

Key risk groups for the LOTOS Group and key risks identified within individual groups

Risk groups

Key risks

Political and legal risks

- Tensions between Ukraine and Russia and the resulting EU sanctions on Moscow.
 - Plans to implement new EU legislation, especially related to tighter EU climate policy until 2030. The European Union proposes that the greenhouse gas emissions reduction ratio be doubled to 40%, the share of RES in electricity generation be raised to 27%, and the annual CO₂ emissions reduction ratio in the ETS be increased from 1.7% to 2.2%.
 - Lack of comprehensive legal framework for the oil sector.
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Reputational and social risks

- Events that may affect the perception of LOTOS and the LOTOS brand value. Factors beyond the Company's control include impairment of the reputation of our industry. Factors directly related to the Company's activities include delays in product supplies, deterioration of product quality, and industrial accidents.
 - [Risk of misconduct](#) — related e.g. to all corrupt practices.
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Exploration and production risks

- Risks from estimating hydrocarbon resources and reserves discovered by exploration wells.
 - Risk of drilling a dry well (without hydrocarbon flow).
 - Risk of failure of production equipment and facilities due to their limited durability or improper operation.
 - Risks from infrastructure operation, such as the risk of oil spill, sea collision, fire or blowout – which may cause environmental contamination, serious injury or death of an employee, downsizing or stoppage of production, as well as entail significant costs to remedy the resulting damage or pay fines.
 - Risk of limited control of joint ventures as such projects involve at least two partners.
 - Macroeconomic risk – in 2015 relating mainly to plunge in crude oil prices, resulting in deterioration of the economic parameters and profitability of investments in the upstream business, and affecting the availability and terms of external financing for such projects.
 - [Risk of increased liabilities in relation to the YME project.](#)
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Refinery-related operational risks

- Technical risks related to possible occurrence of serious industrial accidents or irreparable damage to infrastructure.
 - Work safety risk – relates to potential occurrence of accidents and other threats involving exposure of employees to dangerous and onerous factors.
 - Risk related to legislative changes with respect to REACH (Regulation of the European Parliament and of the Council concerning safe use of chemical substances, which is to be achieved through registration and evaluation, and in some cases through introduction of permits and restrictions on trade).
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Environmental risks

- Risks related to CO₂ emission allowance limits – include the risk of an increase in prices and insufficient allocation of CO₂ emission allowances, which may necessitate additional costs to be incurred to purchase allowances on the market to cover the deficit.
 - Risks related to the need to obtain new or amend existing permits.
 - Risks related to compliance with new regulations on the implementation of Best Available Techniques (BAT).
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Financial risks

- Commodity and petroleum product price risk – operating results are largely dependent on the difference between the price of petroleum products and the price of crude oil. CO₂ allowances price risk – in 2015, Grupa LOTOS managed the risk associated with entire phase III of the EU CO₂ Emissions Trading Scheme covering the 2013–2020 trading period ([for more details, see the consolidated financial statements for 2015](#)).
- Liquidity risk – the risk relating to the ability to discharge all liabilities in a timely manner. It may result from a mismatch between streams of receivables and payables or inadequate sources of funding.
- Currency risk – the Polish złoty (PLN) is the reporting and functional currency for the Company and the majority of other LOTOS Group companies, while the trading prices of crude oil and petroleum products are generally denominated in, or tied to, the US dollar (USD).
- Interest rate risk – Grupa LOTOS is exposed to interest rate risk, with interest rates growth translating into increased costs of servicing debt under floating-rate borrowings.
- Counterparty risk in trade transactions – in the course of trading operations, products and services are sold to businesses on a deferred payment basis, which may give rise to a risk of the customer's default.
- Risk of limited access to or change in the terms of external financing – some of the investment projects pursued by Grupa LOTOS and its subsidiaries as well as their day-to-day operations are or may be financed with borrowings.
- Risk of adverse changes in tax regulations, interpretations or court rulings – this risk may result in higher tax burden (excise duty, property tax, CIT), and give rise to tax risk in transactions where such risk was previously non-existent.

Trading risks

- Risk of crude supply interruptions or shortages – as the output from its own production assets does not fully cover its processing feedstock requirements, the LOTOS Group relies on crude oil purchased from external suppliers.
- Risk of changes in margins on product sales – the principal risk factors include progressing market consolidation leading to intensified price competition on the Polish fuel market, and the rapidly changing global macroeconomic environment.
- Risk of decline in domestic demand – negative trends related to macroeconomic factors (GDP, situation on the labour market, industrial production volume, etc.) may result in lower domestic demand for fuel products.
- Risk of grey market expansion – in recent years, Poland has seen an increase in illegal trade in fuels, especially in diesel oil. In 2015, the grey market was about 18% of diesel oil consumption in Poland, and in 2014 it was about 20%.

In addition, in 2015 the LOTOS Group identified two new enterprise risks:

■ **Risk of potential environmental damage caused in the course of upstream operations**

The risk was identified in connection with expansion of production activities in the Baltic Sea and the growing hydrocarbon output. Following a relevant assessment and analysis, the risk was classified as moderate, i.e. with a low likelihood of occurrence but with potentially severe financial and reputational consequences. We have defined a detailed risk management process for this risk and put in place appropriate controls along with methods and schedules of their review.

■ **Risk of financial losses that may be incurred as a result of trading activities in the event of potential participation in a carousel fraud**

The risk was included in the risk register following receipt of a decision by the Director of the Tax Audit Office in Bydgoszcz concerning failure to exercise due care in fuels trading. Grupa LOTOS as a direct seller of fuels has always exercised due care in selecting its partners in fuels trading business and drafting trade contracts. The identification of the risk prompted a systemic review of internal procedures and protocols. As a result, the counterparty selection and trading contract execution processes were optimized across the LOTOS Group. The improvements will prevent similar incidents from happening in the future and will contribute to curtailing the black market in fuels in Poland.