

EFFECT OF BELARUS OIL REFINING PROBLEMS ON INDEX NUMBER OF INDUSTRIAL PRODUCTION AND GROSS DOMESTIC PRODUCT

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The article deals with the influence of refinery utilization rate on the index of the gross domestic product and the balance of foreign trade. The study period is the last 3-5 years. Possibilities of oil supply diversification and prospects of use are determined.

Nowadays, according to the concept of socio-economic development of the Republic of Belarus for 2016-2020, the main purpose of country's development is to improve the quality of life due to the growth of economic competitiveness, attraction of foreign investments and innovation development. For effective development of economic sectors, innovative growth and an increase in the rate of the development of high-tech industries is necessary.

Oil refining and petroleum chemistry are strategically important sectors for the Republic of Belarus. Oil refining market of the Republic of Belarus is represented by the two largest companies – OJSC "Naftan" and JSC "Mozyr Oil Refinery". To diversify their product ranges and improve product competitiveness in domestic and global markets the companies have large-scale modernization, aimed at increasing of oil refining output. The volume of crude oil output is about 1.65 million tons, so the main supplier of raw materials for oil refineries is Russia – about 22 million tons of oil per year.

According to the types of economic activity the production of coke, oil products and nuclear materials, as well as the chemical industry in the structure of the manufacturing industry occupy 31.5% of Belarusian products. According to the National Statistical Committee of the Republic of Belarus (Belstat), the volume of industrial production according to economic activities (OKED) in 2014-2016 for the period January-December is presented in Table 1.

Table 1 – The volume of industrial production of the Republic of Belarus

Economic activity	2014r.		2015r.		2016r.	
	Million. rub.	%	Million. rub.	%	Million.rub..	%
Industry total	673 850135	100	738 381164	100	79 414,8	100
Manufacturing industry, including	605038 645	89,79	650 499 452	88,1	68 809,3	86,64
Manufacture of coke and refined petroleum products	109 575 417	18,11	120 686 346	18,55	10 484,1	13,2
Production of chemical products	66 522 623	9,87	84 107 803	12,93	6 648,6	8,38
Other economic activities	68 811 490	10,21	87 881 172	11,9	10605,5	13,36

Thus, on the whole in the industry the volume of production of coke, refined petroleum products and chemical products was 27.98% in 2014, 31.48% in 2015 and 21.58% in 2016 of the total output of manufacturing industry. Decline in the share of oil refinery and petrochemical production in 2016 is directly related to the decrease in oil supply of raw materials from Russia in the 4th quarter of 2016.

Figure 1 shows the dynamics of the production of motor gasoline, diesel fuel, oil fuel during 2016. As it can be seen from the chart, by the end of the year the production of gasoline has sharply reduced by 32%, of diesel fuel by 42.4%, of liquid fuels by 59.3% in reference to production volume in January 2016.

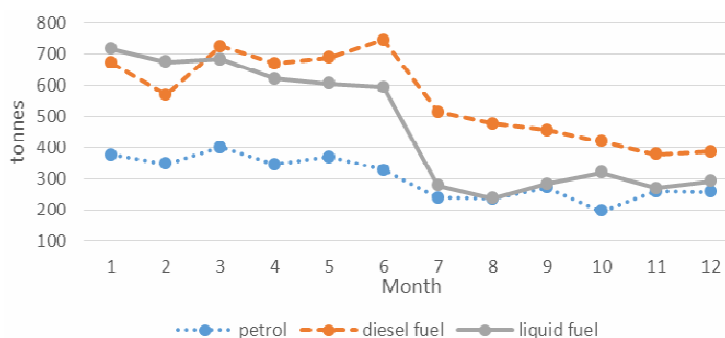


Fig. 1. Dynamics of production of petroleum products monthly in 2016

If to make an analysis of indicators of gross domestic product (GDP) in US dollar terms over the past few years, we can see that the same sharp decline as in 2016 was in 2009, during the global financial crisis (Figure 2).



Fig. 2. Dynamics of GDP during the period 2008–2016

Performed analysis of the dependence of oil supplies from Russia to Belarus for refineries and the industrial production index according to the types of economic activity is presented in Table 2.

Table 2 – Indices of industrial production during the period 2010–2015

Year	2010	2012	2013	2014	2015
Oil received for processing, mln. tons	16,5	21,7	21,2	22,3	23,0
Industrial production index according to economic activity (in percentage to the previous year) for the manufacturing industry					
– Production of coke, oil products and nuclear materials	88,7	109,0	79,1	108,6	100,5

The data from the table show the interconnection and influence of the amount of refined oil on the index of industrial production. Low index of industrial production in 2010 is due to the effects of the global crisis, as Belarus is very sensitive to changes in Russian economy, and in 2013 there was a sharp rise in the dollar, which is reflected in the index is not for the best.

Thus, the loading of oil refineries with raw materials by 100% and sales of products of oil refining and petrochemical industries ensures positive dynamic and positive growth of rates in the industry and it has a significant impact on industrial production and gross domestic product.

Reduction of oil supplies by the end of 2016 has dramatically reduced the index of industrial production in oil refining, which led to a drop in industrial indicators as a whole (Fig. 3), and will have a negative impact in the future on other sectors of the economy. By the end of 2016 the most important indicators of socio-economic development of the country have not been fulfilled: GDP – 97.4% compared to the previous year, the export capacity – only 88.6%.

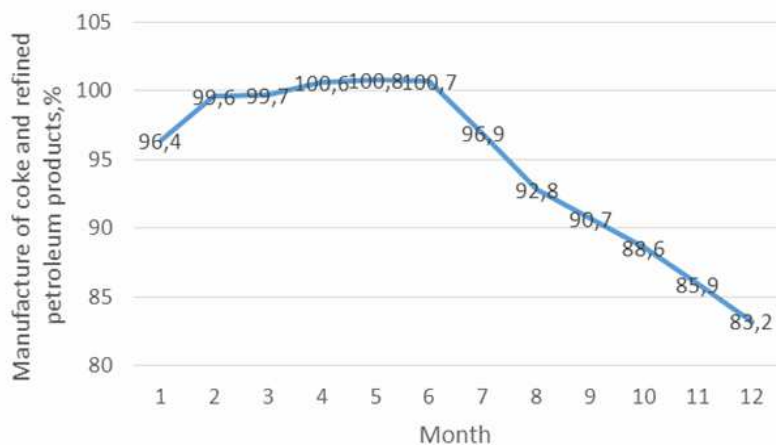


Fig. 3. Industrial production index monthly in 2016

Economics

The oil refining industry of Belarus depends on imports of raw materials from Russia, and failure to make supply fully is reflected in terms of oil exports, the value of the profits of enterprises and the reduction of tax revenues. Table 3 shows the import and export of goods for raw materials and products of oil refining enterprises for 2015–2016.

Table 3 – The balance of foreign trade in petroleum products

Name of product	January-November 2015		Name of product	January-November 2015	
	Imports, thousand USD	Exports, thousand USD		Imports, thousand USD	Exports, thousand USD
Crude oil, including gas condensate	5296147,2	545116,9	Crude oil, including gas condensate	3685835,8	421958,8
Petroleum products	457429,3	6220579,6	Petroleum products	499811,4	3779466,2
Light distillates and products	183683,3	1381045,6	Light distillates and products	110992,5	1089101,7
Other distillates and products	272735,7	4839533	Other distillates and products	388801,2	2690364,5
Petroleum gases and other gaseous hydrocarbons	2551297,7	180920,5	Petroleum gases and other gaseous hydrocarbons	2355170,2	115471,2
Totals	8761293,20	13167195,6	Totals	7040611,1	8096362,4
Balance	4 405 902,40		Balance	1 055 751.30	

Thus, the foreign trade balance for 2016 for oil products and other products of refining industry compared with similar data for 2015 has decreased by almost 4 times, which is a negative factor for the development of the national economy.

According to various experts, the current political and economic situation in the relations with Russia, strongly affect the volume of wholesale trade in industrial production, and, consequently, reduction in the rate of GDP can become one of the worst in recent years.

The Government of Belarus is considering various options alternative solutions. However, due to the fact that in recent years Belarus has refused from the purchase of raw materials from other regions, except for Russia, our Republic came into direct dependence on oil supplies.

The search for alternative supply of energy recourses to the country is high priority task today. It is currently considering options for the purchase of Venezuelan and Iranian oil. In 2011 according to the swap contract between the Belarusian Oil Company, the Venezuelan PDVSA and the State Company of Azerbaijan (SOCAR) Belarus imported crude oil Azeri light on the trunk pipeline system. But, despite the fact that Belarus has a very favorable geographical position, the Republic does not have an outlet to the sea and is not directly linked to highways with any country potential exporter. Possible construction of various "bridges" or a new pipeline significantly increases the cost of pumping oil. Therefore, it is necessary to improve the logistics of Railway Transport of the Baltic States and Belarus; consider ways to deliver Arabic, Libyan oil; use in the reverse direction the pipeline Surgut - Unecha - Polotsk - Ventspils.

Changing of the conditions of supply of raw materials, in the case of Russian zeroing of crude export duties on oil and petroleum products will lead the Belarusian oil refineries to the need to buy oil almost at world prices, which will lead to the loss of processing and unprofitable enterprises. Therefore, it will be rather difficult to ensure the efficient production of oil products and raw materials for the petrochemical complex for the performance of basic indicators of socio-economic development, one of which is the gross domestic product and increasing the country's export potential.

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