## POLISH-LITHUANIAN TRADE IN MINERAL RESOURCES (2000-2020)

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Trade between neighboring countries is usually intense, which is favored by such elements as relatively short transport, good development of the communication network, good knowledge of the neighbor's needs or joint, cross-border infrastructure investments. Poland and Lithuania differ significantly in terms of the size of the area (PI - 312.7 thousand km²; Lt -65.3 thousand km²) and population (PI - 38.2 million; Lt - 2.8 million). The two countries share a method of documenting mineral deposits, which in the past was based on models from the Soviet Union.

Poland is a country rich in mineral resources. This applies in particular to construction minerals (raw materials for construction ceramics, natural sand-gravel aggregate, limestone and marl for the cement industry, gypsum and anhydrite, block and crushed stones, quartz sands), glass industry minerals (glass sands, molding sands), chemical minerals (sulfur, rock salts). From metal ores, Poland is an important world producer of copper and silver, until recently also the mining of zinc and lead ores was an important branch of the mining sector, but this chapter of history is now closed. Poland also has significant lignite and hard coal resources, but in view of the policy of abandoning fossil fuels as energy sources, these deposits will lose their importance in the next several years. Poland has quite limited resources of hydrocarbons and is forced to import about 75% of gas and over 95% of crude oil each year, which are essential for the proper functioning of the national economy. Therefore, Poland's trade balance in the field of raw materials is definitely negative.

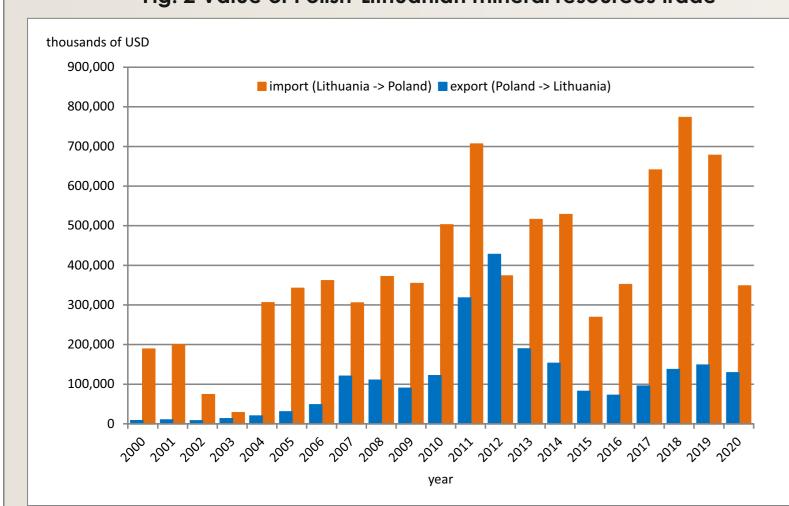


Fig. 1 Border outline and national colors of Poland and Lithuania

Source:https://static.deon.pl/storage/image/core\_files/2015/3/10/84c07dc61dc1c0b9249617cbdb2f6884/jpg/deon/articles-single-cover-photo/1263167644.iu

In Lithuania, there are documented deposits of 17 types of mineral resources. Of metal ores, Lithuania has only iron ore deposits that are not mined and not expected to be used. In addition, there are deposits of rock salt, anhydrite, gaize, peat, dolomite, freshwater limestones, gypsum, glauconite sand, limestone, chalk marl, clay, shale, sapropel, quartz sands as well as sand and gravel. Amber is a valuable mineral. Deposits of 9 types of these minerals are exploited. From the economic point of view, the most important are mineral commodities used in construction and infrastructure investments: sand and gravel aggregate, gaize, limestones, clays and dolomites. Their extraction has reached the level of over 19 million m<sup>3</sup> and constitutes 98.5% of all mineral resources extracted in Lithuania. In 2022, the production of sapropel, quartz sands and gaize deposits was started, but their production is not yet significant. It is also planned to start mining the anhydrite deposit.

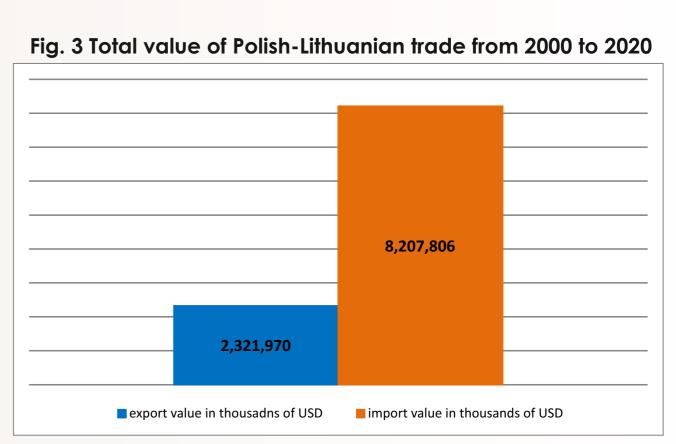




Trade in the field of broadly understood mineral resources between Poland and Lithuania in the last 20 years, with a general upward trend, has been subject to significant fluctuations. In terms of value, expressed in USD, the value of Lithuanian exports to Poland usually significantly exceeds the value of Polish exports.

The minimum value is slightly over USD 28 million in 2003, the maximum - almost USD 775 million in 2018. The value of Polish exports ranges from less than USD 8.5 million in 2000 to over USD 440 million in 2012. Only in 2012, Poland had a slightly positive balance of trade with Lithuania in the field of mineral resources.

The total value of trade in the period 2000-2020 (21 years) amounted to: imports to Poland from Lithuania - USD 8.2 billion, with the value of exports amounting to USD 2.3 billion.



According to the data of the Polish Custom Service, Poland exports 65 minerals to Lithuania, and imports 35. Considering the value of trade, the main importance in imports to Poland are petroleum products, fertilizers (mostly nitrogen fertilizers), cement, aluminum, copper and insulation materials. The exports to Lithuania are dominated by oil products, iron, fertilizers (mainly multi-component fertilizers), gypsum, insulation materials, copper, zinc and gold. In terms of quantity, attention should be paid to the significant exports of crushed aggregate from Poland in 2018, which then reached almost 1.1 million tons. A large surplus in the import of petroleum products and fertilizers is of dominant importance in the negative balance of Poland in trade with Lithuania.

Fig. 4 Insulation materials export-import from 2000 to 2020

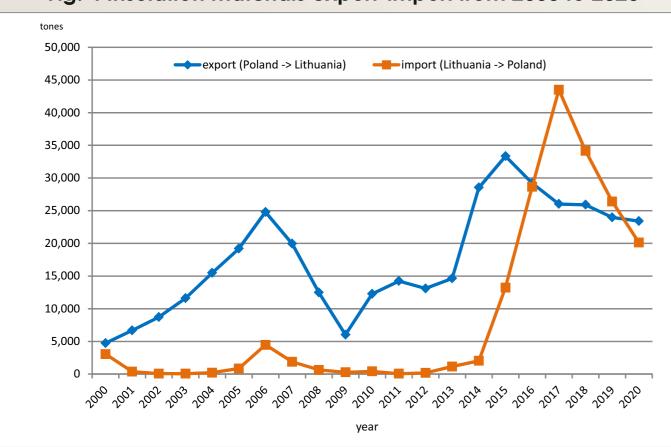


Fig. 5 Mineral fertilizers export-import from 2000 to 2020

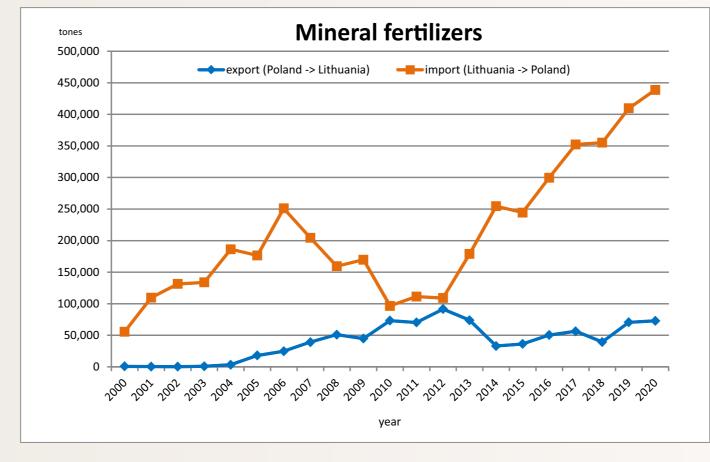


Fig. 8 Export-import of crushed aggregate, petroleum products and copper

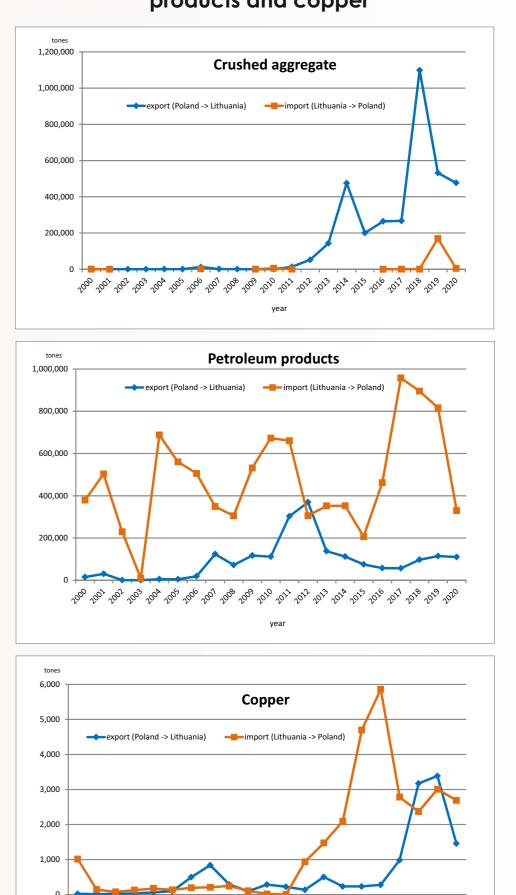


Fig. 6 Insulation materials trading value

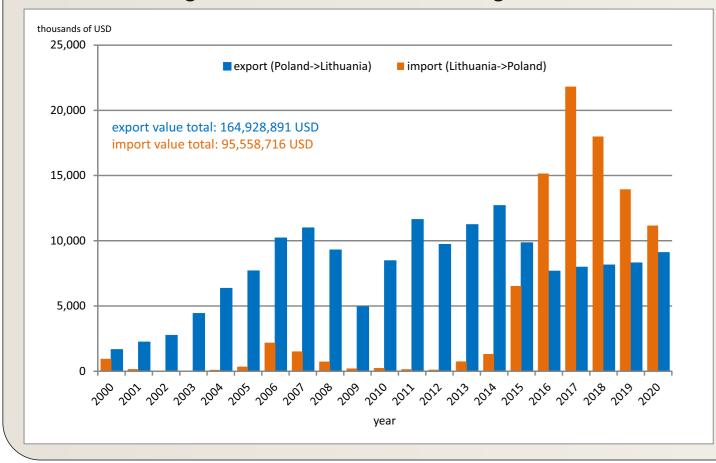


Fig. 7 Mineral fertilizers trading value

