

## Role of Russia in the Changing Global Energy Landscape

Tatiana Mitrova<sup>\*</sup>

The global energy order that has prevailed for several decades is now experiencing fundamental shift resulting from growing multi-dimensional global competition. Competition between different types of fuels is supported by climate agreements, state policies on supply diversification and energy efficiency, as well as by technological progress on the demand side. Competition between different hydrocarbon producers, incentivized by high resource rent, has led to a significant expansion in the number of global market suppliers.

As the projections of the IEA show, in the first two decades of the 21st century the number of big oil producers (those producing over 4 mb/d) will double, and the number of big gas producers (with annual production exceeding 100 bcm) will increase three times as some new countries are joining the club of large producers (like Brazil, Kazakhstan, Australia, Turkmenistan) and some “old members of the club” are coming back after some break (like Iran and Iraq). Similarly the number of the large oil and gas exporting countries is growing, meaning that more and more countries are becoming involved in the international energy trade, and as a result the international markets are becoming more competitive than ever.

With such changes set in motion just one decade will see oil and natural gas trade flows differing completely from the current landscape. While traditional energy flows such as those between Middle East and North Africa (MENA) and North America, Europe and Russia, MENA and Europe and North Africa and Asia are expected to remain in place, albeit with adjustments, they will also be supplemented by new suppliers. Traditional energy flows to North America will reduce significantly as the region transforms into a net gas exporter. The Middle East is looking for new customers. As for the evolving flows, East Africa, Australia, North America and the Caspian region are emerging as new suppliers. These new market entrants will all be targeting the Asian and European markets, which are expected to become a battlefield for suppliers. They will have to develop the new infrastructure for energy supplies to these expanding markets, which is becoming a huge challenge under the current low-price environment.

This era of “repartition of the markets” has coincided with weak global economic performance and a slowing down of demand growth not only in countries of the Organization for Economic Co-operation and Development (OECD), but also in non-OECD countries, driven by Chinese economic slowdown. Shrinking niches in the buyers’ market environment create enormous threats for producers and make price wars with sales of hydrocarbons at the prices far below their long-run marginal costs nearly inevitable. Sooner or later, of course, this oversupply will be absorbed, but no

---

<sup>\*</sup> Research Fellow, Center on Global Energy Policy, Columbia University SIPA, Head of Oil and Gas Dept., Energy Research Institute of the Russian Academy of Sciences (ERI-RAS) / Distinguished Fellow, The Institute of Energy Economics, Japan

one knows how long it will take. But in any case, this process will be very painful for suppliers, as the huge investments required to build new infrastructure and to develop new oil and gas projects will not be providing an acceptable rate of return. This is probably the most astonishing paradox of the current situation: all major oil and gas producers are “desperate”, and for differing reasons they need to support production volumes at any price. The next decade promises to be an extremely uncertain and turbulent period for all hydrocarbon-dependent economies, and for Russia in particular.

For Russia this global change of the market fundamentals was aggravated by the geopolitical tensions with the West, including U.S. and EU sanctions introduced against Russia as a reaction to the annexation of Crimea and hostilities in eastern Ukraine. Moreover, there is also a number of internal factors, which make the current situation a real “Perfect Storm” for Russian economy and for the oil and gas industry:

- structural economic crises driven by inefficiency in the regulatory framework, high resource dependency, and a lack of stimulus for entrepreneurship and industrial diversification;
- stagnant domestic energy demand and frozen domestic regulated energy prices, driven by the economic slowdown;
- natural depletion of cheap-to-produce Soviet legacy fields and the growing need to explore new hard-to-reach and expensive-to-develop oil and gas provinces;
- increasing problems with the access to financing, since the domestic financial market is weak and underdeveloped and foreign capital flows are limited by economic sanctions and a poor investment climate;
- cuts to investment programs in the oil and gas sector leading to slowdowns in maintenance and upgrades;
- the institutional framework in the energy sector, which has reached a critical level of inefficiency: high corporate concentration and a lack of market mechanisms are destroying its value, as will be explained.

Altogether, these factors probably represent one of the most catastrophic scenarios that Russia’s leadership could imagine. The common expectation (both domestically and abroad) was that such a scenario is not sustainable and that it would lead to the complete collapse of the Russian economy. Nevertheless, reality shows that indeed the Russian oil and gas industry, as well as the whole economy, are experiencing difficult times, but are showing much greater resilience to these challenges than expected.

For the last several years there were very strong expectations that Russian oil production has approached its peak. Nevertheless, past investments in the new greenfields, ruble devaluation, specific taxation system and depressed domestic demand for liquids ensure record high oil production and export volumes – at least for 2016-2017. Later on decline will become inevitable, but in the next few years (which might be the most painful period of the global oil market oversupply) Russia does not seem to reduce its export volumes. Moreover, the lower oil prices (and thus the worse the economic situation in the country) would be – the lower is domestic oil demand, which means that, assuming quite stable production volumes, the more oil would be available for

exports.

In the longer term some steep production declines is becoming inevitable, due to accelerating decline rates in mature fields and delays in the commissioning of new projects resulting from capex constraints and the expected ongoing impact of the sanctions. In this time frame Russian oil output will be mainly defined by tax regime and financing availability (which depends on oil prices and financial sanctions). the trajectory of Russian oil production is expected to be declining, but the speed of this decline is the main uncertainty – from 0.2% per annum on average in the most favorable scenario, to 1,3% per annum in the critical scenario with low oil prices, increased taxation and expanded sanctions. In term of exports the range of uncertainty is much narrower. During the last decade Russia has lost approximately 15% of its crude exports and was already regarded by the market as a declining exporter. But 2015 saw unprecedented rise in the export volumes both to Europe and to Asia as a result of growing oil production and declining domestic demand. That future Russian oil export potential is much more stable and certain than production due to this “stabilizing role” of the domestic demand. In the mid-term slight increase of the oil export is expected in all scenarios at the on the back of stagnating domestic consumption. This high short- to medium-term resiliency of the Russian oil exports will enable Russia to remain one of the key players in the global oil markets at least until 2020 in any case. Another important dimension of the Russian oil export strategy is its increasing focus on the Asian markets. Since East Siberia-Pacific Ocean oil pipeline was built, Russian oil exports in this direction were expanding very quickly: they reached 27% of total crude exports in 2015, and by 2025 this figure is expected to increase up to 40%.

On the gas market Russia’s influence was never underestimated. It is still the largest gas exporter in the world, which provides for nearly one quarter of the global cross-border gas trade leaving far behind Qatar, Norway, Canada, Australia and the U.S. Nevertheless, the last few years were quite disappointing for the Russian gas industry due to the production and export stagnation, as well as weak domestic gas demand and freeze of the domestic gas prices. As in the oil industry, there is a strong desire to diversify exports to Asia. They are now limited to Sakhalin LNG exports, and the recently signed deal on pipeline gas supplies to China is only a longer-term prospect - “Power of Siberia” pipeline construction will take five years, and an additional five years will be needed to bring the pipeline to its full capacity of 38 bcma, which means that at least until the mid-2020s, eastward gas exports will not be able to replace the reduction of supplies to Europe. All new LNG plans have been pushed back as a result of the sanctions and low price environment.

Russian gas sector undoubtedly has capacities for sustainable production growth: the resource base is huge and is sufficient to meet domestic and export demands. Theoretically, given investment availability and sufficient demand, Russia could produce 1 trillion cubic meters per year. As Russia has no gas resource constraints, its future gas production will depend solely on the availability of markets and investments to build the new gas transportation infrastructure.

Though the domestic market is consuming two-thirds of Russian gas output, it is very difficult to expect its radical expansion, as it is historically strongly correlated with GDP (which is projected to grow weakly). Thus the major influence on Russia’s upstream would come from abroad,

depending primarily on external demand. In the high-demand scenario, all new gas would be absorbed by booming Asian markets. That means that more LNG would divert to Asia and slightly more Russian pipeline gas would be required by Europe. Such a call on Russian gas results in rather bullish production projections, rising from 650 bcm in 2010 up to 820 bcm in 2025 in the high-demand scenario, though these figures are still much lower than the previous production targets of the General Scheme of gas industry development drafted in 2008-2010.

The speed and success of the development of alternative suppliers is critical. If their entrance to the market is postponed, or some of them fail to deliver gas, then Russia is always in a position to compensate for their unavailability. But if they are successful in their project development, then Russia could face very difficult circumstances, especially in the period 2018-2023, when huge new volumes of gas are expected to enter the global market. In this case, Russia would have to struggle to protect its market share both in Europe and in Asia, and production volumes could stagnate for a decade. Much will depend on the pricing strategy chosen by the authorities and Gazprom: Russia has now huge spare gas production and transportation capacities, so it could theoretically follow Saudi Arabia's example and try to squeeze other out producers by flooding the market with cheap supplies. But, so far, there are no evidences of such a strategy.

Long-term projections of the Russian gas exports are now revised significantly downward, compared to the previous estimations (from 350 bcma to 270 bcma), but they will still remain the largest in the world. Russia will attempt to solve the twin problems of protecting its 30% market share in Europe while simultaneously substantially increasing gas supplies to Asia.

Summing up, despite all the difficulties, Russia's low-cost hydrocarbon production and short-term energy sector and overall economic resiliency will ensure that the country remains a major oil and gas exporter for the foreseeable future. Significant fluctuations in oil or gas production are unlikely, with oil exports likely to stagnate and gas exports likely to increase somewhat, and therefore Russia's influence on the global energy market should not be overlooked.

#### Writer's Profile

Tatiana Mitrova

She has twenty years of experience in dealing with the development of Russian and global energy markets, including production, transportation, demand, energy policy, pricing and market restructuring. She is leading annual "Global and Russian Energy Outlook Up To 2040" project.