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Article

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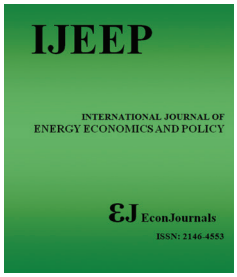

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The Development of the Russian Oil and Gas Industry in Terms of Sanctions and Falling Oil Prices

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ABSTRACT

The aim of this paper is to analyze the current state of the oil and gas industry of Russia in the conditions of falling oil prices and sanctions policy as well as the forecast of the further development of the industry and search for the ways out. The research methodology is based on a systematic approach to assessing the state of the oil and gas industry of Russia. It uses a set of scientific and special methods of investigation including the abstract-logical method, balancing method, economics and statistics and comparative analysis, synthesis method and others. The article demonstrates that the sanctions imposed on Russian companies as well as unprecedentedly low oil prices in the short term did not have a major impact on the production stability of the Russian oil and gas sector. The reason is that Russia has a huge resource potential and Russian oil projects are profitable even at low oil prices. However, in the long term, these factors can have a negative impact on the industry, which is due primarily to the shortage of modern equipment and technologies for the implementation of promising projects in the Arctic shelf, as well as on deposits with difficult development conditions. The sanctions policy is not favourable for foreign companies because the long-term interests of our companies coincide with the interests of foreign business partners. The international coordination of efforts for solving many problems is needed, because of decreasing resources and infavourable oil production settings. The article shows that a major investment in the development of modern domestic equipment and technologies are required in the current situation; it is advisable to develop the residual reserves and reserves difficult to recover in the aged areas along with the implementation of large-scale projects for the production of hydrocarbons in new areas.

Keywords: Russian Oil and Gas Industry, Energy Market, Sanctions, Fall in Oil Prices, Partnership, World Energy
JEL Classifications: Q32, Q40, Q41

1. INTRODUCTION

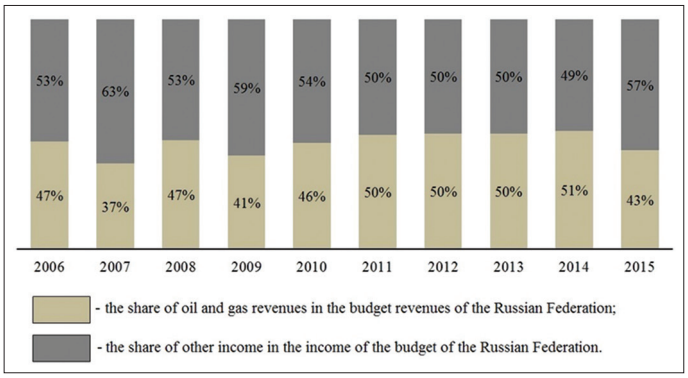
Oil and gas energy resources are among the most sought-after natural resources around the world. Oil is the most valuable and unique resource. Its value is determined by smaller volumes of reserves, which are considerably greater than gas, and by the variety of spheres of application. Oil and gas resources play an important role in the economy of many countries. In turn, the resources are affected by negative processes that take place from time to time: Falling oil prices, sanctions, depletion of raw materials base.

The current crisis linked with sanctions and decreasing oil prices has a negative impact on the Russian economy. But most of all, the crisis touched on oil and gas companies as well as regions in which the field development of hydrocarbon crude is done. So the successful operation of oil and gas industry will result in a surplus in the regional budgets.

Oil and gas potential in the foreseeable future will play a significant role in the Russian economy, from the formation of budget revenues, foreign exchange income and, ultimately, to sustained economic development. It shows the proportion of oil and gas revenues in the federal budget of Russia, which for many years exceeded 50%. However, it should be noted that the share of oil and gas in the country's budget has reduced in recent years, and it amounted to 43% in 2015 (Figure 1).

Most scientists and experts believe that despite the increase in the share of renewable energy sources, hydrocarbons will remain the main fuel (Kontorovich, 2016; Mastepanov, 2015a; Ushakov, 2008).

Figure 1: The change in the share of oil and gas revenues in the budget revenues of the Russian Federation (compiled on the basis of the official data of the Russian Federation Ministry of Economic Development)



In connection with the difficulties in the development of oil and gas industry of Russia, it was necessary to analyze the situation, identifying the problem and risk areas. It is necessary to outline the direction for mitigation of these factors in the short and long term.

2. RESEARCH METHODS

In order to analyze the current situation, the results of the research obtained by Russian scientists and experts on the functioning of the oil and gas industry of Russia in terms of sanctions and falling oil prices, as well as the impact of negative factors in the short term, possible negative consequences in the future and ways out of the situation were described in this paper (Sechin, 2016; Konoplyanik et al., 2016;. Kontorovich, 2016; Mastepanov, 2015a; Tokarev, 2015; Korzhubaev et al., 2012).

Since the authors are panelists of the focus group of the St. Petersburg International Economic Forum 2016, here discussion memorandum was used about the problems of the development of the world and Russian markets of hydrocarbons. The experts are mainly Russian and foreign representatives of the major energy companies. This, along with the use of factual material, made it possible to create a complete objective picture of Russian oil and gas industry today in the context of global processes in this area.

The research methodology is based on a systematic approach to assessing the state of the oil and gas industry of Russia. It uses a set of scientific and special methods of investigation including the abstract-logical method, balancing method, economics and statistics and comparative analysis, synthesis method and others.

The published reported data of user of subsurface resources, information from mass media and other open sources from the Russian Ministry of Energy, Ministry of Economic Development of Russia, and Rosstat, forms the empirical basis of this study.

3. RESULTS

3.1. The Oil and Gas Industry of Russia: Current Status and Problems of Development

Russia is one of the largest countries in terms of production and supply of oil to the world market. The strengths of the Russian oil and gas industry: Well-developed export infrastructure, including pipeline one; relatively low debt burden; tested marketing system for decades successfully supplemented by long-term contracts; integration into growing in the East and the West stable markets; strong domestic demand.

The negative impact of the sanctions and the falling prices on Russian oil and gas sector has been limited, because Russia has a huge resource potential, and Russian oil projects are profitable even with low oil prices. This was ensured because of the developed infrastructure of supply, a long tradition of training branch personnel and a good engineering school. Moreover, in Russia the majority of deposits of oil have a low cost of oil production. For example, it is 2.1$/bbl at Rosneft (Sechin, 2016). In a crisis, the leading Russian oil companies optimized their costs and do not suspend the implementation of projects.

At the same time, there is a slowdown in oil production, both in the world and in Russia. The volume of oil production in mature fields has been decreasing by an average of 5% per year. It is explained, first of all, by the reduction of oil reserves and investments in the oil sector over the past quarter century. Decreasing of oil prices play an important role in investment flow reduction, which is especially true for Russia. According to statistics, the increase of the extent of production was just over 1.5% in 1 year, while the investment growth was less than 1% for the same period (The Impact of Sanctions on the Oil and Gas Industry in Russia, 2016).

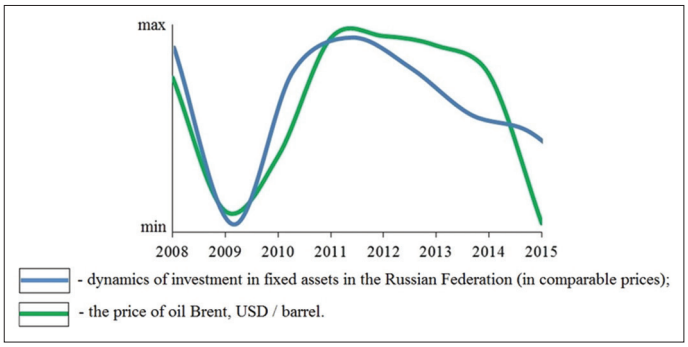
By analyzing the investment in equity in the Russian Federation, it is possible to trace a clear correlation between investment in equity and oil prices in the world markets (Figure 2).

Despite all predictions, oil-producing countries do not aim to decrease the extent of oil production, but seek to grow it instead. For example, the Energy Strategy of Russia was adopted for the period until 2030. According to it, the level of production is going to be about 535 million of tons by 2030 (Energy Strategy of Russia for the Period up to 2030, 2009). The Energy Strategy should be updated at least every 5 years. In this connection, the decision on the adjustment of Russia's Energy Strategy was adopted by the Russian government for the period up to 2030 with its prolongation until 2035. Currently, it has been actively discussed. According to the draft of the strategy, the extent of production in Russia will be reduced to 525 million tons until 2035.

According to statistics, in 2015, Russia produced 534.1 million tons of oil and gas condensate. Despite the unprecedented fall in of oil prices, the extent of oil production has continued to grow (Figure 3), because most pools brought into development are cost-effective with the price at 50 dollars per barrel (Isain, 2015).

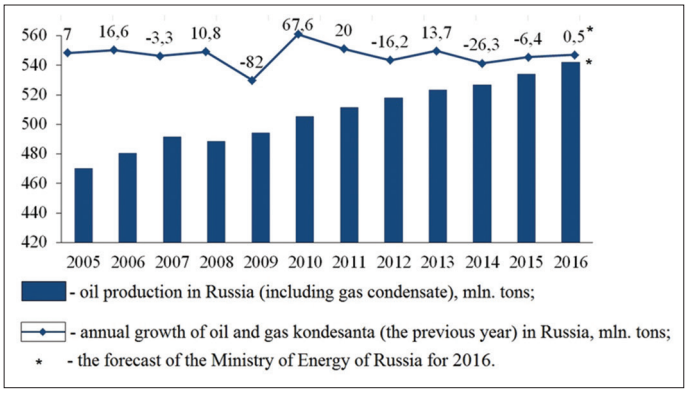
It should be clarified that the increase in the extent of oil production was achieved by means of deposits in Eastern Siberia and the Far East brought into development recently, as well as at the cost of increasing levels of gas condensate. The deposits in the North of Russia and Ural-Volga region showed some production gain of oil (Figure 4).

Figure 2: The dynamics of investment activity in Russia and dynamics of oil prices (compiled on the basis of official statistics of Rosstat data and Internet



Source: http://news.yandex.ru/quotes/1006.html

Figure 3: The dynamics of production of liquid hydrocarbons (oil and gas condensate) and the growth of their production (relative to the previous year) in Russia (compiled on the basis of official data of the Russian Ministry of Energy)



Despite the fact that Western Siberia remains a major oil and gas producing region of Russia, a progressive drop in oil production level is shown there for the past 10 years. For example, in Khanty-Mansi Autonomous District named Yugra, the main oil-producing region of Russia, there has been a decline in the production rates since 2003 and a decrease in the extent of production since 2008. The Yamalo-Nenets Autonomous District has been shown the decreasing of the extent of production since 2005.

The progressive decline and depletion of oil production in Western Siberia is due to the fact that it has developing fields with high reserves. Today, the technologies applied in Western Siberia do not allow the increase of coefficients of oil recovery, and to extract oil from deeper-pool test industrially (hard-to heavy and heavy oil, light tight oil of Bazhenov formation). It was assumed that the extraction of this kind of oil (for example, those from Bazhenov formation) should offset the decline in crude oil volumes at the fields located on the stage of declining production. However, after the imposition of sanctions prohibiting the supply of equipment and technologies to Russian companies, mining companies operating in the territory of Western Siberia, with the main reserves of light tight oil, claimed about the shutdown of the implementation of long-term projects in such fields. The lack of domestic technologies, the use of which would help to make the extraction of oil from deep pools more cost-effective, forces subsoil users to give up their projects.

The projects of oil production in the Russian Arctic shelf zone also fall in the risk envelope. According to the Ministry of Energy of the Russian Federation, the price range of break-even oil production in the Russian Arctic shelf is between 52 and 81 dollars per barrel (Oil Production in the Arctic is Profitable at $63 of WTI Crude, 2015). This means that the implementation of the Arctic projects is placed under a threat when the price is below the specified price for a long time and there is a lack of foreign financing. In case of increasing the price to a cost-effective one in terms of absence of the necessary modern technology, oil production in the shelf zone is still under threat.

A somewhat different situation can be found in the production and supply of gas. There has been an increase in the rate of gas production as well as its reduction over the past 10 years. In general, there has been a reduction in gas production in Russia (Figure 5). In 2015, Yamalo-Nenets Autonomous District, the main supplier of natural gas, extracted only 94% of the overall extent produced in 2014. Gas supply for export is decreased by 11% in 2014. In 2015, it remained almost at the same level.

The reasons for reducing gas production: Decrease in gas purchases by traditional importers; production of light tight oil in the United States; increase in supplies of liquefied natural gas and ramp-up of volumes of extraction in the shelf zone of the northern European countries; slowdown in demand (primarily due to the deceleration of the Chinese economy and expectation of oil from Iraq, Iran and Libya in the world market), refusal of the Organization of Petroleum Exporting Countries (OPEC) countries from the usual practice of reducing production at an excess of supply over demand (Larchenko et al., 2016).

In 2014 and 2015, there was a steady decline in gas supplies, both for export and for domestic consumers (Figure 6).

However, it should be noted that Gazprom has increased its supplies to CIS countries by almost 12% in 2016. At the same time, the volume of deliveries to Denmark is increased by 1 billion cubic meters (158.2%), Great Britain - 6.15 billion cubic meters (57.6%), Greece - 700 million cubic meters (39.5%), Austria - 1.54 billion cubic meters (36.5%) (Kulikov, 2016).

3.2. The Development Trends of the Industry Under Sanctions and Falling Oil Prices

Recently, the decline in oil and gas prices, as well as the sanctions against Russian companies, became the drivers in the development of Russian oil and gas industry. Sectoral restrictive measures include a prohibition on investment in oil and gas production, on sale of equipment for offshore operations and oil extraction, on the supplies of oil and gas equipment and technologies to Russian companies for the development of hydrocarbon fields in deep water (over 152 m), in the Arctic shelf, and in the shale stratums. For example, due to the imposed sanctions Exxon Mobil, an American company, and Russian Rosneft have suspended borehole drilling in the Kara Sea in the autumn of 2014. Due to the sanctions,

Figure 4: The oil production in the Russian Federation, million tons (compiled on the basis of official data of the Russian Ministry of Energy)

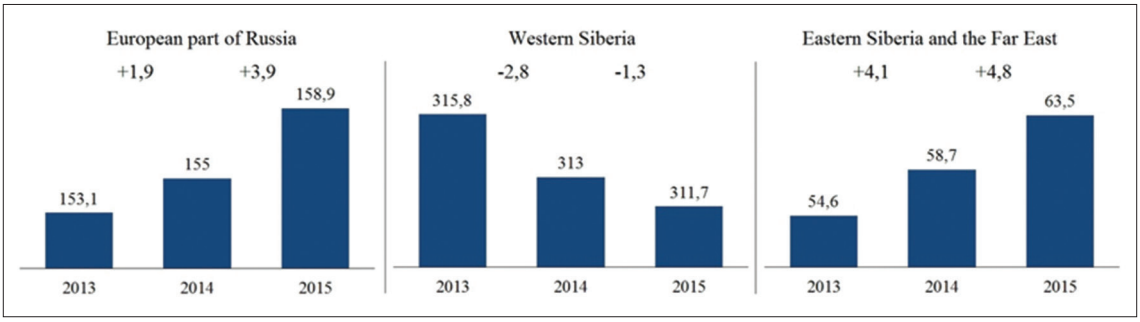


Figure 5: The dynamics of gas production and production gain (relative to the previous year) in Russia (compiled on the basis of official data of the Russian Ministry of Energy)

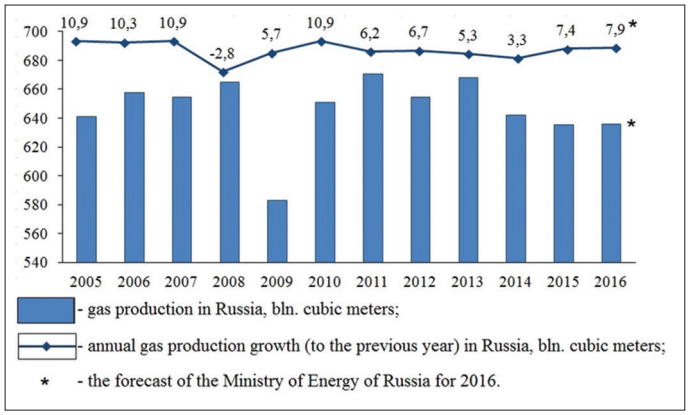
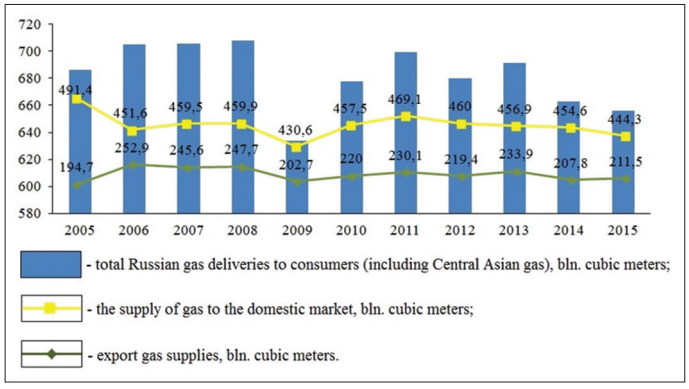


Figure 6: The Russian gas supplies (compiled on the basis of official data from the Ministry of Energy of the Russian Federation)



Shell company has suspended its activities; total company has transferred one share of the deposit of Bazhenov formation to Lukoil and another share in Shtokman - to Gazprom. And this list goes on. Thus, the sanctions affected the most vulnerable aspect of the oil and gas industry - its technical equipment (provision of technology and supply of equipment), services and investment.

It is believed that the impact of sanctions on Russian companies is complex and it depends on the location of the developed areas of the Arctic shelf: In the well-studied areas (western areas) there are mostly technological sanctions; low-studied areas (eastern regions) require additional large-scale investments with impact of financial sanctions. In addition, the sanctions have a different effect on those projects that are implemented in the deep and shallow areas of the shelf. In shallow areas, some existing Western technologies and technological expertise can be used. So, the sanctions have only postponed the development of Russian program of shallow shelves (Konoplyanik et al., 2016).

It should be noted that although the country has the largest gas reserves in the world, which is uppermost in oil production along with Saudi Arabia, the production in Russia has been underdeveloped; the equipment and technologies have been bought abroad for decades. It is urgent to solve the problem of the supply of equipment for new projects. The truest solution would be to encourage the development of innovative domestic production equipment that would be in line with best samples of the world, as well as modern technologies. However, the solution to this problem may take many years.

These sanctions had been compounded by another problem - the fall in oil prices. However, it is not as critical for the industry. It is due, firstly, to the fact that the current tax system compensates for the lost income. Secondly, today the mechanism is chosen for the Russian oil and gas companies in the context of which the devaluation of the rouble allows to compensate for rouble revenues when oil prices are low. However, the drop in revenues in dollars leads to lower investments in the energy industry and geological exploration.

Not only are the oil companies affected by falling oil prices, but also the countries for which hydrocarbon production plays a significant role. The economies of the OPEC were seriously affected. For example, in Saudi Arabia as a result of a sharp drop in oil revenues, the budget deficit has amounted to 100 billion dollars in 2015 (Sechin, 2016). In December 2016, in order to stabilize oil prices the agreement was signed between OPEC and 11 oil-producing countries, including Russia, about falling production. Moreover, the agreement on falling production is not closed; other countries might accede to it (Korzhova, 2016).

However, it is not all as easy as it sounds. The heads of energy companies redefined the role of the largest companies, oil producers in the market of hydrocarbons at the St. Petersburg International Economic Forum 2016. For a long time it was thought that the OPEC member countries played the main role in the regulation of the world oil market. Currently, the role of OPEC is changing because of the appearance of some state and non-state formations which sell the cheap oil in greater volume. With lessening of supplies to the markets of OPEC countries the

volumes can be the same. As a result, a significant increase in oil price is not going to happen. According to representatives of the oil business, OPEC should adapt to the new realities of the market and develop the market mechanisms for manageable comeback of prices.

If we consider the impact of sanctions on the oil and gas industry they are short-term and long-term ones, i.e., the negative effects are going to happen in the short run and in the long run as well. So, in the short run the imposed sanctions have had no serious impact on the production stability of the oil and gas industry. This can be explained by persistence of the industry and by sanctions for programs the value of which is not high in terms of volumes of oil and gas production. Today, you can see the cases when Russian commodity companies face difficulties due to lack of access to certain Western technologies. It happens because the Russian producer companies often require services of foreign partners while exploration and drilling operations.

In addition, the decline in the ruble against the dollar sets off the effect of the decreased prices and as a result the rouble incomes of the oil industry did not change so much. However, the diminution in value of the ruble against the dollar will lead to negative consequences in the future, since the cost for the purchase of the imported equipment and the cost of oilfield services will be included in the exchange rate. As a result, high-cost and low-profit projects in oil production in the Arctic shelf are going to be under the threat.

3.3. No Sanctions, but Mutual Cooperation

The technological cooperation with the United States and Polar Regions is important for the oil and gas industry of Russia. This is due to the innovations in producing and drilling fields in new areas, particularly in deep waters of the Arctic shelf. However, the imposed anti-Russian sanctions mean the prohibition of that kind of cooperation and, consequently, the shift in priorities of the interstate energy policy.

There are no technologies appropriate for the safe development of the deep water Arctic shelf in Polar Regions such as Norway, where the offshore projects in conditions not as severe as in the Russian Arctic take place. Those regions use the technology of cofferdam. However, it is applicable only in the Arctic shallows, while the main hydrocarbon resources in the Russian Arctic are located at considerable depths. Only five US projects in the Beaufort Sea have regions with the same Arctic and polar conditions (Konoplyanik et al., 2016), but these projects now are put in a state of suspended animation (Hill et al., 2016). Thus, the sanctions will hit hard the Russian and foreign studies in this scope, especially American ones, because they deprive them of the promising market of shallow Arctic projects and opportunities for international cooperation concerning the development of deep-water areas of the Arctic.

In June 2016, the representatives of foreign companies at the St. Petersburg International Economic Forum discussed the main problems of the development of the energy sector. But whatever the problems were not discussed, the questions about anti-Russian sanctions were raised. The overall conclusion is that the representatives of Western energy companies have a negative attitude to the anti-Russian sanctions, as they cause damage both Russian and foreign companies. Despite the restrictions, foreign business is looking for cooperation with the Russian oil and gas companies. It is impossible to exclude Russia from international economic relations; that largely depends on the unique raw material resources of the country.

Rosneft oil company was one of the first who "broke the blockade of sanctions" when it concluded a deal with BP company on the Taas-Yuryakh project at that economic forum. However, the biggest breakthrough of Rosneft was the sale of 19.5% company's shares for $11.3 billion to Qatar Investment Authority, the world's largest sovereign wealth fund, and Glencore, the investor and leading trader in commodity market, in December 2016. This ensured the growth of foreign investments by 2.7 times compared to the previous year (Rosneft, 2016). Investors are interested in further investments in promising projects of Rosneft; they are aimed at the capitalization growth and clear-cut ascendancy in the global market. This example shows that only cooperation instead of sanctions is the base of the interest of companies in the world energy markets.

Some large projects of companies are collapsed; however, they retain their interest in the large-scale joint projects, and thus - an opportunity to resume cooperation when the political situation is changed.

Thus, the sanctions in the oil and gas industry contradict the interests of further development of the oil and gas industry worldwide. In the context of resources reduction and unfavourable settings of the extraction, it is necessary to coordinate efforts to solve many problems. Especially it concerns safe operation in the deep shelf of the Arctic - the international cooperation is needed for cooperative fundamental research projects.

4. DISCUSSION

The oil and gas industry in Russia is experiencing a very difficult period. Simultaneously, several negative factors influence its development; they were discussed above. Our country became under sanctions not for the first time. Earlier, the West has tried to influence the policy of the Soviet Union through the economic and political restrictions (Sanctions of the West against the Soviet Union. Profile, 2016). They were imposed on our country 160 times in the period of 1945-2000 (Mastepanov, 2015b).

However, it is necessary to analyze their impact on a prospective basis. Despite the fact that the sanctions and falling oil prices both have a negative impact on the development of the industry at the present stage, they are also an opportunity to rethink the strategy of economic development of the country and the shift from the resource-based to resource-innovative development. This allows using domestic resources and innovation potential due to the formation of process flows adding some innovative technologies.

In this respect, the example of the development of Iran kindles our interest. It managed to survive in the conditions of embargo

and sanctions by way of restructuring the economy which is currently based on oil refining and the production of marketable products instead of the export of raw materials. The oil industry which was the base of the economy now accounts for only 15% of GDP, despite the huge deposits (Losev, 2015).

The level of scientific and innovative development of the industry, the lack of widespread use of new technologies and development methods that make Russia vulnerable to the sanctions have a great influence on the oil and gas production in Russia besides some geopolitical and economic factors (Khalimov, 2008).

As for the liquid hydrocarbons, the main task of Russia for today is to minimize the decline in production in mature fields, primarily in Western Siberia. Despite the decrease in extraction volumes, it still remains a major basin of the country.

In other words, oil development in Russia gradually comes to a critical time when there is a serious need to develop new oil fields that are in more difficult geological conditions. In this connection, it will require the upgrading of existing technologies and the implementation of new ones with large investments. In terms of restrictions on foreign financing of projects, Russian oil development will need mechanisms to reduce costs and increase the return on investment.

The refusal of readjustment of industrial facilities, modern methods of production and new technologies will lead to consequences that oil development experienced during the 1990s. The crisis ended in early two thousands as a result of the production reorganization and the use of more modern technologies, such as control methods for the development of fields (Ivanov and Kopylov, 2005; Skorobogatov et al., 2013).

What will the further development of the oil and gas sector (NGK) in Russia? In this regard, there are many sayings and opinions of Russian scientists and practitioners (Mastepanov, 2015b; Kontorovich, 2016; Tokarev, 2015; Korzhubaev et al., 2012). Presumably, further development of the industry can follow two main directions. According to the first direction, the buildup of oil production in the peripheral areas will continue (in order to generate multiplicative effects including those related to the development of new territories). It is linked with the assignment of 8 support areas in the Arctic zone of the Russian Federation. Their economic basis is the development of the resource potential of the Arctic. However, in this case the question can arise: By what can the Western technologies be replaced? Apparently, we should look for technologies among the countries that did not support sanctions, i.e., Eastern bloc countries (Mastepanov, 2015b). However, the BRICS countries have no opportunity for a full replacement of American and European manufacturers of the oil and gas equipment for the development of the Arctic shelf, even shallow one, because their companies operate in very different climatic conditions.

The second direction includes the production of competitive domestic equipment and the development of technologies equal to the Western ones. The achievement of these ambitious objectives requires the use of various forms of cooperation of the industry, the government and the fuel and energy complex. This scheme implies some joint import substitution programmes, development of the purchasing system by companies of the fuel and energy complex on a competitive basis. It also implies ensuring the delivery of ready-to-use engineering products, the organization of high-quality services system for equipment by its manufacturers during the entire period of operation. It is necessary to ensure a favourable investment climate in the machinery-producing industry. It is necessary to launch a new long innovation and investment cycle by way of exemption from taxation of profits allocated to the research and development effort; to provide favourable tax treatment to the energy sector's companies for an initial period of assimilation with home samples of new equipment and technologies; to develop incentive taxation for production, engineering and project companies which introduce high (innovative) technologies in the energy sector.

However, falling oil prices has led to a decrease in budget revenues, so it is difficult to expect to receive the necessary resources to solve the problem. In addition, the choice of that direction of development can bring results only down the years, but the industry cannot wait for them so long.

With regard to financing, we can consider two sources of substitution of the western funding. The first source is the resources of the Fund of national welfare. But there are a lot of other people who wish them too. The Russian government spends money from the National Welfare Fund in the strictly proportioned way, so it would be impossible to substitute the "gapped" Western funding for them. However, there is hope of the breakthrough of sanctions that has already begun and the conclusion of new deals with foreign investors. The second source is commercial lending by financial institutions. But it is extremely inefficient. For comparison, the refinancing rates of the Russian Central Bank are 5-14 times higher in the countries of BRICS than in the US and Europe. This means that the commercial lending is more expensive (Konoplyanik et al., 2016).

In addition, financial institutions of these countries oblige a credit recipient for using the received money to buy the equipment and technology from the countries offered by them. But often those countries have no experience of operation in the shelf in difficult Arctic conditions.

Besides the above ways of reaction to the sanctions and declining oil prices, we can adjust the priorities of the state energy policy. Such a scheme could involve the following steps. It is a shift from the preferred assimilation of more expensive energy resources to their less expensive development in energy production. In particular, it is about the exploitation of new deposits in the Arctic shelf and the enhanced oil recovery methods in producing fields of areas with existing infrastructure. It is a shift in priorities in energy consumption from the growth in supplies of the primary energy to the increase in energy efficiency at all levels of value formation - from production to the end-use energy.

But we should not refuse of the development of the Arctic shelf; in this case the question is about a temporary investment pause

only. The multiplicative effect of oil and gas projects in the Arctic territory that is undeveloped is important here.

5. CONCLUSION

Summarizing the above information, we can say that the main problems that have a significant impact on the development of the Russian oil and gas production include: Sectoral sanctions on the import of technology and equipment; weak innovative development of the oil and gas industry; lack of modern technologies necessary for production of hard resources; falling prices for hydrocarbon raw materials that reduces the investment in the oil and gas production and geological exploration. There is an impact, in a smaller extent, of restrictions on foreign financing of Russian oil and gas companies' projects.

Modern oil and gas production have reached the point when there is a need for replacement of old fields in order to decelerate falling of production. It is also necessary to use the modern methods to increase the coefficient of oil recovery, to develop unconventional oil resources and low-pressure gas and gas condensate, to carry out active geological exploration and development of new fields in the continental shelf, Eastern Siberia and the Far East.

Perhaps, the sanctions and difficulties in the oil and gas industry are the chance for the development of the production of home equipment that would be in line with the best its samples of the world production and technologies.

The Arctic shelf is needed to be developed despite the difficulties. However, the priorities should be changed. The emphasis should be done not on the export-oriented oil and gas projects, but a comprehensive socio-economic development of the Russian Arctic. In this case, fuel and energy complex will play an important multiplicative role in the development of the Arctic territories. Nowadays, Russia attempts to develop the Arctic through the system of so-called "support areas." These are projects for ensuring the integrated development of the Arctic territories with the use of mechanisms of the state support, i.e., the shift from the sectoral management to the territorial development of the economy in the Russian Arctic. However, the main specificity of the Russian Arctic will remain the production and processing of mineral recourses, mainly hydrocarbons.

It is especially necessary to note the problems of oil and gas regions, which have been neglected in Russia up to now. The prevailing view today is that in commodity regions all is safe here. However, the last global crisis, the fall in oil prices and sanctions again convinced us that the specific raw materials development of regions is fraught with consequences, which is currently taking place in the Russian oil and gas producing regions. The international experience also highlights that fluctuations in demand for the produced raw materials fell into neglect due to raw materials base depletion. Hundreds of resource centers were even closed (Agranat, 1992).

In this regard, the research on analyzing problems of functioning of the oil and gas complex in close connection with the socio-economic development of the oil and gas producing regions is still relevant. That was the reason for writing this paper. However, it is a broad and serious subject that requires a thorough study and writing another paper that the authors are going to do in the future.

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