LOTOS Group's macroeconomic environment in 2019

The LOTOS Group is an active participant of the fuel market, affecting it through its operations and responding to changes that occur on that market. Therefore, when planning strategic development directions, LOTOS takes into account forecasts and megatrends which affect its business.

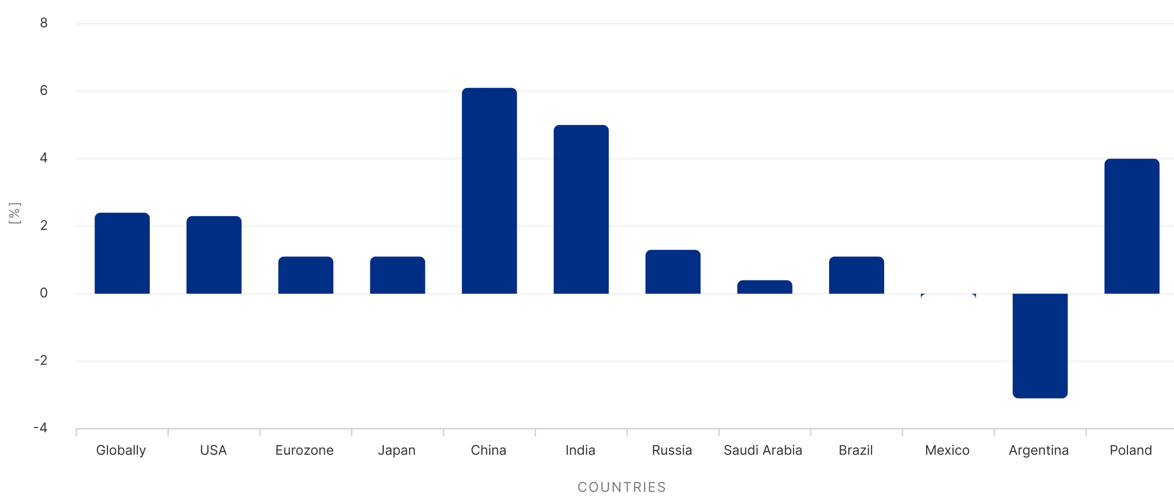
Proprietary indicator 1

The key drivers of oil and gas prices include changes in the world's population as well as global and regional changes in supply and demand forces.

Oil prices are also affected by:

- macroeconomic situation;
- global and regional economic conditions
- trading activities of market participants;
- weather conditions and natural disasters;
- availability and cost of construction or use of transport and processing infrastructure;
- price and availability of, and government subsidies for, alternative energy sources and new technologies;
- the US dollar exchange rate.

Growth rate of Gross Domestic Product in 2019 (%)



Source: World Bank, estimate.

Crude oil refining

In 2019, the primary processing capacities of refineries were estimated at 100 mbd globally. The largest refining units were operated in the US and Canada (20.7% in total) and in China (16.1%). In addition, refineries are becoming increasingly comoperated in the US and Canada ([illegible] in total) and in China ([illegible]). In addition, refineries are becoming increasingly complex, with greater secondary processing capacities.

This long-term trend has been caused by the combination of older, simpler refineries being closed down, existing plants being extended through the addition of secondary processing capacities, and building of new, highly complex plants. This is due to growing global demand for light and 'clean' products, coupled with a gradual decline in demand for residual fuel oil. Moreover, these changes result from increasingly stricter fuel quality legislation.

Since 2012, many refineries, with a total capacity of 1.7 mbd, have been closed down across Europe. There are more than 100 refining plants in Europe with different conversion levels, but the profitability of some of them (taking into account the prevailing market conditions, including the new IMO regulations) is low. Therefore, small low-complexity refineries are still at the risk of closure, given their high unit operating costs.

Important legal regulations

In Poland, an emissions charge has been included in the price of gasoline and diesel oil since January 1st 2019. It amounted to PLN 0.08 per litre of those fuels, contributing to the newly established Low Emission Transport Fund, the purpose of which is to help develop the alternative fuels market and infrastructure. 15% of the emissions charge proceeds are transferred to the Low Emission Transport Fund, while the remaining 85% – to the National Fund for Environmental Protection and Water Management.

An Act amending the Act on Biofuel Components and Liquid Biofuels of July 19th 2019 came into force on January 1st 2020. It has introduced, among other things:

- provisions permitting the use, as from 2020, of combined hydrotreatment products to meet the National Indicative Target (NIT) and inclusion in the NIT of biohydrogen contained in liquid fuels produced using biomethane;
- revision of the obligatory biofuel blending mechanism;
- amendments to define in more detail the procedures and requirements for the quality certification of biofuel components;
- amendments relating to the operation of the Low Emission Transport Fund.

Amendments were also made to the Act on Fuel Quality Monitoring and Control Systems. First of all, specific requirements were introduced with respect to marking of liquid fuel filling stations, and for formulating and communicating information on the possibility of filling vehicles with liquid fuels.

W 2019 roku trwały na rynku przygotowania do wejścia w życie nowych regulacji Międzynarodowej 2019 was a period of preparations for the entry into force of new regulations issued by the International Maritime Organization (IMO), which, as from 2020, have tightened the sulfur limits on bunker fuel. One of the key changes that came into force on January 1st 2020 was a global cap on sulfur content in fuel used by marine vessels from 3.5% to 0.5%. A lower sulfur content, of 0.1%, has to be ensured within emission control areas (ECAs), which include Europe.

In order to comply with the IMO's requirements, vessel owners may either:

- switch to low-sulfur fuels (MGO 0.5%/Fuel Oil 0.5%); or
- equip their vessels with sulfur control devices (scrubbers); or
- switch to alternative fuels (e.g. LNG).

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Both refineries and vessel owners took appropriate steps to prepare for the new regime: the former were constructing or upgrading their refining units to reduce the output of heavy fuel oil, while the latter began to adapt vessels to new low-sulfur fuels (VLSFO or MGO) or to equip them with scrubbers to continue the use of HSFO. Given the ability of market players to adapt to new conditions, no major difficulties are expected with fuel availability. However, the IMO requirements will put a range of business operators under pressure (for instance, low-conversion refineries may be forced to reduce their output), while the position of the LOTOS refinery should remain stable given the capex programme it is implementing (the delayed coking unit with auxiliary facilities).