rubles per dollar that resulted in a 111 billion RUB foreign exchange gain.

2015 vs. 2014

In 2015, ruble to US dollar exchange rate increased from 56.3 rubles per dollar to 72.9 rubles per dollar that resulted in a 111 billion RUB foreign exchange gain. In 2014, ruble to US dollar exchange rate increased from 32.7 rubles per dollar to 56.3 rubles per dollar that resulted in a 167 billion RUB foreign exchange gain.

Other expenses

Other expenses include the financial effects of the disposal of assets, impairment losses, extraordinary gains and losses, revisions of estimates and other non-operating gains and losses.

| | 2016 | 2015 | 2014 |
|--|----------------------|----------------|----------------|
| | (millions of rubles) | | |
| Gain on disposal of assets | 14,449 | 43,945 | 6,089 |
| Reversal of impairment of assets | 891 | 1,292 | 291 |
| Other income..... | 17,083 | 16,110 | 16,184 |
| Total other income | 32,423 | 61,347 | 22,564 |
| | | | |
| Impairment loss..... | 9,471 | 187,050 | 75,441 |
| Loss on disposal of assets | 12,900 | 24,051 | 22,278 |
| Charity expenses | 12,060 | 7,929 | 6,997 |
| Other expenses | 8,337 | 6,440 | 13,722 |
| Total other expenses..... | 42,768 | 225,470 | 118,438 |

2016 vs. 2015

In 2016, other expenses decreased by 154 billion RUB, or by 93.7%, largely as a result of lower amount of impairment losses, compared to 2015.

In 2016, the Company recognized an impairment loss in respect of its exploration and production assets in the total amount of 8 billion RUB. Of that amount, 2 billion RUB related to our projects in Africa and 6 billion RUB related to our assets in Russia.

2015 vs. 2014

In 2015, other expenses increased by 68 billion RUB, or by 71.2%, largely as a result of higher amount of impairment losses.

In 2015, the Company recognized an impairment loss in respect of its exploration and production assets in the total amount of 141 billion RUB. Of these impairment losses, 67 billion RUB related to our projects in Africa, 38 billion RUB in Western Siberia, 10 billion RUB in other regions of Russia and 26 billion RUB in other regions outside Russia.

In the Refining, marketing and distribution segment, we recognized impairment losses in related to our international subsidiaries in amount of 27 billion RUB and to our subsidiaries in Russia in amount of 19 billion RUB.

In 2014, the Company recognized an impairment loss for its exploration and production assets related to the Tsentralno-Astrakhanskoe gas-condensate field in the Volga region of the Russian Federation in amount of 24 billion RUB and to other projects in Russia in amount of 14 billion RUB. Impairment losses and write-offs related to upstream projects outside of Russia totaled 20 billion RUB. Moreover, the Group wrote off signing bonuses in the total amount of 7 billion RUB related to projects in Ghana, Sierra Leone and Cote d'Ivoire.

Income taxes

The maximum statutory income tax rate in Russia is 20%. Nevertheless, the actual effective income tax rate may be higher due to non-deductible expenses or lower due to certain non-taxable gains.

2016 vs. 2015

In 2016, our total income tax expense decreased by 31 billion RUB, or by 32.7%, and our profit before income tax decreased by 117 billion RUB, or by 30.0%. Our effective income tax rate in 2016 was 23.8%, compared to 24.8% in 2015.

2015 vs. 2014

In 2015, our total income tax expense increased by 6 billion RUB, or by 6.1%, compared to 2014. At the same time, our profit before income tax decreased by 96 million RUB, or by 19.7%, and our effective income tax rate was 24.8%, compared to 18.7% in 2014. The high level of the effective tax rate in 2015 was a result of non-deductible losses and write-offs.

Non-GAAP items reconciliation

Reconciliation of profit from operating activities to EBITDA

EBITDA is not defined under IFRS. We define EBITDA as profit from operating activities before depreciation, depletion and amortization. We believe that EBITDA provides useful information to investors because it is an indicator of the strength and performance of our business operations, including our ability to finance capital expenditures, acquisitions and other investments and our ability to raise and service debt. EBITDA is a non-IFRS measure and should not be considered in isolation as an alternative to profit from operating activities, profit or any other measure of performance under IFRS.

| | 2016 | 2015 | 2014 |
|---|----------------------|----------------|----------------|
| | (millions of rubles) | | |
| EBITDA reconciliation | | | |
| Profit from operating activities | 419,143 | 465,729 | 412,334 |
| Depreciation, depletion and amortization | 311,588 | 350,976 | 293,052 |
| EBITDA..... | 730,731 | 816,705 | 705,386 |
| EBITDA by operating segments | | | |
| Exploration and production (excluding West Qurna-2 project) | 481,722 | 458,242 | 389,797 |
| West Qurna-2 project in Iraq | 39,468 | 137,166 | 118,120 |
| Refining, marketing and distribution segment | 233,297 | 234,211 | 195,108 |
| Corporate and other | (18,271) | (4,199) | (6,699) |
| Elimination | (5,485) | (8,715) | 9,060 |
| EBITDA..... | 730,731 | 816,705 | 705,386 |

Non-recurring losses and gains

As a result of impairment tests in 2016, 2015 and 2014 and against the background of overall adverse economic environment, the Group recognized losses on assets impairment and dry hole write-offs. Table below sets forth summary of data on these losses in the context of consolidated statement of profit and loss and their impact on the Group's profit for the periods considered.

| | 2016 | 2015 | 2014 |
|--|----------------------|----------------|---------------|
| | (millions of rubles) | | |
| <i>Impairment losses included in Other expense</i> | | | |
| Impairment losses in Exploration and Production segment | 7,632 | 124,613 | 65,328 |
| Impairment losses in Refining, Marketing and Distribution segment..... | 1,172 | 45,695 | 17,572 |
| Other write-offs in Exploration and Production segment | – | 16,742 | – |
| Total impairment losses and write-offs included in <i>Other expense</i> | 8,804 | 187,050 | 82,900 |
| Impairment reversal in Refining, Marketing and Distribution segment included in <i>Other expense</i> | (891) | – | – |
| Dry holes write-offs included in <i>Exploration expenses</i> | – | 24,816 | 9,227 |
| Impairment losses included in <i>Equity share in income of affiliates</i> | – | 2,568 | – |
| Foreign exchange gain reclassified from other comprehensive income after the sale of Caspian Investment Resources Ltd included in <i>Other expense</i> | – | (36,931) | – |
| Total non-recurring losses and gains | 7,913 | 177,503 | 92,127 |
| Deferred tax effect | (1,150) | (16,373) | (4,574) |
| Total non-recurring losses and gains (after tax) | 6,763 | 161,130 | 87,553 |

Liquidity and capital resources

| | 2016 | 2015 | 2014 |
|---|----------------------|-----------|-----------|
| | (millions of rubles) | | |
| Net cash provided by operating activities | 752,247 | 848,972 | 651,416 |
| including changes in working capital | 50,231 | 68,809 | (26,541) |
| Net cash used in investing activities | (500,343) | (525,722) | (578,374) |
| Net cash (used in) provided by financing activities | (193,134) | (253,063) | 30,143 |

Operating activities

Our primary source of cash flow is funds generated from our operations. In 2016, cash generated from operations decreased by 97 billion RUB, or by 11.4%, compared to 2015, mainly as a result of the decrease in profit.

At the same time, our cash flow from operating activities was supported by the decrease in the amount of unrecovered costs within the West Qurna-2 project. In 2016, we received 61 million barrels of compensation crude oil from Iraq that resulted in the significant decrease in unrecovered costs.

Investing activities

In 2016, the amount of cash used in investing activities decreased by 25 billion RUB, or by 4.8%. We significantly decreased our capital expenditures in 2016. At the same time, in the third quarter of 2015 we received 79 billion RUB from the sale of our share in Caspian Investment Resources Ltd. and some other equity affiliates.

In 2016, our capital expenditures decreased by 104 billion RUB, or by 17.2%.

| | 2016 | 2015 | 2014 |
|--|----------------------|----------------|----------------|
| | (millions of rubles) | | |
| Capital expenditures | | | |
| Exploration and production | | | |
| Western Siberia | 116,522 | 111,041 | 125,407 |
| Timan-Pechora | 81,489 | 87,718 | 86,558 |
| Ural region | 26,054 | 30,832 | 40,116 |
| Volga region | 59,696 | 53,529 | 59,519 |
| Other in Russia | 7,782 | 9,097 | 16,221 |
| Total in Russia | 291,543 | 292,217 | 327,821 |
| Iraq | 19,828 | 44,881 | 54,738 |
| Other outside Russia | 131,582 | 150,996 | 80,473 |
| Total outside Russia | 151,410 | 195,877 | 135,211 |
| Total exploration and production | 442,953 | 488,094 | 463,032 |
| Refining, marketing and distribution | | | |
| Russia | 48,662 | 83,911 | 105,546 |
| - refining | 28,357 | 55,312 | 73,907 |
| - retail | 7,135 | 13,312 | 8,594 |
| - other | 13,170 | 15,287 | 23,045 |
| International | 17,155 | 25,285 | 36,049 |
| - refining | 10,064 | 18,283 | 28,493 |
| - retail | 5,695 | 5,609 | 5,676 |
| - other | 1,396 | 1,393 | 1,880 |
| Total refining, marketing and distribution | 65,817 | 109,196 | 141,595 |
| Corporate and other | | | |
| Russia | 1,999 | 5,160 | 4,520 |
| International | 756 | 4,755 | 1,959 |
| Total corporate and other | 2,755 | 9,915 | 6,479 |
| Total capital expenditures, including non-cash transactions | 511,525 | 607,205 | 611,106 |
| Non-cash transactions | (14,395) | (6,566) | (35,125) |
| Total capital expenditures | 497,130 | 600,639 | 575,981 |

In 2016, our capital expenditures in the exploration and production segment decreased by 45 billion RUB, or by 9.2%. The decrease was largely in our international segment and related to completion of the first stage of the West Qurna-2 project and of exploratory drilling in Nigeria, Cameroon and Romania. At the same time, capital expenditures related to our projects in Uzbekistan increased.

The decrease in capital expenditures in the domestic refining, marketing and distribution segment in Russia was due to completion of upgrades at our Russian refineries. The decrease in the international segment was a result of completion of the construction of a heavy residue processing complex at our Bulgarian refinery.

The table below presents our exploration and production capital expenditures in new promising oil regions.

| | 2016 | 2015 | 2014 |
|---|----------------------|----------------|----------------|
| | (millions of rubles) | | |
| Western Siberia (Pyakyakhinskoye field) | 24,453 | 30,225 | 20,084 |
| Caspian region (Projects in Russia)..... | 52,867 | 38,524 | 42,788 |
| Timan-Pechora (Yaregkoye field) | 24,180 | 18,294 | 10,816 |
| Iraq | 19,828 | 44,881 | 54,738 |
| Uzbekistan | 84,849 | 54,507 | 32,213 |
| Romania | 755 | 20,933 | 7,275 |
| Cameroon..... | 1,212 | 7,987 | – |
| Total | 208,144 | 215,351 | 167,914 |

Financing activities

In 2016, net movements of short-term and long-term debt generated an outflow of 12 billion RUB, compared to an outflow of 94 billion RUB in 2015 and an inflow of 107 billion RUB in 2014.

In November 2016, a Group company issued non-convertible bonds totaling \$1 billion. The bonds were placed with a maturity of 10 years and a coupon yield of 4.750% per annum. The proceeds were used for general corporate purposes, primarily on refinancing of existing debt.

In November 2016, within the development of Gissar project in Uzbekistan, a Group company received a loan totaling \$500 million from a consortium of commercial banks with a maturity of 5 years bearing an interest rate of three months LIBOR plus 3.0% per annum.

Cash and cash equivalents

The following table summarizes the data on the Group's cash and cash equivalents.

| | 2016 | As at 31 December 2015 | 2014 |
|--|----------------------|---------------------------|---------|
| | (millions of rubles) | | |
| Cash and cash equivalents, including | 261,367 | 257,263 | 169,023 |
| - cash held in rubles | 33,151 | 98,253 | 73,324 |
| - cash held in US dollars | 162,673 | 141,863 | 75,572 |
| - cash held in euro | 59,135 | 9,650 | 12,505 |
| - cash held in other currencies..... | 6,408 | 7,497 | 7,622 |

Credit rating

Standard & Poor's Ratings Services set its long-term corporate credit rating and all debt ratings on the Company to BBB-.

Moody's set the Company's long-term corporate family rating and long-term issuer rating of Ba1.

Fitch Ratings set the Company's long-term issuer default rating to BBB-.

Litigation and claims

The Group is involved in various claims and legal proceedings arising in the normal course of business. While these claims may seek substantial damages against the Group and are subject to uncertainty inherent in any litigation, management does not believe that the ultimate resolution of such matters will have a material adverse impact on the Group's operating results or financial condition. See Note 29 "Commitments and contingencies" to our consolidated financial statements for detailed information on claims and legal proceedings involving the Group.

Critical accounting policies

The preparation of financial statements in conformity with IFRS requires management to select appropriate accounting policies and to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues and expenses. See Note 3 "Summary of significant accounting policies" to our consolidated financial statements for descriptions of the Company's major accounting policies. Certain of these accounting policies involve judgments and uncertainties to such an extent that there is a reasonable likelihood that materially different amounts would have been reported under different conditions, or if different assumptions had been used.

Forward-looking statements

Certain statements in this document are not historical facts and are “forward-looking.” We may from time to time make written or oral forward-looking statements in reports to shareholders and in other communications. Examples of such forward-looking statements include, but are not limited to:

- statements of our plans, objectives or goals, including those related to products or services
- statements of future economic performance
- statements of assumptions underlying such statements.

Forward looking statements that may be made by us from time to time (but that are not included in this document) may also include projections or expectations of revenues, income (or loss), earnings (or loss) per share, dividends, capital structure or other financial items or ratios. Words such as “believes,” “anticipates,” “expects,” “estimates,” “intends” and “plans” and similar expressions are intended to identify forward-looking statements but are not the exclusive means of identifying such statements. By their very nature, forward-looking statements involve inherent risks and uncertainties, both general and specific, and risks exist that the predictions, forecasts, projections and other forward-looking statements will not be achieved. You should be aware that a number of important factors could cause actual results to differ materially from the plans, objectives, expectations, estimates and intentions expressed in such forward-looking statements.

These factors include:

- inflation, interest rate and exchange rate fluctuations
- the price of oil
- the effects of, and changes in, Russian government policy
- the effects of competition in the geographic and business areas in which we conduct operations
- the effects of changes in laws, regulations, taxation or accounting standards or practices
- our ability to increase market share for our products and control expenses
- acquisitions or divestitures
- technological changes
- our success at managing the risks of the aforementioned factors.

This list of important factors is not exhaustive. When relying on forward-looking statements, you should carefully consider the foregoing factors and other uncertainties and events, especially in light of the political, economic, social and legal environment in which we operate. Such forward-looking statements speak only as of the date on which they are made, and, subject to any continuing obligations under the Listing Rules of the U.K. Listing Authority, we do not undertake any obligation to update or revise any of them, whether as a result of new information, future events or otherwise. We do not make any representation, warranty or prediction that the results anticipated by such forward-looking statements will be achieved, and such forward-looking statements represent, in each case, only one of many possible scenarios and should not be viewed as the most likely or standard scenario.