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# Energy Strategy and Economic Growth of Russia

Young Sik Kim, Tae Kwon Ha

***Abstract*—**This article considers the problems of economic growth and Russian energy strategy. Also in this paper, the issues related to the economic growth prospects of Russian were discussed. Russian energy strategy without standing Russia`s stature in global energy markets, at the current production and extraction rates, will not be able to sustain its own production as well as fulfil its energy strategy. Indeed, Russia's energy sector suffers from a chronic lack of investments which are necessary to modernize its energy supply system. In recent years, especially since the international financial crisis, Russia-EU energy cooperation has made substantive progress. Recently the break-through progress has been made, resulting mainly from long-term contributing factors between the countries and recent international economic and political situation changes. Analytical material presented in the article is intended for a more detailed or substantive analysis related to foreign economic relations of the countries and Russia as well.

***Keywords*—**Russia, Energy strategy, Economic growth, Cooperation.

## I. Introduction

THE Russian economy, the fifth largest in the world, is commodity-driven and largely depends on its energy production. Russia is the world's largest producer of oil (12 percent of world output with average liquids production of 10.9 million barrels per day) and natural gas (18 percent), the energy reserves of the country account for about a quarter of the world's total proved reserves as shown in Fig. 1. The majority of these reserves are located in the West Siberia and Urals-Volga regions in central and western Russia, but production in East Siberia and Russia's Far East regions has also increased in recent years. Also, oil fields in eastern Russia and in the Russian Arctic start to play a larger role in the country's future production. Given the high oil and natural gas resources the country's economic growth is driven by energy exports. In 2013, for instance, oil and natural gas revenues accounted for 50% of Russia's federal budget revenues and 68% of total exports. [1]

In terms of energy, Russia is the most interdependent with european economies. Europe is dependent on Russia as a source of supply for both oil and natural gas, with more than 30% of European crude and natural gas supplies coming from Russia in 2014. Russia is dependent on Europe as a market for its oil and natural gas and the revenues generated from those exports. For example, in 2014 more than 70% of Russia's oil exports and almost 90% of Russia's natural gas exports went to Europe. Official statistics suggest that Russia's oil and gas industry accounts for only a quarter of the country's GDP. However, when other factors are considered, the economy is seen to be much more heavily dependent on hydrocarbons.

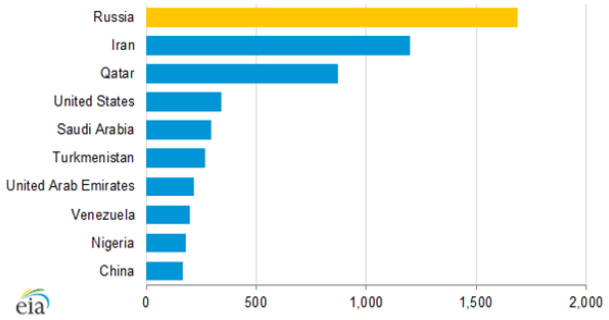


Fig. 1 Estimated proved natural gas reserves, as of January 2015, in trillion cubic feet [1]


Fig. 2 Russia's crude oil production [1]

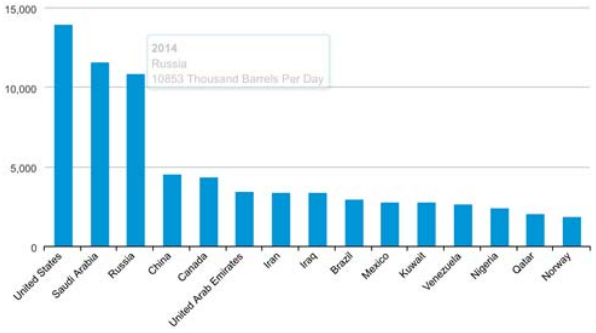


Fig. 3 World-wide crude oil production [1]

## II. Analysis and Prediction of Russian Economy

Historically, Russia's economic status and GDP are best represented in their connection with energy production. In 1992, when Russia was almost at the bottom of a structural

Y. S. Kim is with the Department of International Commerce and Area Studies, Gangneung-Wonju National University, 120 Gangneung -Daehangno, Gangneung, Gangwon 210-702, South Korea (phone: 82-10-9338-6510; e-mail: yskim@gwnu.ac.kr).

T. K. Ha is with the Department of Advanced Metal and Materials Engineering, Gangneung-Wonju National University, 120 Gangneung -Daehangno, Gangneung, Gangwon 210-702, South Korea.

crisis, its non-oil GDP (GDP minus actual production of oil) was equivalent to 19.5 billion barrels of oil in 1992 prices as in Fig. 2. In 1999, when oil prices were at their lowest, Russia's non-oil GDP dipped down below the equivalent of eight billion barrels as given in Fig. 3. However, even today, in 2015, Russia's non-oil GDP is still only worth 16.7 billion barrels in current prices as shown in Fig. 4. During the same period, Poland's non-oil GDP, for example, increased by 37 percent, while Norway, which has almost halved its oil production in the last 25 years, has maintained its non-oil GDP calculated in barrels of oil at the same level. [2]


Fig. 4 Changew in Russia's GDP growth measured in oil barrels (current prices) [2]

Russia's economy has recently recovered from the sharp contraction following 2009 financial crisis, only to be again under pressure due to western sanctions driven by the political situation in Ukraine and low commodity prices. Thus, in 2014, in response to Russian actions and policies in Ukraine, a series of progressively tight sanctions imposed by the United States, led to the reduced investments in Russia's energy sector. The sanctions limited the ability of Russian firms to access U.S. capital markets and prohibited the export to Russia of goods, services, or technology in support of deepwater projects, Arctic offshore projects, or shale projects, specifically targeting four Russian energy companies: Novatek, Rosneft, Gazprom Neft, and Transneft. The European Union also imposed sanctions, although in some aspects different from those imposed by the United States. These sanctions have affected the involvement in the Arctic offshore and shale projects by Western companies. Without such involvement, new Arctic resources are unlikely to be developed. Although this has little the effect on Russian production now, the sanctions, along with the low world oil prices, have made it more difficult for Russian energy companies to finance new projects. By the time the United States and European Union have applied those sanctions, oil prices fell by more than half, from an average Brent crude oil price of $108/barrel in March 2014 to just $48/b in January 2015. Both the sanctions and the fall in oil prices have put pressure on the Russian economy in general, and have made it more difficult for Russian energy firms to finance new projects, especially higher-cost projects such as deepwater, Arctic offshore and shale projects.

In recent years, the Russian government has offered special tax rates or tax «holidays» to encourage investment in difficult-to-develop resources such as Arctic offshore reservoirs including shale reservoirs. Attracted by the tax incentives and potentially big resources, many international companies have entered into partnerships with Russian firms to explore Arctic and shale resources. ExxonMobil, Eni, Statoil and China National Petroleum Company(CNPC), for example, all partnered with Rosneft to explore those Arctic fields. Despite sanctions, in May 2014, «Total» agreed to explore shale resources in partnership with LUKoil, but then, because of sanctions, halted its involvement in September that year. ExxonMobil, Shell, BP and Statoil also signed agreements with Russian companies to explore shale resources. Basically all involvement in Artic offshore and shale projects by Western companies has ceased following the sanctions. [3]

In 2011, the European natural gas market has witnessed the rapid growth of the "spot" prices under the influence of the increased demand for natural gas due to the stop of obsolete nuclear reactors in Germany, in a limited supply of natural gas due to political instability, civil wars and military conflicts in Libya and other countries in North Africa and the Middle East.

Prerequisites for the development of the global natural gas market are favorable in the short and long term. According to forecasts, the current observed imbalance between the supply and consumption of natural gas in selected regional markets will run out by the year 2015 and in the coming years there will be a gradual change in the trends of the environment for the benefit of exporters (Fig. 5).

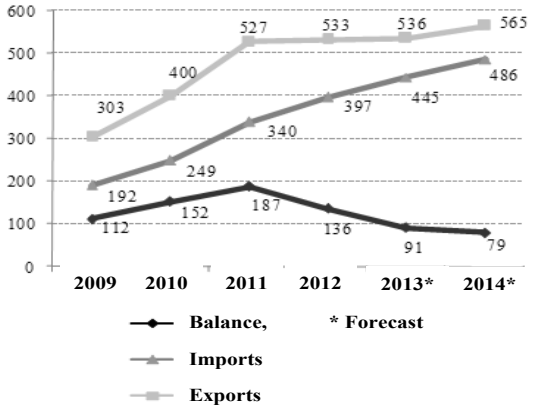


Fig. 5 Foreign trade of Russian federation in 2009~2014 years (in billion US$) [3]

## III. Dynamics and Structure of Materials Market

Arctic offshore and shale resources are unlikely to be developed without the help of Western oil companies. However, these sanctions will have little effect on Russian production in the short term as these resources were not expected to begin producing for 5 to 10 years at the earliest. The immediate effect of these sanctions has been to halt the large-scale investments that Western firms had planned to make in these resources.

It is important to mention that the health of Russia's economy depends not only on domestic policies, sanctions and technological innovations but also on the price of oil and gas.

In 2015, exported products are expected to be worth 527.5 billion U.S. dollars, while in 2010 merchandise exports totaled 400.4 billion USD. Nominal exports increased by 31.7%, mainly due to price increases of 27.3%, the physical growth of supply will increase by 3.4 percent. Apparently, when the oil price is above 60 U.S dollars a barrel, the real ruble exchange rate is higher than the inflation-adjusted exchange rate. When the oil price is below 60 dollars, the ruble is cheaper. The oil price is currently below 60 dollars, so the ruble has caught up with its inflation rate for the first time since 2005 and the value of dollars measured in rubles is rising above the "inflation curve." Furthermore, the extent of the ruble's deviation from its theoretical value, based on historical inflation, can be determined almost exactly by the oil price.

Currently, most major regional natural gas markets, including Europe, there is a situation "buyer's market", which forces the suppliers of natural gas at a pressure of importers to make concessions, to take on new risks and change in favor of buyers of contract terms in including in the area of pricing as summarized in Fig. 6.

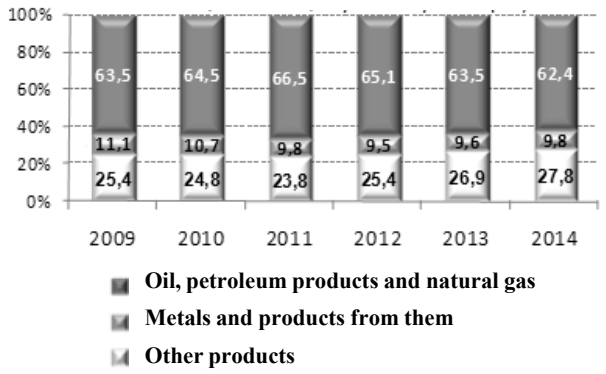


Fig. 6 Changing commodity structure of Russian exports according to customs statistics, % of total exports [3]

Under the influence of these factors, in 2009, the global natural gas market, there was a decline in prices. In 2010 and this year in most regional markets, there was a significant increase in natural gas prices due to price of oil and other energy resources to the world market. Despite this, the price of natural gas is still almost no one regional market has not reached pre-crisis levels in 2008, except for the Asian market, which in the first half of 2011 saw a rapid increase in prices due to increased demand for LNG in the power of Japan because of the stop of nuclear reactors at Japanese nuclear power plants in the earthquake and tsunami that occurred in March.

In unfavorable conditions a number of exporters of natural gas to the European market, including the Russian "Gazprom", under pressure from importers were forced to make a partial indexation of natural gas prices in long-term contracts at prices "spot" market.

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Commenting on the unfavorable economic situation, Russian Finance Minister Anton Siluanov anticipates that price for oil in some periods of time in 2016 may drop to $30 per barrel. "We had hardly passed the budget before we saw that the macroeconomic situation was changing. It's changing not for the better. We based our budget on the presumption that the price would be $50 per barrel, and now it's about $36-$37 per barrel.

The oil price can be affected, in particular, by global oil overproduction and Iran's entry into the market, he said. "Everything shows that low oil prices are likely to dominate next year, and it's possible that this could be $30 per barrel or even lower in some periods – we don't know. Because if someone had told us a year ago that it was going to be under $40, everyone would've probably laughed. Therefore, we should be preparing for not very easy times for ourselves," he said. [4]

All indicators suggest that the world is at the start of the long phase of low oil prices. By the end of the period, the oil industry will encounter better solar panels and super-batteries, more efficient car and aircraft engines, a mass market for electric vehicles, more energy-efficient construction materials, and other innovations. Lubomir Mitov from Unicredit Bank of Russia assumes that Russia is going to be in a very difficult fiscal situation by 2017. "By the end of next year there won't be any money left in the oil reserve fund and there is a humongous deficit in the pension fund. They are running a budget deficit of 3.7% of GDP, but without developed capital markets Russia can't really afford to run a deficit at all." [5]

It seems that the Russian authorities have the recent crisis under control for now. They have allowed the rouble to fall rather than burning up foreign reserves, providing a «safety cushion» for the budget and for oil and gas producers. But this policy is inflationary and politically toxic.

Russia's energy sector, constituting a great part of the countries' GDP, is highly affected by political, economic and financial factors, occurring in the world. The health of Russia's economy is dependent on the levels of output in gas and oil industry, currently being under pressure of sanctions and unfavorable exchange rates. The situation might stabilize in case of continuing investments and successfully carried out Arctic offshore and shale projects with Western companies.

## IV. Conclusions

Russia's energy sector suffers from a chronic lack of investments which are necessary to modernize its energy supply system. To develop new fields-located in remote regions where the geologic conditions only complicates exploitation-to compensate for the declining production of its oil and gas fields in Western Siberia and to diversify its overall economic output. Our main result is that regional mineral wealth tends to facilitate economic growth, although this effect is quite weak and depends on the measure of mineral wealth. This result is in obvious contrast with the effect of hydrocarbon and mineral rents on the economic growth of the entire country. After all, natural resources belong to the entire country and Russia's overall economic growth has certainly benefitted from resource rents during the 2000s. It might be worrisome, however, if taxing away regional rents results in insufficient investment in the development of Russia's natural resource extraction.

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