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Barrels and bullets: the geostrategic significance of Russia's oil and gas exports

Michael Bradshaw, Professor of Global Energy, Warwick Business School, University of Warwick, UK

Richard Connolly, Senior Lecturer in Political Economy, Centre for Russian, European and Eurasian Studies, University of Birmingham, UK

Corresponding author: Michael.Bradshaw@wbs.ac.uk

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Introduction

As a student of the late Soviet period one of us is feeling a strong sense of Déjà vu, then—in the 1980s—the Soviet Union was stymied by an economic system incapable of reform and its reliance on oil and gas exports had been laid bare when the oil price fell. By the end of the 1980s the Soviet economy was in crisis and failed attempts to reform it had prompted Mikhail Gorbachev to seek a new relationship with the West. The era of glasnost' (openness) and perestroika (restructuring) resulted not in the rejuvenation of the economy, but in the collapse of the Soviet Union in December 1991. Nearly 25 years on, we find a Russian economy still overly dependent on oil and gas export revenues and that has proved itself incapable of developing a more robust and sustainable economic model.

Vladimir Putin has returned for a third term and has stirred up nationalist fervour to paper over the cracks of a flawed economy. The annexation of Crimea and support for separatist forces in Eastern Ukraine may have found favour at home, but they have also resulted in Western sanctions that have isolated Russia from global capital markets and targeted the ability of the oil industry to explore and develop new reserves. So far, President Putin has been able to turn the sanctions to his own advantage, blaming them for the economic problems at home. Even the fall in the oil price, starting in 2014, was explained as US and Saudi intrigue aimed at Russia. However, the collapse of the the oil price in 2014, and with it a dramatic fall in the value of the Rouble, has hit the Russian population hard and is now forcing the Russian Government to make substantial budget cuts to avoid drawing down on its significant, but dwindling, National Wealth Fund. Of course, most of the Russian Government's domestic expenditures are in Roubles and the dollars it gets from taxing energy exports now go much further; even so many of the populist measures promised by President Putin in his election campaign have been rolled back or postponed. As a consequence, the social contract between the electorate and the ruling elite is under strain just as the social costs of a shrinking and aging population are increasing. At the same time, the rising tide of nationalism at home and a more aggressive foreign policy abroad is being backed by a modernisation of Russia's armed forces. Significantly, military expenditure is

the one area that has not been cut; in fact, it continues to grow, and in 2015 reached 5.5% of GDP (compared to the NATO average of 1.5% in 2014; see SIPRI, 2015).¹

In the current geopolitical and economic environment, the question remains can Russia afford to continue to strengthen its military capability in the face of falling oil and gas export revenues, economic recession and growing social demands on the federal budget? This essay examines how the changes in global and Russian oil and gas industry are affecting Russia's ability to undertake the rearmament that has underpinned its more muscular role in the world. The essay concludes by considering two versions of what might happen next, which we describe as 'détente revisited' and a 'new cold war.'

Russia's oil and gas dependence

Russia's credentials as a petrostate are impressive. In 2013-14 (US EIA 2015), it was the world's second largest oil producer, accounting for 12.6% of total production and also the second largest exporter, both after Saudi Arabia (explaining the significance of any production agreement involving the two). It was also the second largest producer of natural gas, after the US, and the leading natural gas exporter. Europe is by far the most important consumer of Russia's energy exports, in 2014, more than 70% of Russia's crude oil exports and almost 90% of Russia's natural gas exports went to Europe (US EIA 2015). However, following the completion of the East-Siberian Pacific Ocean (ESPO) oil pipeline, Asia is rapidly growing in significance as a market for Russian oil. Natural gas exports to Asia are currently limited to LNG from Sakhalin-2, but these are planned to increase by the end of the decade when the Power of Siberia pipeline should start to deliver natural gas to China.

In the early 1990s Russian oil production plummeted as the economy collapsed (Figure 1). However, when things recovered it was relatively easy to ramp up production based on the legacy fields from the Soviet period. After that, a combination of investment in western technology to enhance production from brownfields and the development in new fields sustained production growth. Over the last decade the relative stability of Russian production—averaging 10.3 million barrels per day (Mb/d) between 2005 and 2014—has resulted in an 'exportable surplus' of around the 7 Mb/d level (EIA 2015, 3). Alongside the development of light tight oil deposits in the US, this production played a major role in ensuring security of global supply despite the turmoil in other oil exporting nations.

¹ Military expenditure data for Russia from Cooper (2016). The methodology employed to calculate military expenditure is the same as that employed by SIPRI. For details, see: Stockholm International Peace Research Institute (SIPRI), *Recent Trends in Military Expenditure*, Stockholm: SIPRI
http://www.sipri.org/research/armaments/milex/copy_of_faqs#back-to-top , accessed February 16 2016.

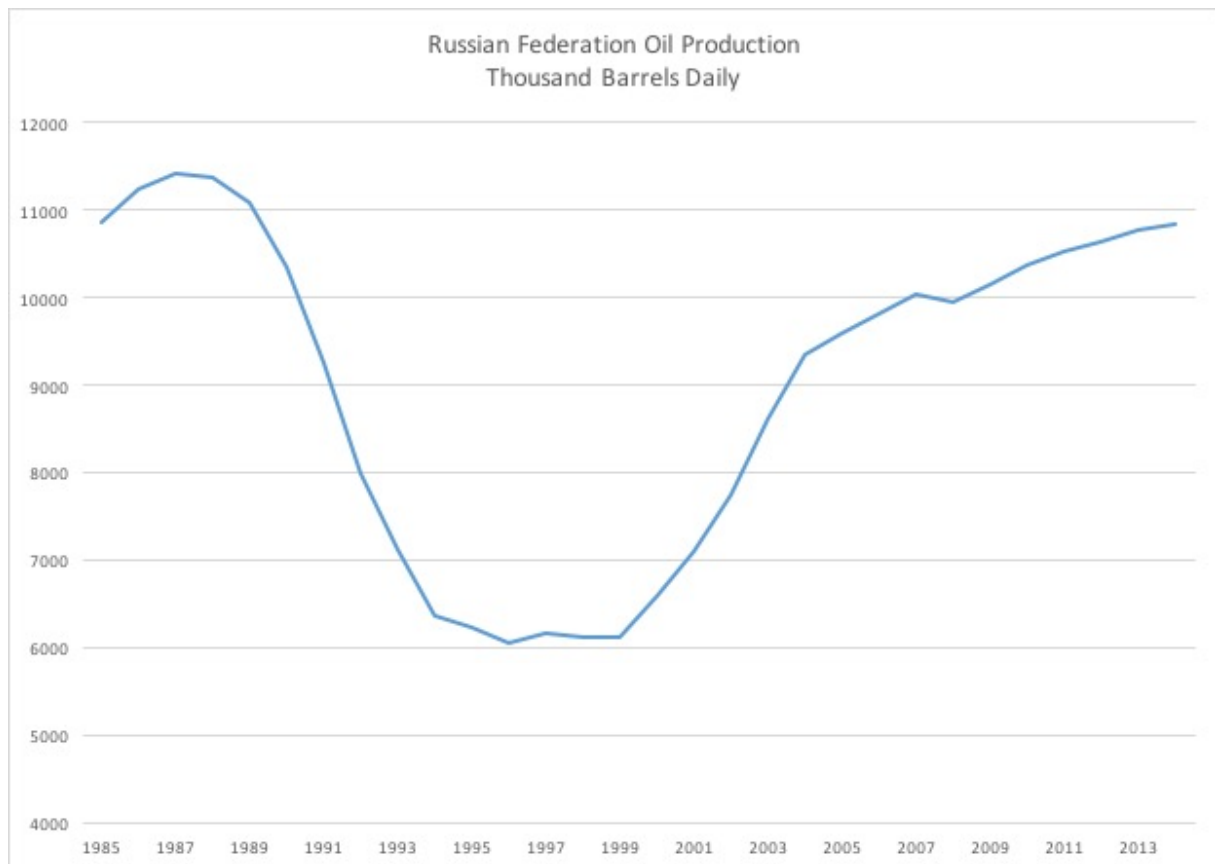


Figure 1: Russian oil production 1985-2014 (Thousand Barrels a day)
Source: BP (2015)

Dependence and volatility

Notwithstanding the interruptions in Ukrainian gas transit in 2006 and 2009, Russia (Gazprom) has also been a reliable supplier of a substantial volumes of natural gas to Europe, and exports have continued uninterrupted despite the crisis in Ukraine and the imposition of Western sanctions. In fact, having fallen from a post-Soviet peak in 2005-06, last year Russian gas exports outside the former Soviet Union (i.e. Europe, including Turkey) increased reaching 158.6 bcm, 82% of which went to Western European countries.² In 2013, according to the European Commission (2016), 65% of the EU’s gas was imported, with 30% of the EU’s total gas consumption and 39% of total EU gas imports coming from Russia.

Just as Russia is a major player on global energy markets and a source of energy (in)security for Europe, so it is the case that the revenue generated by oil and gas exports is essential to the Russian economy. Prime Minister Dmitry Medvedev (2015, 1) made clear the centrality of the energy sector to Russia’s economic fortunes when he stated: “The fuel and energy complex accounts for over a quarter of gross domestic product, almost 30 percent of the national budget, more than two-thirds of export revenue and a quarter of total investments.” Figure 2 charts the dynamics of Russian oil and gas revenue since 2000.

² <http://www.gazpromexport.ru/en/statistics/>. These numbers include all trading activity by GazpromExport and include deliveries of some non-Russian gas.

When Vladimir Putin came to power in 2000 the average oil price (for Brent) was \$28.50 (BP 2015, 15). The chart makes clear the dominance of crude oil exports and the rising role of oil products exports. Natural gas exports are lower in both volume and value—though they are also oil indexed—and the level of taxation is also lower. Research by Clifford Gaddy and Barry Ickes (2005) has investigated Russia’s continued addition to resource rents and has highlighted how the volatility attached to this dependence is a constant source of economic instability and an essential characteristic of its political economy.

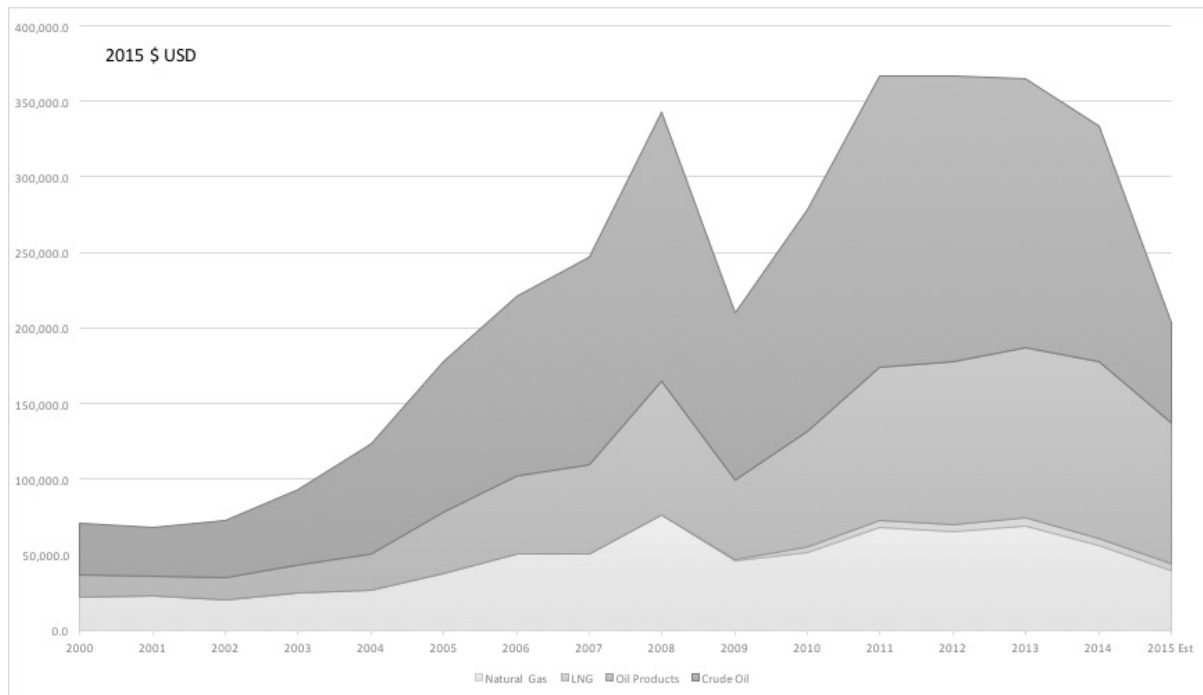


Figure 2: Dollar Earnings from Russian oil and gas exports 2000-2015³
 (Source: Central Bank of Russia 2016)

Russia—and its President—rode a wave of prosperity as the oil price increased up to 2008, but Russia was hit hardest among the G20 states by the 2008 global financial crisis as the oil price plummeted. The price rebounded without Russia having to exhaust its strategic reserves or make significant economic reforms. Despite the rhetoric of modernisation and diversification, Russia’s resource dependence remained.

Russia faces of perfect storm

The current crisis is more complex and is a perfect storm of collapsing oil and gas prices, a crash in the value of the rouble and the impact of Western sanctions. Over the first half of 2014 the average price for a barrel of Urals crude oil was \$107, in the first half of 2015 it was \$57 a barrel (World Bank 2015, 16). The oil price continued to fall in the second half of 2015 and was below \$30 in early 2016. The Russian Government chose to stop defending

³ The full 2015 statistics are not available yet and we have extrapolated the fall between third quarter 2014 and third quarter 2015 to arrive at an estimate for 2015. While the precise numbers may not be correct, the direction of travel is. The original values have been deflated and are in 2015 US dollars.

the rouble and since early 2014 it has lost 60% of its value against the dollar. Rouble devaluation is particularly challenging for individuals and companies who purchase imported goods and services and/or have debts in foreign currency. On both accounts, this includes Russia's oil companies. According to Rosstat's preliminary estimates, Russia's GDP declined by 3.7% in 2015 (World Bank 2016). Yet despite the domestic economic turmoil and the collapse in the price oil, Russian oil production actually increased in 2015. But, as Figure 2 makes clear, the fall in the price of oil and gas has resulted in a dramatic fall in export revenue. A comparison of export earnings to the third quarter of 2015 to the same period in 2014 shows that the value of oil exports fell by 42.7%, oil products 39.9% and natural gas 28.7% (Central Bank of Russia 2016).

Oil and gas is a long-term business and the current resilience of Russian oil production reflects investment in enhanced recovery and in new field development when the oil price was over \$100 a barrel. At the same time, Russia's oil and gas exports generate revenue in US dollars, while most domestic costs are in Russian Roubles. Thus, each dollar earned from a barrel exported is worth a lot more Roubles than it was two years ago. That said, the industry is still dependent on foreign oilfield services and equipment that are now costlier. But, as Henderson and Fattouh (2016, 5) have explained: "the tax system in Russia provided significant protection to Russian oil companies, because the high level of the marginal tax rate above \$25 per barrel has meant that the government has taken most of the cost of the falling oil price."

A further consideration is that the majority of Russia's production is in West Siberia and there are technical reasons that make it inadvisable to stop production. Finally, some Russian oil companies are heavily indebted and need to generate foreign currency whatever the oil price to service those debts. All of this means that Russia's oil companies are incentivised to continue produce even at very low oil prices. Gas exports are a different matter as they are tied to long-term oil-indexed contracts and the price has fallen behind that of the oil price. However, current prices are still below the marginal cost of supply for Gazprom, but there is speculation that it could be drawn into a price war to fend off increased LNG exports into Europe (Henderson 2016).

When Russian annexed Crimea and became embroiled in conflict in Eastern Ukraine, Western countries imposed sanctions on Russia, contributing the third element of the perfect storm. Here we are concerned with the impact of sanctions on Russia's oil and gas industries.

The first thing to make clear is that the sanctions are not targeted at reducing Russia's short-term ability to export oil and gas. This would have been counterproductive as it would have raised concerns about energy security in Europe. Rather the technology sanctions have targeted key areas that are important for developing new oil production in frontier regions—the Arctic and deep-water offshore—and shale projects. The sanctions have effectively stopped cooperation between the international oil companies and Gazprom and Rosneft.

The second element of financial sanctions is targeted at specific companies and individuals, but the caution of international financial institutions is such that all Russian companies now

find it difficult and costly to raise capital on international financial markets, as well as reschedule existing debts. This is beginning to have an impact on the oil and gas industry as Russian companies are seeing their own cash flows shrink—particularly when calculated in dollars—and are also finding it difficult to borrow to finance new developments (Mitrova 2016). This is a problem that is exacerbated by the fact that ‘new’ oil Russian oil production is proving to be increasingly costly as it moves in to the remote regions of East Siberia and also has to confront more complex geology (Gustafson 2012). Even the Russian Government is now concerned that in the next year or so Russian oil production will start to decline as investment dries up; particularly if the oil price remains lower for longer (Mazneva 2016).

Thus, these short- to medium-term constraints could run up against the impact of technology sanctions to reduce Russian oil production by the early 2020s. This is not a view held by BP (2016), whose latest Energy Outlook predicts that Russian oil production will remain stable at about 11 MB/pd through 2035 and gas production will expand by 30% by 2035. But, as the current situation highlights, for the Russian Government it is more about value than volume.

The Russian economy is not about to collapse, but these are undoubtedly challenging times for President Putin. If the oil price remains lower for longer and Western sanctions remain in place, Russian oil production may soon start to decline, further eroding the Government’s tax base. Thus, when President Putin goes to the polls in 2018 he could face a hostile electorate that may question his costly rearmament programme in the face of rising social needs and declining living standards.

The Return of the Military Industrial Complex

The boom in the value of hydrocarbon exports described above laid the foundations for the return of the defence-industrial complex (*oboronnyi-promyshlennyi kompleks*, or OPK) to a leading role in the Russian economy. In 2010, Russia began a decade-long military procurement programme that is intended to both equip Russia’s armed forces with modern equipment, and to modernise the defence-industrial base, so that Russia can produce modern weapon systems well into the future. But government plans for the OPK are even grander than the re-equipment of the armed forces. In 2012, President Putin expressed the hope that this rearmament programme would not only result in a more effective military machine, but also that a defence-industrial renaissance would act as a “driver of modernisation” across the wider Russian economy (Putin 2012a, 2012b).

Alongside the buoyant hydrocarbons sector, a reinvigorated OPK has underpinned Russia’s growing assertiveness in international affairs (Cooper, 2015). Indeed, the political importance attached to rebuilding the defence-industrial base cannot be underestimated: it was, after all, the resistance of Aleksei Kudrin to the funding the rearmament programme that resulted in the highly regarded former Finance Minister and long-time confidant of Vladimir Putin resigning from government in 2011 (Nicol’skii, 2011).

The precise nature of the expansion in defence procurement is laid out in the State Armaments Programme 2011-2020 (*gosudarstvennaya programma vooruzheniya*, or GPV-

2020). The GPV-2020 is a 10-year programme that envisages the large-scale procurement of a wide range of weapon systems.⁴ It is hoped that 70% of the armed forces' equipment will be modern when the GPV is completed.⁵ This lofty objective followed years of neglect and underfunding after the disintegration of the Soviet Union in 1991. This neglect was made more acute by the fact that the OPK was one of the - if not *the* – highest priority sectors in the Soviet economy. It enjoyed preferential access to resources – financial, physical and human - and was politically powerful (Gaddy, 1996; Cooper, 2013a). However, the OPK saw its elevated status diminish over the course of the 1990s as savage spending cuts and economic reforms starved the OPK of much of its funding. As government funding collapsed over the 1990s, the OPK shrank dramatically, with only arms exports to the likes of China and India keeping many enterprises afloat (Cooper, 2013a).

After the poor performance of the Russian armed forces during the brief conflict with Georgia in 2008, the OPK was boosted by the government's commitment to expand procurement spending under the rearmament programme. A total of RUB 20.7 trillion (or c. USD 640 billion at the average 2011 exchange rate) was allocated to fund the procurement of modern equipment, as well as the development of future weapon systems (Falichev, 2011).⁶ While progress in some areas has not been as fast as originally planned (e.g. there have been delays to the development of the high profile T-50 PAK-FA fifth generation fighter aircraft and the Armata main battle tank), the rearmament programme has so far resulted in the delivery of a wide range of modern weapon systems that have contributed to a significant upgrading of Russian military capabilities.⁷

The new leading sector of the Russian economy?

As well as enhancing Russian military capabilities, the role of the OPK in the wider Russian economy has grown substantially since 2011. Total Russian military expenditure grew from 3.8% in 2010 to 5.5% in 2015.⁸ This figure, of course, includes military expenditure beyond procurement, such as expenditure on military wages, pensions, housing, training and exercises, and operational expenditure. But the share of defence procurement rose

⁴ Though spending is back-loaded, so that one third is scheduled to place before 2016, with two-thirds thereafter (Barabanov et al, 2013).

⁵ As well as new or recently developed weapon systems, this includes 'modernised' equipment from the Soviet era. For example, modernized MiG-31 fighter and Tu-160 strategic bomber aircraft were all developed during the 1980s, while the Tu-22 and Tu-95 aircraft were development even earlier.

⁶ According to BOFIT, the average dollar-RUB exchange rate in 2011 was 32.2 RUB per \$. See: http://www.suomenpankki.fi/bofit_en/seuranta/venajatilastot/Pages/default.aspx GPV 2020. In an interview, the then-First Deputy Defence Minister, Alexander Sukhorukov, described the funding mechanisms for the GPV-2020 (Falichev, 2011).

⁷ It should also be noted that many weaknesses remain. It is therefore important not to exaggerate the impact of Russia's military modernization programme (Renz, 2014).

⁸ The share of GDP devoted to military expenditure is higher than for any NATO country, as well as China, India and Japan (SIPRI, 2015).

especially sharply, rising from 1% of GDP in 2010 to over 2.3% of GDP in 2015.⁹ This has caused a reorientation of government spending. In 2010, military expenditure as a share of total federal government spending was 15.9%; by 2015 it had risen to 25.8%.¹⁰

It is therefore clear that the renewed emphasis on the defence industry in Russia has caused the role of the OPK in the Russian economy to strengthen considerably. This is not suggest that Russia is anywhere close to the Soviet Union's level of militarisation, where military expenditure accounted for anywhere between 15-20% of GDP in the 1980s (Gaddy, 1996; Cooper, 2013). Clearly it is not. Nevertheless, there is evidence of a creeping yet discernible reorientation towards military production that may become more pronounced should the geopolitical environment not improve. Indeed, should Russia maintain what Clifford Gaddy and Michael O'Hanlon refer to as a 'Reaganov' posture – i.e. a policy mix that emphasises a strong military, a confident and assertive foreign policy, and an economic policy that focuses on scientific achievement in strategic sectors – in the near future, it is likely that the OPK will enjoy an elevated status in Russia's political economy in the years to come (Gaddy and O'Hanlon, 2015).

Sanctions and the fall of the oil price

Russia's ambitious plans to re-equip its military may, however, be derailed by the sharp decline in global oil prices, as well as by the changing structure of Russian oil production described in the first section of this article. This is because the decline in oil prices has exacerbated a pre-existing slowdown in economic growth. This slowdown has been evident since 2012, and was likely caused by the exhaustion of the economic growth model that served Russia well between 1999 and 2008.¹¹ After annual economic growth had averaged over 7% between 1999 and 2009, growth slowed considerably. In 2014, annual real GDP growth slowed to just 0.6%, down from 1.3% in 2013, and around 4% in 2012. This slowdown was likely caused by a combination of many factors, including a shrinking labour force, the slowdown in growth of government and consumer spending and, perhaps most importantly, a low and declining share of investment in economic activity (Connolly, 2011; Gaddy and Ickes, 2014). Thus, when oil prices plummeted, an economy buffeted by the combination of Western sanctions and a home-grown structural slowdown, plunged into recession, with GDP estimated to have contracted by 3.7% in 2015.

The deep and so-far protracted recession has imposed constraints on federal government spending. The share of funds allocated to support health and education has declined in recent years as the share allocated to defence rose. Facing a severe recession in 2015, the Russian government was forced to cut spending as tax revenues dwindled. While some areas of government spending were cut by over 15%, the allocated funds for 'national defence' were cut by just 4.8% per cent (Ministry of Finance of the Russian Federation,

⁹ This includes both money spent on the state defence order (GOZ), and state guaranteed credits (SGCs) provided to weapons manufacturers (Cooper, 2016).

¹⁰ Data for 2015 taken from Cooper (2016). Data for 2010 from Cooper (2013b, p.63).

¹¹ Essentially, this model was based on the redistribution of fast-growing natural resource revenues to other parts of the economy. The causes of this slowdown are discussed in Zamaraev et al (2013), Mau (2013, 2014) and Kudrin and Gurvich (2015).

2015). Tellingly, the funds allocated to rearmament were not reduced, with cuts made instead to other areas of military spending. Even as the economy continued to shrink in 2016, funding for rearmament has still been shielded from cuts. While the budget for 2016 stated that the direct government funding allocated to rearmament would be slashed by 10% (over 180 billion RUB, or \$2.3bn at current exchange rates), state-backed loans of roughly the same amount were made available to support rearmament, ensuring that the real level of funding remains the same.

The Russian government's reluctance to cut spending on rearmament, even in the face of a long and serious recession, shows the political importance attached to rebuilding Russia's military capabilities. With the Russian military a key component of a more muscular foreign policy, this is unlikely to end soon, even as the wider economy suffers. Even if cuts are finally made to the rearmament programme, it is likely that they will fall on areas where Russian industry has struggled to make progress. For example, the breakdown in relations with Ukraine has severed what were close defence-industrial ties between the two countries. This has caused severe delays in Russia's naval procurement programme because Russia cannot yet produce the power units used in major surface ships that it previously sourced from Ukraine. This means that any cuts could well affect an area where planned procurement might simply not be possible anyway. Other projects that may suffer delays include plans to produce a new generation of fighter and strategic bomber aircraft.

But even if some aspects of rearmament make slower progress than originally intended, the infusion of extra hydrocarbon revenues into the defence industry has already ensured that Russia's armed forces are significantly more capable than they had been in the past two decades. In the last five years, Russia has taken delivery of new nuclear-powered submarines, dozens of nuclear-tipped strategic missiles, and hundreds of modern fighter aircraft, helicopters, and armoured vehicles. Even though rearmament has not enjoyed entirely smooth progress, if continued, it is likely to furnish Russia with among the most numerous and sophisticated military forces in the world.

To sum up: even with an impaired economy hobbled by tumbling hydrocarbon prices, the Russian government appears determined to upgrade its military capabilities. This could further distort an economic structure that is becoming increasingly subordinated to serving the Russian government's security and foreign policy objectives (Connolly, 2016; Monaghan, 2016). This may well reduce the rate of economic growth in Russia and cause living standards to stagnate. But it will certainly make Russia a much more capable military actor, and one that other countries will need to learn to deal with.

Back to the future: what happens next?

It is clear that developments in the oil and gas industry – both at the global level and in Russia – are imposing financial constraints on the Kremlin and are likely to continue to do so in the near term. While it is evident that the Russian leadership continues to assign a great deal of importance to enhancing its military capabilities –and has done so since well before the crisis in Ukraine - it is equally clear that tough choices need to be made if this revitalisation of those capabilities is to continue at its current pace. Quite simply, in conditions of increasing scarcity, maintaining current levels of military spending will lead to

further cuts to other areas of spending, such as health, education and infrastructure. This threatens Russia's longer-term socio-economic development and with it President Putin's social contract with the electorate.

We are at a crossroads. The geopolitical situation facing Russia, as perceived in Moscow (and not in Western eyes), will be crucial to shaping which direction Russia chooses to take. If, on the one hand, the Kremlin perceives Russia to be facing a threatening 'arc of crisis', it is likely they will continue to place greater emphasis on mobilising domestic resources – political, economic and cultural - to prevail in geopolitical conflict. Under these conditions, military expenditure is unlikely to fall. While a 'more guns, less butter' strategy would certainly carry significant risks, not least that of alienating a materially worse-off population, Russian actions to date suggest this is a plausible future. If, on the other hand, the view from Moscow is of a more benign international environment – at least from the Western direction - it is possible that policy-makers there will pursue a less radical course of action.

It is in this sense that the West has an important choice to make. It could choose to respond in kind to Russian remilitarisation by enhancing its own military capabilities in the NATO theatre. This might involve a mix of changes to military posture, deployment of forces and expenditure on forces in the region. In geopolitical terms (although not ideological), this scenario might be called a 'New Cold War'. However, this might produce the very thing the West wishes to avoid: a pricklier and well-armed neighbour that perceives a rising threat from its Western borders. This could prove costly for both protagonists. It would be costly from an economic point of view (Europe's economies are not performing much better than Russia's), and would also drastically increase the probability of conflict between NATO and Russia.

A smarter response would be to alleviate Russia's heightened sense of insecurity and prevent a return to a more adversarial relationship of the type that prevailed in the Cold War. In this scenario, greater engagement based on the recognition of mutual interests might prevent both sides from embarking on programmes that enhance military capabilities in Europe yet raise the perception of insecurity on both sides. This scenario might be called 'new Détente' and would involve Western policy-makers working to persuade their Russian counterparts that that remilitarisation will only weaken Russia further, and that reintegration with Western political and economic structures best serves Russia's interests.

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