



The structuration of Russia's geo-economy under economic sanctions

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Published online: 17 November 2015

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Abstract In this article, we examine Russia's geo-economy under the economic sanctions imposed by the EU, the USA and many other states since spring 2014, including restrictions on economic cooperation in areas such as trade, certain types of energy technology, access to credit, trade in arms, travel bans and asset freezing. We first examine Russia's economic and geopolitical interests and the cognitive frames Russian policymakers use to weigh these diverse interests against each other. Second, we examine how Russian policymakers can further these interests given the effect of the sanctions on Russia's geo-economy. We analyse constraints and opportunities along the resource geographic, financial and institutional dimensions of geo-economy. Regarding resources, the sanctions seriously hamper new greenfield projects in Russia's emerging energy provinces. They impede the industry's middle- to long-term prospects while some Russians perceive new opportunities for its domestically induced modernisation. Along the financial dimension, low oil prices since mid-2014 shape existing fossil fuels trade more than the sanctions, which have no impact on Russia's arms exports. The combined effect of low oil prices and sanctions on Russia's state budget, the financial sector and the rouble is severe. On the institutional dimension, Russia's international standing suffers, but its domestic institutions are relatively resilient. Overall, we see Russia as part of an international structure where it can constitute itself as an autonomous geo-economic actor under favourable conditions including high oil prices and no sanctions.

Introduction

Within the emerging multipolar world order with power shifting towards the growing economies of Eurasia, Latin America and Africa, Russia is often assigned the role of a prominent pole. Among these, Russia forms the BRICS group with Brazil, China, India

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and South Africa, which organised its first summit in Yekaterinburg in 2009. Although China is the undisputed economic leader of this group, Russia perceives itself as its diplomatic leader. Nevertheless, many find Russia an outlier within this loose bloc of emerging economies (see Hurrell 2006; Khalid 2014, pp. 163–4). Others regard Russia more as a declining power or a traditional great power with only limited economic clout and soft power resources (Nye 2011). The Ukrainian crisis since 2014 has for its part portrayed Russia as an old-fashioned military power rather than an emerging economy or rising power. These ambiguities associated with the geography, politics and economy of Russia require a detailed explication through the three approaches of geo-economics discussed in this special Issue (Mattlin and Wigell 2016, this issue).

First, in economic statecraft, Russia stands out among the BRICS as a former superpower protecting its foreign policy interests in its regional neighbourhood. For example, Russia has used its economic statecraft in the form of credits, investment and energy deliveries by state-linked companies and also other forms of state intervention in trade (see Cheng 2014: 278–282; Delcour and Wolczuk 2013). Most notably, Russia has deployed such economic statecraft in Belarus, Georgia and Ukraine.

Second, in terms of economic geography, Russia is more mineral resources-dependent than the other BRICS, meaning a larger relative current account and budget surplus when oil prices are high (Khalid 2014: 170–172). Yet many view Russia's prospects of economic growth as more limited than, for example, those of China due to Russia's rapid growth in the period 2000–2008 driven by temporary factors such as high oil and gas export earnings, concurrent artificially low domestic energy prices, the maximisation of the use of labour and of existing Soviet-era capacities privatised at almost no cost. Simultaneously, the sharp rise in domestic salary costs eroded Russia's competitiveness (Sutela 2012: 85–97). Russia's future growth is impeded by several factors: many Soviet-era socio-economic production structures, the geographical distribution of physical and human capital in many cold and remote locations and the rent distribution system whereby the state collects 'rents', referring to income in the form of taxes and dividends from the profits of energy companies. The rents originate in the scarcity of fossil fuel resources. The scarcity creates demand, allowing the owner of the resources to collect income, which can then be redistributed in the domestic society among various economic and social interest groups and between energy provinces and other regions (Gaddy and Ickes 2013). At the same time, Russia exercises developmentalist policies like those of China, connoting strong state involvement in steering the economy (Farrar and Ariff 2014: 142–143; see below).

Third, regarding the critical approaches to how geo-economics shape discourses and worldviews, Russia is often portrayed as subscribing to such ideas as liberal empire, energy superpower, energy imperialism, 'energy blackmail', use of the 'energy weapon', etc. (e.g. Aalto et al. 2012: 11–13). Simultaneously, Russia wields 'soft power' via exports of art, culture, education and sponsorship of sports to promote its considerable foreign policy interests in the neighbourhood and beyond (Tsygankov 2013; Saari 2014). Today, Russia exemplifies how geopolitical and geo-economic discourses reproduce the national identity and construct worldviews (Mäkinen 2014).

Regarding these geo-economic approaches, we mostly concentrate here on Russia's economic geography and specifically how the use of its key resources enabling the accumulation of economic and political power has been shaped by the

sanctions imposed by the EU, the USA and several other countries since spring 2014. The sanctions involve several restrictions on economic cooperation in areas such as access to long-term credit for major Russian banks, energy companies and the defence industry, the export of Arctic and offshore energy technology and trade in arms. The sanctions also hamper Russia's participation in multilateral cooperation. G8 cooperation is suspended and high-level summits limited, while some members of the political and economic elite have had their foreign assets frozen and face travel bans.

Together with the drop in the oil prices, the economic sanctions have affected Russia's ability to realise its interests. Here, we examine more closely their impact in the framework of geo-economics. Below, we summarise the existing debate and present our own explanatory model. To operationalise our approach, we analyse the interests of Russian actors and the cognitive frames used to weigh these interests against each other. In the third section, we examine how Russian actors can realise their interests and frames after sanctions. Our main argument is that the international sanctions shape the set of constraints and opportunities within the prevailing geo-economic structures wherein we discern resource geographic, financial and institutional dimensions. In other words, we conceptualise Russia's geo-economy as referring to the structure of its key resources, the geography of their development and the associated financial and institutional features that ultimately shape Russia's power. However, we have to leave the use of that geo-economic power or statecraft to further studies. We conclude that the sanctions hamper the realisation of Russia's interests most in the resource geographic dimension, while in the financial and institutional dimensions the impact is notable but less consistent.

Explaining the impact of sanctions

Researchers used to agree that international economic sanctions are rarely effective, their effect mainly through public opinion being severely questioned. These views changed somewhat in the 1980s when a comprehensive study found that international sanctions had been successful in a third of cases (Hufbauer et al. 1985). Emphasis also shifted from general economic sanctions to sanctions targeted directly at the interests of the leaders rather than those of the wider population. Whether sanctions really work depends moreover on the declared or tacit objectives. The objectives can vary—is it to achieve a policy change, regime change or merely weaken the adversary, or simply to communicate to the domestic audiences and third parties? Eschewing details here, it is nevertheless obvious that given the general scepticism regarding the effectiveness of economic sanctions, in particular those involving great powers, the Russian case will have major implications for the study of economic sanctions in international politics (Pape 1997; Hovi et al. 2005; Emerson 2014).

Initially, the Russian leaders downplayed the impact of sanctions, at least in their public statements. By 2015, it seemed that they were resigned to sanctions as a potential long-term problem. In April, President Vladimir Putin (2015) stated that the sanctions 'are definitely contributing to our current problems', but they are 'not our biggest problem'. According to a survey in spring 2015, 45 % of the Russians interviewed thought that the sanctions had had a major effect on their country's economy, while

41 % deemed the effect minor and only 8 % believed the sanctions had no effect at all (Pew Research Center 2015: 55).

In the more analytical scholarly debate, opinions are divided. Some note that while the sanctions reveal the weaknesses in Russia's industrial and innovation capacities, and its dependence on imported technologies, they simultaneously push Russia onto a new track of import substitution, compelling internal renewal and domestically induced modernisation. In this view, the sanctions will produce long-term economic benefits (Karaganov 2014: 5–7). Moreover, these 'economic nuclear weapons' push Russia to abandon the former dependence on the 'weakening' West, accelerating the building of new alliances with China and other rising powers in the Eurasian context (Karaganov 2015). Others perceive no alternatives to Western technologies and sources of modernisation (Yurgens 2014: 72). Some even suggest that, given the interdependent nature of the global economy, decreased ties with established Western powers impair contacts with emerging powers like China, the single most potent source of substitute investment, and potentially also technology (Portansky 2014: 5). It seems increasingly plausible that the current crisis will lead to a gradual depression dragging the economy down even further (Rogov 2015). Former Finance Minister Alexei Kudrin estimated in June 2015 that the international economic sanctions were reducing Russia's GDP by between 1 and 1.5 % per year (RFE/RL 2015).

As to the assessments of foreign scholars, a first group of analysts predict dire consequences for the Russian economy to be discussed in more detail below (e.g. Emerson 2014; Rutland 2014). Some note that the impact of the sanctions depends on whether Russia's former partners can maintain these in the long run at potentially increasing costs (Jones and Whitworth 2014). Others believe that the impact of the sanctions may remain limited, noting that the Russian state is highly resilient because the many non-globalised sectors of its economy co-exist with more export-dependent sectors, such as energy, which are protected by Russia's Reserve Fund. The Fund had some \$76 billion in June 2015 after the previous year's peak of \$91 billion, of which the Russian government intended to withdraw two thirds to cover the 2015 anticipated budget deficit. Hence, Russia can withstand major economic losses in the short to medium run, while both the elite and society at large are likely to rally behind President Putin's countermeasures to the sanctions (Gaddy and Ickes 2014; Korsunskaya 2015; Wang 2015).

This brief survey reveals the multiple directions taken in the current debate in terms of sector-specific and more generic implications, and the relevance of the time perspective as the situation unfolds. For a balanced assessment of these various strands of the debate, we suggest paying more attention to the conceptualisation of the global and domestic structures of geo-economy within which Russian actors must choose regarding the implications observed. We therefore take the discussion to a higher level of abstraction, so far absent from the debate. We outline the constellation of Russian actors and interests, and conceptualise the geo-economic structures in which they are to be realised, and which the sanctions are in turn shaping. This enables us to study the impact of sanctions more systematically than has so far been feasible and to move beyond the mostly empirical policy analyses of actors' choices. These are useful in their own right, but not easily comparable to each other in the absence of a systematic conceptualisation of the actor-structure relationship.

The explanatory model

The first step in our explanatory model is to identify Russia's aims in order to assess its ability to realise those interests within the evolving geo-economic structure shaped by the sanctions. The co-existence of several interests and actors in Russia can be discerned from the existing literature (cf. Aalto et al. 2012). Russia is a relatively centralised federation, and we assume that the government under President Putin and his administration is the supreme arbiter of the interests and as such accounts for 'Russia' as an actor.

First, Russia has a major interest in *security and foreign policy influence*. Despite Russia's rhetorical positioning as a global power reflecting its past as the other Cold War superpower, its foreign policy interests have turned increasingly towards the country's immediate surroundings, most recently witnessed in Russia's annexation of the Crimea and its subsequent role in the war in Ukraine (Urnov 2014). All the main interest groups of Russian foreign policy support consolidating interests in this region (Smith 2014: 77–79). The interest in regional foreign policy influence is also essential to our examination, as its pursuance initially prompted the international sanctions imposed since spring and summer 2014. The prospect of the Ukrainian leadership concluding the long-prepared association agreement with the EU, ready for signing in November 2013 but finalised in June 2014 at the start of President Petro Poroshenko's term in office, pushed Russia to adopt tougher policies vis-à-vis Ukraine. The severe political divisions and disorder in Ukraine since late 2013 paved the way for the Russian stance. Numerous Russian initiatives portrayed Ukraine as essential to Eurasian re-integration wherein security and foreign policy interests figure prominently. The EU, in turn, viewed these initiatives as largely incompatible with its own integration model enshrined in the association agreement offered to Ukraine (Dragneva and Wolczuk 2013: 213; Sakwa 2015: 13–23). Russia's interest in regional foreign policy influence builds on its historical great power role in the post-Soviet space and its political and military networks with the region's states and their elites. Taken together, these features account for a *geopolitical frame* wherein foreign policy interests concern control over parts of the former imperial Russian and Soviet territory (Cheng 2015: 279–282). Russia institutionalised this re-integration with the establishment of the Eurasian Customs Union in 2010, the Single Economic Space in 2012 and by launching the Eurasian Economic Union in 2015 (see below).

Second, the Russian leadership and many Russian analysts are keen to highlight the concomitant economic interests underpinning Eurasian integration and Russia's view of Ukraine (Sakwa 2015). An attempt at economic recovery drove the policies of President Putin's regime from the early 2000s onwards. The energy sector became the state's strategic vehicle for transforming the country's economy and rebuilding its power resources after the economic collapse of 1998. Energy exports became Russia's main source of income. The state designated energy issues a strategic sector with corresponding regulatory and supervisory state bodies, strategies, policies and legislation, and established close partnerships with strategic energy companies.

This co-presence of strategy, policy development and state-business partnerships (see e.g. Dent 2012: 563) implies how a broadly speaking developmentalist *business frame* drives Russia's energy exports, which today account for over two thirds of the state's external trade and for some 40–50 % of its budget. With this frame, Russian

policy-makers seek to accommodate the energy companies' *profit interests* with the *fiscal interest* of the state, the satisfaction of which depends on the ensuing energy proceeds. In Russia's rent distribution system, the *social interests* of the state and the energy-rich regions to promote socio-economic development by means of energy proceeds are also shared by many Russian interest groups. Ukraine remains an important transit state for Russian oil and natural gas *en route* to the main European markets, although these volumes are shifting towards the North and Southeast. Moreover, according to the Russian and Ukrainian academies of science, the Customs Union and Common Economic Space with Ukraine's participation would yield a 15 % increase in economic activity, or between \$400 and 700 billion in GDP. Of this, Ukraine would account for a third, owing to the numerous scientific and industrial ties with Russia (Noginsky 2015: 157). In a Western analysis, Ukraine's membership of the Customs Union would hinder Ukrainian firms' participation in global supply chains, disrupt trade with the EU and prevent Ukraine from negotiating free trade agreements with other countries and with the EU. A free trade agreement was finally signed with the EU in June 2014, but postponed until January 2016 (Hoekman et al. 2013).

However, this constellation of profit, fiscal and social interests within the business frame does not fully account for Russia's policies towards Eurasian economic integration, including Ukraine, events leading to the sanctions and Russia's policies thereafter. Russia's re-integrationist choices in the energy and defence sectors do, however, build on the business frame. Yet, we should note how, together with its Eurasian partners, Russia made many of the re-integrationist policy choices before ascertaining the policy's overall costs and benefits (Dragneva and Wolczuk 2013: 210–212). In fact, Russia has to reconcile a diversity of interests and therefore tolerates economically suboptimal policies and business models. This will persist as long as they produce enough profit for the business frame to function satisfactorily. In other words, Russia's choices depend on the state's need to ensure a balance between regional foreign policy interests and the economic interests including the state's fiscal and the companies' profit interests, as well as the social interests. The resulting combination of a geopolitical and a business frame, with which the Russian government seeks to steer the country forward and promote domestic unity, is decidedly developmentalist.

This conceptualisation of Russian interests lets us proceed to the second step in our explanatory model. The realisation of this set of interests and frames depends on how Russian policies perform vis-à-vis the constraints and enabling factors of the *resource geographic, financial and institutional dimensions* of geo-economics. Resources, including the geography of their distribution and development, are crucial to geo-economics in general and to the resource-dependent, geographically extensive economy of Russia. The financial dimension, for its part, is pivotal to any emerging powers, which usually lack a powerful banking sector while depending on investments supporting their growth targets. Finance is particularly important for developing Russia's natural resources sector. The institutional dimension refers to the constellation of formal and informal rules, norms and practices through which the sanctions are implemented and which as such shape the transactions among the actors, and ultimately the domestic and global patterns of order (cf. Aalto et al. 2012, 2014). We next analyse these structural constraints and opportunities regarding the realisation of Russian interests (see Fig. 1).

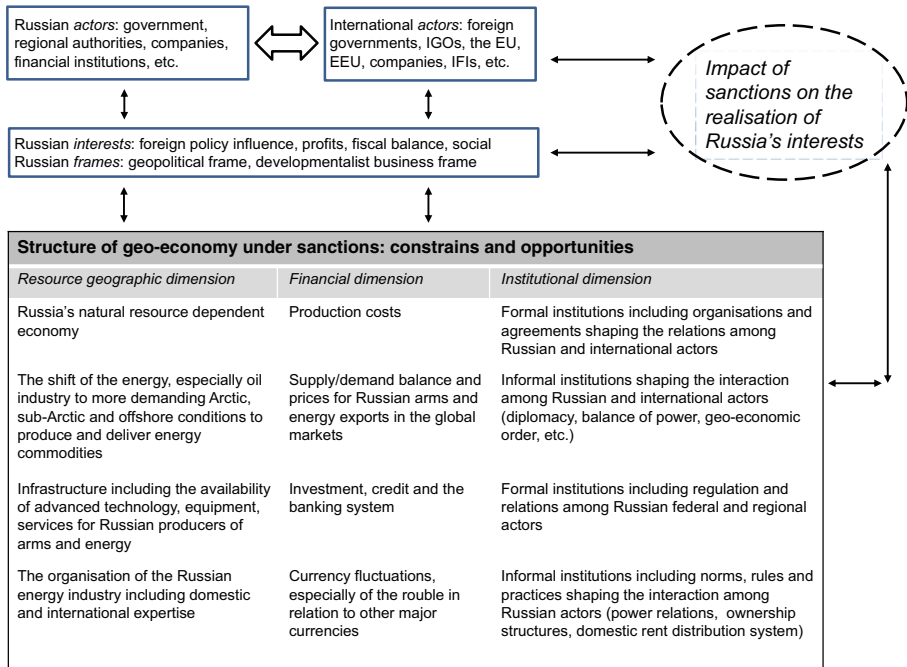


Fig. 1 Explanatory model: the impact of sanctions on Russia's geo-economy

How can Russia realise its interests under the geo-economy of sanctions?

The USA and the EU imposed the first asset freezes and travel bans in March 2014 on key members of Russia's political and economic elite. These measures corresponded to their alleged involvement in the seizure of public buildings in Crimea by unidentified armed troops—later admitted by Russia to be its regular military forces—and to the referendum organised in such conditions leading to the Crimea joining Russia. With increasing tensions and eventually war breaking out between the Ukrainian army and separatist forces in eastern Ukraine, and with alleged Russian military support for the latter, the USA and EU tightened the sanctions in successive steps in April and July. The new measures affected more individuals and strategic corporations in the arms, energy and financial sectors, and organisations and companies crucial for the annexation of Crimea or operating in Ukraine's separatist regions. After allegations that Russian weapons were used to shoot down a Malaysian passenger plane flying over eastern Ukraine in July, and a failed ceasefire in eastern Ukraine in September, the USA added more companies operating in the same sectors to the list of sanctions. It also denied many of them access to long-term credit exceeding 30 days, or 90 days in the case of energy companies such as Rosneft, Transneft and Novatek. The EU adopted similar measures. In December, the USA and the EU banned trade and investment in Crimea and prohibited travel agencies doing business with Crimea. During spring and summer, Australia, Canada, Japan, Norway, Switzerland and Ukraine joined the sanctions (Rutland 2014: 1–4; Wang 2015: 2).

We start from the effects on the resource geographic dimension, then proceeding to the financial and institutional dimensions. For each dimension, we first give a

definition, then outline the constraints on the realisation of Russia's interests as a result of sanctions before outlining possible enabling factors or opportunities.

The resource geographic dimension

Through this dimension, we examine the structure of constraints and opportunities for Russian actors ensuing from the country's resource-dependent economy. It includes the primary energy resources, their extraction and production, the infrastructure and technologies needed by the energy industry and the organisation of the sector. We discuss the structural constraints resulting from the sanctions in the cases of Rosneft and Gazprom Neft, the two energy companies most affected, then outline the Russian attempts to create new opportunity structures.

First, it should be noted that many of Russia's oil companies operate in established fields relatively unaffected by the sanctions, for example in western Siberia. Moreover, the EU's sanctions do not directly affect pre-existing contracts for the extraction and development of resources like the American sanctions do (Farchy 2015). Nevertheless, the 70 % state-owned Rosneft, Russia's highest producing oil company, is hard hit. To meet its production targets, Rosneft utilises new technologies to maintain its brownfield production in western Siberia and advanced offshore and Arctic drilling technologies to develop several greenfield projects in Russia's Arctic offshore in the Barents and Kara Seas and in sub-Arctic conditions in Timan-Pechora, eastern Siberia and Sakhalin. Rosneft also has a shale oil project in the Samara region in southern Russia. While Rosneft's two new fields, in Timan-Pechora and in Sakhalin, are already in production, the other greenfield projects are important in particular in the medium- to long-term to sustain Russia's oil production until the 2030s (Government of the Russian Federation 2009: 66–72).

Because the sanctions of 2014 targeted Arctic offshore and shale oil technologies, Rosneft's technology provision partners—American Exxon, Italian ENI and Norwegian Statoil—discontinued their respective operations. For example, Rosneft and Exxon discovered oil in the Arctic Kara Sea Universitetskaya field in September 2014 (subsequently re-named Pobeda or 'victory'). North Atlantic Drilling, Schlumberger, Halliburton, Weatherford, Baker, Trendsetter and FMD supplied technology and services for the project (Murmanshelf News 2014a). However, within weeks of the discovery, Exxon had to withdraw the only available drilling rig known to suit the field's Arctic conditions. The other Western companies also had to withdraw. This will delay the field's commercial development at least until the 2020s (Cunningham 2015). Rosneft will have to find another rig, most likely from Asia, and fit it to local conditions. At the earliest, Rosneft can resume the demanding projects in the Kara Sea in the ice-free season of 2016 (Reuters 2015). However, by summer 2015, many of Rosneft's EU-based partners such as BP, ENI, Shell and Statoil were considering re-entry to oil development ventures in Russia respecting the sanctions (Farchy 2015).

Second, the 50 % state-owned Gazprom's subsidiary Gazprom Neft operates the world's only Arctic offshore oil drilling platform, the Prirazlomnoye in the Pechora Sea. Half of the platform's technology originates in countries committed to the sanctions. To open the platform's planned 40 wells, in addition to the only one in operation by 2015, Gazprom Neft will seek substitute technologies from the domestic

industry and beyond, which are in short supply. The sanctions also jeopardise the platform's spare parts supply (Murmanshelf News 2014b).

Third, to overcome the constraints of the sanctions, Gazprom Neft received bids from the service companies Schlumberger and Baker Hughes in November and December 2014 to work on the Prirazlomnoye platform through subsidiary companies registered in other countries. Schlumberger also aims to acquire a 45.65 % share in the Russian company Eurasia Drilling. The Norwegian company North Atlantic Drilling is exploring the prospects for joining the project and realising its six offshore drilling agreements concluded with Rosneft in May 2014 (Staalesen 2015). In November 2014, Gazprom Neft announced negotiations for the entry of PetroVietnam into the development of the Dolginskoye field also located in the Pechora Sea, using platform technology similar to that in Prirazlomnoye. Although PetroVietnam works in the sub-Arctic Timan-Pechora and offshore in Vietnam, and cooperates with Russian companies, it has no experience of Arctic offshore projects (Murmanshelf News 2014c).

Russian actors also had to seek new opportunities by developing their cooperation in Arctic oil projects. In September 2014, Gazprom offered to lease its Arkticheskaya platform to Rosneft (Natural Gas Europe 2014). The Russian government founded the RBC supplier company. Rosneft bought the Russian and Venezuelan operations of Weatherford (Kramer 2014). Throughout 2015–16, the Russian companies Izhneftemash, PromTechInvest, Uralmash and Wormholes Vnedrie were testing import-substituting drilling and platform technologies (Kravets 2015). Alongside Vietnam and China, President Putin plans to facilitate the entry of partners from India (Arctic Info 2014). These policy measures are unlikely to overcome the technological constraints soon, delaying progress on Arctic oil projects alongside market and price developments (see below). The import substitution policy implies a very long timeframe. Such industries typically develop over years. Nor are new international partners lacking the needed Arctic offshore technology and equipment likely to soon overcome the increasing constraints on resource development. However, enormous long-term potential for releasing additional resources exists through improving domestic energy efficiency. The draft for Russia's energy strategy until 2035 targets a 50 % reduction in the country's energy intensity ('Energeticheskaya...' 2014: 13).

In summary, on the resource geographic dimension, several constraints emerge in the realisation of the oil companies' profit interests, the state's fiscal interests and the social interests of the state and regions. Taken together, these constraints seriously challenge the medium- to long-term viability of the prevailing business frame in Russia. New opportunities can only slowly emerge.

The financial dimension

On this dimension, we examine the production costs; the balance between supply and demand, and prices for Russian energy and arms exports in the global markets; the investment and credit available for large-scale infrastructure and other development projects, likewise the banking system; and currency fluctuations, especially the steep depreciation of the Russian rouble from late 2014 until early 2015.

First, regarding production costs, the picture is mixed. A significant share of the production costs of the Russian oil and arms industry, including the extraction costs of natural resources and the direct production costs, as well as personnel, power, heating,

facility and domestic servicing costs, are in roubles, the value of which has sharply depreciated since the onset of sanctions (Katusa 2014). At the same time, the energy companies in particular face constraints as most of their more advanced spare parts, technology and equipment are paid for in foreign currencies.

Second, regarding demand and supply, at least in the short term the demand for Russian oil has not evaporated because of the sanctions. Russian companies produced a record 10.58 million barrels per day in 2014. The International Energy Agency expects a 1 % drop in production in 2015 (Reuters 2015b). Some observers expect the sanctions to eventually decrease production by 5–10 % (Moseev 2014). Gazprom Neft's Arctic Prirazlomnoye platform was expected to double its 300,000-t production of 2014 (Kyrzhaly 2015), the problems with spare parts and availability of servicing notwithstanding. However, the volume of crude oil exported decreased during 2014 by 5.6 % to 223.4 million tons. At the same time, reflecting not only the sanctions but also the falling prices in the global markets, Russia's oil revenue dropped by 11.4 % to \$153.8 billion (Oil and Gas 360 2015). The oil products segment, where the value added is higher than in the crude oil segment, lacked similar constraints. The export of oil products, such as ultra-low sulphur diesel and fuel oils, recorded in 2014 the highest level of the whole post-Soviet era. The outlook for this sector is robust, supported by the government's long-term policies for increasing crude oil refining and new tax incentives starting from 2015 (Reuters 2014).

The demand for Russian arms was unaffected by the sanctions. Rosoboronexport expected arms exports to reach some \$13 billion in 2014 with orders of some \$48 billion (Moscow Times 2015). This continued the 37 % growth of Russian arms sales during 2010–14 from 2005 to 2009, and made Russia the second largest arms exporter globally. It delivered weapons to customers in 56 countries. The largest customers did not apply sanctions. India received 39 % of Russia's arms exports, China 11 % and Algeria 8 % (SIPRI 2015). Although arms exports do not appear in official trade statistics, their volume represents the single largest non-energy source of income making up roughly 3 % of Russia's total exports, ahead of aluminium, wheat, gold, diamonds and other natural resources or hard and soft commodities (see OEC 2015). The structural features enabling this development include the emerging global rearmament trend, the arms race of sorts in Asia, the policy decisions for modernising the Russian armed forces and consequently investments to increase the output and quality of the Russian arms industry. Simultaneously, the sanctions impeded Russia's military reform, as imports of arms from countries imposing sanctions were blocked.

Third, in terms of investment and credit, the sanctions imposed in September 2014 effectively cut access to long-term credit exceeding 30 days for large Russian publicly controlled or more than half state-owned oil companies, and companies in the arms industry (Official Journal of the European Union 2014; Rutland 2014: 3). Russian companies have to refinance some \$150 billion of debt during 2015 (Rutland 2014: 3). Of this amount, Rosneft has \$42 billion outstanding, having acquired TNK-BP in 2013 for \$55 billion. The three largest Russian banks, Sberbank, Gazprombank and VTB, need to refinance \$75 billion (Emerson 2014: 3). In December 2014, Russia announced a \$15 billion recapitalisation programme covering 27 banks hit by the low oil prices, sanctions and the falling rouble, to boost their lending to companies in the real economy (Reuters 2015c). In January 2015, the credit rating agency Moody's downgraded Sberbank one grade above junk bond rating alongside Vneshekonombank

and the Agency for Housing Mortgage Lending (Rapoza 2015). As of March 2015, the Bank of Rossiya had \$572 million worth of assets frozen in the USA, or a tenth of its assets in 2013 (Shishkin 2015). In short, the sanctions not only cut most of the lending to Russian companies but also eroded the ability of the Russian banking sector to bridge the emerging funding gap. As a result, during spring 2015, the Swiss oil trader Trafigura became a major short-term financier of Rosneft's oil trade by offering pre-payments funded by some 15 banks, circumventing the 30-day credit rule imposed by the sanctions (Hume and Sheppard 2015).

Fourth, regarding currency fluctuations, in February 2015, the Russian government had to use the National Wealth Fund to support the rouble. During 2014, the Central Bank of Russia spent altogether \$76 billion and €5.4 billion on buying roubles on the foreign exchanges. During 2014, the rouble dropped 41 % against the dollar and 34 % against the Euro. However, the effects of these fluctuations are not entirely negative for the oil and arms industries as the oil industry in particular sells its production in dollars, which have appreciated during the same period, while a large part of the production costs, as noted, are in roubles (Katusa 2014).

Overall, on the financial dimension, we find further constraints imposed by the sanctions on Russia's oil industry. Structural constraints unrelated to the sanctions, and beyond Russia's direct control, such as the falling prices on the global oil markets from mid-2014 until early 2015, also limited the Russian actors' ability to make choices and realise their interests. In the short term, the oil trade continues with a slightly impaired outlook, supported partly by means of short-term financing and appreciation of the dollar against the rouble. The sanctions also seriously challenged the viability of Russia's banking sector but had little or no impact on Russia's arms trade and industry. The picture is hence quite mixed on this dimension although new opportunities ensuing from the sanctions are difficult to discern.

The institutional dimension

On this dimension, we examine the impact of the sanctions on formal institutions including organisations and agreements shaping the relations between Russian and international actors and the associated informal institutions, including rules, norms and practices in the conduct of diplomacy and the balance of power. Ultimately at issue is the geo-economic order within which Russia furthers its security and foreign policy interests, and economic interests under the business frame. On the domestic level, we find effects on the regulation and relations among Russian federal and regional formal institutions, and on the associated informal institutions such as power and ownership relations and ultimately Russia's rent distribution system.

First, regarding formal and informal institutions at the global level, Russia's international standing as an economic power clearly suffered as a result of the sanctions. Russia's role in the Western-led economic institutions was always limited, but now Russia became even more of an outlier. In March 2014, the leading Western states and Japan excluded Russia from the G8 meeting. In April, the G7 countries met without Russia, declaring that Russia's policies in Ukraine were not consistent with the shared beliefs and responsibilities of the group (Borger and Watt 2014). Putin participated in the G20 meeting in November 2014 in Brisbane, but was socially ostracised and publicly criticised, and subsequently left prematurely. Russia remains a member of

the World Trade Organization (WTO). Putin tried to appeal to the WTO on Western sanctions violating the organisation's principles, but the WTO remained neutral.

The EU and individual member states froze the modernisation partnerships concluded with Russia since 2008. The common agenda of modernisation was virtually doomed as a consequence of the Ukrainian crisis. These partnerships include a number of projects intended to support Russia's economic modernisation and administrative reform. Views differed over how effective the partnerships actually were, but symbolically they represented the idea of Russia's further integration into the wider European economic space. The potential of the modernisation partnership once depended largely on Russia's wish to develop and implement the various programmes, but today it also requires the sincere political will of the European Union and its Member States (David and Romanova 2015: 10).

The sanctions also damaged the multi-level institutions of the EU-Russia Energy Dialogue, with no high-profile meetings arranged and even the expert level body, the Gas Advisory Council, restricted to just one meeting during 2014. To compensate for these mounting constraints, Russia intensified economic cooperation with China. In May 2014, Gazprom and the Chinese CNPC signed an agreement on the supply to China of up to 38 billion cubic metres of natural gas a year over 30 years. Gazprom also initiated the building of the Power of Siberia gas pipeline to China, while the two parties revived the Altai pipeline project from western Siberia to China's western regions. Russia was also actively present at the Asia-Pacific Economic Cooperation (APEC) forum in Beijing and decided to join the Asian Infrastructure Investment Bank (AIIB) initiated by China (Kuchma 2015). The BRICS remained a cornerstone of Russia's attempts to develop alternatives to the Western-led global economic institutions. Ahead of its BRICS presidency in 2015, Russia advocated developing a regional development bank and a currency reserve pool (Sputnik News 2015).

Within the sphere of regional security and foreign policy interests, Russia launched the Eurasian Economic Union (EEU) in 2015 with Armenia, Belarus and Kazakhstan. Kyrgyzstan committed to join in May 2015 while Tajikistan was contemplating membership. However, Ukraine objected to joining and other former Soviet Union countries became suspicious owing to the Ukrainian crisis. This hardly creates the powerful and attractive centre of economic development that Putin envisaged. At least in the medium term, Russia's own resources to develop the EEU are limited, while the Russian economy dominates within this institution. For example, when the Eurasian Economic Commission started its work in 2012, Russia's share of the budget financing reached 88 % (Glazyev 2015: 93).

Second, the sanctions affected the domestic institutions in Russia. The government's broadly developmentalist economic policies strengthened unintentionally as companies in the energy and financial sectors resorted to emergency credits provided by the state. Some private companies may end up in state ownership. However, the sanctions did not threaten Putin's or the government's popularity. The independence of the Central Bank of Russia suffered further, and the business elite had to remain loyal to the Kremlin to maintain their businesses (Rutland 2014). Yet the challenges in keeping the diverse actors unified were imminent. Particularly vulnerable were those regions whose budgets started to show bigger deficits when the state's redistributive capacities shrunk with the whole rent redistribution system restructuring. The tensions between the regions and the federal government could potentially grow because the annexation of

Crimea and the resources directed there and to other strategically important areas detract from the needs of the majority of the regions. The Russian government's attempt to control vital sectors, particularly energy, led to a business climate hostile to foreign, particularly Western, actors, whether companies or individuals working in Russian firms, in order to counter the visa bans imposed on Russian citizens abroad.

Overall, the sanctions impair Russia's capacities to realise its interests on the institutional dimension. Although Russia's position was never strong in the Western-initiated global economic institutions, its exclusion and further marginalisation have eroded its status in the global geo-economy. An alternative BRICS-based institutional system is more lucrative for Russia than before, but the Western-led structures are difficult to challenge in the short to medium term while Russia's dependence on China simultaneously increases. Its domestic institutional structure also assumes further developmentalist features. Indeed, one of the unintended consequences of the sanctions is Russia's search for alternative arrangements on the domestic and international levels as the economic interdependence with Europe and the USA starts to be seen as a diplomatic weak spot (Jones and Whitworth 2014).

Conclusions

In response to our research question of how the sanctions affect Russia's geo-economy, we can conclude that Russia's overall capacity to realise its interests has been impaired, although the impact is not uniform across the three dimensions of geo-economics analysed in this article.

As for the resource geographic dimension, the sanctions expose the long-term vulnerability of the business frame, which we found to be the foremost cognitive decision-making tool in use in Russia. The sanctions impede the realisation of the interlinked profit, fiscal and social interests under this frame, by virtue of considerably slowing down the development of Russia's Arctic, offshore and other hard-to-access greenfield oil resources. Without sanctions, these projects would form the spearhead of the oil industry's modernisation, support Russia's oil production levels well into the 2030s, and with suitable prices, augment the state budget and serve social development interests in Russia in general and the energy provinces in particular.

In terms of the financial dimension, oil production is nevertheless only mildly affected in the short to medium term and demand in the global markets is relatively steady. The fall in oil prices to around \$50–60 a barrel in the latter half of 2014, and with it the depreciation in natural gas prices owing to the indexation to oil prices, has shaped Russia's geo-economy and damaged its interests far more. In the long term, the experience of the sanctions is likely to divert many of Gazprom's existing European customers in the natural gas sector to liquefied natural gas deliveries and to other sources. This is because the Russian-Ukrainian conflict has once more exposed the inherent vulnerabilities of Gazprom's natural gas transit through Ukraine. Russia's arms exports, for their part, remain unaffected. In both sectors, Russia's likewise sanctioned banking sector faces state emergency credits while the funding problems of the badly indebted Rosneft are symptomatic of emerging constraints.

In terms of the institutional dimension, Russia's standing as an economic power in global institutions is seriously threatened. The new opportunities which Russia has

sought vis-à-vis China and the EEU hardly compensate for the losses. Russia's domestic institutional structure, including the rent distribution system, is de-stabilised at least temporarily, even though the non-energy sectors of the Russian economy and state-society relationship remain highly resilient to external influence. In the short run, rising oil prices may revive the rent distribution system. In the long run, Russia needs to return to international cooperation to ensure its operation.

Finally, we find Russia's economic geography susceptible to the structures of global geo-economy, many of which have become less favourable to Russia because of the sanctions and the fall in the price of oil. In the short term, Russia remains capable of exercising its statecraft domestically and, as is well seen in Ukraine. In the long term, Russia can constitute itself as an autonomous geo-economic actor mainly if favourable structural conditions prevail. However, as we have shown, the geo-economic structures are not under Russia's direct control.

Acknowledgments This article is supported by the Academy of Finland Centre of Excellence 'Choices of Russian Modernisation' (2012–17, Kivinen). We also wish to thank the editors and referees for comments.

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