This is the translated version of a document originally issued in Polish

Grupa LOTOS Management's Discussion and Analysis of the consolidated financial results for the second quarter of 2019

ISIN	Stock Exchange	Thomson Reuters	Bloomberg
PLLOTOS00025	**LTS**	**LTSP.WA**	**LTS PW**

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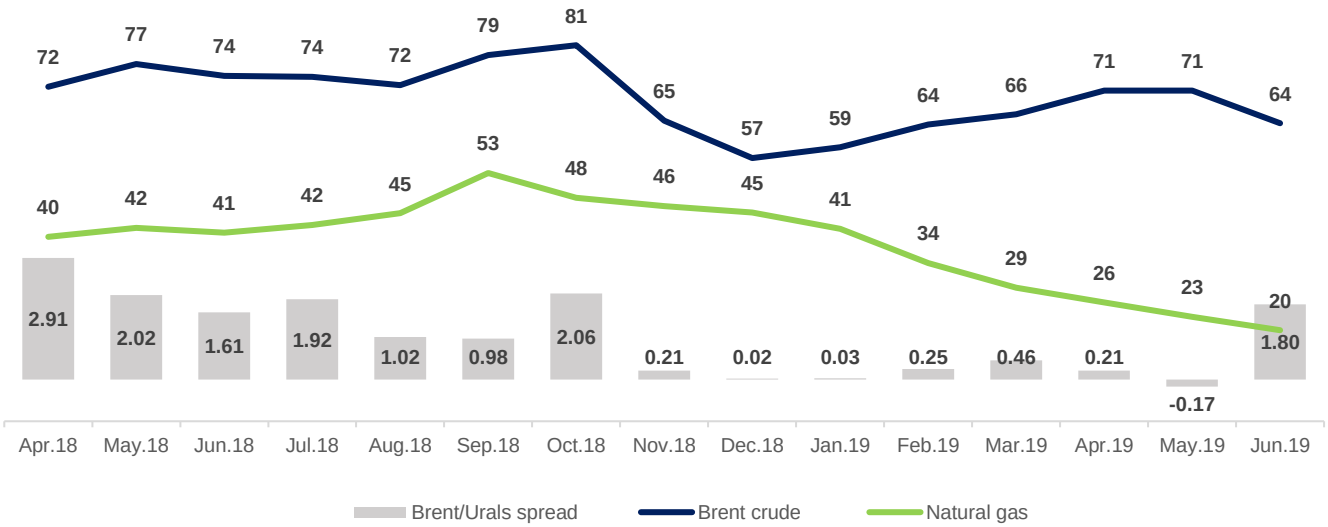
An excel file with the operating and financial data for Q2 2019 and the previous reporting periods is published in the Investor Relations section of our website at → inwestor.lotos.pl as → databook

MARKET ENVIRONMENT

- **Crude oil and natural gas prices down year on year, respectively by 7.5% or USD 5.6/bbl[1] and 44.5% or USD 18.1 USD/boe[2]**
- **Crack spreads[5] for diesel oil and aviation fuel down year on year, respectively by 17.7% or USD 3.0/bbl and 23.1% or USD 4.0/bbl**
- **Year-on-year improvement in negative crack spread for heavy fuel oil (up 19.7% or USD 1.8/bbl)**
- **Year-on-year narrowing of quarterly average Brent/Urals spread, from USD 2.17/bbl to USD 0.58/bbl**
- **Year-on-year drop in model refining margin, from USD 7.29/bbl to USD 5.76/bbl (down USD 1.53/bbl)**
- **Year-on-year appreciation of the USD/PLN average quarterly exchange rate by PLN 0.23 (to PLN 3.81).**

Brent prices (USD/bbl), natural gas prices (USD/boe) and the Brent/Urals spread (USD/bbl)



Source: In-house analysis based on Refinitiv data.

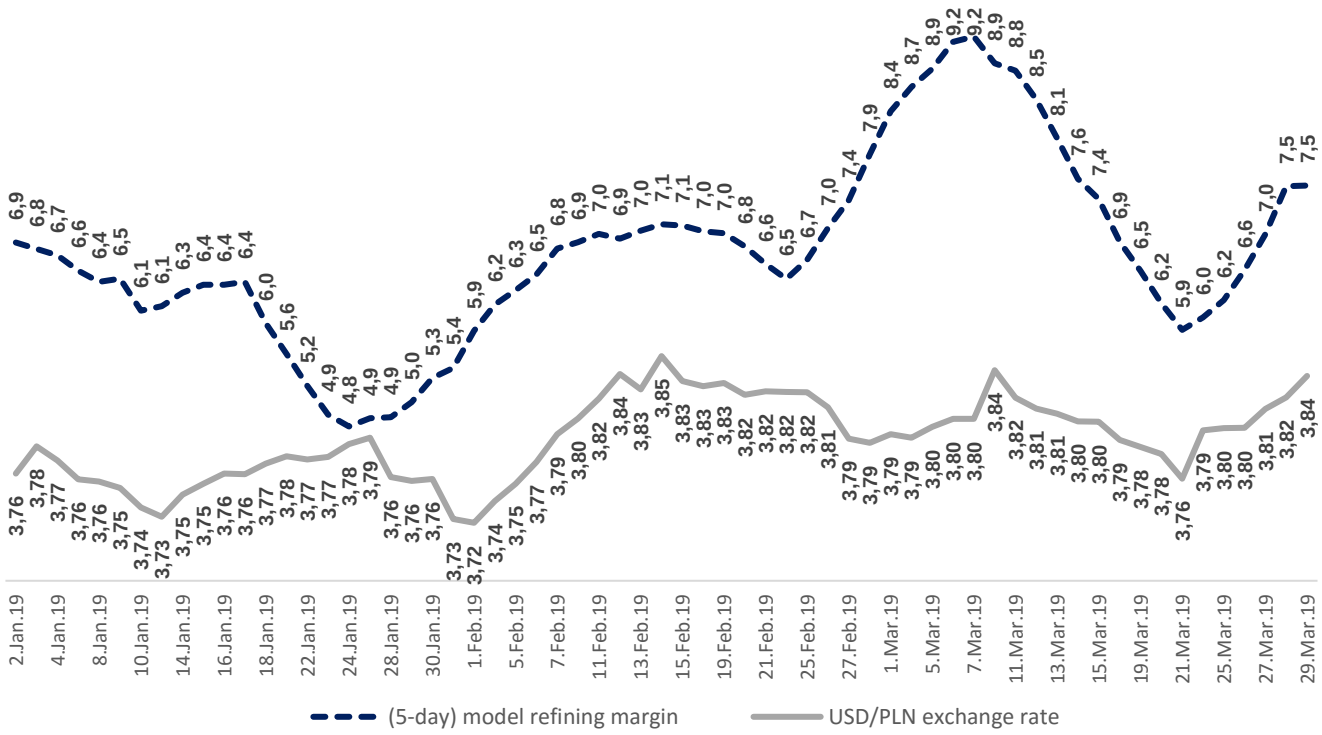
Brent crude prices, Brent/Urals spread, gas prices and Grupa LOTOS' model refining margin

USD/bbl	Q2 2019	Q1 2019	Q2 2018	Q2 2019/Q1 2019	Q2 2019/Q2 2018
DATED Brent FOB prices	**68.96**	62.90	74.55	**9.6%**	**-7.5%**
Brent/Urals spread	**0.58**	0.24	2.17	**141.7%**	**-73.3%**
UK NBP natural gas prices[3]	**22.57**	35.00	40.70	**-35.5%**	**-44.5%**
Model refining margin [4]	**5.76**	6.98	7.29	**-17.5%**	**-21.0%**

Source: The Company and Refinitiv.

[1]Bbl – barrel of crude oil.
[2]Boe – barrel of oil equivalent.
[3]To ensure comparability, the UK NBP natural gas prices were converted from USD/MWh to USD/boe using the conversion factor of 1.6282 MWh/boe.
[4] In line with the methodology applied by the Company, → the model margin was computed based on Refinitiv data, which reflect long-term trends in prices used by the Company in its trading activities. In a shorter term, the prices used to compute the model margin may differ from the actual trading prices.Since the presented margin model does not account for differences in selling prices on various geographical markets, the model margin amount is an estimate rather than the actual refining margin generated by Grupa LOTOS S.A.'s refinery.

Grupa LOTOS model refining margin (USD/bbl) and the USD/PLN exchange rate



Source: Based on the Company's methodology and the National Bank of Poland's data.

Crack spreads[5]

USD/bbl	Q2 2019	Q1 2019	Q2 2018	Q2 2019/Q1 2019	Q2 2019/Q2 2018
Motor gasoline	**13.41**	2.93	13.18	**357.7%**	**1.7%**
Naphtha	**-8.93**	-6.89	-0.84	**-29.6%**	**-963.1%**
Diesel oil (10 ppm)	**14.01**	17.88	17.03	**-21.6%**	**-17.7%**
Light fuel oil	**11.99**	16.08	15.22	**-25.4%**	**-21.2%**
Aviation fuel	**13.34**	16.76	17.35	**-20.4%**	**-23.1%**
Heavy fuel oil	**-7.41**	-3.36	-9.23	**-120.5%**	**19.7%**

Source: Refinitiv.

Exchange rates

USD/PLN	Q2 2019	Q1 2019	Q2 2018	Q2 2019/Q1 2019	Q2 2019/Q2 2018
PLN/USD exchange rate at end of period	**3.73**	3.84	3.74	**-2.9%**	**-0.3%**
Average PLN/USD exchange rate	**3.81**	3.79	3.58	**0.5%**	**6.4%**

Source: In-house analysis based on National Bank of Poland data.

[5]Product crack spread is calculated as the difference between the price per barrel of a given product (price per tonne computed using the appropriate density factor) and the price of Urals crude (the Brent crude price adjusted for the Brent/Urals spread).

Presented below are key factors contributing to the LOTOS Group's performance in Q2 2019.

- **Feedstock and products**
  - **Refining & Marketing segment**
    Even though the model refining margin was down approximately 21% year on year, the maximum capacity utilisation at the Grupa LOTOS refinery in Gdańsk combined with a year-on-year improvement in the structure of refined product sales (a 5.9% increase in the volume of diesel oil sold with an approximately 8.9% decrease in the volume of heavy products sold), additionally supported by a higher level of geographic premiums achieved on the Polish market in June 2019, resulted in the Refining & Marketing segment's adjusted LIFO-based EBITDA for Q2 2019 at PLN 600m (up +3.2% year on year).
  - **Exploration & Production segment**
    Lower year-on-year UK National Balancing Point prices of natural gas (down 44.5%) and lower year-on-year crude oil prices (down 7.5%) had an adverse effect on the E&P segment's performance, additionally reduced by a lower year-on-year hydrocarbon sales volume (down 11.3%). As a result, the E&P segment's adjusted EBITDA came in at PLN 178.3m (down 24.7% year on year).
- **Exchange rates**
  - An increase in the average USD/PLN exchange rate in the quarter (up 6.4% year on year) had a positive impact on crack spreads and thus on the LOTOS Group's operating performance.

EXPLORATION & PRODUCTION SEGMENT

- **Hydrocarbon production at 18.9 thousand boe/d (down 12.9% year on year)**
- **Final phase of Utgard field development – production to commence in Q4 2019**
- **EBITDA of the Exploration & Production segment at PLN 178m (down 25% year on year)**
- **EBIT of the Exploration & Production segment at PLN 129m (down 27% year on year).**

Crude oil and natural gas reserves, production and sales

Crude oil and natural gas reserves as at (mboe)[6]	Jun 30 2019	Mar 31 2019	Jun 30 2018
Norway	**34.7**	36.0	36.3
Poland	**48.7**	49.1	50.4
Lithuania	**2.8**	2.9	3.5
Total	**86.3**	88.0	90.2

Production (boe/d)	Q2 2019	Q1 2019	Q2 2018	Q2 2019/Q1 2019	Q2 2019/Q2 2018
Norway	**13,856**	14,830	16,541	-6.6%	-16.2%
Poland	**4,335**	4,980	4,345	-12.9%	-0.2%
Lithuania	**691**	702	798	-1.6%	-13.4%
Total	**18,882**	20,512	21,684	-7.9%	-12.9%

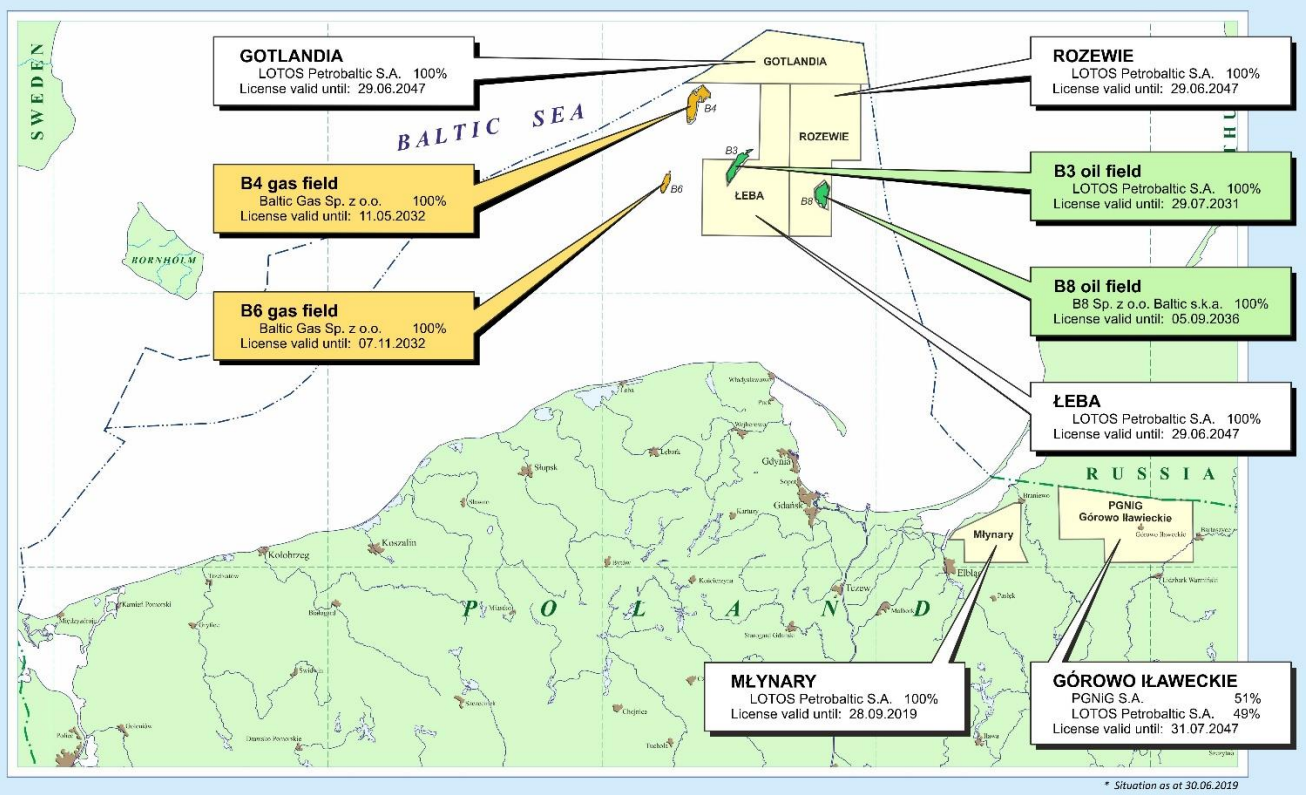
Production (boe)	Q2 2019	Q1 2019	Q2 2018	Q2 2019/Q1 2019	Q2 2019/Q2 2018
Norway	**1,260,900**	1,334,729	1,505,269	-5.5%	-16.2%
Poland	**394,514**	448,204	395,405	-12.0%	-0.2%
Lithuania	**62,850**	63,149	72,609	-0.5%	-13.4%
Total	**1,718,264**	1,846,082	1,973,283	-6.9%	-12.9%

Oil and gas sales (boe)	Q2 2019	Q1 2019	Q2 2018	Q2 2019/Q1 2019	Q2 2019/Q2 2018
Norway	**1,274,351**	1,195,811	1,472,873	6.6%	-13.5%
Poland	**421,378**	276,630	395,392	52.3%	6.6%
Lithuania	**47,105**	98,772	95,757	-52.3%	-50.8%
Total	**1,742,834**	1,571,213	1,964,022	10.9%	-11.3%

[6] 2P – proved and probable reserves (SPE-PRMS classification).

Exploration and production activities in Poland

Licences held by the LOTOS Group companies in Poland
as at June 30th 2019



Source: In-house analysis.

In Q2 2019, LOTOS Petrobaltic S.A. ("LPB") continued to produce crude oil and natural gas from the B3 field in the Baltic Sea at an average rate of 1,248 boe/d.

B8 Project

The B8 project consists in the development of an oil field located in the Baltic Sea and is being implemented by special purpose vehicle B8 Sp. z o.o. Baltic S.K.A. ("SPV B8"). Crude oil and natural gas are produced by the company using the LOTOS Petrobaltic rig. In Q2 2019, the average production volume was 3,087 boe/d. From June 20th to July 27th 2019, production was temporarily stopped to enable maintenance of the spider deck and its supports. The effect of the shutdown on the segment's EBITDA is estimated at approximately PLN 28.6m, but due to the timing of crude oil sales it will only be reflected in the segment's Q3 2019 performance.
Work was also being continued during Q2 2019 to convert the Petrobaltic rig into an offshore production hub on the B8 field.
On March 1st 2019, in Current Report No. 4/2019 Grupa LOTOS S.A. announced a delay in completing the development of the B8 field. As certain corrective actions are required, the hub is expected to go to sea in the third quarter of 2019 for the offshore start-up phase. Construction works related to the identified design errors are nearing completion.

Key parameters of the B8 project (LOTOS interest):

- LOTOS interest 100%
- 2P reserves 35.3 mboe as at June 30th 2019 (91% crude oil, 9% natural gas)
- Current production 3.1 thousand boe/d (average in Q2 2019)
- Full-scale production Q2 2021
- Target production 5.0 thousand boe/d (average production volume in the first five years from full-scale production launch).

B4B6 Project

The B4/B6 project consists in the development of natural gas deposits in the Baltic Sea, in partnership with CalEnergy Resources Poland Sp. z o.o. It is being implemented by special purpose vehicle Baltic Gas LLP. The LOTOS Group's interest in the project is 51%. The recoverable resources of the B4/B6 fields are estimated at 4.8 bcm (100% interest). At present, a final investment decision (FID) is pending for the project, due in Q4 2019.
In Q2 2019, the third stage of the FID preparatory phase was under way, including the launch of detailed design work aimed at updating binding bids for key facility components, and conclusion of negotiations concerning contracts for purchase of petroleum products from the B4/B6 project. As regards the project financing, the General Meeting of Grupa LOTOS approved the financing of the final pre-FID phase of the project. Preparations began to obtain approval from the General Meeting of Grupa LOTOS for financing of the project execution phase, and negotiations were being continued with banks to arrange financing for the project.

Key parameters of the B4/B6 project (LOTOS interest):

- LOTOS interest 51%
- 2C resources 17.9 mboe as at June 30th 2019 (74% natural gas, 26% NGL)
- Production to be launched in Q4 2022
- Target production 4.3 thousand boe/d (average production volume in the first five years from production launch).

Exploration projects

As part of exploration activities in:

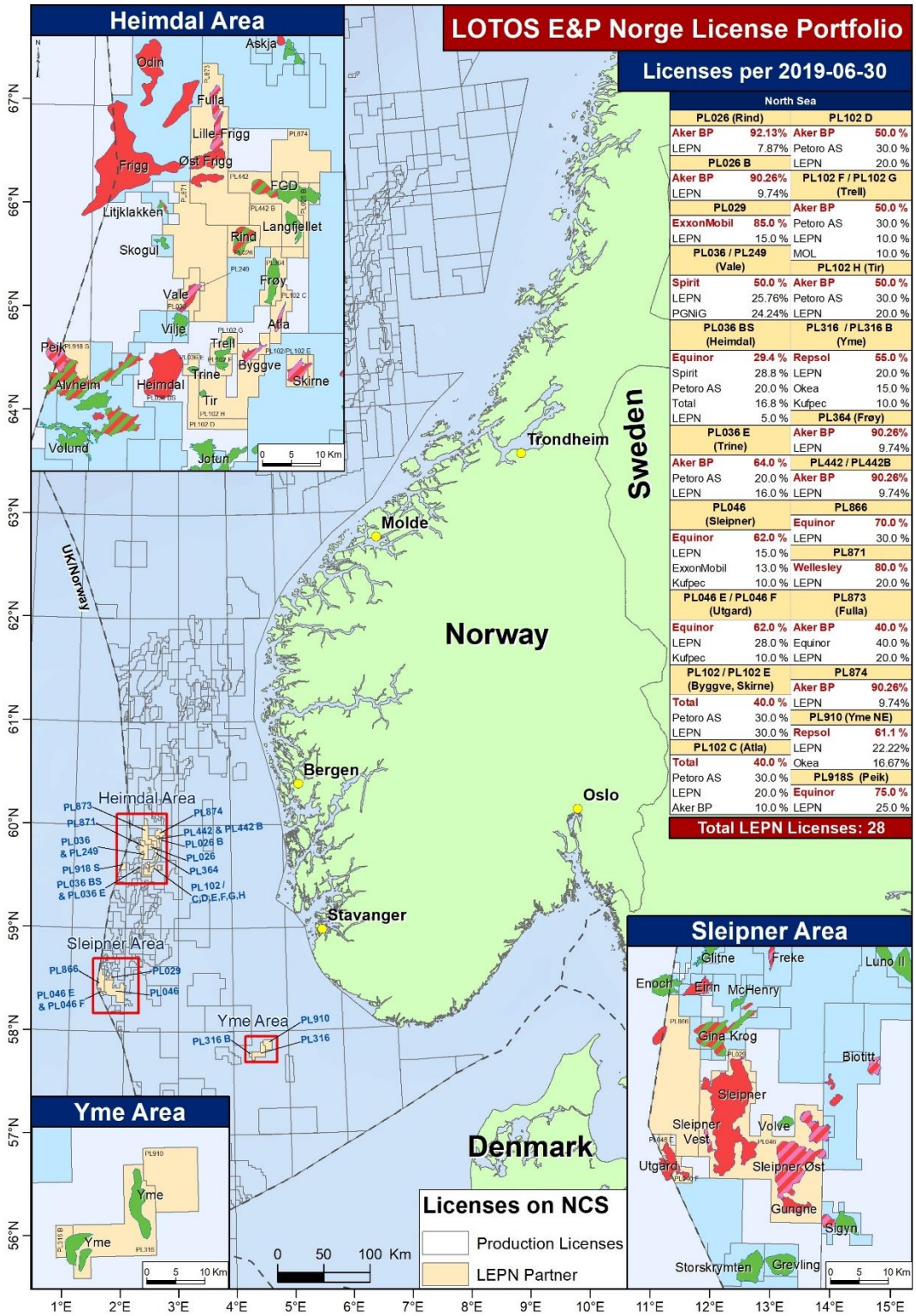
- the Gotlandia, Łeba and Rozewie offshore licences (LPB's interest: 100%) – 2D/3D seismic data interpretation is being continued and work is under way to prepare a regional tectonic setting and geological structure model for the offshore part of the Baltic Basin to fulfil the licence commitments
- the Młynary onshore licence (LPB's interest: 100%) – steps are being continued to have the exploration and appraisal licence converted into an exploration, appraisal and production licence (a combined licence)
- the Górowo Iławeckie onshore licence (PGNiG's (operator) interest: 51%; LPB's interest: 49%) – the partners are now working on a recommended work programme for the licence area.

New business initiatives

In Q2 2019, an upgraded jack-up rig was purchased from Maersk. It is LOTOS Petrobaltic's fifth and largest platform, and also the most advanced drilling rig in the Baltic Sea. Once the adaptation work required for class renewal is completed and the crew are trained, the rig will start well workover operations on Grupa LOTOS's Baltic Sea fields. The first task of the new rig will be to work over seven wells on the B3 field.
Moreover, as part of efforts to diversify revenue, work is ongoing to prepare companies of the LOTOS Petrobaltic Group for the provision of offshore services.

Exploration and production activities in Norway

Licences held by LOTOS Exploration & Production Norge AS
as at June 30th 2019



Source: In-house analysis.

In Q2 2019, LOTOS Norge, operating in a consortium, produced natural gas and condensate from the Atla, Skirne, and Heimdal fields (Heimdal assets) and from the Sleipner Ost, Sleipner Vest and Gungne fields (Sleipner assets). The average output of the Norwegian assets in Q2 2019 was 13.9 thousand boe/d.

In Q2 2019, work was also conducted on the Utgard and Yme field development projects, and on preparations for the development of the Trell and Trine discoveries as well as of other deposits located in the Greater Heimdal area (the NOAKA project).
As regards RBL (reserves based lending) financing obtained by LOTOS Norge under a credit facility agreement, on April 1st 2019 bank guarantees were issued in favour of Spirit Energy and ExxonMobil as security for decommissioning commitments related to the Heimdal and Sleipner fields, respectively. As a result, it was possible to release funds from the escrow account which had previously served as security for decommissioning of the Sleipner fields. The released funds were partly used to repay intercompany loans, and the balance will finance LOTOS Norge's day-to-day operations.

Utgard Project

The Utgard field development project is nearing completion. The field's operator is Equinor (formerly Statoil), and the development is carried out under a fast-track model, leveraging synergies with the existing Sleipner hub infrastructure. In Q2 2019, work was still under way to modify the Sleipner T platform and prepare the subsea parts of the production systems. In the reporting period, flowlines and control umbilicals were successfully installed. The project was completed ahead of its original schedule, the production launch being currently scheduled for Q4 2019.

Key parameters of the Utgard project (LOTOS interest):

- LOTOS interest 17.36%
  2P reserves 8.1 mboe as at June 30th 2019 (54% condensate, 46% natural gas)
- Production to be launched in Q4 2019
- Target production 4.1 thousand boe/d (average production volume in the first five years from production launch).

Yme Project

The Yme project is at an advanced development stage. The field operator is Repsol, and the development activities are being carried out in accordance with the approved PDO, using a leased platform – Maersk Inspirer. In Q2 2019, the platform was being modified at the Egersund shipyard and a caisson permanent support (CPS) was installed in line with the plan. The next stage will involve the assembly of a wellhead module (scheduled for September 2019). Given the current project status, launch of production from the field is expected in mid-2020.

Key parameters of the Yme project (LOTOS interest):

- LOTOS interest 20%
- 2P reserves 12.9 mboe as at June 30th 2019 (100% crude oil)
- Launch of production mid-2020
- Target production 5.0 thousand boe/d (average production volume in the first five years from production launch).

NOAKA Project

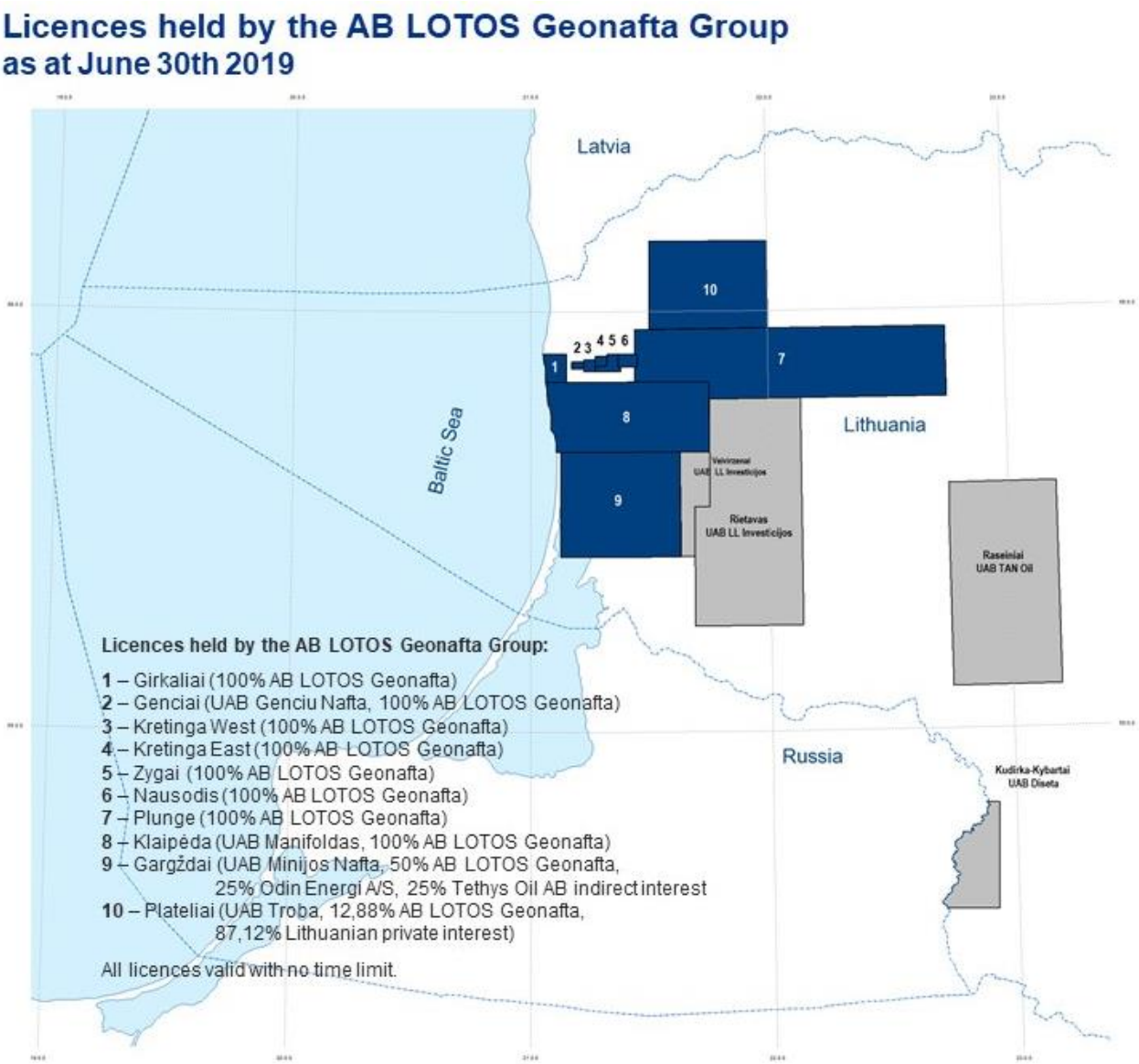
The project aims to develop several fields discovered north of Heimdal: Frigg Gamma Delta, Langfjellet, Rind, Fulla and Froy, in which LOTOS holds an average interest of 10% and AkerBP is the operator. The project may also cover Krafla and Askja reserves, in which LOTOS does not currently hold any interest, whose operator is Equinor. The development concept has not yet been agreed.
In Q2 2019, an exploration well was spudded within the PL 442 licence area, operated by AkerBP with a 90.26% interest, and with LOTOS Norge's interest of 9.74%. The purpose of the drilling was to confirm the potential of the Liatarnet prospect. It led to a discovery of an oil accumulation, initially estimated at around 80 mboe–200 mboe (for 100% interest), which translates into LOTOS interest of approximately 8 mboe–19 mboe.
Further detailed analyses are planned to determine the field's recoverable reserves and development concept. The discovery may form another element of the development potential in establishing a new production hub in Norway under the NOAKA project. Including the Liatarnet discovery, the NOAKA potential reserves are estimated at approximately 38 mboe–49 mboe for LOTOS interest (approximately 95% crude oil, 5% natural gas).

Trell/Trine Project

The project involves development of the Trell and Trine fields, within the Heimdal licence area (in which LOTOS Norge holds interests of 10% and 16%, respectively). At present, a development concept for the Trell/Trine project is being selected, with the preferred solution being a tie-back to the nearby Alvheim Floating Production Storage and Offloading (FPSO) vessel. The estimated hydrocarbon reserves of the Trell/Trine fields are approximately 4.5 mboe for LOTOS interest (97% crude oil, 3% natural gas). According to the operator, the fields may be developed in a fast-track model and production may start in 2022.

Exploration and production operations in Lithuania

Licences held by the AB LOTOS Geonafta Group
as at June 30th 2019



Source: In-house analysis.

In Q2 2019, companies of Lithuania's AB LOTOS Geonafta Group focused on optimising production from their existing onshore oilfields: Girkaliai, Kretinga, Nausodis and Genciu, Vezaiciai, Liziai, Ablinga.

Exploration and Production − key financial data

PLNm	Q2 2019	Q1 2019	Q2 2018	Q2 2019/Q1 2019	Q2 2019/Q2 2018
Revenue	**307.4**	310.7	368.8	**-1.1%**	**-16.6%**
EBIT	**128.7**	153.1	176.4	**-15.9%**	**-27.0%**
Depreciation and amortisation	**49.6**	52.5	60.3	**-5.5%**	**-17.7%**
EBITDA	**178.3**	205.6	236.7	**-13.3%**	**-24.7%**

The year-on-year decline in the E&P segment's revenue in Q2 2019 (down 16.6%) was mainly attributable to a lower sales volume (down 11.3%), mainly of natural gas, combined with falling prices of both natural gas (down 44.5%) and Brent Dtd crude (down 7.5%).

The quarter-on-quarter decline in revenue (down 1.1%) resulted chiefly from lower prices of natural gas (down 35.5%), with an increase (up 10.9%) in the volume of hydrocarbon sales.

The E&P segment's EBITDA for Q2 2019 was down 13.3% quarter on quarter and down 24.7% year on year.

REFINING & MARKETING SEGMENT

- **Maximum capacity utilisation at the Grupa LOTOS refinery and year-on-year improvement in sales structure**
- **Refining & Marketing segment's Q2 2019 adjusted LIFO-based EBITDA of PLN 600m (up 3% year on year)**
- **All EFRA Project units ready for start-up.**

Crude slate

'000 tonnes	Q2 2019	Q1 2019	Q2 2018	Q2 2019/Q1 2019	Q2 2019/Q2 2018
Crude oil processed by the Grupa LOTOS refinery including:	**2,749.5**	**2,610.5**	**2,638.3**	**5.3%**	**4.2%**
Urals crude	**2,030.9**	1,930.9	1,754.0	**5.2%**	**15.8%**
Rozewie crude	**57.5**	38.5	49.2	**49.3%**	**16.8%**
Lithuanian crude	**11.1**	12.6	11.0	**-11.9%**	**0.9%**
Lubiatów crude	**93.2**	59.8	73.1	**55.8%**	**27.4%**
Other	**556.9**	568.7	751.0	**-2.1%**	**-25.8%**

In Q2 2019, the refinery's capacity utilisation rate was 105%. Operating at sustained rates over the period, the refinery processed 2,749.5 thousand tonnes of crude oil.

EFRA (Effective Refining), Grupa LOTOS's key investment programme, is a continuation of a wider effort to upgrade the refinery, taking further the deep crude oil processing configuration achieved under the 10+ Programme.

Q2 2019 saw the completion of all construction and assembly works on the EFRA Project units, including the DCU.[7] On June 26th 2019, the key EFRA Project unit, namely the Coker Complex, reached a confirmed Ready For Start-Up (RFSU) status (see Current Report No. 23/2019 of June 29th 2019).

The following facilities were declared ready for testing and trials:

- the refinery's power supply system (extension and upgrade of the existing electrical substations and cable routings)
- networks of the refinery's teletechnical systems (extension and upgrade of the existing ones)
- emergency steam system for the CHP plant
- last inter-unit pipeline connections.

The facilities placed in service include:

- hydrogen generation unit (HGU)
- a new caustic soda lye pumping station
- the refinery's power supply system (extension and upgrade of the existing electrical substations and cable routings)
- networks of the refinery's teletechnical systems (extension and upgrade of the existing ones)
- a DCU import feed system
- tanks for the DCU's intermediate products
- last inter-unit pipeline connections.

As at June 30th 2019, facilities placed in service accounted for 31% of the Project's total budget, including: 95% and 18%, respectively, of the CAPEX budgets of Grupa LOTOS and LOTOS Asfalt. All facilities covered by the EFRA Project are scheduled to be commissioned by the end of Q4 2019. Engineering design, procurement and construction works under the EFRA Project have been completed.

Immediately upon confirmation of the RFSU status of the Coker Complex, LOTOS Asfalt proceeded to the start-up phase with the use of hazardous substances. Introducing feedstock into the DCU and putting the unit into continuous operation are scheduled for late August or early September 2019.

After the feedstock is introduced, the next step will involve test runs with the participation of the general contractor and the institutions financing the Project, aimed at confirming the contractual production parameters of the Project units.

The Company keeps monitoring forecast margin levels for individual refining products and their impact on future profitability as well as the incremental refining margin following completion of the EFRA Project. Given the considerable market volatility and expected shift in demand after the International Maritime Organisation's new sulfur content caps for bunker fuels enter into force as of the beginning of 2020, the Company estimates that the refining margin achievable following completion of the EFRA Project will be somewhere between USD 2 and USD 4.5/bbl. This range has been based on the most common scenarios proposed by analysts of the refining sector and industry institutions. It is, however, subject to change as a result of fluctuations

[7] DCU – Delayed Coking Unit

in the macroeconomic environment or varied availability of the EFRA Project units. The Company maintains that the incremental effective refining margin will be reflected in the consolidated financial results for Q4 2019.

Refining products[8]

thousand tonnes	Q2 2019	Q1 2019	Q2 2018	Q2 2019/Q1 2019	Q2 2019/Q2 2018
	2,924.3	**2,785.3**	**2,944.6**	**5.0%**	**-0.7%**
Gasolines	**371.1**	407.2	400.8	**-8.9%**	**-7.4%**
Naphtha	**131.1**	106.1	129.8	**23.6%**	**1.0%**
Diesel oils	**1,407.4**	1,245.4	1,361.5	**13.0%**	**3.4%**
Light fuel oils	**45.1**	67.5	32.5	**-33.2%**	**38.8%**
Jet fuel	**118.3**	102.8	127.6	**15.1%**	**-7.3%**
Heavy products[9]	**523.5**	538.6	567.8	**-2.8%**	**-7.8%**
Other [10]	**327.8**	317.7	324.6	**3.2%**	**1.0%**

Sales structure in the Refining & Marketing segment

thousand tonnes	Q2 2019	Q1 2019	Q2 2018	Q2 2019/Q1 2019	Q2 2019/Q2 2018
	2,885.8	**2,720.1**	**2,890.4**	**6.1%**	**-0.2%**
Gasolines	**386.1**	396.8	416.5	**-2.7%**	**-7.3%**
Naphtha	**131.1**	106.1	129.8	**23.6%**	**1.0%**
Diesel oils	**1,468.3**	1,291.7	1,386.6	**13.7%**	**5.9%**
Light fuel oils	**41.9**	71.3	32.1	**-41.2%**	**30.5%**
Jet fuel	**108.9**	116.6	139.7	**-6.6%**	**-22.0%**
Heavy products[9]	**511.7**	508.4	561.4	**0.6%**	**-8.9%**
Other[10]	**237.8**	229.2	224.3	**3.8%**	**6.0%**

Petroleum products market in Poland and LOTOS Group's sales in 2019 − Q2 2019 data

After the first six months of 2019, consumption of liquid fuels (diesel oil, gasoline and light fuel oil) in Poland grew 3.2% year on year. Diesel oil and gasoline consumption grew 3.6% and 3.8%, respectively, while light fuel oil consumption fell 8.9%.

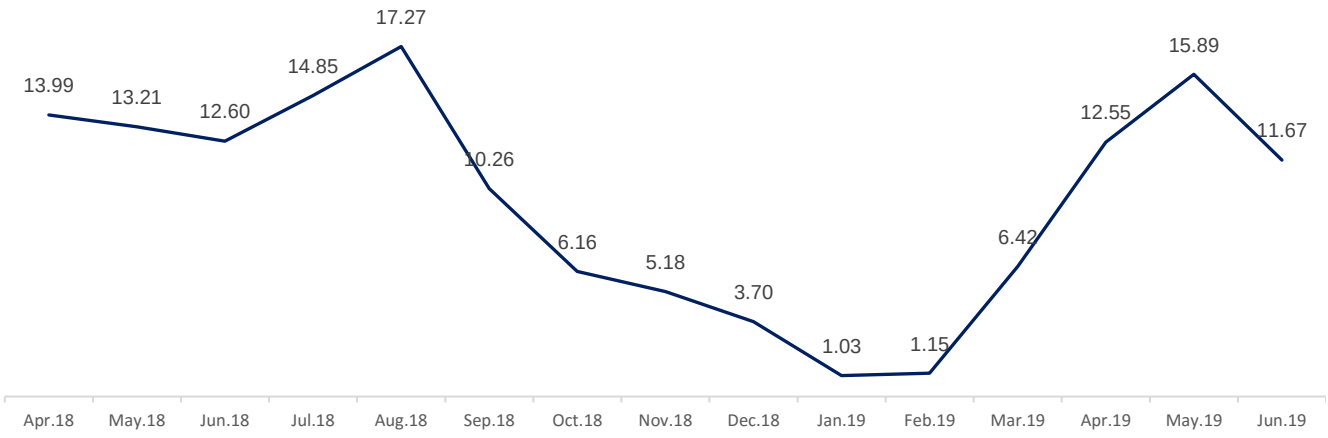
Motor gasoline

After the first six months of 2019, gasoline consumption rose by 3.8% year on year. The LOTOS Group's total sales of gasoline fell 7% year on year in Q2 2019, mainly in connection with product mix optimisation measures undertaken at the refinery in Gdańsk to maximise the refining margin.

In Q2 2019, the average global crack spread for gasoline rose by USD 0.23/bbl year on year.

[8]The difference between the volume of crude oil processed and output of products stems from the fact that, apart from crude oil, the processing units and finished product blenders receive biocomponent streams, enhancing additives and middle distillates purchased from third-party suppliers.
[9]Heavy fuel oil and bitumen components.
[10]Other products include fuel and industrial gases, sulfur, base oils, xylene fraction, LPG, bunker fuel, extracts, refinates, and slack wax.

Motor gasoline – average monthly crack spread, USD/bbl
April 2018–June 2019



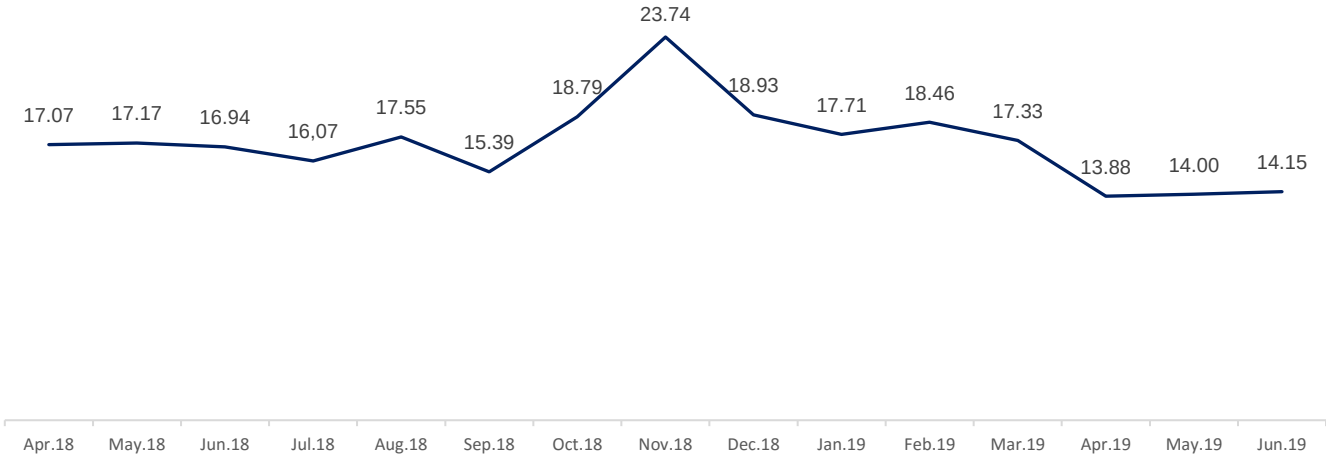
Source: In-house analysis based on Refinitiv data.

Diesel oil

Since the beginning of 2019, domestic demand for diesel oil in Poland has been on the rise, to 3.6% after the first six months of the year. To accommodate the growing demand, the LOTOS Group's domestic sales grew by approximately 6% in Q2.

In Q2 2019, the average global crack spread for diesel oil went up USD 3.01/bbl year on year.

Diesel oil – average monthly crack spread, USD/bbl
April 2018–June 2019

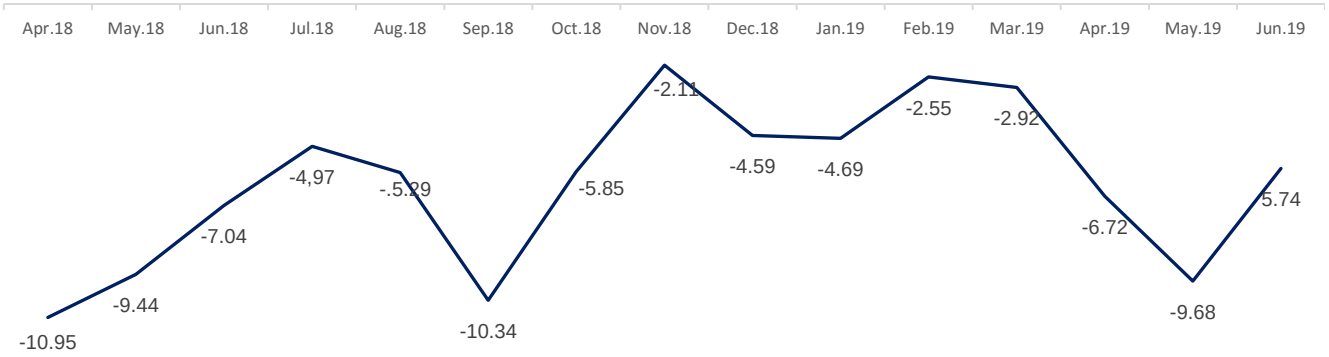


Source: In-house analysis based on Refinitiv data.

Heavy fuel oil

Sales of heavy fuel oil by the LOTOS Group in Q2 2019 went down 24% relative to Q2 2018. In Q2 2019, the average negative crack spread for heavy fuel oil on global markets was USD -7.42/bbl, having improved by USD 1.81/bbl year on year.

Heavy fuel oil – average monthly crack spread, USD/bbl
April 2018–June 2019



Source: In-house analysis based on Refinitiv data.

Refining & Marketing − key financial data

PLNm	Q2 2019	Q1 2019	Q2 2018	Q2 2019/Q1 2019	Q2 2019/Q2 2018
Revenue	**7,487.8**	6,533.8	7,305.0	**14.6%**	**2.5%**
EBIT	**525.2**	216.1	719.2	**143.0%**	**-27.0%**
Depreciation and amortisation	**163.1**	160.6	123.8	**1.6%**	**31.7%**
EBITDA	**688.3**	376.7	843.0	**82.7%**	**-18.4%**
LIFO-based EBIT	**481.5**	257.5	401.4	**87.0%**	**20.0%**
LIFO-based EBITDA	**644.6**	418.1	525.2	**54.2%**	**22.7%**
Adjusted LIFO-based EBITDA[11]	**600.2**	433.3	581.7	**38.5%**	**3.2%**

The Refining & Marketing segment's revenue was up 14.6% year on year driven by a higher average net selling price and a 6.1% rise in sales volumes. In Q2 2019, the segment's average net selling price was PLN 2,595 per tonne, having increased 8.0% quarter on quarter, chiefly on higher prices of petroleum products on global markets and the higher average USD/PLN exchange rate in the quarter. The cost of crude oil acquired by the Company from emergency stocks partially released in Q2 2019 (when crude oil deliveries over the Druzhba pipeline were suspended) was lower than its market price, reducing the Refining & Marketing segment's production costs and improving its operating performance.

Revenue of the Refining & Marketing segment grew in Q2 2019 vs Q2 2018 (up 2.5%), driven mainly by a 2.7% rise in the average net selling price, resulting from the higher (by 6.4%) average USD/PLN exchange rate in the quarter.

In Q2 2019, adjusted LIFO-based EBITDA of the Refining & Marketing segment came in at PLN 600.2m, up 38.5% quarter on quarter and up 3.2% year on year.

The year-on-year increase in adjusted LIFO-based EBITDA came primarily on the back of the improved structure of refined product sales (a 5.9% increase in the volume of diesel oil sold with an approximately 8.9% decrease in the volume of heavy products sold), additionally supported by the higher average USD/PLN exchange rate in the quarter affecting the refining and sales margins, combined with a lower price of internally consumed natural gas.

The significant quarter-on-quarter increase in adjusted LIFO-based EBITDA was primarily attributable to:

- higher sales volumes of petroleum products
- lower price of internally consumed natural gas
- higher average currency exchange rate in the quarter.

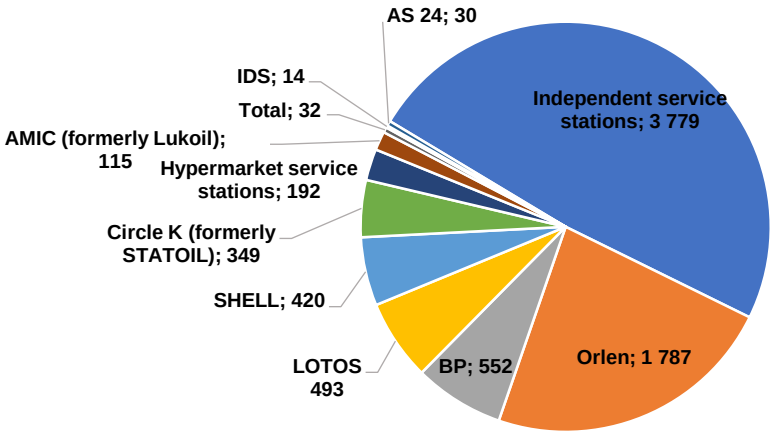
[11] EBITDA including the LIFO effect of inventory measurement and excluding theoretical write-downs on LIFO-measured inventories, net of foreign exchange differences on operating activities.

Number of service stations within the LOTOS network
as at June 30th 2019

	Jun 30 2019	Mar 31 2019	Jun 30 2018	Q2 2019–Q1 2019	Q2 2019–Q2 2018
	493	493	485	**0**	**8**
CODO	**307**	307	304	**0**	**3**
DOFO	**186**	186	181	**0**	**5**

As at the end of Q2 2019, the LOTOS Group operated a network of 493 service stations.

Polish retail market
as at June 30th 2019



Source: POPiHN (Polish Organisation of Oil Industry and Trade)

Retail – key financial data

PLNm	Q2 2019	Q1 2019	Q2 2018	Q2 2019/Q1 2019	Q2 2019/Q2 2018
Sales volume ('000 tonnes)	**316.4**	284.3	317.6	**11.3%**	**-0.4%**
Revenue	**1,786.3**	1,546.6	1,706.2	**15.5%**	**4.7%**
EBIT	**51.0**	35.7	33.9	**42.9%**	**50.4%**
Depreciation and amortisation	**27.5**	27.8	17.1	**-1.1%**	**60.8%**
EBITDA	**78.5**	63.5	51.0	**23.6%**	**53.9%**

EBIT posted in Retail for Q2 2019 reached PLN 51m. The significant quarter-on-quarter and year-on-year increases in operating profit were attributable to higher unit margins earned on fuel sales through the Group's CODO stations.Retail's EBITDA for Q2 2019, of PLN 78.5m, was 23.6% higher than in Q1 2019.The financial results for Q1 and Q2 2019 reflect changes in accounting records related to the introduction of IFRS 16. Following these changes, a portion of lease costs were recognised as long-term leases and, consequently, additional depreciation and finance costs were recognised.

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

Key financial results of the LOTOS Group

PLNm	Q2 2019	Q1 2019	Q2 2018	Q2 2019/Q1 2019	Q2 2019/Q2 2018
Revenue	**7,662.0**	6,741.0	7,531.0	**13.7%**	**1.7%**
EBIT	**658.7**	362.3	897.9	**81.8%**	**-26.6%**
Depreciation and amortisation	**212.7**	213.1	184.1	**-0.2%**	**15.5%**
EBITDA	**871.4**	575.4	1,082.0	**51.4%**	**-19.5%**
LIFO effect[12]	**-43.7**	41.4	-317.8	**-**	**-**
LIFO-based EBIT	**615.0**	403.7	580.1	**52.3%**	**6.0%**
Adjusted LIFO-based EBIT	**570.6**	418.9	636.6	**36.2%**	**-10.4%**
Adjusted LIFO-based EBITDA[13]	**783.3**	632.0	820.7	**23.9%**	**-4.6%**

In line with its inventory measurement policies, the LOTOS Group uses the weighted average method to measure changes in inventories. This method defers the impact of changes in crude oil prices on the prices of finished goods. Thus, an increase in crude oil prices has a positive effect on financial performance, while a decrease adversely affects the performance.

Operating results computed using this inventory measurement method are presented in the EBITDA and EBIT lines of the table. The table also presents estimated inventory decreases measured using the LIFO method, as well as the LIFO effect, LIFO-based EBIT, adjusted LIFO-based EBIT, and adjusted LIFO-based EBITDA.

In Q2 2019, the LOTOS Group posted an operating profit (EBIT) of PLN 658.7m, being the combined result of the Exploration & Production segment's EBIT of PLN 128.7m, the Refining & Marketing segment's EBIT of PLN 525.2m and PLN 4.8m in consolidation adjustments (mainly an adjustment of the realised margin on sales of Rozewie and Lithuanian crudes for the margin on crude stocks held by the Group). LIFO-based EBITDA (excluding theoretical LIFO-based write-downs), net of exchange differences on operating activities (adjusted LIFO-based EBITDA) was PLN 783.3m.

In Q2 2019, the LOTOS Group reported net finance income of PLN 6.0m, with the main contributors being foreign exchange gains of PLN 23.2m, a PLN 30.6m gain on measurement and settlement of hedging transactions and a PLN -59.5m negative balance of interest on debt, interest income and commissions.

In Q2 2019, the effect of measurement and settlement of market risk hedging transactions at the LOTOS Group included mainly a PLN 23.2m net gain on settlement and measurement of exchange rate hedging transactions, a PLN 12.9m net gain on settlement and measurement of transactions hedging CO_2 emission allowances, and a PLN -6.8m net loss on settlement and measurement of IRS transactions hedging interest rate risk.

[12] LIFO effect = LIFO-based EBIT (estimated with the LIFO, or Last In First Out, method) – EBIT.

[13] EBITDA including the LIFO effect of inventory measurement and excluding theoretical write-downs on LIFO-measured inventories, net of foreign exchange differences on operating activities.

Transactions hedging the risk related to petroleum product prices
as at June 30th 2019

Period	Product/Feedstock	Sale Diesel oil	Purchase Heavy fuel oil	Sale Heavy fuel oil	Purchase Light fuel oil	Sale Light fuel oil	Purchase Ethanol
		ULSD 10 ppm CIF NWE	3.5 PCT Barges FOB Rotterdam	3.5 PCT Barges FOB Rotterdam	Gasoil .1 Cargoes CIF NWE / ARA	Gasoil .1 Cargoes CIF NWE / ARA	Ethanol T2 FOB Rdam Barge Eur/cm
Q3 2019	Volume (mt)	-20,000	77,108	-1,895	175	-7,124	6,400
	Price range (USD/mt)	563,5-563,5	265,5-421,8	300-300	566-566	521-717,6	499-499
Q4 2019	Volume (mt)		35,736			-3,301	5,100
	Price range (USD/mt)		265,5-371			527,75-643,25	499-499
Q1 2020	Volume (mt)		2,585			-239	
	Price range (USD/mt)		261,85-284,25			549-578,75	
Q2 2020	Volume (mt)		39,554			-3,655	
	Price range (USD/mt)		253,3-337,5			549-677	
Q3 2020	Volume (mt)		48,718			-4,501	
	Price range (USD/mt)		234-326,5			548,35-660,75	
Q4 2020	Volume (mt)		21,682			-2,003	
	Price range (USD/mt)		234-304			548,35-644	
Q1 2021	Volume (mt)		1,082			-100	
	Price range (USD/mt)		299-299			575-575	
Q2 2021	Volume (mt)		8,335			-770	
	Price range (USD/mt)		292-320			570,8-584	
Q3 2021	Volume (mt)		7,068			-653	
	Price range (USD/mt)		299-320			575-581	

Transactions hedging foreign exchange risk
as at June 30th 2019

Currency pair	Instrument	Volume	Currency	Exchange rate range
EUR/USD exchange rates	Forward	129,900,000	EUR	1.1286 - 1.2187
EUR/PLN exchange rates	Forward	-1,050,000	EUR	4.2520 - 4.2634
USD/PLN exchange rates	Forward	-198,990,000	USD	3.7300 - 3.8243

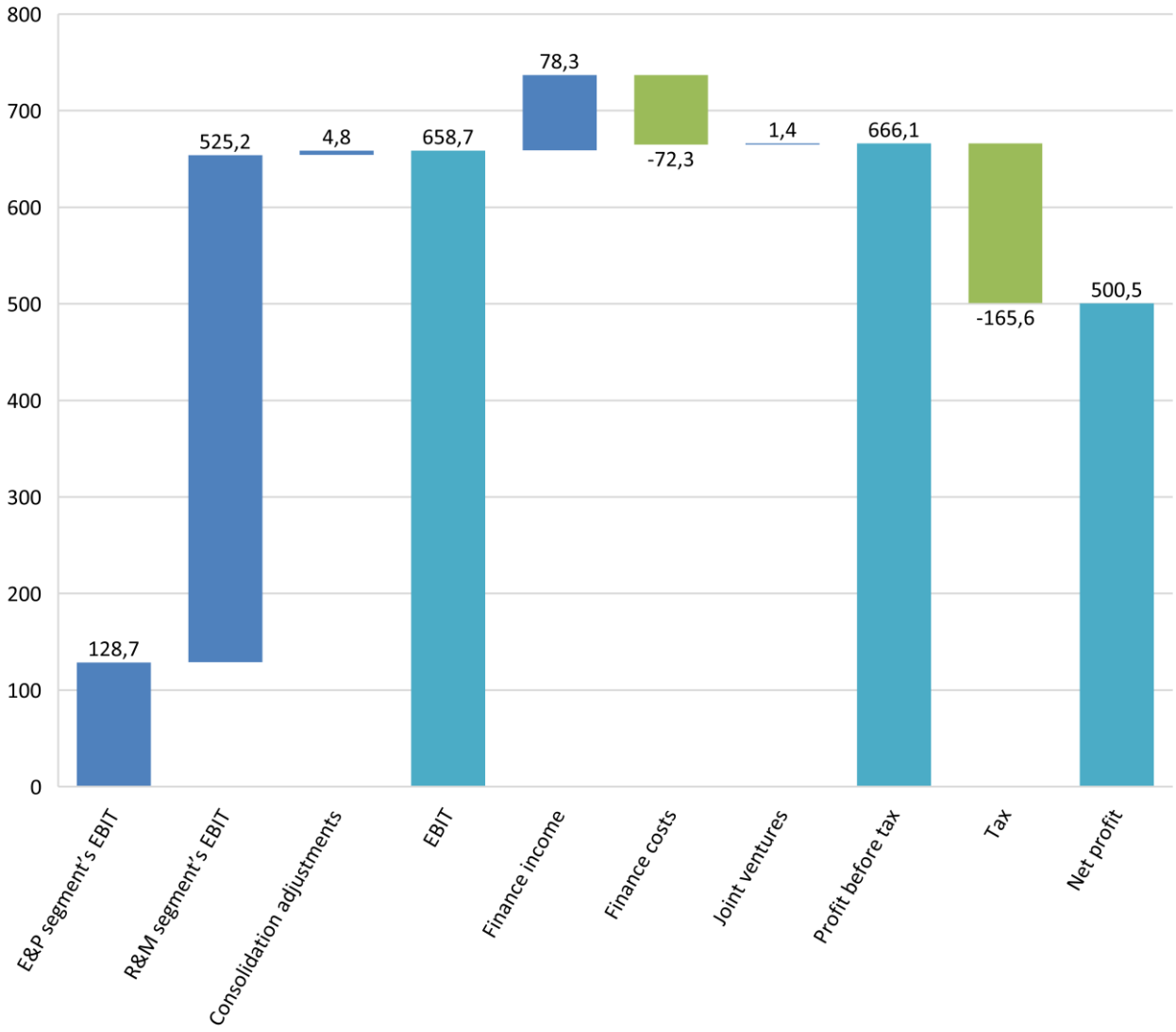
Transactions hedging interest rate risk
as at June 30th 2019

Instrument	Start date	End date	Notional amount	Currency	Interest rate range	Reference rate
IRS	from Mar 21 2019	from Sep 23 2019	322,000,014	USD	1.72% - 2.89%	3M LIBOR
	to Sep 21 2021	to Dec 21 2021				

Transactions hedging the risk related to prices of carbon dioxide (CO_2) emission allowances
as at June 30th 2019

Instrument	Instrument type	2019		2020	
		Volume (mt)	Price range (EUR/mt)	Volume (mt)	Price range (EUR/mt)
EUAs	Futures	1,499,000	7.64 - 23.69	29,000	24.3

Structure of the LOTOS Group's consolidated results in Q2 2019 (PLNm)



In Q2 2019, the LOTOS Group posted a consolidated net profit of PLN 500.5m.

EBIT, profit before tax and net profit/(loss) of the LOTOS Group

PLNm	Q2 2019	Q1 2019	Q2 2018
EBIT	**658.7**	362.3	897.9
Profit/(loss) before tax	**666.1**	292.2	754.0
Net profit/(loss)	**500.5**	172.5	534.9

CONSOLIDATED STATEMENT OF FINANCIAL POSITION

Consolidated statement of financial position – assets

PLNm	Jun 30 2019	Dec 31 2018	Change	%
	23,899.8	22,223.9	**1,675.9**	**7.5%**
Non-current assets	**13,994.9**	13,078.0	**916.9**	**7.0%**
Property, plant and equipment of the Refining & Marketing segment	**9,771.2**	8,742.4	**1,028.8**	**11.8%**
Intangible assets of the Refining & Marketing segment	**148.3**	151.9	**-3.6**	**-2.4%**
Property, plant and equipment of the E&P segment	**3,313.6**	3,044.0	**269.6**	**8.9%**
Intangible assets of the Exploration & Production segment	**357.4**	338.0	**19.4**	**5.7%**
Equity-accounted joint ventures	**125.7**	117.2	**8.5**	**7.3%**
Deferred tax assets	**143.0**	149.6	**-6.6**	**-4.4%**
Derivative financial instruments	**10.7**	9.1	**1.6**	**17.6%**
Other non-current assets	**125.0**	525.8	**-400.8**	**-76.2%**
Current assets	**9,904.9**	9,145.9	**759.0**	**8.3%**
Inventories	**4,694.2**	4,848.9	**-154.7**	**-3.2%**
Trade receivables	**2,553.0**	1,880.4	**672.6**	**35.8%**
Current tax assets	**52.1**	2.4	**49.7**	**2070.8%**
Derivative financial instruments	**28.1**	15.3	**12.8**	**83.7%**
Other current assets	**396.8**	457.6	**-60.8**	**-13.3%**
Cash and cash equivalents	**2,180.7**	1,941.3	**239.4**	**12.3%**

As at June 30th 2019, the LOTOS Group carried total assets of PLN 23,899.8m (up PLN 1,675.9m on December 31st 2018).

Key changes in assets:

- PLN 1,028.8m increase in the Refining & Marketing segment's property, plant and equipment related mainly to the ongoing implementation of the EFRA Project
- PLN 672.6m increase in trade receivables related to Grupa LOTOS S.A.'s and LOTOS Paliwa sp. z o.o.'s sales, due to the absence in the reporting period of factoring transactions at Grupa LOTOS S.A.
- PLN 269.6m increase in the E&P segment's property, plant and equipment, related mainly to the YME fields
- PLN 239.4m increase in cash and cash equivalents
- PLN 461.7m decrease in other assets, mainly as a result of a bank guarantee issued in April 2019 in favour of ExxonMobil
- PLN 154.7m decrease in inventories, primarily of crude oil, caused by a decline in the volume of crude oil stored at Grupa LOTOS S.A.

Consolidated statement of financial position – sources of funding

PLNm	Jun 30 2019	Dec 31 2018	Change	%
	23,899.8	22,223.9	**1,675.9**	**7.5%**
Equity	**12,200.5**	12,034.8	**165.7**	**1.4%**
Share capital	**184.9**	184.9	**0.0**	**0.0%**
Share premium	**2,228.3**	2,228.3	**0.0**	**0.0%**
Cash flow hedging reserve	**-244.1**	-288.2	**44.1**	**15.3%**
Retained earnings	**9,944.5**	9,826.1	**118.4**	**1.2%**
Translation reserve	**86.8**	83.6	**3.2**	**3.8%**
Non-controlling interests	**0.1**	0.1	**0.0**	**0.0%**
Non-current liabilities	**4,838.8**	4,044.3	**794.5**	**19.6%**
Borrowings, other debt instruments and finance lease liabilities	**3,032.6**	2,345.3	**687.3**	**29.3%**
Derivative financial instruments	**4.4**	6.9	**-2.5**	**-36.2%**
Deferred tax liabilities	**397.0**	324.9	**72.1**	**22.2%**
Employee benefit obligations	**176.3**	170.4	**5.9**	**3.5%**
Other liabilities and provisions	**1,228.5**	1,196.8	**31.7**	**2.6%**
Current liabilities	**6,860.5**	6,144.8	**715.7**	**11.6%**
Borrowings, other debt instruments and finance lease liabilities	**1,648.8**	1,538.7	**110.1**	**7.2%**
Derivative financial instruments	**24.3**	47.4	**-23.1**	**-48.7%**
Trade payables	**1,884.8**	1,913.7	**-28.9**	**-1.5%**
Current tax liabilities	**294.5**	565.3	**-270.8**	**-47.9%**
Employee benefit obligations	**136.8**	156.2	**-19.4**	**-12.4%**
Other liabilities and provisions	**2,871.3**	1,923.5	**947.8**	**49.3%**

The **increase in the LOTOS Group's equity** as at June 30th 2019 to PLN 12,200.5m (up PLN 165.7m on 2018) was driven primarily by higher retained earnings (up PLN 118.4m), which were increased by foreign exchange gains on valuation of cash flow hedges recognised in capital reserves, adjusted by the tax effect of PLN 44.1m.

The share of equity in total equity and liabilities fell by 3.2pp year on year, to 51.0%.
Key changes in liabilities (up by PLN +1,510.2m):

- PLN 797.4m increase in borrowings, other debt instruments and finance lease liabilities, mainly due to the implementation of IFRS 16 *Leases*
- PLN 979.5m increase in other liabilities and provisions (mainly due to dividends payable, excise duty, fuel tax, and VAT)
- PLN 270.8m decrease in current tax liabilities, mainly at Grupa LOTOS S.A. and the E&P segment.

As at June 30th 2019, the LOTOS Group's debt totalled PLN 4,681.4m, up by PLN 797.4m on the end of 2018, following the implementation of IFRS 16. The ratio of debt adjusted for free cash to equity was 20.5% (including lease liabilities representing 10.6% of equity), up 4.4pp on December 31st 2018. Net debt was PLN 2,500.7m. The ratio of net debt to adjusted LIFO-based EBITDA was 0.79 as at June 30th 2019.

CONSOLIDATED STATEMENT OF CASH FLOWS

PLNm	Q2 2019	Q1 2019	Q2 2018
Cash flows from operating activities	**243.6**	494.5	532.8
Cash flows from investing activities	**180.8**	-230.6	-217.7
Cash flows from financing activities	**-316.1**	-120.1	-290.2
Effect of exchange rate fluctuations on cash held	**-11.8**	1.9	8.0
Change in net cash	**96.5**	145.7	32.9
Cash at beginning of period	**2,084.0**	1,938.3	1,366.4
Cash at end of period	**2,180.5**	2,084.0	1,399.3

As at June 30th 2019, the LOTOS Group's cash balance (including overdraft facilities) was PLN 2,180.5m. Net cash flows in Q2 2019 added PLN 96.5m to cash and cash equivalents.

In Q2 2019, net cash flows from operating activities were positive at PLN 243.6m, driven mainly by net profit increased by depreciation and amortisation and a decrease in trade receivables, as well as by reduced trade payables, income tax paid and an increase in inventories.

Positive net cash flows from investing activities (of PLN 180.8m) were mainly attributable to the inflow of funds from the Sleipner decommissioning escrow account (PLN 440.8m), partially offset by purchases of property, plant and equipment and other intangible assets, chiefly for the E&P segment (PLN -266.8m).

Negative cash flows from financing activities, of PLN -316.1m, chiefly comprised a negative net balance of proceeds from borrowings and repayments of borrowings (principal and interest), and payments of liabilities under finance leases.