

**Low oil prices, sanctions
and structural problems:
the tribulations of Russia's oil and gas sector**

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Introduction

Over the past three years, the Russian oil and gas industry has been in the eye of the storm. It has been hit simultaneously by Western sanctions due to Moscow's 2014 takeover of Crimea and involvement in the conflict in south-east Ukraine as well as the 2014 stunning fall in oil prices. In summer 2017, the U.S. House of Representatives approved a number of new sanctions on the Russian Federation over the alleged Russian interference in the U.S. election. Whereas new U.S. sanctions have been pushed to the forefront of the debate in Europe (perceived as a hypothetical threat to Europe's interests), it should not make observers forget that Russia has adapted to this critical situation. The Russian energy sector has been at the heart of this adaptation process. It has implemented a change in strategy in order to mitigate the impact of both sanctions and low oil prices. Initially, Russia was adapting under emergency conditions, which led to a certain confusion. Subsequently, the situation progressively became less urgent, allowing the adaptation process to gain more consistency. This 'new strategy' – the fruit of a 'crisis period' – is tentatively emerging in a context where structural problems in Russia remain. Moscow was and still is heavily reliant on hydrocarbon revenues.

This paper aims to shed light on the difficulties which Russia's energy sector is facing and how the state and stakeholders (i.e. Russian energy companies, foreign energy companies operating on the territory of the Russian Federation and banks) are reacting accordingly. This situation raises some fundamental questions: what are the short-term priorities and long-term objectives? What do new relations between stakeholders look like? Is the adaptation efficient? It has become crucial to answer these questions in order to 'demystify' the current situation and gain a better understanding of challenging issues. The first part gives a brief overview of Russia's dependence on oil and gas revenues and how the fall in oil prices on the international market has impacted the country. Since mid-2014, maintaining macroeconomic stability has been the highest priority for the state, with stark consequences for the oil and gas sector. The second part highlights the main characteristics of the Russian oil and gas sector prior to the introduction of sanctions, among them the particular relationship of the state to Russian oil and gas companies, and the fiscal policy which generates discontent among companies. These two components have exerted a significant influence on the overall shape of Western sanctions. Finally, the third part analyses the nature of Western sanctions impacting Russia's energy sector by disentangling the aims and the targets, before taking stock of their consequences.

1 – The challenges of a petro-state

1.1 – *Measuring the Russian state's dependency on oil and gas revenues*

The Russian Federation is one of the world's largest hydrocarbon resource holders, producers and exporters. Based on BP's Statistical World Review 2017, Russia holds approximately 6.4% of global proven oil reserves and 17.3% of total proven gas reserves. In 2016, Russia represented approximately 12.2% of world oil production and 16.3% of world gas production, and respectively 3.3% and 11% of world oil and natural

gas consumption¹. Russia may be a key player in the oil and gas sector, but it is also highly dependent on commodities exports, particularly hydrocarbons.

Revenues from oil and gas sales are of paramount importance for the Russian federal budget, reflecting the predominance of the sector in the overall economy. From 2011 until 2014, the total volume of oil and gas revenues was close to 50% of total budget revenues. Since 2015, this share has slightly decreased to approximately 43% in 2015 and 37.4% in the first quarter of 2016² – a direct consequence of the deterioration of the oil market. Over the last few years, the oil and gas sector has also become the largest source of growth for Russian gross domestic product (GDP). However, since the beginning of the slowdown of the Russian economy at the end of 2012, reliance on the sector is no longer sufficient to ensure robust and steady economic growth³. Finally, hydrocarbon revenues have contributed to the building up of currency reserves that can be used during periods of temporarily low oil prices. All oil-producing countries are exposed to the boom-and-bust cycles of the petroleum economy and all need a minimum price per barrel (bbl). This is known as ‘fiscal break-even’: once oil prices are below this level, the budget cannot be balanced any longer and the deficit increases more or less rapidly depending on the level of expenditures. In Russia, the fiscal break-even stood at around USD100-110/barrel from 2011 until 2014. The Oil Stabilization Fund was established in 2004 and has been essentially financed by two major taxes paid by energy companies, i.e. the oil export duty and the mineral extraction tax (MET). In February 2008, this fund was split into two categories: the reserve fund with a stabilization function and the national welfare fund with a saving function. Additional funds of the reserve fund are transferred to the national welfare fund once the former reaches 10% of GDP. In other words, oil revenues above the budget are transferred to the funds. During the 2008/2009 crisis and since the end of 2014, oil revenues have thus been used as a buffer to prevent abrupt adjustments in expenditures.

Russia benefited from the 2000s oil bonanza, but the initial influx of ‘petrodollars’ was driven by growing export volumes (until 2004/2005) and by increasing oil prices thereafter. A closer look at data issued by the Central Bank of Russia (CBR) suggests that from 2000 until 2015, oil exports increased both in terms of quantity and in terms of value. However gas exports have somewhat stagnated or even decreased in quantity whereas they have increased in terms of value, with an exception for 2014 and 2015 essentially due to the oil indexed gas contracts⁴. As can be seen from the figures below, the oil sector is generating more income than the gas sector.

¹ British Petroleum. *Statistical Review of World Energy*, London, June 2017.

² « Dolya neftegazovykh dokhodov v byudzhete Rossii upala do semiletnego urovnya » [The Share of Oil and Gas Revenues in Russia's Budget Fell to the Level of Seven Years Ago], rbk, March 24, 2016.

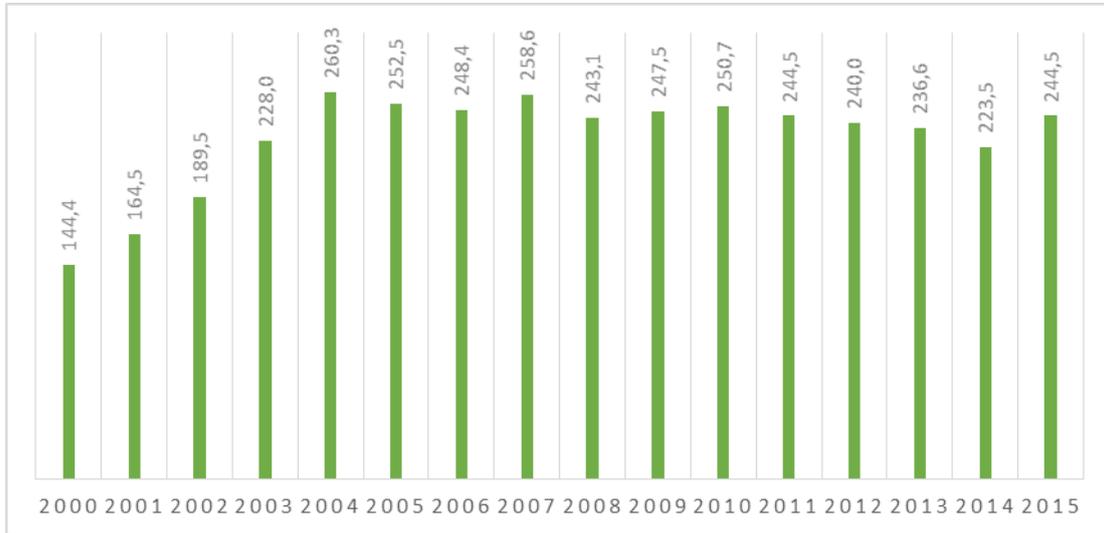
³ International Energy Agency, *Russia 2014. Energy Policies Beyond IEA Countries*, IEA, Paris, 2014.

⁴ « Eksport Rossyskoy Federatsii syroy nefi za 2000-2016 gody, po dannym FTS Rossii i Rosstat » [Exports of Russian Crude Oil from 2000 to 2016, According to the Federal Customs Service of Russia and Rosstat], Central Bank of Russia, 2016.

« Eksport Rossyskoy Federatsii prirodnogo gaza za 2000-2016 gody, po dannym FTS Rossii i Rosstat » [Exports of Russian Natural Gas from 2000 to 2016, Federal Customs Service of Russia and Rosstat Data], Central Bank of Russia, 2016.

Figure 1: Oil exports between 2000 and 2015

In million tons of oil equivalent



In millions of U.S. dollars (USD)

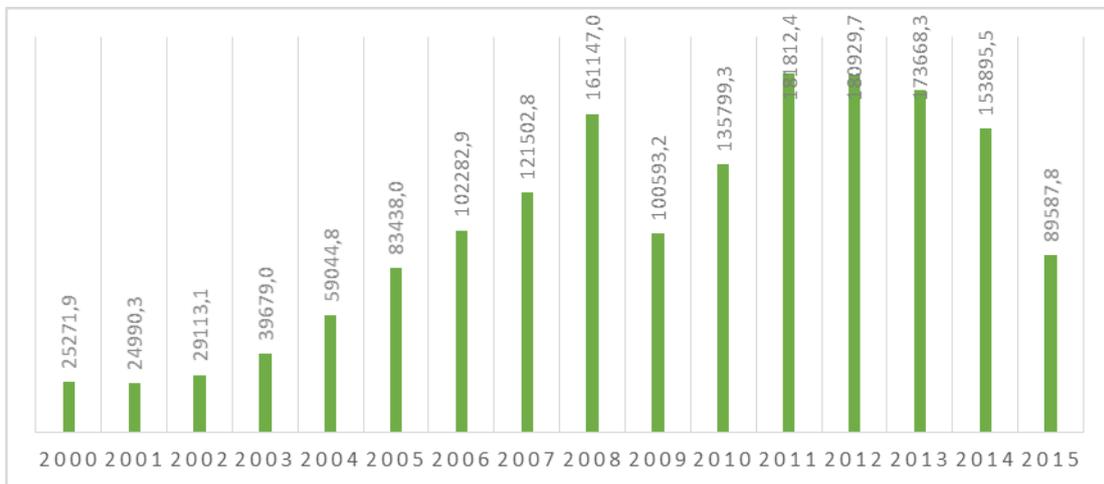
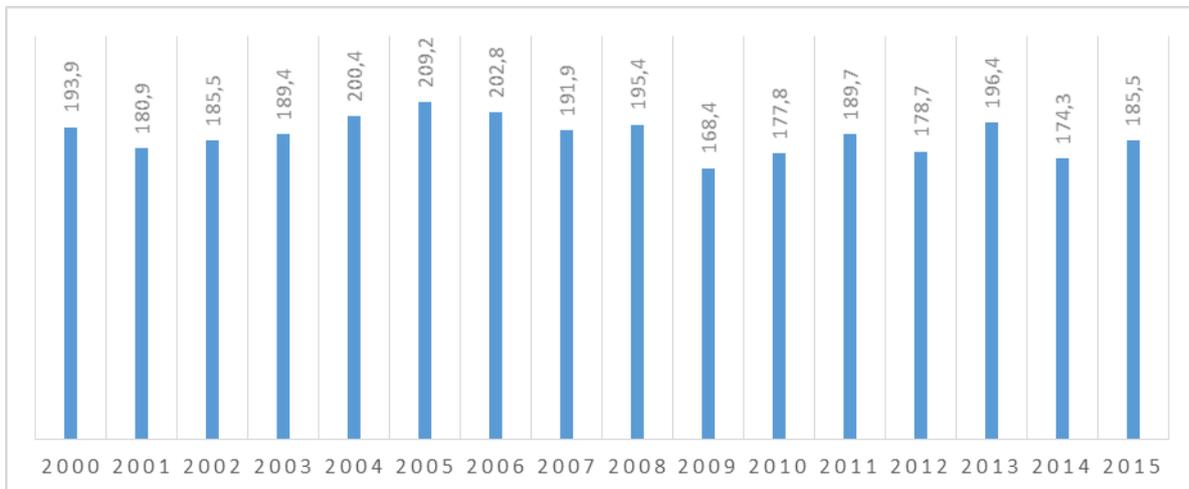
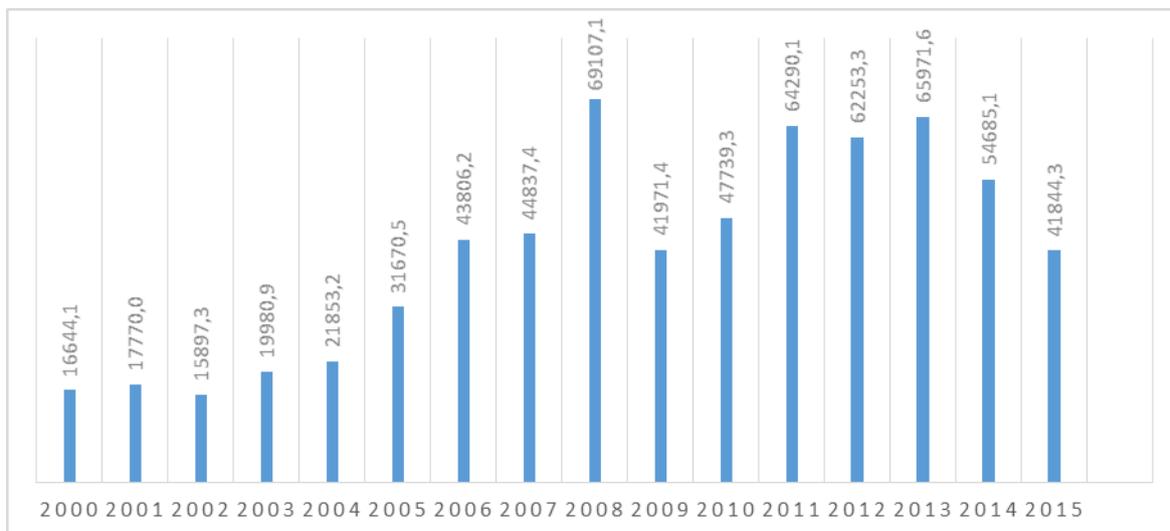


Figure 2: Gas exports between 2000 and 2015

In billion cubic meters (Bcm)



In millions of U.S. dollars (USD)



Source: Central Bank of Russia

In the past two decades, the Russian economy has become increasingly dependent on hydrocarbon exports, making the former commodity-driven and exposed to a threefold risk:

1. exhaustible resources;
2. volatility of oil prices;
3. dependence on external demand (and on geopolitical and economic factors indirectly).

In the same period, the structure of the Russian economy has not changed significantly. This demonstrates that the modernisation goals set by the government in the late 2000s have not been reached. The modernization and diversification of the Russian economy were a topic of heated debate during Dmitry A. Medvedev's presidential mandate (2008-2012). On numerous occasions, the former president underlined with concern the high dependence on hydrocarbon revenues, which was deemed to be an impediment to economic diversification. His 2009 Manifesto *Rossiia vpered* (Russia forward)⁵ was intended to lay the groundwork for a large number of reforms that would have boosted the diversification of the Russian economy away from natural resources towards innovation. Nevertheless, these plans have not come to fruition as no real action has been taken since. Oil prices remain the key driver of economic and fiscal performance, and continue to impact long-term state budget performance.

1.2 – *Facing the storm: the consequences of falling oil prices*

The Russian economy experienced a 'shock period' in 2014 and 2015 due to low oil prices leading to unpredictable economic volatility. In an attempt to resolve the situation, beginning in the second half of 2014, the government decided to start tapping reserve funds under the control of the CBR to (i) deal with the budget deficit, (ii) meet balance of payments, (iii) provide financial assistance to banks and selected state firms, and (iv) limit spending cuts⁶. The reserve fund started to dramatically decrease. Approximately RUB 1.6 trillion, or 32.4% of the total amount, had already been spent by the end of 2014⁷. The outflow of capital continued in 2015⁸. The situation raised two questions. How fast will the reserve fund be spent? Can the federal budget deficit be 'managed' by more extensive use of foreign-exchange (FX) reserves?⁹ According to calculations carried out by the Ministry of Finance in late 2015, it was estimated, at that time, that the reserve fund might be exhausted by the end of the first half of 2018, a sign that not enough assets had been accumulated over the preceding years. In this matter, there are, nevertheless, two elements that should be borne in mind. First, until the end of 2012, Russia increased its FX reserves thanks to high oil prices. However, Russia's currency reserves started to fall already in the third quarter of 2013 "*amid fading surpluses to other BRICS countries*"¹⁰ (with the exception of China). Secondly, the 2015 withdrawals were made in rubles, meaning that the Ministry of Finance sold currencies to the Central Bank and received rubles in return. Consequently, this has not led to a major change in the value of reserves, but the Ministry of Finance assets in the reserves have decreased in proportion.

⁵ « Rossiya, vperyod! Statya Dmitriya Medvedeva » [Go Russia! Article by Dmitry Medvedev], kremlin.ru, September 10, 2009.

⁶ The government tried to avoid unpopular measures such as freezing the pension fund or increasing the pension age. Such measures would have cost the government some electoral votes in 2018.

⁷ G. Khaidarshina, "Russia's Reserve Funds: Implications of Accelerated Spending", Gazprombank, Macro research, October 15, 2015, p. 10.

⁸ H. Simola, *Russia's International Reserves and Oil Funds*, Bank of Finland, BOFIT Policy Brief No4, Helsinki, 2015.

⁹ FX reserves are reserve assets which are held by a central bank – the CBR in this case – in foreign currencies. This reserve is a tool to support liabilities often issued in national currencies – the Russian ruble in this case. FX reserves can also significantly influence the national monetary policy.

¹⁰ Op. cit. footnote 7.

As a result, discussion of the 2016 Russian budget took place in a highly tense climate where oil prices remained under US\$50/bbl. Calculation of the budget for the coming year proved difficult as the country was suffering a setback, while economists expected a 'L-shaped' recovery (i.e. very low growth). Furthermore, the government voted in September 2015 to freeze the rule allowing the replenishment of the reserve fund for the year 2016 even if oil prices were to increase in the course of the year. One short-term remedy was to increase the burden on the oil and gas sector. This suggestion was made by the Finance Ministry in September 2015, to the Ministry of Energy's great dismay. It proposed modifying the MET formula to collect additional incomes (more than RUB 600 billion in 2016, or USD 9.9 billion [USD 1 = RUB 60.52], and possibly more than RUB 500 billion, or USD 8.2 billion, in 2017) and delaying the reduction in crude oil export duty to generate an additional RUB 150 billion, or USD 2.5 billion¹¹. Soon after, the heads of major Russian oil companies sent a letter to the government to notify them that a tax hike could lead to cross-defaults¹² – a somewhat over-dramatic response. These companies benefited significantly from the 2014 ruble devaluation (see part 3.2.2.). Nevertheless, this increase would have negatively impacted their profitability and increased pressure on their cash-flow, for Rosneft first of all, while scaling back investment programs. In the meantime, this tax manoeuvre was stopped, but the hydrocarbon sector provided a great deal of support to the 2016 state budget via additional taxes and the increase of the dividend payout ratio for Russian state-controlled companies to 50% of net income (from 25% previously). The urgency of the situation pushed the government to identify new sources of taxes, such as the downstream segment, and eventually the metals and mining sector, which is the second largest exporter after the oil and gas sector (e.g. Rusal, Severstal, MMK, etc.) and fertilizer producers.

In a context of high global risk and low oil prices, Russia took the decision – at the national level – to implement prudent monetary and fiscal policies, while the CBR has given much more importance to macroeconomic policy. The Russian government tried to keep its budget deficit within 3% of GDP in 2016 and will try to limit it to 3.2% in 2017, in order to, among other things, protect Russia's credit profile. At the international level, Moscow actively pursued a dialogue with OPEC countries to sign an agreement with the organisation to reduce oil output, which was intended to lift oil prices. This was finalized in December 2016 despite numerous difficulties throughout the year – a sign that OPEC and Russia can work together when the need is apparent. Since 2016, the Russian economy has progressively been stabilizing, although risks remain high and numerous. The Duma approved a 2017-2019 budget which envisioned a 'conservative' scenario (i.e. Urals oil price at USD40/bbl). The government seems to be trying to gradually reduce the budget breakeven oil price to USD50/bbl by 2019¹³; it is currently at approximately USD70/bbl. Still, reducing the dependence of state

¹¹ P. Kushnir, *Deutsche Bank Markets Research*, September 22, 2015.

¹² E. Dyshltul; A. Nazarov; N. Sheveleva; M. Ganelin; G. Khaidarshina; E. Khilinskiy; K. Asaturov (2015) *Higher Taxes Looming for Russian Exporters*, Gazprombank, Moscow
http://www.gazprombank.ru/upload/iblock/6ce/GPB_New%20taxes%20for%20exporters_ENG_28.09.2015.pdf.

¹³ D. Dolgin, "Russian Economy 2017: in Savings Mode", Gazprombank, Macroeconomics, December 20, 2016, p. 9.

financing on the environment in the commodity markets remains highly challenging. It should be noted that in early March 2017 the Urals price stood at USD53/bbl and allowed for the accumulation of additional revenues – a lull that was fostered by the increase in commodity prices (more specifically coal and metal).

All of these ‘upheavals’ occurred in an environment where, regardless of Western sanctions, Russia was and is still suffering from structural problems that are making the country vulnerable. Moscow is facing unfavourable market conditions both at home and abroad. In the first case, this is the result of (i) the global financial and economic crisis, which has led to decreasing energy consumption and stagnating energy demand in Russia’s main export markets, (ii) pressure to increase energy efficiency – the result of active environmental policies –, also leading to a drop in fossil fuel consumption, (iii) and finally the success of the so-called ‘shale gas revolution’ in the USA. In addition to losing a potential export market¹⁴, Russia is now facing fierce competition on its historical gas export market because the USA is now exporting LNG, as well as the emergence of new oil and gas suppliers worldwide (e.g. Australia, Brazil, etc.). Secondly, the Russian economic slowdown is also leading to decreasing domestic energy consumption, while no further reforms of the energy sector are planned at a time when it seems difficult to curb corruption and mismanagement.

2 – Main characteristics of the Russian energy sector, and their influence on the conceptualisation of Western sanctions

2.1 – A strategic sector under state control

Major changes occurred after Vladimir. V. Putin came to power in 2000 that led to a complete overhauling of the Russian energy strategy based primarily on three main principles: (i) state planning organization, (ii) creation of national clusters, and (iii) foreign investment control, making energy an ‘instrument of power’.

2.1.1 – Towards a renationalisation of the oil sector

In the aftermath of the collapse of the Soviet Union, the oil sector was privatized and deregulated in accordance with market reforms promoted by the liberal block in the government, while the gas sector remained under state control, giving the state company Gazprom a predominant role (see part 2.1.2.). Oil companies fell mostly under private control, weakening the influence of the government on them, particularly as a result of the rise of the oligarchs. From the late 1990s until 2004, the bulk of oil production was in the hands of a few private corporations that generally were vertically integrated such as Lukoil, Sibneft, Surgutneftegaz and Yukos. At that time, Rosneft played a relatively minor role in Russian oil output. However, since the early 2000s, one of the key objectives of the government has been to regain control over this strategic sector. This has been achieved in different ways.

First, the influence of state-controlled companies on the oil sector increased significantly from the mid-2000s onwards. This started with the Yukos affair, which has

¹⁴ Gazprom, together with Statoil and Total, wanted to develop and explore the Shtokman field located in the Barents Sea to supply the European market, but also the U.S. market via LNG cargos. However, the shareholder agreement expired in 2012 and Total returned its stake to Gazprom in 2015.

been written about extensively. The artificial bankruptcy of the largest oil company, followed by the imprisonment of Mikhail B. Khodorkovsky for tax evasion, embezzlement, and theft in 2005, allowed Rosneft to acquire Yukos' major assets¹⁵. In the course of the same year, Gazprom bought about 76% of Sibneft's shares (better known as Gazprom Neft nowadays)¹⁶ – providing Gazprom with outright control. Although gas is Gazprom's key business, it has consolidated its position in the oil sector over time, particularly via its subsidiary Gazprom Neft, which produced about 482 million barrels in 2014. This put the company in the third place among Russia's biggest oil companies in 2015¹⁷. Thereafter, Rosneft acquired assets from TNK-BP¹⁸ in 2012. By collecting different assets, Igor I. Sechin, Rosneft's president, turned the company into the largest Russian oil company, but also into an international leading oil company.

Second, access to transport infrastructure is also under state control and the government has had a legal authority over the pipeline system since the early 1990s. Transneft, which owns one of the largest oil pipeline networks (over 70 thousand kilometres (km) of trunk pipelines), is state-ruled and holds a monopoly on oil transport. It can decide on access to the transport and export infrastructure.

Third, some kind of 'preferential treatment', to the detriment of private companies, is noticeable. Regardless of their strategies and investment projects, these companies must ultimately obtain consent from the government. Among many other things, the government is responsible for licensing and cancelling production licenses. From time to time, such a situation leads to decisions more favourable to state-controlled companies, causing not just deep discontent, but also strong antagonism between companies. For example, owing to amendments made in 2008 to Federal Law No. 2395-1 on Mineral Wealth from 21 February 1992¹⁹, only Gazprom and Rosneft can carry out operations on the Russian continental shelf. Before the 2014 Ukrainian crisis, the latter signed strategic cooperation agreements with the U.S. Exxon Mobil, the Norwegian Statoil, the Italian ENI and the Japanese INPEX between 2011 and 2012.

Fourth, the control over the oil sector has been eased by the appointment of V.V. Putin's close allies to strategic posts. For example, I. I. Sechin, Deputy Prime Minister from 2008 to 2012, was Chairman of the board of directors of Rosneft from 2004 to 2012. He has been the President of Rosneft since May 2012. In this regard, it should be underlined here that the Russian President is very close to business people from key economic sectors (e.g. Arkady R. Rotenberg owns Novorossiysk port²⁰, Ziyavudin G. Magomedov owns Summa Group²¹, and Gennady N. Timchenko owns Volga Group, is the co-owner of Gunvor Group and is also a shareholder in Novatek).

¹⁵ « Rosneft. Rossyskaya neftyanaya kompaniya » [Rosneft, a Russian Oil Company], lenta.ru, March 2017.

¹⁶ « "Gazpromu" ne terpetsya kupit "Sibneft" » ["Gazprom" Cannot Wait to Buy "Sibneft"], Kommersant, August 18, 2005.

¹⁷ J.W. Carpenter, *The 5 Biggest Russian Oil Companies*, Investopedia, October 5, 2015.

¹⁸ Rosneft Press Release, October 22, 2012.

¹⁹ « Zakon ot 21 fevralya 1992 g. N 2395-1 "O nedrakh" » [Act of February 21, 1992 N 2395-1 "On Mineral Wealth"], rg.ru, March 15, 1995.

²⁰ A seaport located on the Black Sea and navigable all year round. Among other notable activities, the port offers transshipment of crude oil, oil products and other liquids.

²¹ It is a transport and logistics company. The group built an oil terminal in Rotterdam in 2011.

2.1.2 – *The Russian gas sector: from subsidization of the economy at home to competition over export markets*

Gazprom was created in 1989 under the leadership of Viktor S. Chernomyrdin, first Chairman of the company and Prime Minister of Russia from 1992 until 1998. Since its creation, the company has been under state control. Currently, Gazprom is the largest Russian joint stock company. The state holds 50.2% of shares and detains voting rights (i.e. right to vote on corporate matters)²². During the 2000s, Gazprom experienced dramatic growth. Two drivers behind this growth were acquisitions (both in Russia and Europe) and, more importantly, high international oil prices²³.

Historically, Gazprom is the major Russian player in the gas industry. The company acquired an atypical status among world-leading energy companies when it became a utility (in its classical conception) operating on the network and, at the same time, a company active in exploration and production (E&P)²⁴. Furthermore, it has always enjoyed an export monopoly status, at least tacitly. This status was formalized in 2006 by the Russian government, which granted the company the exclusive right to export natural gas (liquid or gaseous), and be the sole owner of the entire unified gas supply system (UGSS)²⁵; that is, have full control of transport infrastructure on the Russian territory and of the gas fields. Hitherto, Gazprom has never encountered competition from other Russian gas producers in Europe, which is historically its most lucrative market. In exchange, it had to sell gas on the Russian market, which was relatively uneconomical as domestically regulated prices were too low to ensure real profitability until the mid-2000s. In Russia, both natural gas and Gazprom have played a major social function. Breaking Gazprom's monopoly on pipeline export would require relieving the company of a few of its 'social obligations', such as the subsidization of depressed areas, the implementation of gasification of remote republics and Oblasts, or the financing of projects of a non-energy nature. In 2015, Gazprom had a 31% share of the EU market. Nevertheless, the law on liquefied natural gas (LNG) export liberalization, which came into force on December 1st 2013, partially reversed the 2006 law, by allowing Rosneft and Novatek to export LNG as well as Gazprom²⁶. Other groups, such as Lukoil or Alltech Group, were not allowed to export LNG. Once again, differential treatment of companies by the Russian government can be observed.

Even if Gazprom, at the time of writing, still holds the exclusive right to ship gas via pipelines to Europe and Asia, the company is facing stiff competition from the so-called independent companies, particularly from Novatek, the largest Russian independent natural gas producer, and Rosneft since 2013. Both companies have managed to position themselves on the Russian market by taking market shares away from the historic company, while calling Gazprom's export monopoly into question.

²² To draw a comparison, the Algerian Sonatrach is 100% under state control, while the Norwegian state owns about 65% of Statoil.

²³ A. Bros, "Gazprom in Europe: a Business Doomed to Fail?", *Institut Français des Relations Internationales*, Russie.Nei.Visions, No18, July 2014.

²⁴ A. Bros, "There Will be Gas: Gazprom's Transport Strategy in Europe", *Institut Français des Relations Internationales*, Russie.Nei.Visions No21, October 2015.

²⁵ « Zakon ot 21 fevralya 1992 g. N 2395-1 "O nedrakh" » [The Federal Customs Service has Counted all the Gas that Burns], *Kommersant*, August 25, 2006.

²⁶ Rasporjaženie ot 28 nojabrja 2013 goda, n° 2220-r http://government.ru/dep_news/8620/

2.2 – *The difficulty of developing greenfields under the current taxation regime*

The very essence of the debate here is the depletion of cheap-to-produce oil brownfields²⁷ which were mostly developed during the Soviet era. These are progressively drying up and need to be replaced. To briefly sum up the situation, Russian oil production grew dramatically from the late 1990s until 2004, which was the result of a switch from traditional recovery²⁸ to a more aggressive recovery²⁹. Tapping fields more aggressively increased production and led to an escalation of output. After averaging 8.5% growth from 2000 until 2004, oil growth production scaled back as from 2005³⁰. The feature of the period leading up to the decrease in production was a massive lack of investment in the upstream sector, leading to a progressive erosion of Russian upstream oilfield services (i.e. shortage in services). One of the main problems was that the increase in production was doomed to be time-limited and not sustainable over a long-term period without any massive capital expenditures. Russia was not running out of oil, but the development and production of next generation oil resources was thereby going to be more difficult and costlier.

Russia's historical oil production centres, which represent the major proportion of oil production, are the Volga-Ural region and West Siberia. The latter is certainly the most developed Russian oil region with well-established infrastructure and a developed oilfield services market. However, the depletion level is high, although the decline in production of the Samotlor field has been reduced thanks to the application of enhanced oil recovery techniques³¹. The Bazhenov formation has been identified as one of the world's largest oil shale formations and offers great potential. Many potential greenfields (most of them located in the Arctic shelf and/or in deep waters) and shale plays have been also identified across the country in recent years. The fact remains that their development is often prohibited by a huge tax burden that rules out the chance to compensate for huge upfront investments. For many years, easing or repealing the tax burden, which hampers large-scale upstream development, has facilitated the upstream segment. Nevertheless, tax holidays are no silver bullet. Moreover, the development of hard-to-recover fields has been, in some cases, held back due to an oil price slump which has made the financing of the project even more difficult. As a consequence, the issue of the renewal of oil and gas reserves is closely linked to the debate surrounding the taxation system of the oil and gas industry.

As previously mentioned, Russia's taxation regime is a combination of two main taxes: MET and export duty, which is collected during the export of oil and petroleum products. From the Russian government's perspective, the challenge is to find the right balance between ensuring stable and fairly predictable budget revenues and maintaining the profitability of oil companies. The subsoil sector generates a rent that the fiscal

²⁷ A brownfield is an existing onshore or offshore facility, contrary to a greenfield, which is a new field requiring new facilities, either onshore or offshore.

²⁸ This methodology was characterized by a smooth growth and a slower ramping up of production. Once the plateau of oil fields located in West Siberia had been reached, the decline rate was quite slow.

²⁹ This methodology was characterized by a faster ramping up of production in the early years, but once the plateau of oil fields had been reached, the decline rate was even more rapid.

³⁰ T. Mitrova (2014) « The Political and Economic Importance of Gas in Russia » in *The Russian Gas Matrix: How Markets are Driving Change*, OIES, Oxford.

³¹ US Energy Information Administration, *Country Analysis Brief: Russia*, October 25, 2016, p. 30.

policy has to capture and redistribute – a task which falls to the state. The difficulty is that under the current taxation regime, only a very limited number of new fields will create value. For many years, it was – and still is – complicated (almost impossible), to simultaneously obtain (i) a rational development of natural resources, (ii) the promotion of competition and attraction of investors at a time when capital expenditure in the upstream sector has skyrocketed³², (iii) and necessary technological development which is a *sine qua non* when the number of hard-to-recover reserves is increasing. The crux of the issue is that a new oil taxation system was introduced in 2002, a period during which it was thought – wrongly – that there was no real need to invest massively in the upstream sector. This was due to high production in an environment with an ever-depreciating currency, a fairly low natural decline rate, and operations located in regions well connected to the transport network. Nevertheless, the situation has dramatically evolved since 2005 and has in the meantime reversed³³. The reform of the oil and gas taxation regime is still a leitmotiv in Russia.

3 – Western sanctions and Russia's reaction

3.1 – Western sanctions in a nutshell

Sanctions are a 'traditional' instrument of foreign policy, generally used when diplomacy fails. Due to a major worsening of relations between the Russian Federation and the West over Ukraine, 37 countries (including the USA and EU member states) decided to levy sanctions in March 2014 in order to coerce the Russian state to change its behaviour towards Ukraine. In order to do this, one option was to sanction the energy sector and more specifically the oil industry. As previously mentioned, oil sales represent Russia's primary source of income and this branch of industry is under state control (as mentioned in parts one and two). On the contrary, the gas sector is not sanctioned as long as the explored field is a non-associated gas field and will not lead to the production of oil. It is quite likely that the gas industry was less affected due to deep and extensive relationships between the EU and Russia. Sanctioning the Russian gas sector would have placed the EU in delicate situation since it imports almost 31% of its gas from Russia. Furthermore, gas subsidizes the Russian economy and sanctions would have had direct consequences on the population, which is not the goal of sanctions.

The first wave of sanctions, also named 'smart sanctions', were approved by Western countries by a vote in March 2014 and the second in July 2014. The so-called smart sanctions essentially target people and institutions involved in the events of Ukraine and Crimea. The second wave of sanctions which were levied from August 2014 deal with financial and trade aspects. Currently, one can identify four main areas: (i) sanctions related to the annexation of Crimea, (ii) sanctions targeting individuals from both Russia and Ukraine deemed to be involved in the destabilization of Ukraine, (iii) political and diplomatic measures, (iv) and, finally, sectoral sanctions, which encompass three fields, i.e. finance, defence and energy. Despite some differences, U.S. and EU sectoral sanctions are, in their essence, quite similar. On the American side, sanctions

³² Weijermars R., Clint O., Pyle I. (2014) "Competing and Partnering for Resources and Profits: Strategic Shifts of Oil Majors during the Past Quarter of a Century" in *Energy Strategy Reviews*. 2014. No3, p. 72–87.

³³ For more details on this subject, read A. Bros; T.A. Mitrova "Yamal LNG: an Economic Project under Political Pressure", *Notes de la FRS, Fondation pour la Recherche Stratégique*, Paris, No17, August 4, 2016.

are structured around four Office of Foreign Assets Control (OFAC) directives (directives 1, 2 and 3 restrict access to capital markets and directive 4 imposes restrictions in the field of oil exploration and production). On the European side, they are divided between several Council Regulations (plus implementing versions). In the case of energy, more importance should be attached to U.S. sanctions as they are more restrictive and act as more of a deterrent. Although the USA and the EU have been unified on sanctions when Barack Obama was President, showing a similar consistency, Washington goes a step further with the introduction of a Specially Designated Nationals and Blocked Persons (SDN) list and a lengthy Sectoral Sanctions Identifications (SSI) list, but above all because of the introduction of secondary sanctions (see below).

In order to facilitate understanding, we can divide sanctions into two categories: 'primary sanctions' and 'secondary sanctions'. Primary sanctions mainly restrict access to investment (e.g. asset freezing, no access to new long-term debt that exceeds 90 days) and new technologies. This means that U.S. companies and their partners, both in the USA and abroad, are not allowed to export some high-tech oil equipment (e.g. drilling units and software for hydraulic fracturing) without authorization. They also cannot offer 'full' technical assistance due to severe restrictions on projects related to deep offshore (more than 500 feet or 152 meters), shale oil, and Arctic continental shelf exploration – three sectors identified as strategic by the Russian government before 2014 with a view to developing the next generation of hydrocarbon resources to replace depleting brownfield production (already under pressure due to the inappropriate taxation regime). The 2017 U.S. sanctions go a step further since they include strict measures that formally forbid U.S. companies from investing in Arctic, deep-water and shale crude oil projects led by companies whose capital is held by more than 30% by Russian entities.

U.S. secondary sanctions can be defined as an extraterritorial application of American law. They apply under the OFAC jurisdiction to U.S. citizens, companies, and people/entities which are in the USA, but also to non-U.S. citizens and overseas companies doing business with the targeted country. This includes entities organized under the laws of the USA or any jurisdiction within the USA, among them foreign financial institutions. Since the jurisdiction encompasses several wide-ranging values, the term 'U.S. nexus' is generally used, nevertheless, there is no official U.S. definition of what a 'U.S. nexus' precisely is. Such a situation leads to an awkward legal uncertainty as to its implementation. This is henceforth a major psychological factor that must not be underestimated because it can lead to self-censorship on the investor side. In this study it will be referred to as the 'chilling effect'. Some Western stakeholders would prefer not to enter into a contract owing to legal uncertainty over interpretation of the law. Under U.S. law, a U.S. nexus is not allowed to be involved in negotiating, approving, or even facilitating a prohibited transaction in any way, and is prohibited from using U.S. currency. According to the Ukrainian Freedom Support Act signed on December 18, 2014, which primarily covers crude oil projects, the U.S. president can impose secondary sanctions on financial institutions if they engage in transactions involving entities listed on the SSI list or on behalf of a person/entity listed on the SDN list (i.e. person/entity designated pursuant to the Ukrainian crisis such as, for example, Gennady Timchenko, Novatek's important minority shareholder, Igor Sechin, president of Rosneft state oil company or the Rotenberg brothers). To sum it up,

primary sanctions concern targeted Russian entities and secondary sanctions concern non-Russian entities dealing with Russian targeted entities.

Table 1: Overview of Russian energy companies and banks under U.S. sectoral sanctions during Obama's presidency

Gazprom Bank	Russia's 3 rd largest bank <i>Partially state-owned</i>
GazpromNeft	Russia's second largest oil company Privately owned
Lukoil	Second largest oil company <i>Privately owned</i>
Rosneft³⁴ (+subsidiaries)	Russia's 1 st oil company <i>State-owned</i>
Sberbank	Russia's 1 st bank <i>State-controlled</i>
Surgutneftegas	Oil company <i>Privately-owned</i>
Transneft	Oil pipeline operator <i>State-controlled</i>
Vnesheconombank	Russian bank <i>State-owned</i>
VTB bank (+subsidiaries)	Russia's 2 nd bank <i>State-controlled</i>

Source: Author, based on OFAC's website

The main purpose of sanctions is to make the renewal of hydrocarbon resources (exploration and production of greenfields that will replace cheap-to-produce brownfields) more difficult without Western technological and financial assistance. They could block the development of some projects that are already under pressure due to falling oil prices and an unaccommodating taxation regime.

3.2 – Making Russia's energy strategy great again

3.2.1 – Direct consequences of Western sanctions

Today both the Russian government and energy companies face a number of new realities. Firstly, some projects have been frozen or suspended. The most striking example is the Rosneft project with Western oil companies such as U.S. Exxon (e.g.

³⁴ Rosneftgaz is not on the SSI list, but sanctions play no crucial role as the company is currently a holding entity which is only accumulating dividends.

Prinovozenmelskie blocks in Kara Sea)³⁵. In the first instance, a great number of Western energy companies have been dissuaded from investing massively in the development of those new fields (shale, Arctic shelf and deep offshore), even if some projects were supposed to come online much later (eventually in 10 years). However, as mentioned in part two, the drop in oil prices has also played a significant part.

Secondly, sanctions limit the access to liquidity, essentially in USD due to the ‘chilling effect’ of the secondary sanctions towards Western entities. Transactions with sanctioned entities and Russian energy companies represent a risk to Western FIs. They can be sanctioned if they engage in illegal transactions and will have to pay a fine that cannot be estimated in advance. For example, the case in which the French bank BNP Paribas was fined for violation of sanctions against Cuba, Iran and Sudan³⁶ shows that the fines may come to very large sums of money (almost USD 9 billion). FIs can try to take a number of steps to avoid the implication of any U.S. nexus in all transaction processes, starting with recusing any person considered ‘at risk’ for U.S. sanctions purposes (a challenge) as well as avoiding transactions in USD (a less difficult challenge). Even if precautions are taken to mitigate the risk of secondary sanctions, Western FIs have become extremely cautious, while some of them avoid now to engage in financial transactions with Russian energy companies.

Thirdly, the very uncertain situation in Ukraine makes access to liquidity even more difficult, as new sanctions could emerge. Any Western FI cannot be entirely sure that its counterpart (i.e. a Russian borrower) will not engage in activities that may violate U.S. sanctions – a risk that cannot be ignored. One must not rule out the possibility of the strengthening of sanctions by Western countries against Russia in order to make them more effective. This is what the U.S. House of Representatives is trying to do in order to block President Donald Trump, who was considering the possibility of lifting them³⁷.

Rosneft is certainly the Russian company that has suffered the most. Since the introduction of sanctions, the oil company has essentially relied on the sale of non-controlling stakes in greenfield projects and prepayments of crude oil/oil product supplies under long-term contracts³⁸. On the contrary, Novatek found a new way to attract investors.

3.2.2 – *Are we witnessing a ‘revolution’ within the Russian energy sector?*

Taking into account the major problems weakening the Russian Federation, the Russian state and stakeholders have taken decisions in order to fight back. The following processes to withstand the pressure are already ongoing. It is likely that new decisions in the energy field will be taken in the aftermath of the 2017 U.S. sanctions.

First of all, the ruble devaluation in December 2014 and February 2015 has been to the advantage of Russian oil and gas companies due to the fact that they mostly incur costs

³⁵ « Rosnefti pridetsya iskat novogo partnera dlya dobychi nefi v Karskom more » [Rosneft Will Have to Find a New Partner for Oil Production in the Kara Sea], *Vedomosti*, September 22, 2014.

³⁶ « La BNP Paribas formellement condamnée à une amende record aux Etats-Unis » [BNP Paribas Formally Sentenced to a Record Fine in the United States], *Le Monde*, May 1, 2015.

³⁷ “Russia Warns of ‘Painful’ Response If Trump Backs U.S. Sanctions”, *Bloomberg*, July 26, 2017.

³⁸ E. De Poy; D. Dolgin; A. Klapko, “US Presidential Election: Playing the Trump Card”, *Gazprombank, Strategy*, November 9, 2016, p. 4.

in RUB and exports are sold in USD. Consequently, the hydrocarbon production has been maintained despite low oil prices and sanctions. However, as was stressed before, some joint ventures (with the participation of Western companies) were suspended, such as the Prinovozemelskie blocks already mentioned, despite an advantageous exchange rate (USD-RUB). This is a direct consequence of both sanctions and low oil prices.

Second, the progressive de-dollarization of strategic oil and gas projects has started, admittedly more easily in the gas sector. This process is two-fold.

- At the marketing level: pushing companies to sell goods under non-USD contracts or equipment under non-US delivery contracts;
- At the financial level: raising debt in non-USD currency. Non-dollar transactions are expected to increase in Russia in the foreseeable future. RUB-RMB³⁹ or RUB-EUR exchanges will be done directly. Such changes will have a domino effect in Europe, Russia and China. The Yamal LNG project is certainly the most striking example and can be seen as a 'pilot project' in carrying out a project despite sanctions via de-dollarization. Production will start by late 2017, as expected by the shareholders. This was made possible thanks to a change in the financing strategy supported by the Russian government. Following the introduction of sanctions, sources of funding initially shrank fast in 2015, making the funding of a multi-billion-dollar investment chain difficult. This placed a question mark over the future of a project of strategic interest for both Novatek, Total and the Russian state. However, a way to finance it has been found which ensures sufficient long-term revenues to support the investment chain. Raising capital was achieved through equity financing (i.e. sale of shares). Then, cash was obtained by incurring debt in other currencies (with the exception of USD) with new debt providers, especially in Russia and Asia. External financing (the most widely discussed risk in 2015 and early 2016) is now at a minimum. Shareholders have financed USD 12.8 billion, while the Russian National Wealth Fund has provided the equivalent of USD 2.4 billion. Sberbank and Gazprombank together have invested the equivalent of USD 4 billion. The Export Bank of China and the China Development Bank have provided credit lines largely in EUR, with a small portion in RMB4 (equivalent to USD 12 billion). In total, USD 19 billion has been approved in external financing. Consequently, that leaves USD 0.6 billion as potential additional financing, which offers room for manoeuvre⁴⁰. Encouraged by this success, the de-dollarization of debt financing could be emulated by other Russian energy companies even if the company is not on the SSI list.

In the short term, Russian energy companies have no interest in de-dollarizing the sale of hydrocarbons on international markets, especially in light of the fact that many oil companies have USD-denominated debt. The current situation prompts us to question whether such a process could also be implemented in other countries – more specifically those under U.S. sanctions or those fearing U.S. sanctions.

³⁹ Chinese currency.

⁴⁰ Ibid footnote 33.

The implications of the de-dollarization process in the Russian energy field for the Russian economy are numerous.

- Development of non-US and non-USD 'liquidity pockets' for financing projects;
- Establishment of a more diversified currency portfolio, not only for the energy sector, but also for the entire Russian banking system (i.e. de-dollarization of the Russian bank balance sheet). It will go beyond this, as the banking system will need to switch from a pure FX⁴¹ speculation business model into real economy financing – a trend led by the CBR⁴². The CBR is *ergo* strongly encouraging the Russian banking sector to de-dollarize assets and liabilities, via investment in securities and corporate loans;
- Strengthening of regional currency exchanges/regional currencies (e.g. reinforcing BRICS+Iran relationship⁴³ and commercial and financing relationship with other non-Western countries).

Third, Russia is implementing new marketing choices, which are progressively turning towards Asia (as a direct consequence of the de-dollarization process). China is about to become a major debt provider to Russia (and also a provider of technology to some extent), while European energy companies are gradually losing their added value, which was to mobilize European FIs to finance strategic projects in Russia. In other words, Beijing is the winner of the current situation. Recently, the Italian regulator authorized the Italian bank Intesa Sanpaolo to finance the privatisation of a stake in Rosneft (i.e. 5.2 billion euro)⁴⁴. This, however, remains an isolated phenomenon in Europe.

Fourth, the Russian government has launched the import replacement of technology in the oil and gas industry. It should be noted that Russia has been suffering from a lack of expertise and special technologies in the oil and gas sectors for years. Due to sanctions restricting access to new technologies, a program to promote the substitution of imported technologies has been launched under the leadership of the government. It encompasses a wide range of technologies (e.g. operational wells to enhance oil recovery, horizontal drilling, and technology for geological exploration and gas liquefaction, etc.). From a Russian perspective, the implementation of the program might go on for a decade. The underlying idea is to develop the necessary technology to make a step towards being less dependent on Western technology, but also, over the longer term, to export this technology and compete with Western-oil-field service sectors. So far, the situation remains uneasy and Russia is exposed to high risks during this transition period. It seems that the main problem involves the exploration and development of the Arctic continental shelf, which is extremely challenging without Western know-how and technology (thus since 2017 U.S. sanctions). Currently, only

⁴¹ Or FOREX, which is the market in which currencies are traded.

⁴² In the report entitled « Osnovnye napravleniya razvitiya i obespecheniya stabilnosti funktsionirovaniya finansovogo rynka Rossyskoy Federatsii na period 2016–2018 godov » [The Main Direction to Develop and Ensure the Stable Functioning of the Russian Financial Market for the Period 2016-2018], it is mentioned that excessive FX represents a risk for the Russian banking system (published by the CBR in December 2015). https://www.cbr.ru/finmarkets/files/development/onrfr_2016-18.pdf

⁴³ In June 2016, the CBR and the People's Bank of China signed a Memorandum of Understanding to facilitate the exchange of information.

⁴⁴ « Italiya ne uvidela sanktsy dlya "Rosnefti" » [Italy Has Not Seen the Sanctions for Rosneft], Vedomosti, March 20, 2017.

Western companies are really mastering offshore technologies, and the optimization of drilling and production.

Finally, Russia is looking for alternatives to Western institutions in a brazen quest for legitimization. This is certainly the most challenging aspect of this ‘new strategy’ and numerous obstacles have to be overcome. This process involves the creation of institutions to reinforce cooperation between BRICS, and more broadly emerging economies, such as:

- The establishment of the New Development Bank (which has, among other things, to provide loans denominated in the national currencies of its member countries);
- The Asian Infrastructure Investment Bank (offering loans not only in USD, but also in other currencies⁴⁵);
- The BRICS Contingent Reserve Arrangement (responding to potential short-term balance of payments pressures);
- The goal of building a common financial market in the framework of the Eurasian Economic Union until 2025 with the declared goal of de-dollarizing the intra-union trade between the member states of the Eurasian Economic Union – including a possible merger of the stock exchanges of Moscow and Kazakhstan, and also a monetary union with a single currency.

Nevertheless, from a Russian perspective, these new institutions should aim to institutionalize on-going changes and legitimate Russia’s policy of promoting a ‘polycentric world’ at the international level.

Conclusion

The Russian oil and gas sector and economy has gone through an extremely difficult period due to the twofold challenge of sanctions and falling oil prices. Owing to the urgency of the situation, Russian stakeholders, with the support of the Russian state and Russian banks, have progressively reset priorities and objectives. The Yamal LNG project has shown that a new financial package is possible and that China can be an alternative for a country under sanctions, especially U.S. sanctions. This reshaping process is ergo leading to what we might call an emerging new Russian energy strategy where relations between all the stakeholders have been reshaped to make the Russian economy stronger and more resilient to volatility and geopolitical challenges. This has been achieved by looking for alternative financing methods to complete projects on time, turning to new partners, and trying to limit Western influence on the Russian oil and gas sphere, etc. Moscow was forced to move beyond its accustomed comfort zone. At present, it is almost impossible to assess whether this ‘emerging strategy’ will be successful in the long run. This should not prevent us from taking stock of the situation by illustrating its complexity, but also the opportunities, limits, and risks of this step-by-step process.

Even though Russia remains highly dependent on commodity prices and has not yet found a way out of the situation, it has laid the foundations of a new model. As a

⁴⁵ Asian Infrastructure Investment Bank, Operational policy on financing, January 2016.

consequence, from now on, the following aspects should be carefully studied in the coming months/years to understand what the second step of this 'reshaping strategy' might be. At the international level, it would be useful to shed light on the strategies of other petro-states, especially those under sanctions such as the Islamic Republic of Iran. Before launching the process of adapting Russia's energy strategy, Moscow took lessons from the Iranian experience. Now, for the first time, Tehran could learn from the Russian experience. One question remains open: will the Russian experience emulate it? Will China become an alternative for sanctioned countries looking for financial support? Finally, what will the Russian government decide in response to the recent new round of U.S. sanctions? And what will the reaction in Europe be if new measures affect EU's interests and/or European energy companies? Currently, the French government is questioning the legality of the 2017 bill. In Russia, the new strategy of 'getting by' put an end to the long-awaited reform of the taxation regime of the subsoil sector, which was an attempt to restructure Russia's oil and gas sector⁴⁶. The Russian government is currently preparing a new taxation system for the oil and gas sector that could contribute approximately RUB 600 billion (i.e. USD 9.9 billion) annually to the budget⁴⁷ and could come into force in 2018. Once again, the general idea is to raise money, not to make sustainable changes. Thus, by solving one problem, Russia is impeding any structural reform. Upon a detailed analysis of the wider period running from 2000 until today, it may be observed that instead of pursuing structural reforms, the Russian government has focused its attention on expanding its control over the hydrocarbon sector due to its strategic importance, and on striking a balance between actors as aforementioned.

⁴⁶ "V 2017 godu neftyaniki sokratyat investitsii iz-za rosta nalogov" [In 2017, Oil Companies Will Cut Investments Due to Tax Increases], *Vedomosti*, October 25, 2016.

⁴⁷ "Minfin obygral Minenergo: Novy poryadok nalogooblozheniya neftyanoy otrasli budet zapushchen s 2018 goda" [The Ministry of Finance has beaten the Ministry of Energy: The new order of taxation of the oil industry will be launched in 2018], *Novosti oilru.com*, October 31, 2016.