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DOI: 10.15405/epsbs.2021.07.102

LEASECON 2020 International Conference «Land Economy and Rural Studies Essentials»

ECONOMICS IN THE OIL AND GAS INDUSTRY OF MODERN RUSSIA

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Abstract

The article examines the current state of the oil and gas industry to address economic development paths. The paper deals with the current state of the oil and gas sector, its main trends, development prospects in recent years. The economy of Russia, as well as other oil and gas producing countries, is extremely dependent on the level of development of the oil and gas complex. The Russian Federation is a key supplier of oil and petroleum products to the EAEU countries. The share of oil and gas revenues in federal revenues, although to some extent it is declining, continues to remain at a high level. In the structure of oil and gas revenues, the largest part is occupied by MET. The share of export duties in the value of oil and gas revenues is constantly decreasing, for example, from 33.4 % in 2018 to 21.5 % in 5 months of 2020, which was influenced by the economic sanctions of Western countries taken in order to weaken the Russian economy. Based on the analysis of official statistical data, the author examines the role of oil and gas revenues in the federal budget and the consolidated budget of the Russian Federation in recent years, the structure of oil and gas revenues of the federal budget, the national welfare fund. Attention is paid to the relationship between the income received from the reserve fund and the national welfare fund.

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Keywords: Economics, government regulation, oil and gas sector, oil and gas complexes, taxation



1. Introduction

Russia is one of the largest countries in the world with a huge amount of natural resources, among which natural gas and oil occupy a special place. Their extraction, use, processing and sale to other states are the determining factors for the successful development of the country's economy.

The oil-and-gas sector in Russia is the backbone of its economy. The article analyzes the current state of this industry, its main trends, development prospects, the level of their income, profitability, capitalization volume. The dynamics of state revenues from taxation of the oil and gas sector in recent years is analyzed. It also provides conclusions about the current state of the oil and gas sector in Russia (Sadykov & Stepanova, 2018).

The work uses the results of research obtained by scientists, economists and practitioners on the relationship between prices for Russian oil products and prices on the world market, their impact on incomes in conditions of depletion of reserves, sanctions and unpredictable fluctuations in oil prices.

Also, the author's opinion on the directions of development of enterprises in the oil environment is presented.

2. Problem Statement

In the process of studying the economy of the oil and gas sector, the dynamics of income, their relationship with the country's income, as well as the relationship of world prices for energy resources with the Russian oil and gas product are considered.

The world oil and gas prices are the most important factors that influence the industry's revenues.

Thus, in 2017, the average oil prices increased to \$53.03/barrel, i.e. by 26% per year compared to 2016 prices (\$41.9/barrel). Gas prices increased to \$200.2/thous. cubic meters, i.e. by 13.7% (\$176.0/thousand cubic meters)

The volume of state revenues received in 2017 exceeds that received in 2016 by 1,628.37 billion rubles, including by 1,128.9 billion rubles due to the oil-and-gas industry.

After analyzing the actual data on oil production and exports, we note that the share of exports in the volume of oil production from 2007 to 2017 decreased from 52.7% to 42.6%.

The decrease in production volumes in this period is due to the implementation of the agreement for the OPEC countries, according to which Russia assumed obligations to limit production at the level of October 2016 (Limonov, 2015).

As a result, this decline was reflected in the oil price.

The beginning of 2017 is characterized by a significant period of implementation of the tax changes developed in 2014. Duty rates for crude oil destined for export have been lowered by using the ceiling rate. These changes were compensated by an increase in the Mineral Extraction Tax (MET)

In 2020, the tax maneuver in the industry came to an end, consisting in the gradual abolition of the export duty on oil and an equivalent increase in the MET rate.

In 2020, oil refining companies pay only 2/3 of the export duty to the budget, the rest will be paid in the form of MET.

Every year the company taxation system becomes less and less indicative (typical) for its analysis. The introduction in 2019 of the Revenue Added Tax (RAT) regime, the number of tax regimes applied in oil production reached 20. The introduction of the RAT should ensure equal access for all components of the industry to incentives for production. And as a result, it can lead to a decrease in the dependence of the federal budget on the income of companies in the oil industry (Carol, 2017).

3. Research Questions

The resource base of the oil and gas sector in Russia at the present stage of its geological exploration and industrial development is made up of more than 2,734 oil, oil-and-gas, gas and gascondensate fields. which are discovered in the subsoil, as well as on the continental shelf of the Russian Federation.

Russia accounts for 13-15% of the world's current oil and gas condensate reserves and about 35% of gas reserves (Addison et al., 2018; Forni & Pisani, 2018).

The oil industry provides a significant contribution to the formation of a positive trade balance and tax revenues to the budgets of all levels. This contribution is much higher than the share of the complex in industrial production.

The current regulatory system in relation to the oil sector plays a negative role, especially the unpredictable export quota policy, uncertain exchange rate policy, and steadily rising prices. The most destabilizing role in the oil complex is currently played by the export duty set by the government. When withdrawing additional revenues from the oil sector, the state has the right to use only stable taxes, taking into account the conditions of production and income tax. Under certain conditions, a tax on excess profits resulting from the rise in world oil prices is acceptable (Mateo-Perez et al., 2015).

According to authoritative sources, Russia ranks fifth in the world in terms of oil potential. Prospective and inferred resources are estimated at 62.7 billion tons (13% of the world's total). Exploited oil reserves account for 5% of the world.

The world experience of the operation of the oil and gas complex, for example, in Norway, Great Britain, Saudi Arabia and other countries related to the production and subsequent sale of oil and gas, shows and proves the need for active participation of the state in creating conditions for its effective operation.

The main reasons for the modern oil market are the increased demand for hydrocarbons, as well as limited capacity in oil production and refining (Toro, 2016).

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Due to the emergence of a significant reserve in the reserve capacities of oil production and its processing, the influence of speculative factors on oil prices will decrease.

Currently, the prerequisites are being formed for the implementation of just such an approach, in which one can expect a decrease in oil prices in the medium term.

The lag in the development of oil refining from the growing demand for fuel is the main reason for the increase in prices on the oil market.

Today, the world's oil reserves are concentrated mainly in the most unstable regions of the world. As the Washington ProFile notes, the Gulf states now produce about 25% of the world's oil, about 75% of all explored fields are located on their territory.

In fact, the leading economies of the world—the USA, Japan, Europe—directly depend on the supply of Middle Eastern oil.

At present, only if oil prices remain high, Russian oil companies have the necessary resources to finance investments in fixed assets. The point is that attracting Western investments in the oil complex is not required at the moment. However, any fiscal tightening may result in either the need to borrow from abroad, or failures in investing in the development of the industry. World oil prices and the dollar exchange rate play the role of a "constant pressure valve" for the economic growth of the world economy. The prospects of the Russian oil sector will also depend on the growth rates of the world economy in the medium term. The well-being of the domestic and world economy as a whole largely depends on the state of the Russian oil industry.

Russia has significant reserves of energy resources and a powerful fuel and energy complex, which is the basis for the development of the economy, an instrument for conducting domestic and foreign policies. A country's role in world energy markets largely determines its geopolitical influence.

4. Purpose of the Study

Only a qualitatively new fuel and energy complex (FEC) can meet the requirements of the new time—financially stable, cost-effective and dynamically developing, meeting environmental standards, equipped with advanced technologies and highly qualified personnel.

5. Research Methods

In recent years, the decline in oil prices and sanctions against Russian companies have been decisive in the development of the Russian oil and gas industry. Shell has been suspended due to sanctions; Total transferred the share in the fields of the suite to Lukoil, and the share in Shtokman to Gazprom. And the list goes on. Thus, the sanctions affected the most vulnerable point of the oil and gas

industry—its technical equipment (provision of technologies and equipment supply), services and investments (Dao & Edenhofer, 2018; Goryunova, Kuleshova, & Khakimova, 2017; Lavrov & Aleksanyan, 2017; Sadykov, 2019; Tyncherov et al., 2017).

This is not the first time our country has faced sanctions. Earlier, the West has already tried to influence Soviet policy through economic and political measures. In the period 1945-2000 alone, they were imposed on our country 160 times.

At present, these sanctions are overlaid with another problem—the fall in oil prices. However, this is not so critical for the industry, which is due to the fact that the decrease in the ruble against the dollar compensates for the impact of the falling prices, as a result of which the oil industry's ruble revenues from oil exports remained practically unchanged. However, the drop in dollars leads to a decrease in investments in the fuel and energy complex and geological exploration.

A serious problem in the economy of the industry is the state of the resource base of Russian companies, which is characterized by a deterioration in the structure of industrial reserves, since most of the fields are in the stage of declining production (Mukhametshin & Kuleshova, 2020; Mukhametshin, 2018; Sergeev et al., 2017). Improving development efficiency can be achieved as a result of the use of modern drilling methods and measures leading to an increase in the oil recovery factor. Undoubtedly, Eastern Siberia could become one of the main regions for oil production. However, due to the lack of knowledge, the development of the region is slow (Akhmetov et al., 2017; Tyncherov et al., 2017; Zeigman et al., 2017).

Oil and gas produced and processed in Russia are in demand abroad. The stability of the oil and gas sector, its inextricable link with the state, an acceptable level of profitability form its attractiveness for investment both in the stock market and for capital investment in the real sector of the economy.

Further development of the economy of the oil and gas complex in Russia will be with:

- increasing production in peripheral areas. However, at the same time, it becomes necessary to replace Western technologies and it is necessary to look for a replacement among the countries that did not support the sanctions, i.e. in the east;
- production of competitively capable domestic equipment, which is not inferior to Western ones. To solve this problem, a favorable investment climate in our country is required, in which results will have to wait many years later.

6. Findings

In the current economic situation in the country, oil production is projected to increase to 562 million tons by 2021; up to 557 million tons by 2024 (Table 1). The growth of oil exports to non-CIS countries is projected to reach 235.45 million tons by 2024 from 238.85 million tons in 2021, mainly due to supplies to the countries of the Asia-Pacific region.

	Report 2017	Est. 2018	2019	2020	Forecast				
Indicator					2021	2022	2023	2024	2024/2017 [%]
Oil production, including the annual rate, in % to respective reporting period of the previous year	-0.3	0.5	1.5	0.9	-0.0	-0.4	-0.4	-0.2	-0.2 1.9

Table 1.Oil production dynamics

The implementation of innovative programs developed by oil companies with state participation will minimize the risk of a decrease in oil production at an existing field by introducing a wide range of technologies to increase the oil production ratio.

The projected growth in gas production to 730.1 billion cubic meters in 2021 and to 756.6 billion cubic meters in 2024 will be ensured by more active development of Gazprom's fields, as well as an increase in production by independent gas producers under conditions of access to a unified gas transmission system (Table 2). Demand in the domestic gas market will stabilize and by 2021 will amount to 484.8 billion cubic meters; by 2024, it will amount to 491.1 billion cubic meters.

Maintaining demand in the external market will ensure gas exports at the level of: 220.0 billion cubic meters in 2021 and 235.3 billion cubic meters in 2024.

By 2024, LNG exports will increase to 37.5 billion cubic meters in 2024 from 35.5 billion cubic meters in 2021.

The main volumes of gas will be supplied to the domestic market, which in the medium term will be characterized by stabilization of growth rates and a decrease in the gas intensity of the industry.

Indicator	Report 2017	Est. 2018	2019	2020	Forecast				
					2021	2022	2023	2024	2024/ 2017 [%]
Gas production including annual rate, in % to acc. to the reporting period of the previous year	8.0	2.5	0.2	19	0,8	1,4	0.5	1.7	9.4

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Table 2	(tas	production	dynamics
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The increase in the volume of export supplies of liquefied natural gas is due to the commissioning of a plant in Yamal.

Over the years of reforms, the oil and gas complex (OGC) has significantly strengthened its position in the economy of our country. The oil and gas complex arose and grew stronger, like other structural divisions in the national economy of the country, even within the framework of the USSR and the single national economic complex. After its collapse, the oil and gas complex acquired a completely independent significance. As for the general position of the oil and gas complex in the Russian economy,

the industry was much less affected by the decline in production. Moreover, over the years of reforms, the raw material industries have returned to leading positions in the national economy of the country.

The operating conditions of oil companies in Russia are characterized by instability and abrupt changes in the parameters of the general economic situation: inflation rates, exchange rate dynamics, changes in inter-industry price ratios, real incomes of the population, and a decline in production in large sectors.

It is extremely important to take into account the foreign experience of managing the oil industry in the form of vertically integrated companies. In general, as practice shows, the vertical integration of companies in the oil business has a competitive advantage over specialized enterprises and firms.

By implementing their strategies, Russian companies can in the future compete with similar foreign companies not only due to the presence of the richest oil and gas reserves, but also by their developed qualities obtained as a result of the implementation of their own original management decisions and ideas.

The oil-and-gas industry is the main source of financial income for the state, i.e. collects the largest taxes in the country's treasury.

7. Conclusion

The economy of the oil-and-gas industry is of great importance in the country due to not so developed other industries, as well as due to the lack of innovative solutions and methods in other economic segments. Therefore, it is necessary to start looking for other financial reserves for the accumulation of money capital.

This list can include the promotion of small and medium-sized businesses. It is necessary to develop modern activities and increase sponsorship. If the introduction of these factors is effective, then we can talk about an increase in the profit of the entire state. As a result, dependence on the oil-and-gas industry will become less significant.

The tendency of dependence on the oil-and-gas sector of the economy can be overcome if we use effective and competent both domestic and foreign policies. However, the main problem is that, against the background of the development of the oil-and-gas sector, the development of other sectors of the economy of a non-raw material nature has greatly slowed down in our country. However, the oil-and-gas sector is able to help these industries only through investment and import substitution policies. In recent years, both directions have been actively developed in the country and at the moment there are prospects for the development of various industries, including science-intensive and energy-intensive ones.

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