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## Russia Expands Oil Production to Highest Level since the Collapse of FSU

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Russia has expanded oil production to a high level even under low oil prices. According to International Energy Agency statistics, Russia's oil production in January totaled 11.25 million barrels per day, the highest since the Soviet Union collapsed. Russian oil production (on an annual basis) peaked at 11.08 million bpd in 1989 in the Soviet Union period and began to decline later. As oil output continued to fall rapidly amid economic and social turmoil in the first half of the 1990s following the Soviet Union collapse, output in 1996 came to 6.03 million bpd, down 46% in seven years. Later, Russian oil production recovered moderately amid oil industry realignment. Since 2000, Russia accelerated its oil output expansion on the strength of rising crude oil prices. Russian output rose back above 10 million bpd in 2007 and basically continued to steadily expand. As crude oil prices remained above \$100 per barrel from 2011, Russia continued to increase oil production. In 2014, Russian oil output expanded close to 11 million bpd.

Since the second half of 2014, however, crude oil prices have plunged, dramatically changing the environment surrounding the Russian oil industry. Nevertheless, Russian oil output has continued to gradually increase since 2014. Russian output exceeded 11 million bpd in early 2015 and continued an upward trend before hitting the record level in January this year.

This is a noteworthy performance in a sense. In contrast, U.S. shale oil production expansion, a major factor behind the latest crude oil price plunge, has lost momentum upon the price downturn. U.S. shale oil output is now declining. Other non-OPEC oil producing countries, excluding Brazil and Canada, have slowed down or reduced production since 2015, particularly since early this year. Nevertheless, Russian oil production has toughly continued to expand.

Russia has faced another serious problem in addition to the oil price plunge. The problem is the impact of Western economic sanctions that have been imposed and enhanced over developments regarding the Ukraine crisis. The sanctions have affected the Russian oil industry's introduction of advanced oil development technology and liquefied natural gas business. Exports of goods and services to Russia for deep-water oil exploration and development, Arctic Sea oil exploration and development, and shale oil production have been banned. Given that Russia had expected to promote oil development in the abovementioned frontier areas for future oil output expansion, the sanctions have been feared to deal a severe blow to Russia along with the oil price plunge.

As explained above, however, Russian oil production has toughly continued to expand even in the severe environment. Two major factors are cited behind the Russian oil output expansion. The first factor is the ruble's depreciation against other currencies. The oil price plunge directly hit the Russian economy, forcing the economy to contract 3.7% in 2015. The ruble has been sold on the Russian economic deterioration, leading to the Russian currency's depreciation that has affected the Russian economy by trigging high inflation and capital outflow. Interestingly, however, the depreciation of the ruble has offset part of a plunge in dollar-denominated oil export revenues, playing a major role in helping the oil sector maintain ruble-denominated investment.

The second factor is a tax system regarding Russian oil development. Important among factors related to the economic feasibility of oil development is the oil development tax system as well as oil prices and production costs. Specifically, the tax burden regarding oil development in Russia is fairly heavy. When crude oil prices remained above \$100/bbl, more than 70% of oil sales revenues is estimated to have went to the government in the form of tax. In response to the oil price plunge, the Russian government revised oil export and production taxes to relatively reduce its share of oil sales revenues, although the tax burden remained heavy. As a result, government tax revenues have been affected by the oil price plunge more seriously than oil companies' earnings. Plagued with fiscal difficulties, however, the government is now considering increasing oil and gas taxes to secure greater financial resources.

In the severe environment including the oil price plunge and economic sanctions, the Russian oil industry, supported by the weaker ruble, has focused on production and development at major operating oil fields in western Siberia and other regions that are relatively competitive. As a result, the industry has sustained the production expansion. When I discussed Russian problems in the United Kingdom, an expert indicated that Russian oil production achieved greater-than-expected performance by taking advantage of the weaker ruble and tax change and by pursuing better quality and efficiency as seen for U.S. shale oil production in response to the severe business environment. In the future, however, how to respond to uncertain future changes in oil prices, exchange rates, the tax system and other factors will become a problem. At present, the Russian oil industry is responding to the severe business environment by focusing business resources on major production areas. From the medium to long-term viewpoint, however, the industry will have to explore and develop oil in new promising oil production regions. In this respect, the Russian oil industry has various uncertainties.

The IEA's recent medium-term outlook forecasts that Russian oil output would gradually decrease from 11.09 million bpd in 2016 to 10.78 million bpd in 2021. This apparently indicates that it would be difficult for the Russian oil industry to continue an oil output expansion over a medium term by retaining the present approach. Greater problems and uncertainties exist in regard to a long-term outlook. While the IEA predicts Russian oil output to decline to 9 million bpd in 2040, the U.S. Energy Information Administration expects the Russian output to increase to 12.20 million bpd in the same year. The Organization of the Petroleum Exporting Countries predicts Russian oil output in 2040 to level off from the present level at 10.70 million bpd. It is rare that the three major

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forecasters differ so sharply over Russian oil production. This means that great uncertainties exist about the medium to long-term future for Russia and that various scenarios can be developed for Russian oil output. None of these forecasters might have concerned over abundance in underground resources. Rather, Russia's oil production and energy sector will change depending on "above ground factors", such as political, economic, social, institutional and market developments involving Russia.

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