



Impact of sanctions on the Russian oil sector

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In 2014, Western countries imposed sanctions on Russia in reaction to its continued violation of the sovereignty and territorial integrity of Ukraine. Some of the restrictionsⁱ affect one of the most important parts of the Russian economy – the oil sector. Sanctions apply to the exploration of deep-sea and Arctic oil deposits. They limit the access of Russian oil companies to modern technology and foreign loans. Due to the sanctions Western companies cancelled their participation in exploration of new oil deposits and stopped providing modern technology for geological studies and for production of heavy oil.ⁱⁱ This analysis seeks to answer the following questions: have the approximately two years of sanctions affected the Russian oil sector? If so, to what extent?

Restrictions on foreign companies

Due to the sanctions several foreign oil companies have had to suspend their participation in projectsⁱⁱⁱ intended for future oil production in Russia:

- ExxonMobil suspended cooperation with Rosneft on the production of hydrocarbons in the Sakhalin-1 deep-sea project;^{iv}
- ExxonMobil suspended cooperation with Rosneft on the production of heavy oil from the Bazhenov formation in the Khanty-Mansi Autonomous District;
- ExxonMobil suspended cooperation with Rosneft on the exploration of oil deposits in the Kara Sea in the Russian Arctic (during summer 2014, only one sample drilling was carried out in the Universitetskaja-1 deep-sea deposit);
- Shell suspended cooperation with Gazprom Neft on the production of heavy oil from the Bazhenov formation with multi-stage fractioning of shale in the Upper Salym deposit;
- Total suspended cooperation with Lukoil on the production of heavy oil from the Bazhenov formation with multi-stage fractioning of shale in the Galyanovski deposit.

Gazprom Neft and Lukoil have promised to continue with the above projects independently, because of their expertise in horizontal drilling and shale fractioning.

Rosneft is now acquiring technical expertise (horizontal drilling and shale fractioning) in the production of heavy oil in two ways: by training its own oil service units or by buying the assets of Western companies in Russia.^v Nevertheless, it has postponed all deep-water projects in the Arctic until 2018.

Sanctions do not apply to subsidiaries of Western companies in Russia.^{vi} Therefore, foreign owned oil service companies will continue to work on existing oil deposits. For example, Schlumberger and Baker Hughes still work with Gazprom Neft on the Prirazlomnoye deposit in Pechora Sea.^{vii} While Halliburton interrupted cooperation with Gazprom Bureniye, a company that belongs to Arkady Rotenberg,^{viii} it continues to work with Gazprom Neft, Lukoil, etc.

Restrictions on imports of technology

Russian oil companies are heavily dependent on foreign technology – in fact, the sanctions affect 68% of imported equipment.^{ix} Moreover, Russian oil companies have to buy from the West some 50% of equipment and 80% of software for heavy oil production from the Bazhenov formation, as well as 80% of equipment and 90% of software needed to exploit deep-water deposits.^x

Restrictions on the import of technology are another reason for Rosneft has postponed all planned explorations in the Russian Arctic.

Restrictions on the import of technology also extend to those spare parts that are not produced in Russia. For example, the drilling platform of Gazprom Neft in the Prirazlomnoye deposit is 90% dependent on spare parts of Western origin.^{xi} The import of spare parts declined approximately 10% in 2014 due to the sanctions.^{xii} While they were partially replaced by the import from China and South Korea, which have not joined the sanctions. Nevertheless, a wide range of equipment import from non-aligned countries may be restricted because constituent parts of the equipment originate from the West.^{xiii}

Despite their announced plans Russia's government and businesses have not succeeded in starting or restoring the import-substituting production of required equipment for oil sector.^{xiv} In the beginning of 2015 the Ministry of Industry and Trade published a so-called import substitution plan^{xv} but so far it has not produced any tangible results.

In 2015 Russia's Industry and Trade Ministry's Development Fund granted low interest long-term loans to a few dozen industrial companies for import-substituting projects.^{xvi} The amount of the loan - a billion rubles, or about 17 million USD - accounted for only a fraction of the demand.

Rosneft spearheaded plans for the construction of a shipbuilding complex Zvezda in the city of Primorsk in the Far East. There are plans to build oil and gas tankers, deep-water drilling rigs and other oil production equipment in the complex. Rosneftegaz,^{xvii} Gazprom Bank and the Welfare Fund of Russia are participating in the financing of the venture. However, Rosneft has not yet found a strategic partner^{xviii} that would contribute to the shipbuilding complex with modern technology. Due to sanctions, it is unlikely that any Western company would agree to participate in the project.^{xix} While construction on Zvezda was planned to begin in 2018, due to sanctions it is most likely that this will be delayed.

The sanctions prevent the use of western technology in the onshore deposits of Gazprom Neft and Surgutneftegaz, where horizontal drilling and multi-stage shale fractioning was planned to use to produce heavy oil from the Bazhenov formation. The same applies to the deposits of Gazprom Neft in the Pechora Sea and in the shallow waters of the coast of the Yamal Peninsula.^{xx} Surgutneftegaz and Gazprom Neft have promised to continue with the exploration of deposits and production as well by their own means.

Russian refineries depend almost entirely on imported equipment from the West.^{xxi} Much of the equipment could be imported from China, but this will not improve the quality of the fuels produced. Russian companies export petroleum products mainly to CIS countries.

Restrictions on the purchase of Western technology for deep-water oil deposits are impacting the production of natural gas in Russia as well. Gazprom had to postpone the expansion of a natural gas liquefaction factory in Sakhalin because of US sanctions. These affected the exploitation of South Kirinskoye deposit in the coastal waters of the island, which in addition to natural gas contains also a small amount of oil.^{xxii}

Restrictions on foreign loans

Novatek,^{xxiii} Rosneft, Gazprom Neft and Transneft no longer have access to loans from Western banks on favorable terms, something that also complicates the repayment and refinancing of their existing debts.

Financial difficulties caused by the sanctions have reduced the interest of Russian oil companies in projects requiring major investments, e.g. in the Arctic or in deeper geological formations.^{xxiv} Restrictions on foreign credit are forcing them to focus on increasing the productivity of existing oil deposits. However, such productivity increases requires the use of modern technology – which is provided by foreign owned oil service companies, whose activities are not affected by sanctions (see above).

Restrictions have forced Russian oil companies to request help from the government or from financial institutions of those countries that have not imposed sanctions. Only Rosneft and Novatek dared to apply for financial support from the Russian government and Russian Welfare Fund^{xxv} to alleviate their difficulties. Rosneft asked 2 trillion rubles (about 34 billion USD) for 28 projects but the government agreed to support only one project (shipbuilding complex Zvezda) with 44 billion rubles.^{xxvi} As a result, Rosneft cut investments in 2015 by 30% compared to the previous year.

Novatek asked the government for 150 billion rubles to invest in the Yamal LNG project and received the amount via Russian Welfare Fund.^{xxvii} Novatek wanted US dollars instead of rubles to pay for the ordered equipment from the West, but the government refused.^{xxviii} Therefore Novatek still has difficulties in financing the Yamal LNG. Due to sanctions Novatek applied for credit from Chinese banks, though it soon exited these arrangements because of relatively high interest rates.^{xxix} Relations with China's financial institutions may improve now that Novatek has sold 10% of Yamal LNG to China's Silk Road Fund.^{xxx}

Some Russian oil companies can overcome financing constraints with the help of political connections. To repay the loan portion of the USD 6.9 billion in December 2014, Rosneft sold bonds to commercial banks in rubles and exchanged those immediately for dollars in a closed auction in the Bank of Russia, which led to a sharp depreciation of the ruble.^{xxxi} A similar transaction was made in January 2015, when Rosneft sold bonds at a closed auction in the Moscow stock exchange to repay the loan portion of same amount.^{xxxii} Rosneft could only have made those transactions with high-level political support.

Rosneft is looking for investors from China and India for its projects. China's oil companies have not given their consent to allocate their money into Rosneft owned assets despite prolonged

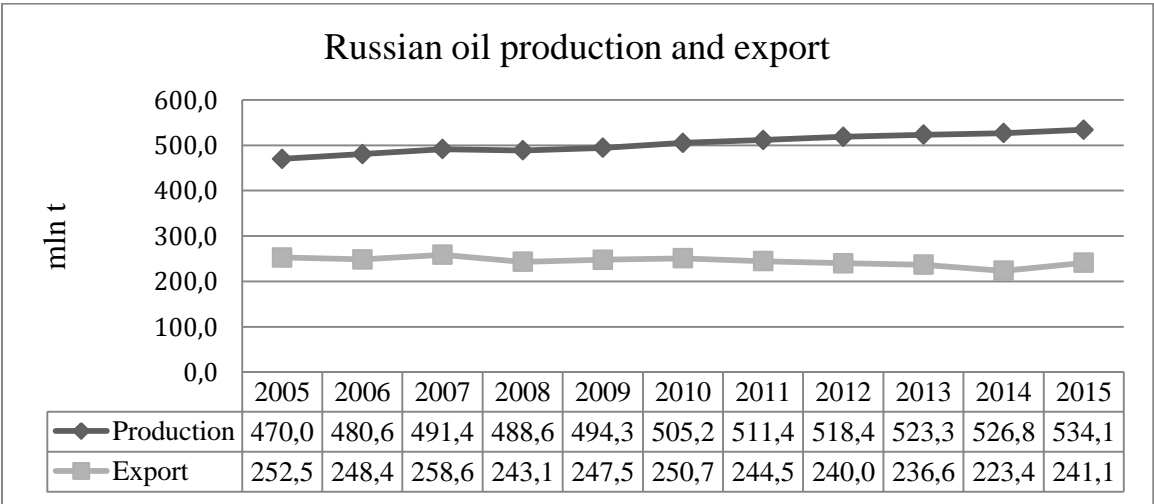
negotiations and framework agreements.^{xxxiii} They prefer to import oil by long-term contracts. Indian companies' interests have been more efficient – ONGC will receive 15% stake in Vankorneft.^{xxxiv} Another Indian oil company, IOC, wants a share in Vankorneft as well.

In conclusion

The sanctions have not affected the oil production from the existing oil deposits. This has helped Russia's oil companies in the price competition that began in the world markets at the end of 2014. They not only survived but increased oil production and exports^{xxxv} to maintain their market share. In 2015 Russia produced 534 million tons of oil (1.4% more than in 2014),^{xxxvi} and exported 241 million tons of oil (10% more than in 2014).^{xxxvii} (see graph) It is likely that Russian oil companies will produce and export oil on the same level in 2016 as well.^{xxxviii}

The impact of financial restrictions on the oil sector is already being felt as the scarcity of funds is forcing Russian oil producers to cut down planned investments,^{xxxix} which inevitably leads to the fall of production and export of oil and to the decrease of tax revenues. Experts estimate that between 2014-2017 the Russian economy will lose approximately 170 billion USD due to the combination of financial sanctions and cheap oil.^{xl}

Restrictions on the import of technology will have a long-term impact. The existing equipment fleet enables Russia to maintain current production levels. However, with the increase of the share of heavy oil in production^{xli} the demand for new technologies also increases. Due to sanctions Russian oil companies have to make do with existing equipment because of their inability to replace Western technology with domestic equivalents. Import from non-aligned countries or buying up Western companies with necessary know-how will not solve the problem for the Russian oil sector in the long run.



Sources: ЦДУ ТЭК, ФТС

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- ⁱ For a list of companies and persons affected by the sanctions, see:
<http://ria.ru/politics/20140718/1016514535.html>
- ⁱⁱ Heavy oil includes viscous oil and oil located in shale or beneath hardly reachable geological strata
- ⁱⁱⁱ Санкции и нефть: какие проекты в России могут пострадать, Ведомости, 15.08.2014
- ^{iv} <http://www.gazeta.ru/business/2014/05/15/6034441.shtml>
- ^v <http://www.angi.ru/news.shtml?oid=2833620>; «Роснефть» работает на разрыв, Ведомости, 17.08.2015
- ^{vi} Западные компании нашли способ обойти санкции для работы в Арктике, РБК, 29.12.2014
- ^{vii} *ibid.*
- ^{viii} Нефтяные компании получают санкции замедленного действия, РБК, 28.07.2014
- ^{ix} Параллельный путь в обход санкций, Ведомости, 17.07.2015
- ^x From the Energy Minister Aleksandr Novak's presentation at the Russian Oil and Gas Forum in Moscow, March 2015, <http://oilandgasforum.ru/data/files/Files%200315/Novak.pdf>
- ^{xi} Буровая угроза, Коммерсант, 17.09.2015
- ^{xii} Долгий путь к своим, Эксперт, 14.03.2015
- ^{xiii} <http://www.znak.com/urfo/news/17-04-19-02/1038666.html>
- ^{xiv} Russia produces drilling rigs but these are equipped with modern technology (e.g. for horizontal drilling and shale fractioning) by Western companies
- ^{xv} Россия сама не справится Ведомости, 23.09.2015
- ^{xvi} <http://angi.ru/news.shtml?oid=2827995>
- ^{xvii} The public share in 'Zvezda' will increase up to two-thirds if Rosneft and Gazprom Bank will sell their subsidiary company to Rosneftegaz ("Звезду" возвращают государству, Коммерсантъ, 11.12.2015)
- ^{xviii} Cooperation with South Korean company DSME was interrupted three years ago
- ^{xix} Импортзамещение спасет только импорт, Коммерсантъ, 23.09.2015
- ^{xx} Санкции и нефть: какие проекты в России могут пострадать, Ведомости, 15.08.2014, *op. cit.*
- ^{xxi} Российская нефтянка остается сырой, Независимая газета, 10.07.2015
- ^{xxii} <http://www.bloomberg.com/news/articles/2015-08-07/gazprom-offshore-field-in-russia-s-far-east-sanctioned-by-u-s->
- ^{xxiii} Natural gas producer Novatek is punished with sanctions because of its major shareholder Gennady Timchenko
- ^{xxiv} <http://www.angi.ru/news.shtml?oid=2832845>
- ^{xxv} Правительство «всерьез рассмотрит» заявки «Роснефти» и НОВАТЭКа, Коммерсантъ, 22.09.2014
- ^{xxvi} «Роснефть» теряет шансы на деньги ФНБ, Ведомости, 06.08.2015
- ^{xxvii} «Новатэк» первый в очереди, Ведомости, 15.12.2014
- ^{xxviii} «Новатэку» ни рубля, Ведомости, 21.11.2014
- ^{xxix} Financing for Russia's Yamal LNG plant stalls - source, Reuters, 19.10.2015
- ^{xxx} <http://uk.reuters.com/article/russia-yamal-lng-china-idUKL8N1560NX>
- ^{xxxi} "Роснефть" провела секретное размещение, Коммерсантъ, 12.12.2014
- ^{xxxii} «Роснефть» нашла 400 млрд рублей всего за час, РБК, 27.01.2015
- ^{xxxiii} <http://top.rbc.ru/politics/05/05/2015/5548e2a09a7947f67dda97cb>
- ^{xxxiv} Покупку ONGC доли в Вангоре рассмотрит правительство, Ведомости, 25.12.2015
- ^{xxxv} Tax amendment, which entered into force in 2015 also contributed to this, giving advantage to the export of crude oil instead of oil products
- ^{xxxvi} <http://www.interfax.ru/business/488240>
- ^{xxxvii} Экспорт нефти вновь может упасть, Ведомости, 14.01.2016
- ^{xxxviii} Russian oil companies will reduce oil production if the Russian government decides to increase the tax burden and/or dividends in 2016 to improve the income of the state budget (Снизить добычу вместе, Ведомости, 28.01.2016; <http://www.rbc.ru/business/28/01/2016/56a9edf59a7947b6a87d9bb5>)
- ^{xxxix} E.g. <http://www.finanz.ru/novosti/aktsii/gazprom-neft-snizit-v-2016-g-kapitalnye-zatraty-do-5-mlrd-1001024862>; Инвестиции сбило котировками, Коммерсантъ, 01.21.2016
- ^{xl} Россия теряет \$ 600 млрд, Ведомости, 05.02.2016
- ^{xli} According to the Ministry of Energy in the year 2020 Russia will produce approximately 417 million tons of oil, of which 62 million tons will be heavy oil (roughly 15% of total production) (<http://oilandgasforum.ru/data/files/Files%200315/Novak.pdf>, *op. cit.*)