PJSC LUKOIL

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

for the three months ended 31 March 2019 and 2018 and 31 December 2018

The following report contains a discussion and analysis of the financial position of PJSC LUKOIL at 31 March 2019 and the results of its operations for the three months ended 31 March 2019 and 2018 and 31 December 2018, as well as significant factors that may affect its future performance. It should be read in conjunction with our International Financial Reporting Standards ("IFRS") condensed interim consolidated financial statements for the respective periods.

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.

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Business overview

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

LUKOIL is one of the world's largest publicly traded vertically integrated energy companies. Our proved reserves under SEC standards amounted to 15.9 billion BOE at 1 January 2019 and comprised of 12.1 billion barrels of crude oil and 23.1 trillion cubic feet of gas. Most of our reserves are conventional. We undertake exploration for, and production of, crude oil and natural gas in Russia and internationally. In Russia, our major oil producing regions are West 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, Norway, Cameroon, Nigeria and Mexico. Our daily hydrocarbon production in the first quarter of 2019 amounted to 2.4 million BOE, with liquid hydrocarbons representing approximately 76% of our overall production volumes.

LUKOIL has geographically diversified downstream assets portfolio primarily in Russia and Europe. Our downstream operations include crude oil refining, petrochemical and transport operations, marketing and trading of crude oil, natural gas and refined products, power generation, transportation and sales of electricity, heat and related services.

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 also own two petrochemical plants in Russia and have petrochemical capacities at our refineries in Bulgaria and Italy. Along with our own production of refined products we refine crude oil at third party refineries depending on market conditions and other factors. Throughput at our refineries in the first quarter of 2019 amounted to 1.4 million barrels per day, and we produced 0.3 million tonnes of petrochemicals.

We market our own and third-party crude oil and refined products through our sales channels in Russia, Europe, South-East Asia, Central and North America and other regions. We own petrol stations in 18 countries. Most of our retail networks are located close to our refineries. Our retail sales in the first quarter of 2019 amounted to 3.3 million tonnes of refined products.

We are involved in production, distribution and marketing of electrical energy and heat both in Russia and internationally. In the first quarter of 2019, our total output of electrical energy was 5.5 billion kWh.

Our operations and finance activities are coordinated from our headquarters in Moscow. We divide our operations into three main business segments: "Exploration and production," "Refining, marketing and distribution," and "Corporate and other".

Key financial and operational results

	Q1 2019	Q4 2018	Change, %	Q1 2019	Q1 2018	Change, %
	(millions of rubles, except for figures in percent)					
Sales	1,850,933	2,043,217	(9.4)	1,850,933	1,630,728	13.5
EBITDA(1), including	298,057	278,315	7.1	298,057	219,524	35.8
Exploration and production segment	235,132	190,039	23.7	235,132	171,918	36.8
Refining, marketing and distribution segment	79,938	81,486	(1.9)	79,938	46,849	70.6
EBITDA(1) net of West Qurna-2 project	292,945	274,061	6.9	292,945	213,789	37.0
Profit for the period attributable to LUKOIL shareholders	149,236	159,027	(6.2)	149,236	109,058	36.8
Capital expenditures	97,421	113,266	(14.0)	97,421	121,057	(19.5)
Free cash flow(2)	145,903	212,245	(31.3)	145,903	45,935	217.6
Free cash flow before changes in working capital	183,337	138,052	32.8	183,337	93,791	95.5
	(thousand BOE per day, except for figures in percent)					
Production of hydrocarbons, including our share in equity affiliates	2,407	2,391	0.7	2,407	2,320	3.8
Crude oil and natural gas liquids	1,820	1,821	(0.1)	1,820	1,797	1.3
Gas	587	570	3.0	587	523	12.2
Refinery throughput at the Group refineries	1,358	1,355	0.2	1,358	1,312	3.5

(1) Profit from operating activities before depreciation, depletion and amortization.
(2) Cash flow from operating activities less capital expenditures.

Compared to the fourth quarter of 2018, our results were positively impacted by the growth in international gas production volumes, increase in share of high-margin barrels in our domestic crude oil production structure, export duty and mineral extraction tax lag effects, an implementation of a tax on additional income from the hydrocarbon production at certain fields, as well as positive inventory effect at our refineries and better profitability of our retail business. Among the restraining factors for the first quarter of 2019 results were a decrease in hydrocarbon prices and refining margins.

Compared to the first quarter of 2018, our results improved due to growth in volumes of production of crude oil in Russia and gas outside Russia, increase in share of high-margin barrels in our domestic crude oil production structure, the effect of the ruble devaluation, as well as an implementation of a tax on additional income from the hydrocarbon production at certain fields. Our results dynamics was also supported by positive inventory effect at our refineries, as well as export duty and mineral extraction tax lag effects, and negatively affected by a decrease in international hydrocarbon prices and refining margins.

In the first quarter of 2019, the Company adopted IFRS 16 Leases, that had a positive impact on our EBITDA in the amount of 9 billion RUB, on our profit for the period in the amount of 4 billion RUB, and on our free cash flow in the amount of 12 billion RUB.

Our EBITDA amounted to 298 billion RUB in the first quarter of 2019, an increase of 7.1% to the fourth quarter of 2018, and an increase of 35.8% to the first quarter of 2018.

Our depreciation, depletion and amortization expenses increased significantly compared both to the fourth quarter of 2018 and the first quarter of 2018. The increase compared to the fourth quarter of 2018 was due to significant increase in proved developed hydrocarbon reserves at some of our fields as of the end of 2018 and consequent recalculation of depletion of these upstream assets for the whole of 2018, which was reflected in the fourth quarter of 2018. The increase compared to the first quarter of 2018 was a result of an increase in value of depreciable assets and growth of gas production. The increase in the first quarter of 2019 also reflects the effect of adoption of IFRS 16 Leases from 1 January 2019.

In the first quarter of 2019, profit attributable to LUKOIL shareholders amounted to 149 billion RUB, a decrease of 6.2% to the fourth quarter of 2018, and an increase of 36.8% to the first quarter of 2018.

Our capital expenditures decreased by 15.8 billion RUB, or by 14.0%, compared to the fourth quarter of 2018, and by 24 billion RUB, or by 19.5%, compared to the first quarter of 2018.

In the first quarter of 2019, our free cash flow amounted to 146 billion RUB, a decrease of 31.3% to the fourth quarter of 2018, that was mainly a result of changes in working capital, and more than three-fold increase to the first quarter of 2018, that was mainly due to an increase in profitability of our core operations.

The Group’s average daily hydrocarbon production increased by 0.7% compared to the fourth quarter of 2018 and by 3.8% compared to the first quarter of 2018, driven primarily by growth in gas production volumes outside Russia.

Compared to the fourth quarter of 2018, throughput at our refineries did not change significantly and compared to the first quarter of 2018 it increased by 3.5%. We continued enhancing the output structure at our refineries. Fuel oil production volumes decreased by 13.3% compared to the fourth quarter of 2018 and by 18.7% compared to the first quarter of 2018.

Changes in accounting policies

The Group adopted IFRS 16 Leases from 1 January 2019, which introduced a single, on-balance sheet lease accounting model for lessees. Under IFRS 16, a contract is, or contains, a lease if the contract conveys a right to control the use of an identified asset for a period of time in exchange for consideration. A lessee recognizes a right-of-use asset representing its right to use the underlying asset and a lease liability representing its obligation to make lease payments. There are recognition exemptions for short-term leases and leases of low value items.

The Group applied IFRS 16 using the modified retrospective approach by one-off recognition of non-current assets and financial liabilities of 162 billion RUB at 1 January 2019 measured at the present value of the remaining lease payments, discounted at the Group's incremental borrowing rate as at 1 January 2019.

Primarily the Group leases such assets as transport (vessels, tank cars), land, drilling rigs and other equipment, storage facilities. The lease typically runs for a period of 3–5 years. Some leases include an option to renew the lease for additional period after the end of the non-cancellable period. The Group has applied judgement to determine the lease term for some lease contracts in which it is a lessee that include renewal option. Moreover, in determining the lease term the Group also took into account economic factors, which influence asset usage duration in its activity.

The nature of expenses related to new assets and liabilities recognized for operating leases will now change because the Group will recognize a depreciation charge for right-of-use assets and interest expense on lease liabilities. Previously the Group recognized lease expenses on a straight-line basis over the term of the lease, and recognized assets and liabilities only to the extent that there was a timing difference between actual lease payments and the expense recognized.

Adoption of IFRS 16 in the first quarter of 2019 had the following effects on the Group's financial statements.

Our operating, transportation and selling, general and administrative expenses decreased by 1.6 billion RUB, 5.0 billion RUB and 2.1 billion RUB, respectively. Our depreciation expenses, finance costs and income tax expenses increased by 7.6 billion RUB, 1.7 billion RUB and 0.7 billion RUB, respectively. The Group also recognized a foreign currency exchange gain of 5.5 billion RUB related to certain lease liabilities in foreign currencies. As a result, our EBITDA increased by 9 billion RUB, our profit for the period attributable to LUKOIL shareholders increased by 4 billion RUB and our free cash flow increased by 12 billion RUB.

At the same time, our debt at 31 March 2019 increased by 150 billion RUB.

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.

In the first quarter of 2019, the price for Brent crude oil fluctuated between $50 and $68 per barrel, reached its maximum of $68.2 at the end of March and its minimum of $50.2 in early January. Average price expressed in US dollars decreased by 6.5% compared to the fourth quarter of 2018, and by 5.6% compared to the first quarter of 2018.

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

	Q1 2019	Q4 2018	Change, %	Q1 2019	Q1 2018	Change, %
	(in US dollars per barrel, except for figures in percent)					
Brent crude	63.05	67.43	(6.5)	63.05	66.81	(5.6)
Urals crude (CIF Mediterranean)	63.33	67.22	(5.8)	63.33	65.23	(2.9)
Urals crude (CIF Rotterdam)	62.82	66.81	(6.0)	62.82	65.28	(3.8)
	(in US dollars per metric tonne, except for figures in percent)					
Diesel fuel 10 ppm (FOB Rotterdam)	587.57	636.64	(7.7)	587.57	591.62	(0.7)
High-octane gasoline (FOB Rotterdam)	548.36	596.82	(8.1)	548.36	644.57	(14.9)
Naphtha (FOB Rotterdam)	492.07	537.80	(8.5)	492.07	569.84	(13.6)
Jet fuel (FOB Rotterdam)	620.51	671.92	(7.7)	620.51	646.87	(4.1)
Vacuum gas oil (FOB Rotterdam)	426.06	462.35	(7.8)	426.06	466.78	(8.7)
Fuel oil 3.5% (FOB Rotterdam)	376.25	395.92	(5.0)	376.25	353.98	6.3

Source: Platts.

	Q1 2019	Q4 2018	Change, %	Q1 2019	Q1 2018	Change, %
	(in rubles per barrel, except for figures in percent)					
Brent crude	4,169	4,483	(7.0)	4,169	3,800	9.7
Urals crude (CIF Mediterranean)	4,188	4,469	(6.3)	4,188	3,710	12.9
Urals crude (CIF Rotterdam)	4,154	4,441	(6.5)	4,154	3,713	11.9
	(in rubles per metric tonne, except for figures in percent)					
Diesel fuel 10 ppm (FOB Rotterdam)	38,854	42,325	(8.2)	38,854	33,651	15.5
High-octane gasoline (FOB Rotterdam)	36,262	39,678	(8.6)	36,262	36,663	(1.1)
Naphtha (FOB Rotterdam)	32,539	35,754	(9.0)	32,539	32,412	0.4
Jet fuel (FOB Rotterdam)	41,032	44,671	(8.1)	41,032	36,794	11.5
Vacuum gas oil (FOB Rotterdam)	28,174	30,738	(8.3)	28,174	26,551	6.1
Fuel oil 3.5% (FOB Rotterdam)	24,880	26,321	(5.5)	24,880	20,134	23.6

Translated into rubles using average exchange rate for the period.

Domestic crude oil and refined products prices

Most of the crude oil in Russia is produced and then refined or exported by vertically integrated oil companies. As a result, there is no liquid spot market for crude oil in Russia and no publicly available spot price benchmark. Domestic prices may deviate significantly from export netbacks and they also vary between different regions of Russia driven by supply demand balance on regional markets.

Domestic prices for refined products correlate to some extent with export netbacks, but are also materially affected by supply-demand balance on regional markets.

The table below represents average domestic wholesale prices for refined products for the respective periods.

	Q1 2019	Q4 2018	Change, %	Q1 2019	Q1 2018	Change, %
	(in rubles per metric tonne, except for figures in percent)					
Diesel fuel	39,791	45,143	(11.9)	39,791	36,821	8.1
High-octane gasoline (Regular)	35,965	41,737	(13.8)	35,965	35,664	0.8
High-octane gasoline (Premium)	36,924	45,791	(19.4)	36,924	36,192	2.0
Fuel oil	16,014	25,162	(36.4)	16,014	11,928	34.3

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 the ruble-euro exchange rates.

	Q1 2019	Q4 2018	Q1 2019	Q1 2018
Ruble inflation (CPI), %	1.8	1.7	1.8	0.8
Ruble to US dollar exchange rate				
Average for the period	66.1	66.5	66.1	56.9
At the beginning of the period	69.5	65.6	69.5	57.6
At the end of the period	64.7	69.5	64.7	57.3
Ruble to euro exchange rate				
Average for the period	75.2	75.9	75.2	69.9
At the beginning of the period	79.5	76.2	79.5	68.9
At the end of the period	72.7	79.5	72.7	70.6

Source: CBR, Federal State Statistics Service.

Taxation

Key upstream tax rates. The following tables represent average enacted rates applicable to our upstream operations in Russia for the respective periods.

	Q1 2019	Q4 2018	Change, %	Q1 2019	Q1 2018	Change, %
	(in US dollars per tonne, except for figures in percent)					
Mineral extraction tax(1)	195.88	188.76	3.8	195.88	182.93	7.1
Export duties on crude oil	87.18	141.42	(38.4)	87.18	116.90	(25.4)

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

	Q1 2019	Q4 2018	Change, %	Q1 2019	Q1 2018	Change, %
	(in rubles per tonne, except for figures in percent)					
Mineral extraction tax	12,953	12,549	3.2	12,953	10,405	24.5
Export duties on crude oil(1)	5,765	9,402	(38.7)	5,765	6,649	(13.3)

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

These rates are linked to international crude oil prices and are changed in line with them.

Tax maneuver. The Russian Government has been implementing the so-called tax maneuvre in the oil industry which involves reduction of export duty rate and increase in the crude oil extraction tax and excise tax rates, as well as introduction of a negative excise tax on refinery feedstock.

In 2018, the Russian Government adopted new laws which came into effect on 1 January 2019. The laws provide for concluding the tax maneuver by 2024 through the gradual reduction of crude oil export duty rate to zero and the equivalent increase in the mineral extraction tax rate for crude oil. To eliminate the negative effect of export duty reduction on refining margins, a negative excise on refinery feedstock was introduced. To reduce the sensitivity of domestic prices for motor fuel to changes in international prices, a so-called damper coefficient was included into the negative excise formula.

The impact of the tax changes that were implemented on 1 January 2019 on our financial results in the first quarter of 2019 was marginally negative due to an increase in excise tax rates on refined products and negative damper coefficient on gasoline experienced in January and February 2019.

Crude oil extraction tax rate is calculated on a monthly basis. Crude oil extraction tax is payable in rubles per metric tonne extracted. The tax rate is calculated according to the formula below:

$$\text{Rate} = 919 \times (\text{Price} - 15) \times \frac{\text{Exchange Rate}}{261} - \text{Incentive} + \text{Fixed Factor}$$
$$+\text{Tax Maneuver Factor} + \text{Damper Factors},$$

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 *Incentive Factor* represents incentives discussed further in this section. The *Fixed Factor* is presented in the table below. The *Tax Maneuver Factor* is derived as Export duty reduction factor multiplied by the base export duty rate. The *Damper Factors* are applicable when the corresponding components of a negative excise formula are positive.

The table below sets out key new components of the mineral extraction tax formula for crude oil.

	2018	**2019**	**2020**	**2021**	**2022**	**2023**	**2024 and further**
Export duty rate reduction Factor	n/a	0.167	0.333	0.5 (rubles)	0.667	0.833	0
Fixed Factor.....................................	357	428	428	428	0	0	0
Damper Factor for gasoline	n/a	125	105	105	105	105	105
Damper Factor for diesel fuel	n/a	110	92	92	92	92	92

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 Autonomous region of West Siberia (starting 2019, the field is subject to tax on additional income from hydrocarbon production), 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 and Imilorskoye fields and Tyumen deposits;
- A fixed tax rate of 15% of the Urals price is applied to our V. Filanovsky offshore field, located in the Caspian offshore;
- A fixed tax rate of 30% of the Urals price is applied to our offshore greenfields, located in the Baltic Sea;
- A reduced tax rate is applied to our Yaregskoye field producing extra-viscous crude oil, as well as to certain unconventional deposits.

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

The table below illustrates the impact of tax incentives on taxation of crude oil production from 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 2019 tax formulas				
Standard	**20.2**	**9.6**	**29.8**	**59.6**
Yaregskoye field	0.7	0.9	1.6	3.3
Yu. Korchagin field	8.0	0.0	8.0	16.0
V. Filanovsky field	7.5	0.0	7.5	15.0
Usinskoye (Permian layers)	9.9	9.6	19.5	39.0
V. Vinogradov and Imilorskoe fields	12.0	9.6	21.6	43.1
Fields with depletion above 80%	13.0–20.2	9.6	22.6–29.8	45.2–59.6
New fields with reserves below 5 million tonnes	13.8–20.2	9.6	23.4–29.8	46.7–59.6
Tyumen deposits	18.1	9.6	27.7	55.5

Tax on additional income. Starting from 2019, a tax on additional income from the hydrocarbon production (hereinafter TAI) has been implemented for certain license areas. The TAI rate is set at 50% and is applied to the estimated sales revenue less actual and estimated costs, where actual costs include both operating expenses and capital expenditures. For crude oil production subject to TAI, a special mineral extraction tax rate formula is applied. The special mineral extraction tax rate (in US dollars per barrel) equals 50% of the difference between Urals oil price and $15 less the enacted export duty rate. Moreover, TAI tax base may be reduced by the historical cumulative losses attributable to the license area.

TAI is implemented for four groups of license areas. In Group 1, LUKOIL has 19 license areas with greenfields in new regions, including Pyakyakhinskoye field, and a number of fields in Timan-Pechora with total crude oil production of 445 thousand tonnes in the first quarter of 2019. In Group 3, LUKOIL has 8 license areas with brownfields in West Siberia with total crude oil production of 685 thousand tonnes in the first quarter of 2019. In Group 4, LUKOIL has 2 license areas with greenfields in traditional regions (West Siberia) with total crude oil production of 8 thousand tonnes in the first quarter of 2019.

TAI has significant positive impact on development plans for, and production profile of, the Company's license areas subject to TAI.

Crude oil export duty rate is denominated in US dollars per tonne of crude oil exported and is calculated by multiplying the base export duty rate calculated on a monthly basis by the adjusting factor from tables below.

International Urals price	Base export duty rate
Less than, or equal to, $109.5 per tonne ($15 per barrel)	$0 per tonne
Above $109.5 but less than, or equal to, $146.0 per tonne ($20 per barrel)	35% of the difference between the actual price and $109.5 per tonne (or $0.35 per barrel per each $1 increase in crude oil price over $15 per barrel)
Above $146.0 but less than, or equal to, $182.5 per tonne ($25 per barrel)	$12.78 per tonne plus 45% of the difference between the actual price and $146.0 per tonne (or $1.75 plus $0.45 per barrel per each $1 increase in crude oil price over $20 per barrel)
Above $182.5 per tonne ($25 per barrel)	$29.2 per tonne plus 30% of the difference between the actual price and $182.5 per tonne (or $4 plus $0.3 per barrel per each $1 increase in crude oil price over $25 per barrel)

	2018	2019	2020	2021	2022	2023	2024 and further
Adjusting factor	–	0.833	0.667	0.5	0.333	0.167	0

The rate for the next month is 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. This calculation methodology results in the so-called "export duty lag effect," when export duty rate lags the oil price changes, which may result in sizeable impact on our financial results in the periods of high oil price volatility. As a result of the tax maneuver, the lag effect will gradually migrate from the export duty to the mineral extraction tax by 2024.

	Q1 2019	**Q4 2018**	**Change, %**	**Q1 2019**	**Q1 2018**	**Change, %**
	(in US dollars per barrel, except for figures in percent)					
Urals price (Argus)	63.21	67.16	(5.9)	63.21	65.17	(3.0)
Export duty on crude oil	11.94	19.37	(38.4)	11.94	16.01	(25.4)
Mineral extraction tax on crude oil	26.83	25.86	3.8	26.83	25.06	7.1
Net Urals price(1)	24.44	21.93	11.4	24.44	24.10	1.4
Export duty lag effect	0.93	(2.73)	–	0.93	0.04	–
Mineral extraction tax lag effect	0.17	–	–	0.17	–	–
Net Urals price(1) assuming no lag	23.34	24.66	(5.4)	23.34	24.06	(3.0)
	(in rubles per barrel, except for figures in percent) (2)					
Urals price (Argus)	4,180	4,465	(6.4)	4,180	3,707	12.8
Export duty on crude oil	790	1,288	(38.7)	790	911	(13.3)
Mineral extraction tax on crude oil	1,774	1,719	3.2	1,774	1,425	24.5
Net Urals price(1)	1,616	1,458	10.8	1,616	1,371	17.9
Export duty lag effect	61	(181)	(133.7)	61	2	–
Mineral extraction tax lag effect	11	–	–	11	–	–
Net Urals price(1) assuming no lag	1,544	1,639	(5.8)	1,544	1,369	12.7

(1) Urals price net of export duty and mineral extraction tax on crude oil.
(2) Translated to rubles using average exchange rate for the period.

Crude oil produced at some of our fields is subject to special export duty rates calculated according to specific formulas and are lower than the 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, as well as the offshore greenfields in the Baltic Sea.

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

Crude oil and refined products exported 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 ruble-US dollar exchange rate at the date of the complete declaration (except for pipeline deliveries for which 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.

Natural gas extraction tax rate is calculated using a special formula depending on average regulated wholesale natural gas price in Russia, Urals price, the share of gas production in total hydrocarbon production at particular license area, regional location and complexity of particular gas field. Reinjected natural gas and associated petroleum gas are subject to zero extraction tax rate.

Gas produced from our two major fields, Nakhodkinskoye and Pyakyakhinskoye, is taxed at the rates subject to application of reducing coefficients due to the fields' geographical location and the depth of reservoir.

	Q1 2019	**Q4 2018**	**Change, %**	**Q1 2019**	**Q1 2018**	**Change, %**
	(in US dollars per thousand cubic meters, except for figures in percent)(1)					
Nakhodkinskoye field	5.34	4.66	14.6	5.34	5.26	1.4
Pyakyakhinskoye field	8.23	7.96	3.4	8.23	8.98	(8.4)

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

	Q1 2019	Q4 2018	Change, %	Q1 2019	Q1 2018	Change, %
	(in rubles per thousand cubic meters, except for figures in percent)					
Nakhodkinskoye field	353	310	14.0	353	299	17.9
Pyakyakhinskoye field	544	529	2.8	544	511	6.5

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

	2018 and further
Multiplier for:	
Gasolines, diesel fuel and other light and middle distillates	0.30
Straight-run gasoline	0.55
Fuel oil	1.00

Refined products exported to member countries of the Customs Union are not subject to export duties.

Excise taxes 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.

Excise tax expense on straight-run gasoline used as a petrochemical feedstock is reimbursed with a coefficient of 1.7, and excise tax expense on middle distillates processed and bunker fuel marketed is reimbursed in double amount.

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

Excise rates on motor fuels in Russia are tied to the ecological class of fuel. Excise tax rates for the periods considered are listed below.

	Q1 2019	Q4 2018	Change, %	Q1 2019	Q1 2018	Change, %
	(in rubles per tonne, except for figures in percent)					
Gasoline						
Below Euro-5	13,100	13,100	–	13,100	13,100	–
Euro-5	12,314	8,213	49.9	12,314	11,213	9.8
Diesel fuel						
All ecological classes	8,541	5,665	50.8	8,541	7,665	11.4
Motor oils	5,400	5,400	–	5,400	5,400	–
Middle distillates	9,241	6,665	38.6	9,241	8,662	6.7
Straight-run gasoline	13,912	13,100	6.2	13,912	13,100	6.2

Established excise tax rates starting from 2018 are listed below.

	1 January to 31 May 2018	1 June to 31 December 2018	2019	2020	2021
	(in rubles per tonne)				
Gasoline					
Below Euro-5	13,100	13,100	13,100	13,100	13,624
Euro-5	11,213	8,213	12,314	12,752	13,262
Diesel fuel					
All ecological classes	7,665	5,665	8,541	8,835	9,188
Motor oils	5,400	5,400	5,400	5,616	5,841
Middle distillates	8,662	6,665	9,241	9,535	9,916
Straight-run gasoline	13,100	13,100	13,912	14,720	15,533

Negative excise tax on refinery feedstock. Starting from 1 January 2019, as a part of the tax maneuver in Russia, a negative excise tax on refinery feedstock was introduced. It offsets the negative effect on refining margin from the reduction in differentials between export duties on crude oil and on refined products as a result of the implementation of the tax maneuver. The negative excise tax is payable by the Government to the refineries. The negative excise tax rate is calculated separately for each refinery based on the average Urals crude oil price and refinery slate during the month, and equals the volume weighted average reduction in export duties differentials. Our Ukhta refinery benefits from a special uplift regional coefficient to the negative excise tax of 1.3.

The negative excise tax formula also includes the damper coefficient for gasoline and diesel fuel sold on the domestic market. The damper coefficient is calculated as 60% (50% as of 2020) of a difference between gasoline and diesel fuel export netbacks at North-Western Russia delivery basis and corresponding *Fixed benchmarks*. When the damper coefficient is positive, it is payable by the Government to the refinery, and vice versa. When the export netbacks are higher than the fixed benchmarks, the damper coefficient is incrementally increased by 3,360 RUB per tonne for gasoline and 3,000 RUB per tonne for diesel fuel (2,800 RUB per tonne and 2,500 RUB per tonne, respectively, as of 2020 onward).

The *Fixed benchmarks* are presented in the table below:

	2019	**2020**	**2021**
	(rubles per tonne)		
Fixed benchmark for gasoline	56,000	58,800	61,740
Fixed benchmark for diesel fuel	50,000	52,500	55,125

The following table presents the average enacted damper coefficients for the respective periods:

	Q1 2019	**Q4 2018**	**Change, %**	**Q1 2019**	**Q1 2018**	**Change, %**
	(in US dollars per tonne[1], except for figures in percent)					
Gasoline	(7.66)	–	–	(7.66)	–	–
Diesel fuel	77.62	–	–	77.62	–	–

[1] Translated from rubles using average exchange rate for the period.

	Q1 2019	**Q4 2018**	**Change, %**	**Q1 2019**	**Q1 2018**	**Change, %**
	(in rubles per tonne, except for figures in percent)					
Gasoline	(545)	–	–	(545)	–	–
Diesel fuel	5,122	–	–	5,122	–	–

Income tax. Operations in the Russian Federation are subject to a 20% income tax rate. For the period from 2017 till 2024 (inclusive) a Federal income tax rate is set as 3.0% and a regional income tax rate varies from 12.5% to 17.0% at the discretion of the individual regional administration. Legislation sets certain restrictions on the application of the reduced regional rates.

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.

The Group's foreign operations are subject to taxes at the tax rates applicable to the jurisdictions in which they operate.

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

Many of our production assets are located relatively far from our customers. As a result, transportation tariffs are an important factor affecting our profitability.

Crude oil produced at our fields in Russia is transported to refineries and exported primarily through the trunk oil pipeline system of the state-owned company, Transneft. In some cases, crude oil is also shipped via railway infrastructure of the state-owned company, Russian Railways.

Refined products produced at our Russian refineries are transported primarily by railway (Russian Railways) and the pipeline system of Transnefteproduct, a subsidiary of Transneft.

Gas that is not sold at the wellhead is transported through the Unified Gas Supply System owned and operated by Gazprom.

Transneft, 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.

	Q1 2019 to Q4 2018	**Q1 2019 to Q1 2018**
Transneft (crude oil)	3.9%	3.9%
Russian Railways (crude oil and refined products)	3.5%	3.5%

The tariffs for transportation of crude oil and refined products were increased on 1 January 2019. Tariffs for crude oil export through the trunk oil pipeline system grew by 3.87%. Tariffs for crude oil and refined products transportation via railway infrastructure increased by 3.50%, while tariffs for transportation of refined products by pipeline changed for the Groups' refineries in a range from 3.61% to 3.83%.

Segments highlights

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 operations of the Group companies), finance activities, and certain other activities, that are not primary to the Group.

Each of our segments is dependent on the others, with a portion of the revenues of one segment being a part of the costs of the others. 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. 7, benchmark 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. We present the financial data for each segment in Note 27 "Segment information" to our condensed interim consolidated financial statements.

Exploration and production

The following table summarizes key figures on our Exploration and production segment:

	Q1	Q4	Q1	
	2019	2018	2019	2018
		(millions of rubles)		
EBITDA	235,132	190,039	235,132	171,918
- in Russia	192,395	148,749	192,395	144,657
- outside Russia and Iraq	37,625	37,036	37,625	21,526
- in Iraq	5,112	4,254	5,112	5,735
Hydrocarbon extraction expenses	50,586	56,364	50,586	50,670
- in Russia	41,243	44,949	41,243	42,857
- outside Russia and Iraq	4,586	6,406	4,586	4,238
- in Iraq	4,757	5,009	4,757	3,575
		(ruble per BOE)		
Hydrocarbon extraction expenses (excluding Iraq)	220	242	220	235
- in Russia	231	246	231	244
- outside Russia and Iraq	152	214	152	176
		(US dollar per BOE)		
Hydrocarbon extraction expenses (excluding Iraq)	3.32	3.63	3.32	4.14
- in Russia	3.50	3.70	3.50	4.28
- outside Russia and Iraq	2.29	3.21	2.29	3.09

Our upstream EBITDA increased by 23.7%, compared to the fourth quarter of 2018, despite a decrease in hydrocarbon prices and strengthening of the ruble. In Russia, this was mainly a result of higher share of high-margin barrels in our production structure, positive export duty and mineral extraction tax lag effects, decrease in operating expenses, as well as an implementation of a tax on additional income from the hydrocarbon production at certain license areas, that was partially offset by a decrease in crude oil production volumes. Outside Russia, our upstream EBITDA increased as a result of a growth in gas production, a decrease in operating expenses and higher EBITDA of the West Qurna-2 project in Iraq.

Compared to the first quarter of 2018, our upstream EBITDA increased by 36.8%, despite lower hydrocarbon prices in US dollar terms. In Russia, our upstream EBITDA was positively impacted by the ruble devaluation, higher share of high-margin barrels in our production structure, an implementation of a tax on additional income from the hydrocarbon production at certain license areas, export duty and mineral extraction tax lag effects, as well as an increase in crude oil production. Outside Russia, our upstream EBITDA improved mainly as a result of an increase in gas production, as well as the ruble devaluation.

In the first quarter of 2019, our upstream EBITDA was positively affected by the effect of adoption of IFRS 16 Leases, which resulted in lower operating expenses.

The following table summarizes our hydrocarbon production by major regions.

	Q1 2019	Q4 2018	Q1 2019	Q1 2018
		(thousand BOE per day)		
Crude oil and natural gas liquids				
Consolidated subsidiaries				
West Siberia	768	774	768	771
Timan-Pechora	319	323	319	317
Ural region	335	333	335	326
Volga region	240	242	240	216
Other in Russia	31	31	31	31
Total in Russia	1,693	1,703	1,693	1,661
Iraq[1]	28	20	28	34
Other outside Russia	48	49	48	50
Total outside Russia	76	69	76	84
Total consolidated subsidiaries	**1,769**	**1,772**	**1,769**	**1,745**
Our share in equity affiliates				
in Russia	13	13	13	14
outside Russia	38	36	38	38
Total share in equity affiliates	**51**	**49**	**51**	**52**
Total crude oil and natural gas liquids	**1,820**	**1,821**	**1,820**	**1,797**
Natural and petroleum gas[2]				
Consolidated subsidiaries				
West Siberia	201	203	201	217
Timan-Pechora	34	34	34	33
Ural region	24	15	24	15
Volga region	28	28	28	26
Other in Russia	–	–	–	1
Total in Russia	287	280	287	292
Total outside Russia	288	278	288	219
Total consolidated subsidiaries	**575**	**558**	**575**	**511**
Share in equity affiliates				
in Russia	1	2	1	2
outside Russia	11	10	11	10
Total share in production of equity affiliates	**12**	**12**	**12**	**12**
Total natural and petroleum gas	**587**	**570**	**587**	**523**
Total daily hydrocarbon production	**2,407**	**2,391**	**2,407**	**2,320**
Including natural gas liquids produced at the gas processing plants	46	44	46	44

(1) Compensation crude oil related to the Group.

(2) Natural and petroleum gas production excluding flaring, reinjected gas and gas used in production of natural gas liquids.

Crude oil production by major regions is presented in the table below.

	Q1 2019	Q4 2018	Q1 2019	Q1 2018
	(thousands of tonnes)			
West Siberia	9,159	9,446	9,159	9,203
Timan-Pechora	3,988	4,119	3,988	3,966
Ural region	3,820	3,892	3,820	3,725
Volga region	2,822	2,903	2,822	2,556
Other in Russia	388	403	388	397
Crude oil produced in Russia	20,177	20,763	20,177	19,847
Iraq[1]	365	276	365	451
Other outside Russia	484	497	484	490
Crude oil produced outside Russia	849	773	849	941
Total crude oil produced by consolidated subsidiaries	**21,026**	**21,536**	**21,026**	**20,788**
Our share in crude oil produced by equity affiliates:				
in Russia	151	159	151	158
outside Russia	433	413	433	431
Total crude oil produced	**21,610**	**22,108**	**21,610**	**21,377**

[1] Compensation crude oil related to the Group.

Our main oil producing region is West Siberia where we produced 43.6% of our crude oil in the first quarter of 2019 (43.9% in the fourth quarter of 2018, 44.3% in the first quarter of 2018).

The dynamics of our crude oil production volumes was mainly driven by a temporary external limitation due to an agreement of OPEC and some of the non-OPEC countries, including Russia, to cap production levels in order to stabilize the global crude oil market (OPEC+ agreement). In December 2018, the OPEC+ countries agreed to decrease crude oil production relative to October 2018 levels until June 2019. The Group limited production in our traditional regions (West Siberia, Timan-Pechora, Ural) at the least-productive fields.

We continued increasing production at the V. Filanovsky and Yu. Korchagin (Caspian Sea), Pyakyakhinskoye and other high-margin fields, which have a major positive impact on our financial results due to high quality reserve base and tax incentives.

In the first quarter of 2019, the seventh well was commissioned at the second production platform of the V.Filanovsky field. We produced 1,612 thousand tonnes of crude oil at this field in the first quarter of 2019, an increase of 18.1%, compared to the first quarter of 2018.

In the first quarter of 2019, crude oil production at the Yu. Korchagin field increased by 27% year-on-year as a result of drilling programme at the field's second development stage.

The development of the Yaregskoye field and the Permian layers of our Usinskoye field in Timan-Pechora, including the launch of new steam-generating capacities, led to an increase in the high viscosity crude oil production to 1.2 million tonnes, or by 16%, compared to the first quarter of 2018.

West Siberia growth projects development continued. Total crude oil and gas condensate production at the V. Vinogradov, Imilorskoe and Pyakyakhinskoe fields increased in the first quarter of 2019 by 14% year-on-year.

Gas production (excluding flaring, reinjected gas and gas used in production of natural gas liquids) by major regions is presented in the table below.

	Q1 2019	Q4 2018	Q1 2019	Q1 2018
	(millions of cubic meters)			
West Siberia	3,075	3,180	3,075	3,318
Timan-Pechora	519	530	519	515
Ural region	362	232	362	229
Volga region	423	436	423	404
Other in Russia	7	7	7	7
Gas produced in Russia	4,386	4,385	4,386	4,473
Uzbekistan	3,824	3,815	3,824	2,876
Other outside Russia	582	526	582	467
Gas produced outside Russia	4,406	4,341	4,406	3,343
Total gas produced by consolidated subsidiaries	**8,792**	**8,726**	**8,792**	**7,816**
Our share in gas produced by equity affiliates:				
in Russia	21	20	21	23
outside Russia	163	159	163	160
Total gas produced	**8,976**	**8,905**	**8,976**	**7,999**

In Russia, our major gas production region is West Siberia (Bolshekhetskaya depression), where the major part of gas is produced from the Nakhodkinskoe and Pyakyakhinskoe fields. In the first quarter of 2019, LUKOIL Group's gas production was 9.0 billion cubic meters, which was 12.2% higher year-on-year. The main driver of gas production growth was the development of projects in Uzbekistan. As a result of the launch of the second stage of the Kandym gas processing plant, our international gas production (including our share in affiliates' production) increased by 30.4%.

West Qurna-2 project

The West Qurna-2 field in Iraq is developed under the service contract, signed in January 2010. In May 2018, a Group company and Iraqi party signed a new field development plan, according to which, crude oil production is planned to increase to 800 thousand barrels per day by 2025.

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 for in the reporting period. Amount of the invoice depends on crude oil production volumes during the period and amount of costs claimed for reimbursement. Approved invoice amount for the reporting quarter is 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 costs 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 2018	8,597	424	8,681	340
Change in the first quarter of 2019	47	27	116	(42)
Cumulative at 31 March 2019	**8,644**	**451**	**8,797**	**298**

(1) Including prepayments.

The West Qurna-2 project summary is presented below:

	Q1 2019		Q4 2018	
	(thousand barrels)	(thousand tonnes)	(thousand barrels)	(thousand tonnes)
Total production	32,274	4,718	36,146	5,285
Production related to cost compensation and remuneration	2,498	365	1,886	276
Shipment of compensation crude oil[(1)]	1,895	277	3,011	440
	(millions of rubles)	(millions of US dollars)	(millions of rubles)	(millions of US dollars)
Cost compensation	8,125	123	6,549	98
Remuneration fee	1,846	28	2,111	32
	9,971	151	8,660	130
Cost of compensation crude oil, received as liability settlement (included in *Cost of purchased crude oil, gas and products*)[(1)]	7,625	115	10,602	159
Extraction expenses	4,757	72	5,009	76
Depreciation, depletion and amortization	3,407	52	1,581	24
EBITDA	5,112	77	4,254	64

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

	Q1			
	2019		2018	
	(thousand barrels)	(thousand tonnes)	(thousand barrels)	(thousand tonnes)
Total production	32,274	4,718	32,801	4,795
Production related to cost compensation and remuneration	2,498	365	3,088	451
Shipment of compensation crude oil[(1)]	1,895	277	1,988	291
	(millions of rubles)	(millions of US dollars)	(millions of rubles)	(millions of US dollars)
Cost compensation	8,125	123	7,749	136
Remuneration fee	1,846	28	1,610	28
	9,971	151	9,359	164
Cost of compensation crude oil, received as liability settlement (included in *Cost of purchased crude oil, gas and products*)[(1)]	7,625	115	6,889	121
Extraction expenses	4,757	72	3,575	63
Depreciation, depletion and amortization	3,407	52	4,251	75
EBITDA	5,112	77	5,735	101

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

Refining, marketing and distribution

The following table summarizes key figures on our Refining, marketing and distribution segment:

	Q1 2019	Q4 2018	Q1 2019	Q1 2018
	(millions of rubles)			
EBITDA	79,938	81,486	79,938	46,849
- in Russia	73,887	77,519	73,887	42,299
- outside Russia	6,051	3,967	6,051	4,550
Refining expenses at the Group refineries	23,504	28,996	23,504	21,996
- in Russia	9,640	12,783	9,640	9,325
- outside Russia	13,864	16,213	13,864	12,671
	(ruble per tonne)			
Refining expenses at the Group refineries	1,410	1,705	1,410	1,365
- in Russia	879	1,170	879	875
- outside Russia	2,432	2,669	2,432	2,321
	(US dollar per tonne)			
Refining expenses at the Group refineries	21.32	25.65	21.32	24.00
- in Russia	13.29	17.60	13.29	15.39
- outside Russia	36.77	40.14	36.77	40.81

Our refining, marketing and distribution EBITDA was 1.9% lower than in the fourth quarter of 2018.

Compared to the fourth quarter of 2018, our refining, marketing and distribution EBITDA in Russia decreased owing to lower benchmark refining margins, pressured by a decrease in domestic wholesale prices for refined products and an increase in excise tax rates, that was partially offset by positive inventory effect and better product slate at our refineries, better profitability of our retail business, as well as a decrease in operating expenses. Outside Russia, our refining, marketing and distribution EBITDA increased despite lower benchmark refining margins as a result of positive inventory effect at our refineries, a decrease in operating expenses, better profitability of our retail business and an increase in trading margins. Dynamics of our downstream EBITDA outside Russia was negatively affected by accounting specifics of our trading operations.

Our refining, marketing and distribution EBITDA was 70.6% higher than in the first quarter of 2018.

Compared to the first quarter of 2018, our refining, marketing and distribution EBITDA increased both in Russia and internationally despite lower benchmark refining margins. This was mainly a result of positive inventory effect at our refineries, higher throughput volumes and better product slate, as well as better profitability of our retail business. Outside Russia, dynamics of our downstream EBITDA was pressured by accounting specifics of our trading operations.

Moreover, in the first quarter of 2019, our refining, marketing and distribution EBITDA both in and outside Russia was positively affected by the effect of adoption of IFRS 16 Leases, which resulted in lower transportation expenses.

Refining and petrochemicals

The following table summarizes key figures for our refining and petrochemical volumes.

	Q1 2019	Q4 2018	Q1 2019	Q1 2018
		(thousands of tonnes)		
Refinery throughput at the Group refineries	16,668	17,002	16,668	16,113
- in Russia	10,967	10,927	10,967	10,655
- outside Russia, including	5,701	6,075	5,701	5,458
- crude oil	5,224	5,544	5,224	4,549
- refined products	477	531	477	909
Refinery throughput at third party refineries	1,588	1,634	1,588	1,660
Total refinery throughput	**18,256**	**18,636**	**18,256**	**17,773**
Production of the Group refineries in Russia[1]	**10,400**	**10,439**	**10,400**	**10,066**
- diesel fuel	4,161	4,146	4,161	4,131
- motor gasoline	1,831	1,895	1,831	2,030
- fuel oil	1,167	1,226	1,167	1,274
- jet fuel	625	684	625	616
- lubricants and components	248	269	248	281
- straight-run gasoline	769	598	769	557
- vacuum gas oil	237	270	237	62
- bitumen	197	158	197	135
- coke	280	285	280	287
- bunker fuel	313	411	313	402
- gas products	82	82	82	87
- petrochemicals	151	70	151	93
- other products	339	345	339	111
Production of the Group refineries outside Russia	**5,343**	**5,850**	**5,343**	**5,023**
- diesel fuel	2,344	2,578	2,344	1,994
- motor gasoline	1,116	1,176	1,116	987
- fuel oil	446	635	446	709
- jet fuel	254	260	254	297
- straight-run gasoline	538	490	538	459
- coke	32	53	32	53
- gas products	99	119	99	114
- petrochemicals	9	14	9	13
- other products	505	525	505	397
Refined products produced by the Group	**15,743**	**16,289**	**15,743**	**15,089**
Refined products produced at third party refineries	1,504	1,593	1,504	1,643
Total refined products produced	**17,247**	**17,882**	**17,247**	**16,732**
Reference: Net of cross-supplies of refined products between the Group refineries	343	322	343	471
Products produced at petrochemical plants and facilities	**287**	**258**	**287**	**335**
- in Russia	215	205	215	250
- outside Russia	72	53	72	85

(1) Net of cross-supplies of refined products among the Group.

Compared to the fourth quarter of 2018, the total volume of refined products produced by the Group decreased by 3.4%. Production at our domestic refineries was flat. The 8.7% throughput decrease at our refineries outside Russia was driven by feedstock supply disruptions through the port of Novorossiysk due to bad weather conditions.

Compared to the first quarter of 2018, production at our refineries domestically and outside Russia increased by 3.3% and 6.4%, respectively. The year-on-year increase in refinery throughput outside Russia was driven by the maintenance works at our refineries in Bulgaria and Italy in the first quarter of 2018.

We continued enhancing the output structure at our refineries. Fuel oil production volumes decreased by 13.3% compared to the fourth quarter of 2018 and by 18.7% compared to the first quarter of 2018.

In the periods considered, we processed our crude oil at third party refineries in Belarus, Kazakhstan and Canada. In 2016, a Group company entered into a tolling agreement valid through 2019 with a Canadian refinery. In the first quarter of 2019, attributable refined products output amounted to 1.5 million tonnes (1.5 million tonnes in the fourth quarter of 2018 and 1.6 million tonnes in the first quarter of 2018).

Marketing and trading

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 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.

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

	Q1	Q4	Q1	
	2019	2018	2019	2018
	(thousands of tonnes)			
Crude oil purchases				
in Russia	168	239	168	215
for trading internationally	10,187	11,287	10,187	10,055
for refining internationally	6,388	5,745	6,388	5,232
Shipment of the West Qurna-2 compensation crude oil	277	440	277	291
Total crude oil purchased	**17,020**	**17,711**	**17,020**	**15,793**

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

	Q1	Q4	Q1	
	2019	2018	2019	2018
	(thousands of tonnes)			
Refined products retail sales	3,322	3,905	3,322	3,429
Refined products wholesale sales	25,149	26,808	25,149	27,429
Total refined products sales	**28,471**	**30,713**	**28,471**	**30,858**
Refined products purchased in Russia	247	344	247	357
Refined products purchased internationally	13,216	13,493	13,216	13,835
Total refined products purchased	**13,463**	**13,837**	**13,463**	**14,192**
Petrochemical products purchased in Russia	9	10	9	8
Petrochemical products purchased internationally	366	195	366	146
Total petrochemical products purchased	**375**	**205**	**375**	**154**

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

	Q1 2019	Q4 2018	Q1 2019	Q1 2018
	(thousands of tonnes)			
Exports of crude oil to Customs Union	674	701	674	683
Exports of crude oil beyond Customs Union	8,314	8,750	8,314	7,992
Total crude oil exports	**8,988**	**9,451**	**8,988**	**8,675**
Exports of crude oil through Transneft and other third party infrastructure including:	6,764	7,176	6,764	6,466
- ESPO pipeline	379	340	379	300
- CPC pipeline	1,303	1,344	1,303	1,055
Exports of crude oil through the Group's transportation infrastructure	2,224	2,275	2,224	2,209
Total crude oil exports	**8,988**	**9,451**	**8,988**	**8,675**
	(millions of rubles)			
Exports of crude oil to Customs Union	16,234	15,865	16,234	13,639
Exports of crude oil beyond Customs Union	244,423	260,230	244,423	210,600
Total crude oil exports	**260,657**	**276,095**	**260,657**	**224,239**

	Q1 2019	Q4 2018	Q1 2019	Q1 2018
	(thousands of tonnes)			
Refined products exports				
- diesel fuel	2,769	2,192	2,769	2,811
- gasoline	118	6	118	177
- fuel oil	587	446	587	621
- jet fuel	3	3	3	24
- lubricants and components	161	142	161	177
- gas refinery products	463	448	463	301
- other products	1,075	917	1,075	554
Total refined products exports	**5,176**	**4,154**	**5,176**	**4,665**
Total petrochemical products exports	**98**	**82**	**98**	**99**
	(millions of rubles)			
Total refined products and petrochemicals exports	**176,531**	**153,856**	**176,531**	**145,120**

The volume of our crude oil exports from Russia decreased by 4.9% compared to the fourth quarter of 2018, and increased by 3.6% compared to the first quarter of 2018. In the first quarter of 2019, we exported 44.5% of our domestic crude oil production (45.5% in the fourth quarter of 2018 and 43.7% in the first quarter of 2018) and 1 thousand tonnes of crude oil purchased from our affiliates and third parties (43 thousand tonnes in the fourth and the first quarters of 2018).

The volume of our refined products exports increased by 24.6% compared to the fourth quarter of 2018 and by 11.0% compared to the first quarter of 2018.

Substantially, we use the Transneft infrastructure to export our crude oil. Nevertheless, a sizeable amount of crude oil is exported through our own infrastructure which allows us to preserve the premium quality of crude oil and thus enables to achieve higher netbacks. All the volume of crude oil exported that bypassed Transneft was routed beyond the Customs Union.

Besides our own infrastructure, we also export the 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 to achieve higher netbacks compared to traditional export routes.

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

In the first quarter of 2019, we sold 2.3 million tonnes of motor fuels via our domestic retail network, which was 17.5% less compared to the fourth quarter of 2018 due to seasonality factor, and 4.9% less compared to the first quarter of 2018. Outside Russia, retail sales decreased by 8.3% compared to the fourth quarter of 2018 due to seasonality factor, and increased by 1.4% compared to the first quarter of 2018.

We also supply jet fuel to airports and bunker fuel to sea and river ports in and outside Russia.

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, Romania and Italy. We also own renewable energy capacity in Russia and abroad. In the first quarter of 2019, our total output of commercial electrical energy was 5.5 billion kWh (5.2 in the fourth quarter of 2018 and 5.9 billion kWh in the first quarter of 2018), and our total output of commercial heat energy was approximately 4.6 million Gcal (3.6 in the fourth quarter of 2018 and 5.1 million Gcal in the first quarter of 2018).

Financial results

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

	Q1	Q4	Q1	
	2019	2018	2019	2018
	(millions of rubles)			
Revenues				
Sales (including excise and export tariffs)	1,850,933	2,043,217	1,850,933	1,630,728
Costs and other deductions				
Operating expenses	(109,169)	(119,769)	(109,169)	(108,640)
Cost of purchased crude oil, gas and products	(987,525)	(1,131,428)	(987,525)	(891,429)
Transportation expenses	(73,222)	(65,267)	(73,222)	(66,055)
Selling, general and administrative expenses	(49,573)	(50,504)	(49,573)	(36,754)
Depreciation, depletion and amortization	(103,830)	(51,902)	(103,830)	(87,690)
Taxes other than income taxes	(221,019)	(250,207)	(221,019)	(186,667)
Excise and export tariffs	(111,456)	(146,469)	(111,456)	(121,191)
Exploration expenses	(912)	(1,258)	(912)	(468)
Profit from operating activities	**194,227**	**226,413**	**194,227**	**131,834**
Finance income	5,984	6,236	5,984	3,514
Finance costs	(11,734)	(12,742)	(11,734)	(7,322)
Equity share in income of affiliates	6,180	7,062	6,180	5,249
Foreign exchange gain (loss)	1,901	1,586	1,901	(1,432)
Other (expenses) income	(3,972)	(28,291)	(3,972)	699
Profit before income taxes	**192,586**	**200,264**	**192,586**	**132,542**
Current income taxes	(41,381)	(32,809)	(41,381)	(18,237)
Deferred income taxes	(1,415)	(8,235)	(1,415)	(4,880)
Total income tax expense	**(42,796)**	**(41,044)**	**(42,796)**	**(23,117)**
Profit for the period	**149,790**	**159,220**	**149,790**	**109,425**
Profit for the period attributable to non-controlling interests	(554)	(193)	(554)	(367)
Profit for the period attributable to PJSC LUKOIL shareholders	**149,236**	**159,027**	**149,236**	**109,058**
Earnings per share of common stock attributable to PJSC LUKOIL shareholders (in Russian rubles):				
Basic	215.71	226.03	215.71	153.68
Diluted	210.35	221.70	210.35	153.68

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

Sales revenues

Sales breakdown	Q1 2019	Q4 2018	Q1 2019	Q1 2018
		(millions of rubles)		
Crude oil				
Export and sales on international markets other than Customs Union	581,528	633,414	581,528	454,627
Export and sales to Customs Union	16,581	16,006	16,581	13,765
Domestic sales	9,505	8,841	9,505	13,618
	607,614	**658,261**	**607,614**	**482,010**
Cost compensation and remuneration at the West Qurna-2 project	9,971	8,660	9,971	9,359
	617,585	**666,921**	**617,585**	**491,369**
Refined products[1]				
Export and sales on international markets				
Wholesale	813,461	915,651	813,461	783,963
Retail	82,134	93,437	82,134	71,998
Domestic sales				
Wholesale	95,749	118,416	95,749	84,829
Retail	111,421	134,109	111,421	103,672
	1,102,765	**1,261,613**	**1,102,765**	**1,044,462**
Petrochemicals				
Export and sales on international markets	31,379	21,329	31,379	15,554
Domestic sales	10,944	12,092	10,944	10,580
	42,323	**33,421**	**42,323**	**26,134**
Gas				
Sales on international markets	38,229	30,477	38,229	19,980
Domestic sales	7,965	8,480	7,965	8,330
	46,194	**38,957**	**46,194**	**28,310**
Sales of energy and related services				
Sales on international markets	4,076	3,822	4,076	2,622
Domestic sales	17,888	15,618	17,888	17,758
	21,964	**19,440**	**21,964**	**20,380**
Other				
Export and sales on international markets	10,185	11,248	10,185	9,894
Domestic sales	9,917	11,617	9,917	10,179
	20,102	**22,865**	**20,102**	**20,073**
Total sales	**1,850,933**	**2,043,217**	**1,850,933**	**1,630,728**

[1] Including revenue from gas refined products sales.

Sales volumes	**Q1 2019**	**Q4 2018**	**Q1 2019**	**Q1 2018**
	(thousands of tonnes)			
Crude oil				
Export and sales on international markets other than Customs Union	18,980	19,288	18,980	16,551
Export and sales to Customs Union	684	692	684	689
Domestic sales	393	354	393	713
	20,057	**20,334**	**20,057**	**17,953**
Crude oil volumes related to cost compensation and remuneration at the West Qurna-2 project	365	276	365	451
	20,422	**20,610**	**20,422**	**18,404**
Refined products[1]				
Export and sales on international markets				
Wholesale	21,927	23,123	21,927	24,171
Retail	988	1,077	988	974
Domestic sales				
Wholesale	3,222	3,685	3,222	3,258
Retail	2,334	2,828	2,334	2,455
	28,471	**30,713**	**28,471**	**30,858**
Petrochemicals				
Export and sales on international markets	484	292	484	261
Domestic sales	174	174	174	193
	658	**466**	**658**	**454**
	(millions of cubic meters)			
Gas				
Sales on international markets	4,142	4,052	4,142	3,138
Domestic sales	3,193	3,387	3,193	3,483
	7,335	**7,439**	**7,335**	**6,621**

(1) Including volumes of gas refined products sales.

Realized average sales prices

		Q1 2019	**Q4 2018**	**Q1 2019**	**Q1 2018**
Average realized price on international markets					
Crude oil (beyond Customs Union)[1]	(RUB/barrel)	4,180	4,480	4,180	3,747
Crude oil (Customs Union)	(RUB/barrel)	3,307	3,156	3,307	2,726
Refined products					
Wholesale	(RUB/tonne)	37,099	39,599	37,099	32,434
Retail	(RUB/tonne)	83,132	86,757	83,132	73,920
Petrochemicals	(RUB/tonne)	64,833	73,045	64,833	59,594
Gas (excluding royalty)	(RUB/1,000 m^3)	9,230	7,521	9,230	6,367
Crude oil (beyond Customs Union)[1]	($/barrel)	63.21	67.39	63.21	65.88
Crude oil (Customs Union)	($/barrel)	50.01	47.46	50.01	47.92
Refined products					
Wholesale	($/tonne)	561	596	561	570
Retail	($/tonne)	1,257	1,305	1,257	1,300
Petrochemicals	($/tonne)	980	1,099	980	1,048
Gas (excluding royalty)	($/1,000 m^3)	140	113	140	112
Average realized price within Russia					
Crude oil	(RUB/barrel)	3,300	3,407	3,300	2,606
Refined products					
Wholesale	(RUB/tonne)	29,717	32,135	29,717	26,037
Retail	(RUB/tonne)	47,738	47,422	47,738	42,229
Petrochemicals	(RUB/tonne)	62,897	69,494	62,897	54,819
Gas[2]	(RUB/1,000 m^3)	2,495	2,504	2,495	2,392

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

(2) As most of our gas production in Russia is sold ex-field, the price does not include cost of transportation by Unified Gas Supply System of Gazprom.

In the first quarter of 2019, our revenues decreased by 192 billion RUB, or by 9.4%, compared to the fourth quarter of 2018. Our revenues from crude oil sales decreased by 49 billion RUB, or by 7.4%, and our revenues from sales of refined products decreased by 159 billion RUB, or by 12.6%. This was mainly driven by a decrease in hydrocarbon prices, as well as crude oil and refined products trading volumes. At the same time, our revenues from gas sales increased by 7 billion RUB, or by 18.6%, primarily as a result of one-off adjustments related to the Group's PSA projects in Uzbekistan in the fourth quarter of 2018.

Compared to the first quarter of 2018, our revenues increased by 220 billion RUB, or by 13.5%. Our revenues from crude oil sales increased by 126 billion RUB, or by 25.7%, our revenues from sales of refined products increased by 58 billion RUB, or by 5.6%, and our gas sales increased by 18 billion RUB, or by 63.2%, largely, as a result of the effect of the ruble devaluation on our revenues denominated in the US dollars and euro, as well as an increase in gas production volumes.

Sales of crude oil

Compared to the fourth quarter of 2018, our international crude oil sales revenue decreased by 8.2%, or by 52 billion RUB, mainly due to a decrease in our average international realized prices in ruble terms by 6.7%. Our international sales volumes (beyond the Customs Union) decreased by 308 thousand tonnes, or by 1.6%. Compared to the fourth quarter of 2018, our sales volumes in Russia increased by 39 thousand tonnes, or by 11.0%, while our realized domestic crude oil sales prices decreased by 3.2%. As a consequence, our domestic sales revenue increased by 7.5%, or by 1 billion RUB.

Compared to the first quarter of 2018, our international crude oil sales revenue increased by 27.9%, or by 127 billion RUB. In the first quarter of 2019, our international sales volumes (beyond the Customs Union) increased by 2,429 thousand tonnes, or by 14.7%, largely due to increase in trading volumes. Moreover, our average international realized prices in ruble terms increased by 11.5% as a result of the ruble devaluation. At the same time, our domestic sales volumes decreased by 320 thousand tonnes, or by 44.9%, while our realized sales prices increased by 26.6%. As a consequence, in the first quarter of 2019, our domestic sales revenue decreased by 30.2%, or by 4 billion RUB.

Sales of refined products

Compared to the fourth quarter of 2018, our revenue from the wholesale of refined products outside Russia decreased by 102 billion RUB, or by 11.2%, as a result of a decrease in our realized ruble prices by 6.3% and sales volumes by 5.2%, due to a decrease in trading volumes.

Compared to the fourth quarter of 2018, our international retail revenue decreased by 11 billion RUB, or by 12.1%. Our sales volumes decreased by 89 thousand tonnes, or by 8.3%, due to a seasonality factor, while our international retail realized ruble prices decreased by 4.2%.

Compared to the fourth quarter of 2018, our revenue from the wholesale of refined products on the domestic market decreased by 23 billion RUB, or by 19.1%, as a result of a decrease in sales volumes by 12.6% primarily due to seasonality factor, as well as a decrease in our realized ruble prices by 7.5%.

Compared to the fourth quarter of 2018, our revenue from refined products retail sales in Russia decreased by 23 billion RUB, or by 16.9%. Our sales volumes decreased by 17.5% due to a seasonality factor, while our average domestic retail prices did not change.

Compared to the first quarter of 2018, our revenue from the wholesale of refined products outside Russia increased by 29 billion RUB, or by 3.8%, that was mainly due to an increase in ruble realized prices by 14.4%. Our sales volumes decreased by 9.3% as a result of a decrease in trading volumes.

Compared to the first quarter of 2018, our dollar and ruble realized retail prices outside Russia decreased by 3.3% and increased by 12.5%, respectively, due to the ruble devaluation. Our sales volumes increased by 1.4%. As a result, our international retail revenue increased by 10 billion RUB, or by 14.1%.

In the first quarter of 2019, our revenue from the wholesale of refined products on the domestic market increased by 11 billion RUB, or by 12.9%, compared to the first quarter of 2018. Our realized prices increased by 14.1%, while sales volumes decreased by 36 thousand tonnes, or by 1.1%.

Our revenue from refined products retail sales in Russia increased by 8 billion RUB, or by 7.5%, compared to the first quarter of 2018. Our average domestic retail prices increased by 13.0% and volumes decreased by 4.9%.

Sales of petrochemical products

Compared to the fourth quarter of 2018, our revenue from sales of petrochemical products increased by 9 billion RUB, or by 26.6%, largely as a result of increase in trading volumes outside Russia.

Compared to the first quarter of 2018, our revenue from sales of petrochemical products increased by 16 billion RUB, or by 61.9%, largely as a result of growth in trading volumes outside Russia, as well as the ruble devaluation.

Sales of gas

Sales of gas increased by 7 billion RUB, or by 18.6%, compared to the fourth quarter of 2018, primarily as a result of one-off adjustments related to the Group's PSA projects in Uzbekistan in the fourth quarter of 2018.

Our sales of gas increased by 18 billion RUB, or by 63.2%, compared to the first quarter of 2018. This increase related mostly to our operations outside Russia and was a result of natural gas production growth in Uzbekistan. Higher gas prices also contributed to the increase in our gas sales revenue.

Sales of energy and related services

Compared to the fourth quarter of 2018, our revenue from sales of energy and related services increased by 3 billion RUB, or by 13.0%, due to a seasonality factor.

Compared to the first quarter of 2018, our revenue from sales of energy and related services increased by 2 billion RUB, or by 7.8%, primarily due to maintenance works at our power plants in Italy in the first quarter of 2018.

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.

In the first quarter of 2019, revenue from other sales decreased by 3 billion RUB, or by 12.1%, compared to the fourth quarter of 2018, largely as a result of a seasonal decrease in non-petrol revenue of our retail network.

Compared to the first quarter of 2018, revenue from other sales were flat.

Operating expenses

Operating expenses include the following:

	Q1	Q4	Q1	
	2019	2018	2019	2018
		(millions of rubles)		
Hydrocarbon extraction expenses[1]	45,829	51,355	45,829	47,095
Extraction expenses at the West Qurna-2 field	4,757	5,009	4,757	3,575
Own refining expenses	23,504	28,996	23,504	21,996
Refining expenses at third-party refineries	2,969	(722)	2,969	2,656
Expenses for crude oil transportation to refineries	11,778	12,375	11,778	11,709
Power generation and distribution expenses	7,558	8,721	7,558	7,627
Petrochemical expenses	2,987	3,442	2,987	2,866
Other operating expenses	9,787	10,593	9,787	11,116
Total operating expenses	**109,169**	**119,769**	**109,169**	**108,640**

[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 data for Note 27 "Segment information" to our condensed interim consolidated financial statements. Expenditures in the segment reporting are grouped depending on the segment to which a particular company belongs and do not include adjustments related to elimination of intra-group service margin. Operating expenses for the purposes of this analysis are grouped based on the nature of the costs incurred.

Our operating expenses decreased by 11 billion RUB, or by 8.9%, compared to the fourth quarter of 2018 and did not change significantly compared to the first quarter of 2018.

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.

	Q1	Q4	Q1	
	2019	2018	2019	2018
		(millions of rubles)		
Hydrocarbon extraction expenses[(1)]	45,829	51,355	45,829	47,095
- in Russia	41,243	44,949	41,243	42,857
- outside Russia[(1)]	4,586	6,406	4,586	4,238
		(ruble per BOE)		
Hydrocarbon extraction expenses[(1)]	220	242	220	235
- in Russia	231	246	231	244
- outside Russia[(1)]	152	214	152	176

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

Compared to the fourth quarter of 2018, our extraction expenses decreased by 5.5 billion RUB, or by 10.8%. The decrease was partially driven by the adoption IFRS 16 Leases, that had a positive impact on our extraction expenses in the amount of 1.6 billion RUB.

In the first quarter of 2019, extraction expenses in Russia decreased by 8.2%. Apart from the IFRS 16 effect, the decrease was supported by cost optimization measures and seasonality factor. Our per BOE hydrocarbon extraction expenses decreased by 6.1% compared to the previous quarter.

Outside Russia, extraction expenses decreased by 28.4% quarter-on-quarter due to major maintenance works in the fourth quarter of 2018. Per BOE hydrocarbon extraction expenses decreased by 29.0%.

In the first quarter of 2019, our extraction expenses decreased by 1 billion RUB, or by 2.7%, compared to the first quarter of 2018.

In Russia, our extraction expenses decreased by 3.8%, due to a decrease in workover operations that was partially offset by higher electricity costs. Our per BOE hydrocarbon extraction expenses decreased by 5.3%.

Outside Russia, our hydrocarbon extraction expenses increased by 8.2% as a result of an increase in expenses on gas production due to substantial production volumes growth in Uzbekistan, as well as the ruble devaluation. Our per BOE hydrocarbon extraction expenses outside Russia decreased by 13.6% owing to the increase in gas share in our production structure.

Own refining expense

	Q1	Q4	Q1	
	2019	2018	2019	2018
		(millions of rubles)		
Refining expenses at the Group refineries	23,504	28,996	23,504	21,996
- in Russia	9,640	12,783	9,640	9,325
- outside Russia	13,864	16,213	13,864	12,671
		(ruble per tonne)		
Refining expenses at the Group refineries	1,410	1,705	1,410	1,365
- in Russia	879	1,170	879	875
- outside Russia	2,432	2,669	2,432	2,321

Our own refining expenses decreased by 5.5 billion RUB, or by 18.9%, compared to the fourth quarter of 2018, and increased by 2 billion RUB, or by 6.9%, compared to the first quarter of 2018.

Compared to the fourth quarter of 2018, refining expenses at our domestic refineries decreased by 3.1 billion RUB, or by 24.6%, mainly due to a decrease in consumption of purchased additives, as well as a decrease in maintenance cost at our refineries in Perm and Nizhny Novgorod compared to the fourth quarter of 2018.

Outside Russia, our expenses decreased by 2.3 billion RUB, or by 14.5%, largely as a result of a decrease in fuel cost. Moreover, the dynamics of these expenses was impacted by costs of scheduled maintenance at our refinery in Italy in the fourth quarter of 2018.

Compared to the first quarter of 2018, expenses at our domestic refineries increased by 3.4% primarily as a result of higher throughput volumes. Outside Russia, our expenses increased by 1.2 billion RUB, or by 9.4%, as a result of the ruble devaluation and higher throughput volumes.

Refining expenses at third-party refineries

Along with our own production of refined products we process crude oil at third-party refineries.

At the end of 2016, as part of our trading business development, a Group company entered into a 3-year tolling agreement with a Canadian refinery. Related refining expenses represent variable toll that is mostly the difference between the price of feedstocks supplied, including various related costs, and the selling price of the refined products taken. When the refined products are sold, this toll is naturally offset by the respective refined products sales revenue. The agreed compensation is received by the Group company for execution of this agreement.

In the first quarter of 2019, this tolling fee amounted to 2.8 billion RUB, while in the fourth quarter of 2018 due to market conditions refining margin was negative that resulted in negative tolling fee in the amount of 0.9 billion RUB.

In the first quarter of 2018, tolling fee amounted to 2.5 billion RUB.

Expenses for crude oil transportation to refineries

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

Compared to the fourth quarter of 2018, our expenses for crude oil transportation to refineries decreased by 0.6 billion RUB, or by 4.8%, due to changes in structure of crude oil supplies to our refineries in Europe.

Compared to the first quarter of 2018, our expenses for crude oil transportation to refineries didn't change.

Petrochemical expenses

Our petrochemical expenses decreased by 13.2% quarter-on-quarter due to maintenance costs in the previous quarter, and increased by 4.2% year-on-year.

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.

Compared to the fourth quarter of 2018 and the first quarter of 2018, other operating expenses decreased by 1 billion RUB, or by 7.6%, and by 1 billion RUB, or by 12.0%, respectively.

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.

	Q1	Q4	Q1	
	2019	**2018**	**2019**	**2018**
		(millions of rubles)		
Cost of purchased crude oil in Russia	4,310	5,686	4,310	4,621
Cost of purchased crude oil outside Russia	504,895	548,686	504,895	412,283
Compensation crude oil related to West Qurna-2 project	7,625	10,602	7,625	6,889
Cost of purchased crude oil	**516,830**	**564,974**	**516,830**	**423,793**
Cost of purchased refined products in Russia	9,273	14,750	9,273	12,181
Cost of purchased refined products outside Russia	482,942	531,645	482,942	446,005
Cost of purchased refined products	**492,215**	**546,395**	**492,215**	**458,186**
Other purchases	31,375	21,476	31,375	14,426
Net loss (gain) from hedging of trading operations	48,140	(67,020)	48,140	6,639
Change in crude oil and petroleum products inventory	(101,035)	65,603	(101,035)	(11,615)
Total cost of purchased crude oil, gas and products	**987,525**	**1,131,428**	**987,525**	**891,429**

Compared to the fourth quarter of 2018, the cost of purchased crude oil, gas and products decreased by 144 billion RUB, or by 12.7%, largely as a result of a decrease in hydrocarbon prices and volumes of crude oil and refined products trading.

Compared to the first quarter of 2018, the cost of purchased crude oil, gas and products increased by 96 billion RUB, or by 10.8%, largely as a result of an increase in volumes of crude oil trading and the ruble devaluation to the US dollar.

Transportation expenses

	Q1 2019	Q4 2018	Q1 2019	Q1 2018
		(millions of rubles)		
Crude oil transportation expenses	28,090	23,701	28,090	21,626
Refined products transportation expenses	41,630	42,540	41,630	39,956
Other transportation expenses	3,502	(974)	3,502	4,473
Total transportation expenses	**73,222**	**65,267**	**73,222**	**66,055**

Our transportation expenses increased by 8 billion RUB, or by 12.2%, compared to the fourth quarter of 2018, and by 7 billion RUB, or by 10.9%, compared to the first quarter of 2018.

Compared to the fourth quarter of 2018, our expenses for transportation of crude oil increased by 4 billion RUB, or by 18.5%. Outside Russia, transportation expenses increased as a result of an increase in freight rates and in volumes transported on the Incoterms with freight components, despite a decrease in sales volumes. In Russia, higher tariffs and effect of inventory release were partially offset by decreased expenses due to changes in supplies directions and a decrease in volumes of crude oil exports.

Compared to the first quarter of 2018, our expenses for transportation of crude oil increased by 6 billion RUB, or by 29.9%. Outside Russia, our expenses increased due to the sales volumes growth and the ruble devaluation to the US dollar. In Russia, our expenses for transportation of crude oil increased due to indexation of tariffs, effect of inventory release and changes in supplies directions.

Compared to the fourth quarter of 2018, our expenses for transportation of refined products did not change significantly. Outside Russia, a decrease in sales volumes and the IFRS 16 effect were offset by higher freight rates. In Russia, our expenses decreased as a result of changes in directions and delivery terms and the effect of IFRS 16, despite indexation of tariffs.

Compared to the first quarter of 2018, our expenses for transportation of refined products increased by 2 billion RUB, or by 4.2%. Outside Russia, our expenses for transportation of refined products increased due to higher freight rates and the ruble devaluation, despite a decrease in sales volumes and the effect of IFRS 16. In Russia, our expenses decreased as a result of changes in directions and delivery terms, despite indexation of tariffs and an increase in export sales volumes.

The overall impact of IFRS 16 on our transportation expenses in the first quarter of 2019 amounted to 5 billion RUB.

Negative value of other transportation expenses in the fourth quarter of 2018 was due to one-off adjustments related to the Group's PSA projects in Uzbekistan.

Selling, general and administrative expenses

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

	Q1 2019	Q4 2018	Q1 2019	Q1 2018
		(millions of rubles)		
Labor costs included in selling, general and administrative expenses	16,067	16,204	16,067	14,072
Other selling, general and administrative expenses	20,869	28,588	20,869	21,544
Share-based compensation	7,842	7,841	7,842	190
Expenses on allowance for expected credit losses	4,795	(2,129)	4,795	948
Total selling, general and administrative expenses	**49,573**	**50,504**	**49,573**	**36,754**

Our selling, general and administrative expenses decreased by 1 billion RUB, or by 1.8%, compared to the fourth quarter of 2018, and increased by 13 billion RUB, or by 34.9%, compared to the first quarter of 2018.

In late December 2017, the Company announced a new compensation plan based on approximately 40 million shares available to certain members of management and key employees for the period from 2018 to 2022, which was implemented in July 2018 and recognized as equity-settled share-based compensation plan. The Group recognized non-cash expenses of 7.8 billion RUB under this plan in the first quarter of 2019 and the fourth quarter of 2018, and did not recognize any expenses in the first quarter of 2018.

In the first quarter of 2019, the Group recognized an allowance for expected credit loss of 4.7 billion RUB related to our projects in Uzbekistan.

In the first quarter of 2019, our selling, general and administrative expenses were also positively impacted by the adoption IFRS 16 Leases in the amount of 2.1 billion RUB.

Depreciation, depletion and amortization

Compared to the fourth quarter of 2018, our depreciation, depletion and amortization expenses increased by 52 billion RUB, or by 100.1%, largely due to significant increase in proved developed hydrocarbon reserves at some of our fields as of the end of 2018 and consequent recalculation of depletion of these upstream assets for the whole of 2018, which was reflected in the fourth quarter of 2018. In the first quarter of 2019, the Group also recognized depreciation of the right-of-use assets in the amount of approximately 7.6 billion RUB under newly adopted IFRS 16 Leases.

Compared to the first quarter of 2018, depreciation, depletion and amortization expenses increased by 16 billion RUB, or by 18.4%, due to an increase in gas production volumes as a result of launching new production facilities as part of the Gissar and Kandym project in Uzbekistan and recognition of depreciation of the right-of-use assets under newly adopted IFRS 16 Leases.

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, an 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.

Our share in income of affiliates decreased by 0.9 billion RUB, or by 12.5%, compared to the fourth quarter of 2018, and increased by 0.9 billion RUB, or by 17.7%, compared to the first quarter of 2018, largely as a result of changes in income of Tengizchevroil.

Taxes other than income taxes

	Q1 2019	Q4 2018	Q1 2019	Q1 2018
	(millions of rubles)			
In Russia				
Mineral extraction taxes	201,080	235,169	201,080	171,172
Tax on additional income	4,353	–	4,353	–
Social security taxes and contributions	7,144	5,949	7,144	6,766
Property tax	5,509	5,558	5,509	6,264
Other taxes	482	917	482	234
Total in Russia	**218,568**	**247,593**	**218,568**	**184,436**
International				
Social security taxes and contributions	1,522	1,594	1,522	1,465
Property tax	232	254	232	194
Other taxes	697	766	697	572
Total internationally	**2,451**	**2,614**	**2,451**	**2,231**
Total taxes other than income taxes	**221,019**	**250,207**	**221,019**	**186,667**

In the first quarter of 2019, our taxes other than income taxes decreased by 29 billion RUB, or by 11.7%, compared to the previous quarter. This was a result of decrease in mineral extraction tax expense due to inventory effect, as well as an adoption of tax on additional income.

Compared to the first quarter of 2018, our taxes other than income taxes increased by 34 billion RUB, or by 18.4%, that was largely driven by an increase in the mineral extraction tax rate in Russia by 24.5%.

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 special tax regimes).

	Q1 2019	Q4 2018	Q1 2019	Q1 2018
	(millions of rubles)			
Decrease in extraction taxes from application of reduced and zero rates for crude oil and gas production	38,713	37,444	37,713	26,060
	(thousands of tonnes)			
Volume of crude oil production subject to:				
ultra-high viscosity	483	448	483	377
reduced rates (tax holidays for specific regions and high viscosity oil)	1,045	1,503	1,045	1,354
reduced rates (low permeability deposits)	187	153	187	116
reduced rates (Tyumen deposits)	160	255	160	190
reduced rates (depleted fields)	4,803	3,896	4,803	3,905
reduced rates (fields under tax on additional income)	1,138	–	1,138	–
reduced rates (other)	592	601	592	556
Total volume of production subject to reduced or zero rates	**8,408**	**6,856**	**8,408**	**6,498**

At certain fields and deposits, the Group also applies special tax regime for offshore crude oil production. In the first quarter of 2019, volumes of production subject to such regimes amounted to 1,613 thousand tonnes (compared to 1,641 thousand tonnes in the fourth quarter of 2018 and 1,365 thousand tonnes in the first quarter of 2018).

Excise and export tariffs

	Q1 2019	Q4 2018	Q1 2019	Q1 2018
	(millions of rubles)			
In Russia				
Excise tax on refined products	30,547	22,450	30,547	31,341
Excise tax on oil feedstock	(7,840)	–	(7,840)	–
Damper factor	(5,978)	–	(5,978)	–
Crude oil export tariffs	37,493	58,893	37,493	36,765
Refined products export tariffs	13,466	17,482	13,466	13,534
Total in Russia	**67,688**	**98,825**	**67,688**	**81,640**
International				
Excise tax and sales taxes on refined products	43,699	47,545	43,699	39,473
Crude oil export tariffs	13	13	13	14
Refined products export tariffs	56	86	56	64
Total internationally	**43,768**	**47,644**	**43,768**	**39,551**
Total excise and export tariffs	**111,456**	**146,469**	**111,456**	**121,191**

Compared to the fourth quarter of 2018, export tariffs decreased by 25 billion RUB, or by 33.3%, as a result of decline in export duty rates in Russia by 38.7% due to a decrease in hydrocarbon prices and implementation of adjusting factor to the standard crude oil export duty rate in the first quarter of 2019 as a part of tax maneuver, as well as to a time lag effect.

In Russia, excise tax on refined products increased mainly due to an increase in excise tax rates on diesel fuel and motor gasoline. Outside Russia, it was affected by seasonality, as well as a decrease in sales volumes subject to excise taxes.

In the first quarter of 2019, our proceeds from negative excise tax on refinery feedstock and damper coefficient amounted to 8 billion RUB and 6 billion RUB, respectively.

Compared to the first quarter of 2018, export tariffs increased by 1 billion RUB, or by 1.3%, mainly as a result of an increase in crude oil exports by 4.0% and refined products exports by 11.0%, while export duty rates decreased by 13.3%.

Foreign exchange gain (loss)

Foreign exchange gains or losses are mostly related to revaluation of US dollar and euro net monetary position of Russian entities that largely consists of accounts receivables, loans to our foreign subsidiaries and loans received in other currencies. In the end of 2018, the Company's net monetary position in foreign currencies significantly changed as a result of a change in the structure of intra-group financing, moreover, starting from 1 January 2019, the Group recognized certain lease liabilities in foreign currencies in accordance with IFRS 16 Leases. Current structure of the net monetary position results in exchange gains when the ruble appreciates and losses when it devaluates to those currencies.

In the first quarter of 2019, foreign exchange gain amounted to 1.9 billion RUB, compared to a foreign exchange gain of 1.6 billion RUB in the fourth quarter of 2018 and a foreign exchange loss of 1.4 billion RUB in the first quarter of 2018. Implementation of IFRS 16 resulted in a foreign exchange gain of 5.5 billion RUB in the first quarter of 2019.

Other (expenses) income

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

In the fourth quarter of 2018, the Group recognized an impairment loss for its exploration and production assets in Russia and abroad in the amount of 6.1 billion RUB, and impairment loss for its refining, marketing and distribution assets in Russia and abroad in the amount of 0.6 billion RUB.

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 and application of reduced regional income tax rates in Russia.

Compared to the fourth quarter of 2018, our total income tax expense increased by 2 billion RUB, or by 4.3%. At the same time, our profit before income tax decreased by 8 billion RUB, or by 3.8%. In the first quarter of 2019, our effective income tax rate was 22.2%, compared to 20.5% in the fourth quarter of 2018.

Compared to the first quarter of 2018, our total income tax expense increased by 20 billion RUB, or by 85.1%. Our profit before income tax increased by 60 billion RUB, or by 45.3%. In the first quarter of 2019, our effective income tax rate was 22.2%, compared to 17.4% in the first quarter of 2018. The increase in the effective income tax rate in the first quarter of 2019 was generally due to revision and changes of regional income tax incentives in certain regions of Russia.

Non-GAAP items reconciliation

Reconciliation of profit for the period attributable to PJSC LUKOIL shareholders 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 to raise and service debt. EBITDA should not be considered in isolation as an alternative to profit or any other measure of performance under IFRS.

	Q1 2019	Q4 2018	Q1 2019	Q1 2018
		(millions of rubles)		
Profit for the period attributable to PJSC LUKOIL shareholders	**149,236**	**159,027**	**149,236**	**109,058**
Add back				
Profit for the period attributable to non-controlling interests	554	193	554	367
Income tax expense	42,796	41,044	42,796	23,117
Financial income	(5,984)	(6,236)	(5,984)	(3,514)
Financial costs	11,734	12,742	11,734	7,322
Foreign exchange (gain) loss	(1,901)	(1,586)	(1,901)	1,432
Equity share in income of affiliates	(6,180)	(7,062)	(6,180)	(5,249)
Other expenses (income)	3,972	28,291	3,972	(699)
Depreciation, depletion and amortization	103,830	51,902	103,830	87,690
EBITDA	**298,057**	**278,315**	**298,057**	**219,524**
EBITDA by operating segments				
Exploration and production	235,132	190,039	235,132	171,918
- in Russia	192,395	148,749	192,395	144,657
- outside Russia and Iraq	37,625	37,036	37,625	21,526
- in Iraq	5,112	4,254	5,112	5,735
Refining, marketing and distribution segment	79,938	81,486	79,938	46,849
- in Russia	73,887	77,519	73,887	42,299
- outside Russia	6,051	3,967	6,051	4,550
Corporate and other	(7,068)	(9,545)	(7,068)	519
Elimination	(9,945)	16,335	(9,945)	238
EBITDA	**298,057**	**278,315**	**298,057**	**219,524**

Reconciliation of Cash provided by operating activities to Free cash flow

	Q1 2019	Q4 2018	Q1 2019	Q1 2018
		(millions of rubles)		
Net cash provided by operating activities	243,324	325,511	243,324	166,992
Capital expenditures	(97,421)	(113,266)	(97,421)	(121,057)
Free cash flow	**145,903**	**212,245**	**145,903**	**45,935**

Liquidity and capital resources

	Q1 2019	Q4 2018	Q1 2019	Q1 2018
		(millions of rubles)		
Net cash provided by operating activities	243,324	325,511	243,324	166,992
including (increase) decrease in working capital	(37,434)	74,193	(37,434)	(47,856)
Net cash used in investing activities	(99,551)	(90,933)	(99,551)	(128,400)
Net cash used in financing activities	(169,807)	(130,733)	(169,807)	(70,401)

Changes in operating assets and liabilities:

	Q1 2019	Q4 2018	Q1 2019	Q1 2018
		(millions of rubles)		
(Increase) decrease in trade accounts receivable	(17,767)	164,274	(17,767)	33,570
(Increase) decrease in inventories	(101,788)	83,602	(101,788)	(24,946)
Increase (decrease) in accounts payable	56,889	(131,972)	56,889	(37,914)
Increase (decrease) in net taxes other than on income payable	35,794	(40,023)	35,794	5,143
Change in other current assets and liabilities	(10,562)	(1,688)	(10,562)	(23,709)
Total (increase) decrease in working capital	**(37,434)**	**74,193**	**(37,434)**	**(47,856)**

Operating activities

Our primary source of cash flow is funds generated from our operations. Compared to the fourth quarter of 2018, our cash generated from operations decreased by 82 billion RUB, or by 25.2%, that was a result of change in working capital, and compared to the first quarter of 2018, it increased by 76 billion RUB, or by 45.7%, that mainly reflected the increase in profitability of our core operations.

In the first quarter of 2019, the increase in working capital was mainly driven by a net increase in trade accounts receivable and inventory in our trading subsidiaries.

The positive impact of IFRS 16 Leases on our cash provided by operating activities amounted to 8.5 billion RUB.

Investing activities

In the first quarter of 2019, cash used in investing activities increased by 9 billion RUB, or by 9.5%, compared to previous quarter, mostly as a result of dynamics of movement of loans to affiliates. At the same time, our capital expenditures decreased. Compared to the first quarter of 2018, cash used in investing activities decreased by 29 billion RUB, or by 22.5%, due to a decrease in capital expenditures.

Our capital expenditures decreased by 15.8 billion RUB, or by 14.0%, compared to the fourth quarter of 2018, and by 24 billion RUB, or by 19.5%, compared to the first quarter of 2018.

The positive impact of IFRS 16 Leases on our cash used in investing activities amounted to 3.1 billion RUB and resulted in a decrease in capital expenditures.

	Q1 2019	Q4 2018	Q1 2019	Q1 2018
	(millions of rubles)			
Capital expenditures				
Exploration and production				
West Siberia	32,035	30,306	32,035	38,189
Timan-Pechora	16,683	14,739	16,683	21,737
Ural region	7,459	8,392	7,459	9,484
Volga region	6,957	16,304	6,957	8,391
Other in Russia	2,337	4,813	2,337	2,228
Total in Russia	65,471	74,554	65,471	80,029
Iraq	3,363	3,521	3,363	4,946
Other outside Russia	12,004	9,182	12,004	14,432
Total outside Russia	15,367	12,703	15,367	19,378
Total exploration and production	**80,838**	**87,257**	**80,838**	**99,407**
Refining, marketing and distribution				
Russia	10,851	19,540	10,851	15,267
- refining	6,777	12,975	6,777	9,588
- retail	1,394	2,206	1,394	2,016
- other	2,680	4,359	2,680	3,663
International	4,681	4,913	4,681	5,785
- refining	3,302	2,722	3,302	4,537
- retail	899	1,690	899	924
- other	480	501	480	324
Total refining, marketing and distribution	**15,532**	**24,453**	**15,532**	**21,052**
Corporate and other	**1,051**	**1,556**	**1,051**	**598**
Total capital expenditures	**97,421**	**113,266**	**97,421**	**121,057**

Compared to the previous quarter, our upstream capital expenditures decreased by 6 billion RUB, or by 7.4%.

In Russia, the decrease was due to the completion of key construction works at the second development stages at the Yu. Korchagin and V. Filanovsky fields in the Caspian Sea in the fourth quarter of 2018.

Outside Russia, an increase in our upstream capital expenditures in the first quarter of 2019 was mainly due to payments related to previously accrued capital expenditures.

The decrease in capital expenditures in refining segment in Russia compared to the previous quarter was primarily due to prepayments in the fourth quarter of 2018 related to construction of a delayed coker complex at Nizhny Novgorod refinery, as well as a seasonal decrease in capital expenditures.

Compared to the first quarter of 2018, our capital expenditures in the exploration and production segment decreased by 19 billion RUB, or by 18.7%, due to a decrease in expenses in Timan-Pechora and West Siberia regions as a result of uneven payments schedule.

The decrease in capital expenditures in our refining, marketing and distribution segment compared to the first quarter of 2018 was primarily a result of uneven payments schedule.

The dynamics of our international capital expenditures in the first quarter of 2019 compared to the first quarter of 2018 was also affected by the ruble devaluation.

The table below presents exploration and production capital expenditures at our growth projects.

	Q1 2019	Q4 2018	Q1 2019	Q1 2018
	(millions of rubles)			
West Siberia (Yamal)	5,942	4,721	5,942	5,690
Caspian region (Projects in Russia)	6,860	14,087	6,860	7,371
Timan-Pechora (Yaregskoye field)	1,894	2,883	1,894	2,704
Iraq (West Qurna-2 project)	2,720	2,348	2,720	4,816
Iraq (Block-10)	643	1,173	643	130
Uzbekistan	6,296	2,021	6,296	9,533
Total	**24,355**	**27,233**	**24,355**	**30,244**

Financing activities

In the first quarter of 2019, net movements of short-term and long-term debt generated an outflow of 21 billion RUB, including 9 billion RUB related to the newly adopted IFRS 16 Leases, compared to an outflow of 60 billion RUB in the fourth quarter of 2018 and an outflow of 5 billion RUB in the first quarter of 2018.

In the first quarter of 2019, we also recognized additional 2 RUB billion of interest payments under IFRS 16.

In August 2018, we announced the start of an open market buyback programme. The purpose of the programme is to reduce the capital of the Company and its duration is from 3 September 2018 to 30 December 2022.

In the first quarter of 2019, a Group company spent 71,488 million RUB in relation to this programme, compared to 52,969 million RUB in the fourth quarter of 2018.

Other information

Sectoral sanctions against the Russian companies

In July–September 2014, the United States ("US"), the European Union ("EU") and several other countries imposed a set of sanctions on Russia, including sectoral sanctions which affect several Russian oil and gas companies. The US Department of the Treasury has placed the Company onto the Sectoral Sanctions Identifications List subject to Directive 4 of the Office of foreign assets control (OFAC). Directive 4 prohibits US 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 that have the potential to produce oil in the Russian Federation, or in maritime area spreading from the Russian territory and claimed by the Russian Federation.

From January 2018 (based on acts adopted in August–October 2017), the US expanded abovementioned sanctions to include certain categories of international oil projects initiated on or after 29 January 2018 in any part of the world, in which companies placed on the Sectoral Sanctions Identifications List subject to Directive 4 (including the Company) have an ownership interest of 33% or more, or ownership of a majority of the voting interests.

Management believes that current sanctions do not have a material adverse effect on the current or planned Group's oil projects. At the same time the Company continues to monitor and evaluate potential risks for its operations in connection with sanctions.

Operations in Iraq

The Group is exposed to political, economic and legal risks due to its operations in Iraq. Management monitors these risks and believes that there is no adverse effect on the Group's financial position that can be reasonably estimated at present.