Russian defense spending after 2010: the interplay of personal, domestic, and foreign policy interests¹

Una Hakvåg Norwegian Defence Research Establishment (FFI), Kjeller, Norway

Since 2010, Russia's defense spending has seen an average annual real growth of 10%, causing a profound shift in the composition of government expenditure. This article examines the formal and informal processes through which Russia's level of defense spending is determined and identifies personal, domestic, and foreign policy interests behind the rise in defense expenditures. Drawing on a combination of elite interviews and document and news analyses, I argue that domestic political and socio-economic factors are at least as important as geopolitical and security ones in explaining Russia's decision to push defense to the forefront of the political agenda. The findings suggest that high levels of defense spending may be politically sustainable in Russia, at least in the medium term, even though it comes at the cost of other public goods.

Keywords: armed forces; defense procurement; economic policy; military expenditures; Russia

Introduction

Few, if any, Russian policy areas currently enjoy a higher political priority than the country's armed forces. In the last six years, Russia's defense spending has grown at an average annual real rate of 10%. The increase in defense spending has taken place against a background of economic slowdown and even recession, resulting in a significantly higher defense burden. From 2011 to 2016, the share of GDP officially devoted to defense grew from 2.5 to 4.4% (Federal Treasury 2017). The growth in defense spending in recent years thus differs from the situation in the 2000s, when although Russia's defense spending on the average grew by 6% annually, the share of GDP devoted to defense remained fairly stable at 2.7% (see, e.g., Oxenstierna 2016, 61).

.

Working paper. Please do not quote.

In this article, I explore why Russia's political leadership has chosen to push defense to the forefront of the political agenda. Using the bureaucratic decision-making model as the theoretical point of departure, I identify actors involved in determining Russia's level of defense spending, and discuss their relative power to influence budget decisions and their possible motivations for advocating or supporting additional defense allocations. Defense decision-making processes are often explained in terms of balance of power theory. The policy outcome is viewed as a result of national governments selecting "the action that will maximize strategic goals and objectives" (Allison and Zelikow 1999, 24). While this approach is well suited for explaining defense policy outcome in times of an overshadowing threat of war, models emphasizing organizational dynamics may provide better explanations for decision-making in periods of relative international calm (Posen 1984, 59). A bureaucratic politics approach to decision-making processes postulates that policies are the results of a push and pull game between self-interested actors with varying capacities to influence policy. The actors' preferences may be a function of material interests, culture, positions, role, or personality factors, or a combination of the aforementioned. Their capacity to influence the outcome of the policymaking process is seen as a function of issue salience, organizational cohesiveness, resources available for mobilization, affiliation and position, and/or bargaining skills and will. The actors' "wiggle-room," and hence the outcome of the policymaking process, is constrained and enabled by regulations (Welch 1998).

Within defense economics, it is well acknowledged that a country's level of military spending is determined by a combination of security-related, technological, economic and industrial, and more broadly political or institutional factors (see, e.g., Hewitt 1992; Dunne and Perlo-Freemann 2003; Goldsmith 2003; Dunne, Perlo-Freemann and Smith 2008; Nordhaus, Oneal and Russett 2012). Still, when it comes to Russia, most of the existing literature views the rise in defense spending simply as one of several elements of a more assertive Russian foreign policy (see, for example, Lo 2015; Tsygankov 2015; Averre 2016; Legvold 2016) or as a precondition for the ongoing military modernization (CAST 2015; Connolly and Sendstad 2016; Cooper 2016; Oxenstierna 2016; Trenin 2016). By drawing attention to the interplay between personal, domestic, and foreign policy interests in setting Russia's defense budget, this article aims to contribute to a deeper and more accurate understanding of Russian political decision-making in general and the decision to prioritize the armed forces in particular. The findings suggest that high levels of defense spending may be politically sustainable in Russia, at least in the medium term, even though it comes at the cost of other public goods. It also questions the idea that Russia's allotments to defense procurements are spent mainly according to military needs.

In order to answer the research question, I first date the decision to significantly step up defense spending, relating it to the 2010 decision to embark on a program of rapid rearmament. Next, drawing on a combination of official documents, media accounts, and elite interviews, I examine the formal and informal processes through which Russia's level of defense spending in general and procurement spending in particular is decided, identifying institutional factors that may favor high levels of defense spending. The article then proceeds to examine how the rise in the defense burden has been justified in official speeches and documents. Finally, I explore subnational explanations for the high level of defense spending, in particular analyzing how the desire for personal gains and the motivation to stay in power may favor allotments to the security structures.

The 2010 decision to embark on a program of rapid rearmament

The shift in political priority given to defense can be dated back to 2010 and the adoption of a new strategic planning document for defense procurement, known as the state armament program for the years 2011–2020 (gosudarstvennaya programma vooruzheniya, hereafter GPV 2020) in December that year. Following the adoption of GPV 2020, the share of GDP devoted to defense procurement increased from 1% in 2010 to 2.4% per cent in 2015, accounting for most of the growth in defense spending in this period (Connolly and Sendstad 2016; Oxenstierna 2016, 61).

GPV 2020 is the most ambitious defense procurement plan adopted in post-Soviet Russia. It sets out to increase the share of modern (*sovremennyi*) armaments in the armed forces to 70% by 2020 (Gosudarstvennaya 2010). This objective was later also included in Vladimir Putin's agenda for the current presidential period (Presidential Executive Order no. 603 of 7 May 2012). In 2010, official estimates indicated that only 10% of the country's conventional arms and 20% of the strategic arms passed the modern criteria (Popovkin 2011). Hence, GPV 2020 envisages a near full-scale rearmament of the armed forces within less than a decade.

The complete investment account is not public, but different leaks indicate that planned acquisitions include some 400 new sea- and land-launched intercontinental ballistic missiles; 50 large surface vessels; 8 nuclear-powered ballistic missile submarines, 600 airplanes; 1,000 helicopters; 2,300 combat vehicles; and 100 radars, satellites, and surveillance units, as well as new command, control, and communication systems (Putin 2011; for more details see Fedorov 2013; Cooper 2016; and Connolly and Sendstad 2016). The program's envisioned budget – approximately 20 trillion rubles – has been described by Vladimir Putin, albeit jokingly, as "frightening" (Putin 2011). As of 2010, it was equivalent to two-and-a-half times the total federal budget. The Ministry of Finance estimated that the procurement plans, together with an increase in military salaries scheduled to take place on 1 January 2012 would demand an additional 2.4% of Russia's GDP to be spent on defense in the forthcoming years (Kudrin in Pis'mennaya 2013, 210).

The ambition level should arguably be viewed against the backdrop of Russia's economic development (Oxenstierna 2016, 61). When states experience periods of strong economic growth, not only does the level of real military spending tend to increase (Seiglie 1992), but extra resources tend to be diverted disproportionately to the military (Goldsmith 2003). When the drafting of GPV 2020 began in the winter of 2008–2009, Russia had just experienced a decade of 7% annual growth on average. Although the Russian economy was severely hit by the global financial crisis in the second half of 2008 and 2009, it had more or less returned to its previous GDP level by December 2010. To be sure, there were signs that the growth rate would not quite return to its previous speed, but the Ministry of Economic Development's macroeconomic prognosis from 2010 nevertheless attests to significant economic optimism in the Russian government (Ministry for Economic Development 2010).

What really makes GPV 2020 remarkable in a Russian context, however, is not so much its ambitious scope, but the determination with which it was implemented. In most of the post-Soviet period there has been a significant gap between what has been envisaged in the state armament programs and the actual economic priority given to defense procurement. In the late 1990s and the 2000s, only between 25 to 50% of the planned funding was provided, the main reason being overly optimistic macroeconomic forecasts (Burenok 2008, 2012; Cooper 2010, 149–150; Shunkov

2013,7; CAST 2015). Hence, by the time work on GPV 2020 started in 2009–2010, the programs had earned a reputation as "compendiums of wishful thinking" (Baev 2011, 63). Like most previous macroeconomic forecasts, the forecast that made up the basis for the GPV 2020 decision has also come up short. Instead of the expected 3% to 4% annual growth, the Russian economy stagnated in 2013 and went into recession in 2015. Consequently, in 2016 Russia's GDP was 20% lower than the official estimate from 2010. Nevertheless, six years in, the program had, according to our estimates, received approximately 40% of its planned funding. This was made possible through a profound shift in the composition of central government spending. From 2010 to 2016, the share of federal spending devoted to "national defense" increased from 13% to 23% (Federal Treasury 2017).

Determining Russia's defense budget: institutional drivers and constraints

In post-Soviet Russia defense decision-making has been the realm of the executive branch. The 1993 constitution gives the president control with all main levers in security policy making (Pallin 2009, 23). The executive branch is also dominant in setting Russia's economic priorities. The president priorities are set out in a budget mission statement. Together with the Ministry of Economic Development's forecast for socio-economic development for the period ahead, it constitutes the point of departure for budgetary discussions within the government. The draft budget is agreed upon by the members of government and then read by the two chambers of parliament before being approved by the president (Budgetary Code of the Russian Federation of 31 July 1998, chapter 22). Formally, the lower house of parliament, the State Duma, can make amendments to the level and structure of spending. However, when matching government budget proposals to expenditures, we find that members of parliament have limited influence, particularly when it comes to the defense budget. In 2016, for example, the difference between the government's proposal and the approved defense budget (before amendments) was less than 1%.

Public oversight and control with the budgetary process is weak. The accountability function should be performed by parliament, the Audit Chamber and the judicial branch (Pallin 2009, 19). But, in today's Russia, these institutions can hardly be described as politically independent from the executive. Furthermore, significant parts of the budget are exempted from scrutiny. In 2016, as much as one-fifth of central governmental expenditures were classified. For the budget chapter "National defense," the share of classified expenditures was close to 70%. According to the Duma defense committee's annual budgetary statements, the committee only has access to the part of the defense budget dealing with personnel costs and regular activity (see, e.g., State Duma Defense Committee 2015). The investment share of the defense budget, the state defense order (gosudarstvennyi oboronnyi zakaz), is considered a "state secret" (cf. Federal Law no. 5458-1 of 21 July 1993 "On State Secrets," article 5). Other factors contributing to weak accountability worth mentioning are low degree of specifications in the budgets and national accounts and frequent use of the category "other expenses" (9 % of all federal expenditures in 2016).

The role of the military-industrial commission

Starting from 2008, military procurement has been decided within the Military-Industrial Commission (*voenno-promyshlennaya komissiya*) (Burenok 2008). From 2006 to 2013, the

commission was part of the governmental structure, headed by the deputy prime minister responsible for military industrial developments (2006–2012 Sergei Ivanov, from 2012 Dmitrii Rogozin) and reporting to the prime minister (2008–2012 Vladimir Putin, from 2012 Dmitrii Medvedev). Following Putin's and Medvedev's swap of positions, in 2014 the commission was moved from the formal control of the government and directly subjected to the president (Putin), who also replaced the deputy prime minister as the commission's head (Presidential Decree no. 627 of 10 September 2014). Hence, for most of the period since defense spending started to rise rapidly in 2011, the Military-Industrial Commission has worked under Putin's direct supervision.

Although the commission's composition has been subject to some changes over the years, its core has always been comprised of senior representatives from the security and economic structures and representatives from state industry. As of March 2017, the commission's permanent members included President Putin; Deputy Prime Minister Dmitrii Rogozin; Deputy Minister of Defense Yurii Borisov; First Deputy of the Security Council Yurii Averyanov; Head of the Federal Antimonopoly Service Igor Artem'ev; Presidential Aide Andrei Belousov; Director of the Federal Security Service Andrei Bortnikov; Chief of General Staff of the Armed Forces Valerii Gerasimov; Director General of the State Atomic Energy Corporation Rosatom Aleksei Likhachev; Presidential Aide for Military Technical Cooperation Vladimir Kozhin; Minister of Internal Affairs Vladimir Kolokol'tsev; Minister of Industry and Trade Denis Manturov; Head of the State Corporation for Space Activities Roskosmos Oleg Ostanenko; Minister of Finance Anton Siluanov; President of the Russian Academy of Sciences Vladimir Fortov; Director of the Foreign Intelligence Service of the Russian Federation Sergei Naryshkin; Director of the State Corporation for Assistance to Development, Production, and Export of Advanced Technology and Industrial Products Rostec Sergei Chemezov; and Minister of Defense Sergei Shoigu.

Formally, the Military-Industrial Commission settles procurement plans through a type of bureaucratic decision-making model: the procurement program's customers, the security structures, formulate their strategical, tactical, and technological demands based on the general guidelines for Russia's defense and security policy, laid down in the country's security and military doctrines. The demands are then adjusted to take into account Russia's economic "wiggle room" and developments in other policy areas, identified by the economic ministries, as well as the domestic defense industry's technological and industrial competence and production capacity (Burenok 2008, 2012; Achasov 2012).

In reality, smaller, informal meetings between the main actors have often played a decisive role. Accounts from the GPV 2020 process suggest that the decision to significantly accelerate the pace with which the armed forces received new arms came after extensive pressure by the MoD and the General Staff. Until the summer of 2010, the Military-Industrial Commission had settled on a budget of 13 trillion rubles (Frolov 2010). However, in a meeting of the commission in June 2010, acting chief of armament in the MoD, Oleg Frolov, reportedly complained that the suggested amount would only allow for updating the Strategic Nuclear Forces, Air Defense Forces, and the Air Force. He then asked for an additional 23 trillion rubles: 15 trillion for the Army and 7 trillion for the Navy and the Space Forces (Nikol'skii, Kholmogorov, and Tovkailo 2010). Following the meeting in the Military-Industrial Commission, then-Minister of Defense Anatolii Serdyukov asked for a meeting with the President (Medvedev). According to the Minister of Finance at that time, Aleksei Kudrin, it was in this smaller, informal meeting between Serdyukov, Kudrin, and

Medvedev that it was decided to increase the budget to 20 trillion roubles (Kudrin in Pis'mennaya 2013, 211–213). Kudrin's account is largely confirmed by an employee in the central apparatus of the MoD; however, in his recalling, it was the Prime Minister's (Putin), not the President's, support for the rearmament project that was decisive for the final decision (author's interviews 2014).¹

The Military-Industrial Commission is accountable only to the president. Within defense economics, low levels of public participation in and control with decision-making processes are found to be positively related to increases in military spending (Dunne and Perlo-Freeman, 2003b; Goldsmith, 2003; Fordham and Walker 2005; Dunne, Perlo-Freeman, and Smith 2008; Albalate, Bel, and Elias 2012; Nordhaus, Oneal and Russett 2012; Conrad, Kim and Souva 2013). Furthermore, rather obviously, a high degree of military involvement in policymaking often correlates with a higher level of military spending (Bove and Nistico 2014; Flynn 2014). In Russia, the MoD is, at one and the same time, the main customer, the leading expert on defense-related issues, and the bureaucratic body responsible for preparing the documents, including considering pros and cons (Burenok 2008; Achasov 2012; Ministry of Defense Encyclopedia n.d.). MoD's multiple roles in the process are likely to result in military needs being presented as more urgent than they may actually be, and thus contributing to pushing security concerns to the forefront of the political agenda.

While the GPV's main parameters were decided within the Military-Industrial Commission, its composition is reported not only to be a result of clearly stated needs of the armed forces, but also of a competition between different decision making organs and actors within the defense industry, the most important being the MOD and its procurement department. According to one source, the contract winners were those who had the willingness and ability to spend their own money on the production of new models and on marketing within the military organization. The air plane company Irkut, for example, reportedly paid for test flying programs for pilots and officers and "russification" program for the fighter-planes Su-3MKI to Su30SM in order to get contracts with the MoD (Author's interviews).

The political system and preferences for security

Throughout the post-Soviet period, the need to constrain the defense burden has been most vocally expressed by the Ministry of Finance. The Ministry's opposition to high levels of defense spending is an obvious consequence of its role as an arbiter between all interests in the federal budget, but it may also be explained by the dominance of liberal economists within this ministry (Hanson 2012; Oxenstierna 2016, 66B68). Among Russia's liberal economists, long-time Minister of Finance Aleksei Kudrin has been the most outspoken critic of the rise in military expenditure. Kudrin was known to belong to Putin's inner circle. However, when he left office in 2011 after a public dispute with President Medvedev on the political leadership's economic priorities (Finance Minister 2011), not only his personal influence but also the political influence of the Ministry started to fall. Kudrin's successor as Minister of Finance, Anton Siluanov, is more of a bureaucratic climber and does not have the same close ties to Putin or Medvedev. An annual rating of the 100 most influential persons in Russian politics rated the Minister of Finance (Kudrin) as the third most influential person in 2010 (Orlov 2011). Although the Minister of Finance is still considered to have a "strong influence," by 2016 the Minister (Siluanov) was rated as number nine, behind

Patriarch Kirill (Orlov 2017).

With the exception of the Minister of Finance, there seems to have been a strong political consensus on the importance of the rearmament project. The low level of transparency surrounding defense spending is probably part of the explanation for the lack of resistance. Another explanation may be found in the high share of government personnel and personnel within the presidential administration with a background from the military or the security apparatus more generally (Krystanovskaya and White 2003, 2009; Taylor 2011; Sonin 2015). The influence of the so-called *siloviki* on Russia's political priorities is both indirect, through holding senior positions in all sectors of the Russian state, and direct, through a large number of decisions being taken by state bodies with a majority of members from the security sector (Sonin 2015). Although arguably not a unified group (Renz 2006; Taylor 2011; Rivera and Rivera 2013), the *siloviki* are generally assumed to be more likely than other members of the bureaucratic elite to adhere to policies that pursue a strong state internally and a strong Russia internationally (Krystanovskaya and White 2009; Sonin 2015).

Furthermore, the defense sector has strengthened its position in Putin's third presidential term, with the inclusion of the Minister of Defense Sergei Shoigu and the Head of the Foreign Intelligence Service Mikhail Fradkov in Putin's inner circle. According to the Minchenko consulting group, the inner circle, which consists of nine persons, also includes head of Rostec Sergei Chemezov (Minchenko with Petrov 2013). The aforementioned rating of the 100 most influential persons in Russian politics saw a steep rise in the influence of the Minister of Defense (Serdyukov) in 2010 (Orlov 2011). This trend has continued after Serdyukov was replaced by Shoigu; in 2016 the Minister of Defense (Shoigu) was rated the fourth most influential person in Russia (Orlov 2017). It is, however, difficult to say whether this development is a result of increased focus on defense matters in Russian policy making or if focus on defense has increased as a result of people like Serdyukov and, then, Shoigu, becoming more influential.

The interests of the state: official explanations

Since the adoption of GPV 2020, Russia's political leadership has used two different sets of arguments to justify the increase in the defense burden caused mainly by the rapid rearmament. The first argument points to Russia's geostrategic considerations and changes in the security environment. The second argument points to economic and industrial interests, emphasizing the need to differentiate Russia's sources of income and the domestic defense industry's place as one of the few competitive high-technology industries in the country.

Geostrategic considerations and the security environment

As we have seen, the initiative to significantly increase defense procurement came from the MoD and the General Staff. The MoD's main argument was that the existing equipment was in poor condition and reaching the end of its useful life. Following the dissolution of the Soviet Union, Russia inherited most of the former state's military capacities. Although numerous initiatives to modernize the armed forces were announced in the following decades, few were implemented (Pallin 2009). During these years, most of the defense budget was spent on operating costs. Of the limited procurement funds, practically all were spent on the nuclear forces and in particular on the

Strategic Rocket Forces. In the non-nuclear part of the defense industry, the few funds that were available were used for research and development (R&D) or upgrades and repair. Hence, up until December 2010 and the adoption of GPV 2020, the Russian armed forces had received almost no new arms for 15 consecutive years. In addition, the existing equipment was mostly based on technology developed in the 1970s and 1980s. This technology was not only considered inferior to the current military technology of other major military powers, but the structural transition of the armed forces from a huge conscription-based mobilization towards a smaller, partly professional standing force initiated in 2008 also called for different types of equipment (Popovkin 2009; author's interviews 2014; see also Putin 2012a, 2012b).

Here it should be noted that, by 2010 the ambition to compensate for the procurement gap had been on the Russian political agenda for years. Already in 2005, the Security Council passed a resolution to increase the procurement share of the defense budget to 70% by 2015 (Bakkaus 2009, 66). However, at that time, Russia's political leadership turned down much of the MoD's request for increased procurement funding, arguing that there were no pressing security threats against Russia at the moment that could justify an increase in the defense burden (Mukhin 2009).

The performance of the Russian armed forces in the war with Georgia in August 2008 arguably became a turning point. The armed forces suffered severe losses, many due to outdated equipment and insufficient command and control systems (Barabanov 2009; Bukkvoll 2009, 58; McDermott 2009, 71). Following the war, a thorough examination of military capacities was initiated. A brief on the technical conditions and operational readiness of the existing material presented by then-Chief of General Staff Nikolai Makarov at a Security Council meeting in September 2009 is reported to have made a particularly strong impact on both Medvedev and Putin. At the meeting Makarov is said to have presented documentation showing that a large amount of the existing equipment had exceeded its expected life span by two or three times and would have to be taken out of service before 2020 (author's interviews 2014). Pointing to the experiences of Zapad 2009 (West 2009), a strategic military exercise carried out earlier that month and reportedly focusing on testing the new armed forces command system while countering a network-centric warfare attack from the West, Makarov went on to argue that the existing material represented inadequate technology and had low operational readiness. The Chief of General Staff concluded that modernization of the existing equipment or further prolonging its life span was not an option, as the overhaul and improvements needed were so comprehensive that they were likely to be more costly than buying new equipment (author's interviews 2014; see also Popovkin 2009).

In addition to the military needs, there are also some indications that changing security perceptions among Russia's political leadership influenced the decision to speed up the rearmament process. In one of the first articles presenting the new GPV, published in the Ministry of Defense's monthly information bulletin *Rossiiskoe voennoe obozrenie* (Russian Military Overview) in March 2009, Deputy Minister of Defense responsible for procurement Vladimir Popovkin argued that Russia's armed forces needed to accelerate the pace with which it is rearming its military forces because the world is "characterized by an increased economic and political competition between the worlds' countries" (Popovkin 2009, 18, author's translation). Likewise, Vladimir Putin in one of his 2012 pre-election articles, which in its English version was entitled "Being Strong: Why Russia Needs to Rebuild Its Military" said it was necessary to speed up the rearmament process due to rising threats stemming from an unpredictable and chaotic world (Putin 2012a; see also Putin 2012b).

Several international events that took place in the second half of the 2000s may have led to the perception of growing unpredictability among Russia's political leadership and increased the perceived need for strong military power. These events include the US-led invasion of Iraq in 2003; the admission of the Baltic states (Estonia, Latvia, Lithuania) and former Eastern bloc countries (Bulgaria, Romania, Slovakia, and Slovenia) into NATO in March 2004 and Croatia and Albania in April 2009; the Orange Revolution in Ukraine bringing pro-Western Viktor Yushchenko into power in March 2004; the EU and NATO suspension of high-level consultations with Russia following the Russo-Georgian war in August 2008; and the US announcement of plans to establish ballistic missile defense elements in Europe in 2009.

Of these, the military experience from the war with Georgia in 2008 and US plans to establish ballistic missile defense elements in Poland and the Czech Republic seem to have been the most influential in terms of the defense procurement process. As a preparation for the 2009–2011 defense order, the MoD in the second half of 2008 carried out a detailed analysis of the armed forces' performance in the war with Georgia in August of that year and of the US ballistic missile defense plans. The analysis identified a number of deficits in Russian capabilities, including the need for better intelligence equipment, further development of short- and medium-range surface-to-air missiles and anti-aircraft artillery weapon systems, and the need for more advanced mobile theater ballistic missile systems (Popovkin 2009).

Heightened security concerns related to NATO enlargement and US deployment of troops and the intended missile defense shield in Europe can also be identified in Russian security documents in the 2000s (Haas 2010, 84B85). Adding to this was a perceived increased strength of Russia during Putin's two first presidential terms. By 2007–2008 there seems to have been established a political consensus in Russia on the importance of military power in order to achieve political-strategic objectives as well as to protect Russia's economic interests (Haas 2010, 84–85; Lo 2015; Tsygankov 2015). This view was first clearly expressed in Vladimir Putin's speech at the 2007 Munich Security Conference (Putin 2007), and *inter alia* repeated in his 2012 article on the rearmament process, in which he concludes that in the current political climate a strong military capacity is "an indispensable condition for Russia to feel secure and for our partners to listen to our country's arguments" (Putin 2012a, see also Putin 2012b). The view that a strong armed force is a precondition for success in foreign policy has also been articulated by the Ministry of Defense journal Krasnaya Zvezda (Red Star), which in its first major report on GPV 2020 wrote that "the program will allow the Armed Forces to neutralize any military threats against the Russian Federation and to become a real instrument for an active Russian foreign policy" (Gosudarstvennaya 2010; author's translation and emphasis).

This being said, only after Russia's annexation of Crimea in February/March 2014 and the following deteriorating relations with NATO and the West did security threats and geopolitical considerations become a part of the official budgetary documents explaining and legitimizing the rise in the defense burden. Prior to this, the increasing defense burden was justified as part of the ongoing military reform, pointing to investment gaps and the need to provide the reformed Armed Forces with equipment suitable for handling the security challenges of the 21th century.

The defense industry as a locomotive for economic growth

In addition to pointing to the country's military needs, Russia's political leadership has justified the increased defense burden by arguing that high levels of defense spending may have a positive impact on the economy (Rogozin 2013; Putin 2012a, 2012b; Rearmament 2012). In the words of Putin (2012a):

The huge resources invested in modernizing Russia= military-industrial complex and equipping the army shall serve as fuel to feed the engines of modernization of the economy, creating real growth and a situation where government expenditures fund new jobs, support market demand, and facilitate scientific research.

This argument became particularly popular during the 2008–2009 economic crises. The crises led to renewed awareness among Russia's political leadership about the country's dependency on petrodollars, and it spurred a national discussion on alternative sources of growth (Urnov 2012). In the ensuing debate, Medvedev and Putin both expressed faith in high-technology industries as drivers for economic growth (Russian Federal Government 2008; Medvedev 2009). As one of few technology-intensive sectors in which Russia can be considered among the world leaders, the defense industry was identified as having a particular potential to yield technological benefits (see, for example, Crane and Usanov 2010, 99; Karlik, Fontanel' and Schcherbinin 2012; Shevtsova 2015).

Within economic theory, the idea that military spending can be a "locomotive of economic growth" is subject to controversy. Proponents traditionally find their support in the US and UK economic growth in the period from the end of World War II to the 1970s, which, following *inter alia* the theories of Baran and Sweezy (1966), was caused by these countries devoting a much higher share of output to the military than their previous peacetime norms. The critics of the theory, on the other hand, argue that military spending may have a negative impact on growth rates as it crowds out resources that otherwise could have been spent in more productive ways, for example investments in education and health services (see, for example, Romer 1986; Dunne, Smith, and Willenbockel 2005; for the Russian debate see Karlik 2016).

Whether Russian authorities actually believe that investments in the defense industry are likely to have a positive effect on economic growth, or if the argument is simply instrumental in justifying the increased defense burden, is difficult to establish. It is, however, worth noting that the growth in allotments for the domestic defense industry has coincided with a rise in the influence of nationalist economic thinkers in the Kremlin (Hanson 2011; Åslund 2013). The nationalists have argued in favor of state support for the domestic industries, warning that deindustrialization would make Russia a source of raw materials for the West and China (Rutland 2016, 354–355). Among the presumably more influential nationalists is Presidential Aide Sergei Glaziev (Åslund 2013). According to his theories, increased military expenditures could stimulate the demand for new technological products and allow Russia to do technological leap-frogging (Glaziev 2013).

Nevertheless, GPV 2020's composition makes it less likely that scientific stimulus was a major argument when the program was drafted. Out of the 20 trillion rubles in the budget, only 10% is earmarked for R&D projects (Popovkin 2011). Moreover, the program's emphasis on "modern" equipment does not necessarily mean equipment at the technological forefront. This peculiarity

may be seen in many of the projects within GPV 2020, but here I will provide just one example: tactical aviation. Of 192 known planned purchases, only the 100 Su-34 (Fullback) fighter bombers may rightly be described as modern. The 60 Su-30 SM (modernized Flanker-C) fighter aircraft are of questionable modernity, while the 32 Su-30M (modernized Flanker-C) and MiG-29SMT (modernized Fulcrum-E) multi-role fighters are technologically outdated (known procurement plans are *inter alia* accounted for in Connolly and Sendstad 2016, 4). According to one source, the MoD initially wanted to buy weaponry that "was at least on the technologically level with Western equivalents, and preferably better", but because they were in such a hurry, they by and large had to settle with equipment that were already in mass production with the domestic industry (Author's interviews 2014). Minister of Defense Serdiukov reportedly also preferred "off the shelf" purchases to R&D projects, arguing that R&D projects were heavily infested with corruption (Author's interviews 2014).

Subnational interests: personal gains and preservation of power

The two official explanations for the rise in defense spending, outlined above, both see the rise in defense burden in light of national interests. Alternatively, we may interpret the high priority accorded to defense in Russia today as an outcome of the political system that has developed during Vladimir Putin's time in power. Russia may be described as what Douglass C. North, John Joseph Wallis, and Barry R. Weingast (2009) call a "limited access order"; that is, a state where only elite groups have access to valuable resources. Influential groups compete with one another for resources, with the president as the influential adjudicator offering access to state finances in exchange for political loyalty (Minchenko with Petrov 2012). Within such a system, the "national interest" underlying policy initiatives tends to become infused with the "special inerests" of the actors (Kononenko 2011, 7; Shlapentokh and Arutunyan 2013, 25B26).

Personal gains

One common elite interest is personal enrichment (Hanson 2011, 123). Quantitative studies have found a positive correlation between high levels of corruption and defense spending (Gupta, de Mello and Sharan 2001). The current Russian regime is characterized by high levels of corruption (Dawisha 2014), and thus personal gains could be a motivation for allocating money to the defense sector. The Russian general procurator in 2011 estimated that approximately every fifth ruble allocated for the state defense order is lost in corruption (Yamshanov 2011). The fact that the government and president continue to state that it is important to combat corruption within the military indicated that the problem persists (see for example Putin 2015).

As described, parliamentary control over Russia's defense budget is weak. Adding to this, the state corporations, through which most of the state defense order is channeled, have a legal status that makes them less transparent and thus ideal for hiding corruption (Hanson 2011,123). Despite receiving budgetary funds, the corporations are subject to neither budgetary code nor bankruptcy legislation (Sutela 2010, 66; Hanson 2011, 123). Hence, formal state oversight and reporting requirements are minimal. A reorganization of the Russian defense industry in the second half of the 2000s further blurred the borders between commercial, sectoral, and state interests. In this process, the military-industrial complex was taken under control by the state and gathered in large corporations, and their boards were joined by people from among Putin's closest associates, many

of whom were also in government (Blank 2008, 50B52; Kryshtanovskaya and White 2011, 28). Just to provide one example: when GPV 2020 was drafted in 2009–2010, Sergei Ivanov, who had been Minister of Defense from 2001 to 2007, served concurrently as a deputy prime minister in the government, the head of the government's Military-Industrial Commission responsible for drafting the GPV and the state defense order, and as a member of the United Aircraft Corporation's (UAC) board of directors. Established in 2006, the UAC is responsible for most of the development, production, sales, support, repair, and disposal of civilian and military aircraft in Russia. The corporation has been a major beneficiary of the state defense order in the last six years, with orders in the magnitude of a hundred airplanes annually.

Popular support

Another common elite interest is preservation of power (Hanson 2011, 123). Even though the question of how large a share of its economy a state should spend on defense is often presented as a gun versus butter dilemma, defense spending may also be motivated by political leaders' desire to maintain popular support (Whitten and Williams 2011). The present Russian regime largely bases its popular support on those whose income is dependent upon the size of government expenditure, known in Russia as the *byudzhetniki*. Among the *byudzhetniki*, the employees of the armed forces and the traditional industries are some of the most active and loyal in demonstrating regime support (Fond 2016). Today, roughly two million people work in the Russian defense industry (Sharkovskii 2016). The figure is equal to about 2.6% of the Russian work force; however, the share of population working in the defense industry is much higher in some regions. Moreover, an additional three million people are dependent upon the income from this sector of the Russian economy (Sharkovskii 2016).

The large state orders made since 2011 secured many workplaces for another couple of years. As of 2015, the official register of defense companies involved in implementing the state defense order encompassed a total of 1,339 companies. An additional 1,000 enterprises were engaged in cooperative projects. Adding subcontractors, the total number of enterprises involved in implementing the state defense order was about 4,000 (Shevtsova 2015). The defense order's function as a political tool against unemployment and socio-economic unrest was acknowledged by Deputy Minister of Defense, Tat'yana Shevtsova, in a recent statement. In her words:

... the present level of Russian military expenditures do not reflect the costs of the army or the navy. The defense budget is an instrument for supporting domestic industry, in particular, the high-technological part. (Shevtsova quoted in Sharkovskii 2016, author=s translation)

The government's concern with maintaining work places in the traditional industries in the regions can also be seen in their response to two recent economic crises. During the economic crisis of 2008–2009, 64 defense companies were included in the official list of companies that were considered eligible for additional financial support in times of economic crisis due to their status as a national or regional major employer or contributor to GDP (Popovkin 2009). A similar list that was developed in 2015 included 39 major producers of military equipment, including air defense missile systems producer Almaz-Antei, the United Aircraft Corporation, the United Shipbuilding Corporation, Rostec, and the Uralvagonzavod machine building plant (TS VPK 2015). Large

defense orders were the main reason regions such as Bryansk, Tula, Vladimir, Mari-El, and Ul'yanovsk maintained a stable socio-economic situation during the 2015 recession (Zubarevich 2016).

The best example of how the state defense order has been used to secure popular support for the ruling elite, however, is probably Vladimir Putin's 2012 presidential election campaign. Prior to the elections, the approximately 30,000 workers at the Uralvagonzavod machine-building plant were allegedly called upon to provide support for his candidacy. Activities included pro-Putin webpages, participation in pro-Putin rallies, and "corporate voting," as well as a much-commented-upon offer by foreman Igor Kholmanskikh to come to Moscow and help Putin end the street protests in the aftermath of the Duma election (Leonard 2012; Tanks 2012; The Winner Is 2012; Hill and Gaddy 2015, 122). In return for their support, Putin, upon his election, made one of his very first trips inside Russia to Uralvogonzavod and announced that the government would order 2,300 prepaid "new generation" tanks from the fabric. Not only did the statement go against the MoD's previous statements about planned tank acquisitions, the promise of a 100% prepayment also ran against the then-common practice for state defense orders (The Winner Is 2012).

In addition to supporting numerous jobs, many of the large-scale infrastructure projects that were initiated in 2008–2010, among them the preparation for the 2014 Winter Olympics in Sochi, and building activities in connection with the 2012 Asia-Pacific Economic Cooperation Summit in Vladivostok, appealed to patriotic sentiments in the Russian population. It seems reasonable to look at the state armament program as a similar enterprise. Russian political culture still harbors strong pro-military sentiments. To maintain a strong military is by most Russians still seen as necessary in order to continue to be counted among the great powers of the world. The annual opinion poll by the non-governmental research organization Levada shows increased support for the armed forces (Levada 2017a, 104–105). Furthermore, when the respondents in 2016 were asked about Putin's main achievements during his years in power, reform of the armed forces and restoration of Russia's military might was mentioned before economic development and restoration of law and order (Levada 2017a, 89). It is also worth noticing that President Putin, Prime Minister Medvedev and the Russian government all saw a steep increase in their popularity following the 2014 annexation of Crimea (Levada 2017b). Following this argument, a more assertive Russian foreign policy and focus on military power may be seen as a response to domestic problems, in particular growing political discontent and stagnation of the economy (McFaul 2014; Treismann 2014). As Stephen Blank (2016) puts it, "Since Putin can no longer offer bread; i.e. economic progress, he instead now offer circuses; i.e. cheap, but risky, foreign adventures that nevertheless make Russia seemingly look strong."

Although using the defense budget for regional policy aims or for reducing unemployment is in no way unique to Russia, defense spending for non-military reasons is not without risks. Spending motivated by employment concerns and power projection may have a negative impact on the long-term development of the Russian defense industry as it gives motivation for maintaining a vast variety of weapon systems and platforms and keeping non-competitive factories alive (Gaddy and Ickes 2013). It follows from this that defense allotments are not necessarily distributed according to identified military needs or spent in the way that yields the most bang for the buck. Russia's procurement plans for fighter planes again provide an illustrative example. Within the

framework of GPV 2020, the MoD simultaneously aims to buy four new or relatively new types of fighter planes (Su-34, Su-35c, Su-30SM, and MiG-29K), develop a new generation fighter (PAK FA/T-50), and carry out modernization of four different types of older fighter planes (MiG-31BM, Su-25SM, Su-24M, and Tu-22MZ). From both a defense economic and an operational perspective, money would have been spent much more efficiently if a smaller variety of platforms had been chosen (Balashov and Martyanova 2015, 38). This being said, Russian operational capability has increased significantly in the last couple of years. This is obvious not least from the strategic exercises they conduct (see Nordberg et al. 2016).

Conclusions

In 2009–2010, Russia's political leadership decided to embark on a program of rapid rearmament, which in turn drove an expansion in overall defense expenditure that lasted at least until 2016. The initiative to speed up the rearmament process came from the Ministry of Defense and the General Staff of the Armed Forces, who argued that most of the existing equipment had already exceeded more than double its expected life span and needed to be taken out of service by 2020. This argumentation was backed by evidence of the armed forces' poor performance during the 2008 war with Georgia and increasing security concerns following *inter alia* NATO's enlargement and US plans for ballistic missile defense elements in Europe. Adding to this was the perceived increased strength of Russia during Putin's two first presidential terms. The high priority given to defense has further been facilitated by a previous long period of strong economic growth and a political system that favors spending on security both for institutional and personal reasons.

In the West, the rise in Russian defense spending starting from 2010 has been explained in the light of balance of power theory. The rearmament process has been interpreted as one of several elements of a more assertive Russian foreign policy. It has also frequently been seen as a defensive response to what Russia's political authorities perceive as encirclement. In this article, I argue that there is an interplay between domestic and foreign policy dynamics and that they have reinforces each other during the period of examination. I find that using the state defense order to maintain industrial employment in Russia's regions in times of economic crisis is likely to be an important part of the explanation for why Russia's political leadership has by and large followed through with the rearmament plans despite less favorable macroeconomic conditions. The restoration of Russia as a strong military power has also appealed to patriotic sentiments in the Russian population and served as a legitimating device in the current political system. The findings suggest that high levels of defense spending may be politically sustainable in Russia, at least in the medium term, even though it comes at the cost of other public goods.

Notes

1. A total of six interviews with actors involved in drafting the 2011–2020 state armament program were conducted by a local partner in the summer and autumn of 2014. The interviewees were current and former high-ranking representatives from the Ministry of Defense and the Ministry of Finance, a major Russian defense corporation, and a federal subject with a high number of defense companies. Because information on military procurement is subject to the law on "state secrets," all interviewees have been fully anonymized.

Acknowledgements

The author is grateful to Ruslan Pukhov and Konstantin Makienko (Centre for Analysis of Strategies and Technologies), Tor Bukkvoll and Cecilie Sendstad (Norwegian Defence Research Establishment) and the two anonymous reviewers for comments on earlier drafts. I would also like to thank Susanne Oxenstierna and Tomas Malmlöf (Swedish Defence Research Agancy) and Richard Connolly (University of Birmingham) for useful discussions that helped in the preparation of this article.

References

Achasov, Oleg B. 2012. "Kompleksnyi podkhod k formirovaniyu dokumentov voennotekhnicheskoi politiki_ otlichitel" naya cherta issledovanii instituta [The Complex Approach to Formation of Documents of Military-Technical Policy-Distinctive Characteristics of a Research Institute]." *Vooruzheniie i Ekonomika* 20 (4): 20–25. http://elibrary.ru/item.asp?id=19960635.

Albalate, Daniel, Germà Bel, and Ferran Elias. 2012. "Institutional Determinants of Military Spending." *Journal of Comparative Economics* 40 (2): 279–290.

Allison, Graham and Philip Zelikow. 1999. *Essence of Decision: explaining the Cuban missile crisis*. New York: Longman. 2nd ed.

Averre, Derek. 2016. "The Ukraine Conflict: Russia's Challenge to European Security Governance." *Europe-Asia Studies* 68 (4): 699–725.

Åslund, Anders. 2013. "Sergey Glazyev and the Revival of Soviet Economics." *Post-Soviet Affairs* 29 (5): 375–386.

Baev, Pavel. 2011. "Crooked Hierarchy and Reshuffled Networks: Reforming Russia's Dysfunctional Military Machine." In *Russia as a Network State*, edited by Vadim Kononenko and Arkady Moshes, 62–80. New York: Palgrave Macmillan.

Bakkaus, M.F. 2009. "K voprosu o probleme osnashcheniya Vooruzhenykh Sil sovremennym vooruzheniem i raspredeleniya raskhodov na ikh zakupku i proedanie [On the Question of Equipping the Armed Forces with Modern Weapons and the Allocation of Resources for This Purpose and for Feeding]." *Voennaya Mysl'*, no. 2: 65–69.

Balashov, A.I., and Ya. V. Martyanva. 2015. "Reindustrializatsiya rossiiskoi ekonomiki i razvitie oboronno-promyshlennogo kompleksa [The Reindustrialization of the Russian Economy and the Development of the Military-Industrial Complex]." *Voprosy Ekonomiki* 9: 31–44.

Barabanov, Mikhail, ed. 2009. The Tanks of August. Moscow: CAST.

Baran, Paul A., and Paul M. Sweezy. 1966. *Monopoly Capital: An Essay on the American Economic and Social Order*. New York: Monthly Review Press.

Blank, Stephen. 2008. "Ivanov, Chemezov, and State Capture of the Russian Defense Sector." *Problems of Post-Communism* 55 (1): 49–60.

Blank, Stephen 2016. "The Years of Living Dangerously." April 28. http://intersectionproject.eu/article/security/years-living-dangerously

Bove, Vincenzo, and Roberto Nistico. 2014. "Military in Politics and Budgetary Allocations." *Journal of Comparative Economics* 42 (4): 1065–1078.

Bukkvoll, Tor. 2009. "Russia's Military Performance in Georgia." *Military Review*, November – December: 57–62.

http://usacac.army.mil/CAC2/MilitaryReview/Archives/English/MilitaryReview_20091231_art0 09.pdf.

Burenok, V. 2008. "Vzglyad v budushchee [A Look into the Future]." *Vozduzhnokosmicheskaya Oborona* 1: 28–37.

Burenok, V. 2012. "Evolyutsiya i perspektivy programno-tselevogo planirovaniya razvitiya sistemy vooruzheniya Rossiiskoi Federatsii [Evolution of and Prospects for the Development of the Russian Federation=s Purpose-Oriented System of Defense Procurement]." *Vooruzheniie i Ekonomika* 20 (4): 6–19.

CAST (Centre for the Analysis of Strategies and Technologies). 2015. *Gosudarstvennye programmy vooruzheniya Rossiiskoi Federatsii: problem ispolneniya i potentsial optimizatsii* [The State Armament Programs of the Russian Federation: Implementation Problems and Potential for Improvement]. Moscow: CAST

Connolly, Richard, and Cecilie Sendstad. 2016. "Russian Rearmament: An Assessment of Industrial Performance." *Problems of Post-Communism*. Advanced online publication. doi:10.1080/10758216.2016.1236668.

Conrad, Justin, Hong-Cheol Kim, and Mark Souva. 2013. "Narrow Interests and Military Resource Allocation in Autocratic Rgimes." *Journal of Peace Research* 50 (6): 737–750.

Cooper, Julian. 2010. "The 'Security Economy'." In *The Politics of Security in Modern Russia*, edited by Mark Galeotti, 145–170. Farnham: Ashgate.

Cooper, Julian. 2016. Russia's State Armament Programme to 2020: A Quantitative Assessment of Implementation 2011–2015. Stockholm: FOI.

Crane, Keith, and Artur Usanov. 2010. "Role of High-Technology Industries." In *Russia after the Global Economic Crisis*, edited by Anders Åslund, Sergei Guriev, and Andrew C. Kuchins, 95–124. Washington, DC: Peterson Institute for International Economics.

Dawisha, Karen. 2014. Putin's Kleptocracy. New York: Simon & Schuster.

Dunne, J. Paul, and Sam Perlo-Freeman. 2003. "The Demand for Military Spending in Developing Countries: A Dynamic Panel Analysis." *Journal of Defence and Peace Economics* 14 (6): 461–474.

Dunne, J. Paul, Sam Perlo-Freeman, and Ron P. Smith. 2008. "The Demand for Military Expenditure in Developing Countries: Hostility versus Capability." *Journal of Defence and Peace Economics* 19 (4): 293–302.

Dunne, J. Paul, Ron P. Smith, and Dirk Willenbockel. 2005. "Models of Military Expenditure and Growth: A Critical Review." *Journal of Defence and Peace Economics* 16 (6): 449–461.

Federal Treasury (*Federal'noe kaznacheistvo*). 2017. "Konsolidirovannyi byudzhet Rossiiskoi Federatsii i byudzhetov gosudarstvennykh vnebyudzhetnykh fondov [Consolidated Budget of the Russian Federation and Budgets of the State Extrabudgetary Funds]." http://www.roskazna.ru/ispolnenie-byudzhetov/konsolidirovannyjbyudzhet/191/

Fedorov, Yurii. 2013. "Gosudarstvenaya programma vooruzhenii-2020: vlast i promyshlennost' [The State Armament Program 2020: State and Industry]." *Indeks Bezopasnosti* 4 (19): 41–59.

Finance Minister. 2011. "Finance Minister Kudrin Fired on President's Request." *RT*, September 26. https://www.rt.com/news/medvedev-kudrin-suggests-resign-385/

Flynn, Michael E. 2014. "Military Leadership, Institutional Change, and Priorities in Military Spending." *Foreign Policy Analysis* 10 (2): 103–126.

Fond (Fond Razvitiya Grazhdanskogo Obshchestva). 2016. "Putinskoe bol'shinstvo: struktura, dinamika, politicheskie predpochteniya [Putin's Majority: Structure, Dynamics, and Political Preferences]," May 5. http://civilfund.ru/mat/view/100

Fordham, Benjamin O., and Thomas C. Walker. 2005. "Kantian Liberalism, Regime Type, and Military Resource Allocations: Do Democracies Spend Less?" *International Studies Quarterly* 49 (1): 141–157.

Frolov, A. 2010. "Gosudarstvennaya programma vooruzheniya Rossii na period 2011–2020 godov [The Russian State Armament Program for the years 2011–2020]." *Eksport Vooruzhenii*, March–April: 2–3.

Gaddy, Clifford G., and Barry W. Ickes. 2013. *Bear Traps on Russia's Road to Modernization*. Abingdon: Routledge.

Glaziev, Sergei. 2013. *O tselakh, problemakh i merakh gosudarstvennoi politiki razvitiya i integratsii* [On Objectives, Problems, and Means in the Government's Development and Integration Policy]. Moscow: Russian Academy of Sciences.

Goldsmith, Benjamin E. 2003 "Bearing the Defense Burden, 1886–1989. Why Spend More?"

Journal of Conflict Resolution 47 (5): 551–573.

Gosudarstvennaya. 2010. "Gosudarstvennaya programma vooruzheniya [The State Armament Programme]." *Krasnaya Zvezda*, December 29. http://old.redstar.ru/2010/12/29_12/2_01.html.

Gupta, Sanjeev, Luiz de Mello, and Raju Sahran. 2001. "Corruption and Military Spending." *European Journal of Political Economy* 17 (4): 749–777.

Haas, Marcel de. 2010. Russia's Foreign Security Policy in the 21st Century. Abingdon: Routledge.

Hanson, Philip. 2011. "Networks, Cronies and Business Plans: Business–State Relations in Russia." In *Russia as a Network State*, edited by Vadim Kononenko and Arkady Moshes, 113–138. New York: Palgrave Macmillan.

Hanson, Philip. 2012. "The Russian Budget: Why So Much Fuss?" *Russian Analytical Digest*, no. 121, December: 2–4.

Hewitt, Daniel. 1992. "Military Expenditures Worldwide: Determinants and Trends, 1972–1988." *Journal of Public Policy* 12 (2): 105–152.

Hill, Fiona, and Clifford G. Gaddy. 2015. *Mr. Putin: Operative in the Kremlin*. Washington, DC: The Brookings Institution.

Karlik, A.E. 2016. "Oboronnaya promyshlennost' kak draiver rossiiskoi ekonomiki [The Defense Industry as a Driver for the Russian Economy]." *Ekonomicheskoe Vozrozhdenie Rossii* 2 (48): 32–37.

Karlik, A.E., Zh. Fontanel', and A.V. Shcherbinin. 2012. "Perspektivy razvitiya rossiiskogo oboronno-promyshlennogo kompleksa [Perspectives on the Development of the Russian Military-Industrial complex]." *Ekonomicheskoe Vozrozhdenie Rossii* 3 (33): 24–28.

Kononenko, Vadim . 2011. "Introduction." In *Russia as a Network State*, edited by Vadim Kononenko and Arkady Moshes, 1–18. New York: Palgrave Macmillan.

Kryshtanovskaya, Olga, and Stephen White. 2003. "Putin's Militocracy." *Post-Soviet Affairs* 19 (4): 289–306.

Kryshtanovskaya, Olga, and Stephen White. 2009. "The Sovietization of Russian Politics." *Post-Soviet Affairs* 25 (4): 283–309.

Kryshtanovskaya, Olga, and Stephen White. 2011. "The Formation of Russia's Network Directorate". In *Russia as a Network State*, edited by Vadim Kononenko and Arkady Moshes, 19–38. New York: Palgrave Macmillan.

Legvold, Robert. 2016. Return to Cold War. Cambridge: Polity.

Leonard, Peter. 2012. "Tank Town a Welcome Bastion of Putin Support." *The Moscow Times*, February 29.

https://themoscowtimes.com/news/tank-town-a-welcome-bastion-of-putin-support-12931

Levada. 2017a. *Obshchestvennoe mnenie* 2016. Moscow: Analiticheskii tsentr Juriya Levady. http://www.levada.ru/sbornik-obshhestvennoe-mnenie/obshhestvennoe-mnenie-2016/om-2016/.

Levada. 2017b. "Odobrenie organov vlasti". https://www.levada.ru/indikatory/odobrenie-organov-vlasti/.

Lo, Bobo. 2015. Russia and the New World Order. London: Chatham House.

McDermott, Roger N. 2009. "Russia's Conventional Armed Forces and the Georgian War." *Parameters* 39 (1): 65–80.

McFaul, Michael 2014. "Moscow's Choice." *Foreign Affairs*, November/December. https://www.foreignaffairs.com/articles/eastern-europe-caucasus/2014-10-17/faulty-powers

Medvedev, Dmitri. 2009. "Go Russia!" September 10. http://en.kremlin.ru/events/president/news/5413

Minchenko, E., with K. Petrov. 2012. "Vladimir Putin's Big Government and Politburo 2.0." http://minchenko.ru/en/insights/analitics_6.html

Minchenko, E., with K. Petrov. 2013. "Politburo 2.0. Ahead of a Realignment of Elite Groups." http://minchenko.ru/en/insights/analitics 5.html

Ministry for Economic Development (Ministerstvo ekonomicheskogo razvitiia Rossiiskoi Federatsii). 2010. *Prognoz sotsialno-ekonomicheskogo razvitiia Rossiiskoi Federatsii na 2011–2013 gody* [Socio-economic Forecast for the Russian Federation, 2011–2013]. Moscow: Minekonomrazvitiia Rossii.

Ministry of Defense Encyclopedia. n.d. "Gosudarstvennaya programma vooruzheniya (GPV) [The State Armament Program]."

http://encyclopedia.mil.ru/encyclopedia/dictionary/details.htm?id=12954@morfDictionary

Mukhin, Vladimir. 2009. "Gosudarstvennaya ideya nedovooruzheniya [The State Idea of Underarming]." *Nezavisimoe Voennoe Obozrenie*, January 19. http://nvo.ng.ru/wars/2009-01-19/1_idea.html.

Nikol'skii, A., V. Kholmogorov, and M. Tovkailo. 2010. "VVP na oruzhie [GDP on Weapons]." *Vedomosti*, June 4.

Nordberg, Johan and Fredrik Westerlund with contributions from Carolina Vendil Pallin and Roger Roffey. 2016. "Russia's Armed Forces in 2016". In Russian Military Capability in a

Ten-Year Perspective – 2016, edited by Gudrun Persson, 23–66. Stockholm: FOI.

Nordhaus, William, John R. Oneal, and Bruse Russett. 2012. "The Effects of the International Security Environment on National Military Expenditures: A Multicountry Study." *International Organization* 66 (3): 491–513.

North, Douglass C., John Joseph Wallis, and Barry R. Weingast. 2009. *Violence and Social Orders*. Cambridge: Cambridge University Press.

Orlov, Dmitrii. 2011. "100 vedushchikh politikov Rossii v 2010 godu [The100 Most Important Politicians in Russia in 2010]." *Nezavisimaya Gazeta*, January 12. http://www.ng.ru/ideas/2011-01-12/9_top100.html.

Orlov, Dmitrii. 2017. "100 vedushchikh politikov Rossii v 2016 godu [The 100 Most Important Politicians in Russia in 2017]." *Nezavisimaya Gazeta*, January 11. http://www.ng.ru/ideas/2017-01-11/5_6899_100politik.html.

Oxenstierna, Susanne. 2016. "Russia-s Defense Spending and the Economic Decline." *Journal of Eurasian Studies* 7 (1): 60–70.

Pallin, Carolina Vendil. 2009. Russian Military Reform. Abingdon: Routledge.

Pis'mennaya, Evgeniya. 2013. *Sistema Kudrina* [Kudrin's System]. Moscow: Mann, Ivanov & Ferber.

Popovkin, Vladimir. 2009. "Novym vooruzhennym silam, novoe oruzhie [New Armed Forces, New Weapons]." *Rossiiskoe Voennoe Obozrenie*, no. 3: 18–20.

Popovkin, Vladimir. 2011. "Perspektivy perevooruzheniya vooruzhennykh sil Rossiiskoi Federatsii [Perspectives on the Rearmament of the Armed Forces of the Russian Federation]." *Rossiiskoe Voennoe Obozrenie*, no. 3: 15–20.

Posen, Barry R. 1984. The Sources of Military Doctrine: France, Britain, and Germany between the world wars. Ithaca, N.Y.: Cornell University Press.

Putin, Vladimir V. 2011. "Otchet o deyatel'nosti Pravitel'stva Rossiiskoi Federatsii za 2010 god [Report on the Work of the Russian Government in 2010]." April 20. http://archive.government.ru/docs/14898/

Putin, Vladimir. 2007. "Speech and the Following Discussion at the Munich Conference on Security Policy". February 10. http://en.kremlin.ru/events/president/transcripts/24034

Putin, Vladimir. 2012a. "Byt sil'nymi: garantii natsional'noi bezopasnosti dlya Rossii [Being Strong: A National Security Guarantee for Russia]." *Rossiiskaya Gazeta*, February 20. https://rg.ru/2012/02/20/putin-armiya.html.

Putin, V. 2012b. "Being Strong: Why Russia Needs to Rebuild its Military." *Foreign Policy*, February 21. http://foreignpolicy.com/2012/02/21/being-strong/.

Putin, Vladimir. 2015. "Vystuplenie Prezidenta Rossii Vladimira Putina na rasshirennom zasedanii Kollegii Stjetnoi palaty, posvyashchennom 20-letiyu so dnya obrazovaniya vedomstva" [Speech by President Vladimir Putin at the expanded meeting of the Collegium of the Accounts Chamber devoted to the institution's 20th anniversary]. undated. http://audit.gov.ru/20-years-the-chamber/the-speech-of-the-president-of-russia-vladimir-putin-at-the-enlarged-session-of-the-collegium-of-the.php?clear_cache=Y.

Rearmament. 2012. "Rearmament of Russian Army to Boost Economy – Dvorkovich." *RIA Novosti*, May 2.

Renz, Betina. 2006. "Putin's Militocracy? An Alternative Interpretation of Siloviki in Contemporary Russian Politics." *Europe-Asia Studies* 58 (6): 903–924.

Rivera, David. W., and Sharon. W. Rivera. 2013. "Is Russia a Militocracy? Conceptual Issues and Extant Findings Regarding Elite Militarization." *Post-Soviet Affairs* 30 (1): 27–50.

Rogozin, Dimitrii. 2013. "OPK budet gordostyu Rossii [The Military-Industrial Complex Will Become the pride of Russia]." *Voenno-promyshlennyi Kur'er 5 (473):* 8

Romer, Paul M. 1986. "Increasing Returns and Long Run Growth." *Journal of Political Economy* 94 (5): 1002–1037.

Russian Federal Government. 2008. *Concept of Long-Term Social and Economic Development of the Russian Federation Until 2020*. November 17. http://government.ru/en/info/6217/

Rutland, Peter. 2016. "The Place of Economics in Russian National Identity Debates." In *The New Russian Nationalism*, edited by Pål Kolstø and Helge Blakkisrud, 336–361. Edinburgh: Edinburgh University Press.

Seiglie, Carlos. 1992. "Determinants of Military Spending." In *Economics of Arms Reduction and the Peace Process*, edited by W. Isard and C.H. Anderton, 183–2020. Amsterdam: North Holland.

Sharkovskii, Aleksandr. 2016. "Gosoboronzakaz stimuliruet promyshlennost [The State Defense Order Stimulates Industry]." *Nezavisimoe Voennoe Obozrenie*, April 22. http://nvo.ng.ru/realty/2016-04-22/8_goszakaz.html

Shevtsova, Tat'yana. 2015. "Sokhranenie u raskhodov na oboronu: neobkhodimoe uslovie stabil'nosti segodnya i ekonomicheskogo rosta v budushchem [Preserving Military Expenditures: A Necessary Condition for Present Stability and Future Economic Growth]." *Eksport Vooruzhenii*, no. 1: 61–65.

Shlapentokh, Vladimir, and Anna Arutunyan. 2013. Freedom, Repression and Private Property in Russia. Cambridge: Cambridge University Press.

Shunkov, Viktor N. 2013. *Polnaya entsiklopediya vooruzheniya Rossii* [Complete Encyclopedia of Russian Arms]. Moscow: AST.

Sonin, Konstantin. 2015. "Siloviki Are Bankrupting Russia." *The Moscow Times*, March 22. https://themoscowtimes.com/articles/siloviki-are-bankrupting-russia-45004.

State Duma Defense Committee (*Komitet Gosudarstvennoi Dumy po oborone*). 2015. "Zaklyuchenie po proektu federal'nogo zakona no. 911755 'O federal'nom byudzhete na 2016 god' [Concluding Remarks on the Draft Federal Law no. 911755-6 'On the Federal Budget for 2016']," October 30. http://asozd2.duma.gov.ru/main.nsf/(Spravka)?OpenAgent&RN=911755-6

Sutela, Pekka. 2012. The Political Economy of Putin's Russia. Abingdon: Routledge.

Tanks. 2012. "Tanks for Your Support: Putin Offers Rep. Post to Factory Foreman." *RT*, May 18. https://www.rt.com/politics/putin-position-plant-foreman-570/.

Taylor, Brian D. 2011. State Building in Putin's Russia. Cambridge: Cambridge University Press.

Treisman, Daniel. 2014. "The Two Putins." *CNN Opinion*, March 4. http://edition.cnn.com/2014/03/03/opinion/treisman-two-putins/index.html.

Trenin, Dmitri. 2016. "The Revival of the Russian Military." *Foreign Affairs*, May/June. https://www.foreignaffairs.com/articles/russia-fsu/2016-04-18/revival-russianmilitary

TS VPK. 2015. "Ekonomika VPK Rossii [The Economy of the Russian Military-Industrial Complex]." http://www.vpk.ru/cgi-bin/uis/w3.cgi/CMS/Item/252146

Tsygankov, Andrei. 2015. "Vladimir Putin's Last Stand: The Sources of Russia's Ukraine Policy." *Post-Soviet Affairs* 31 (4): 279–303.

Urnov, Mark. 2012. "Russian Modernization Doctrines under Debate." In *Waiting for Reform under Putin and Medvedev*, edited by Lena Jonsson and Stephen White, 38–58. New York: Palgrave Macmillan.

Whitten, Guy D., and Laron K. Williams. 2011. "Buttery Guns and Welfare Hawks: The Politics of Defense Spending in Advanced Industrial Democracies." *American Journal of Political Science* 55 (1): 117–134.

Welch, David A. 1998. "A Positive Science of Bureaucratic Politics?" *Mershon International Studies Review* 42 (2): 210–216.

Winner. 2012. "The Winner Is" *Russian Defence Policy*. March 9. https://russiandefpolicy.wordpress.com/tag/uralvagonzavod/

Yamshanov, Boris. 2011. "Oruzhie daet otkaty [The Weapons Roll Back]." Rossiiskaya gazeta,

May 24. https://rg.ru/2011/05/24/fridinskij.html

Zubarevich, Natal'ya. 2016. "Tri tipa regionov sokhranyat rost proizvodstva v 2016 godu [Three Types of Regions Preserved Industrial Growth in 2016]." *Novaya gazeta*, January 3. https://www.novayagazeta.ru/articles/2016/01/03/66976-natalya-zubarevich-171-tri-tipa-regionov-sohranyat-rost-proizvodstva-v-2016-godu-187.