The Russian economy and military expenditure in light of the war in Ukraine and economic sanctions

Susanne Oxenstierna and Emil Wannheden[1]

In response to Russia's invasion of Ukraine on 24 February 2022, the West imposed new economic sanctions on Russia. How do Russia's war in Ukraine and Western sanctions affect the Russian economy and military expenditure? The authors investigate long-term and recent trends and find that military expenditure has increased in 2022 and is planned to be kept at a high level in 2023. It is expected that the economic contraction in 2022 will be weaker than anticipated at the beginning of the year, but that the restrictions on access to Western technology will affect the economy negatively in the medium- and long-run.

Russia's war in Ukraine and the sanctions imposed by the West have changed the outlook for the Russian economy and military expenditure. The economy has suffered from low growth since the 2010s. Now the prospects are even worse, although the International Monetary Fund's (IMF) forecasts of an expected contraction in gross domestic product (GDP) 2022 have improved. In the beginning of the year, the IMF forecasted a decline in GDP of minus 8.5 per cent; in July this had improved to minus 6 per cent; and in October to minus 3.4 per cent (Interfax 2022; IMF 2022).

Russia's military expenditure has risen faster than its GDP in 2011–2021. In 2011, according to the Stockholm International Peace Research Institute (SIPRI 2022b), Russia's total military expenditure was USD 49 billion (in 2020 constant prices). In 2021, it was USD 63 billion, which represents an increase of 29 per cent (on average 3 per cent per year). GDP rose by 14 per cent during the same period (on average by 1.7 per cent per year) (IMF 2022). The share of total military expenditure in GDP has varied[2] and was 4.1 per cent on average during the period (SIPRI 2022b).

The 2019 edition of the recurrent Swedish Defence Research Agency (FOI) publication, *Russian Military Capability in a Ten-Year Perspective*,[3] includes the argument that the reason why military expenditure has grown faster than GDP is that the Russian political leadership has given political priority to defence over other public expenditure (Oxenstierna 2019: 97–98). In 2009, Russia started a military reform to modernise the Armed Forces (Vendil Pallin 2008), and in 2011 a large State Armament Programme, GPV-2020,[4] was launched (Cooper 2016). GPV-2020 significantly increased military spending and procurement rose from 30 per cent of total military expenditure in 2012 (1.3 per cent of GDP) to over 40 per cent in 2016 (2.4 per cent of GDP) (Oxenstierna 2019: 108).

How do Russia's war in Ukraine and Western sanctions affect the Russian economy and military spending? The purpose of this paper is to provide an overview, primarily based on secondary literature, of long-term and recent developments in the economy and military expenditure and the effects of the war and sanctions. The analysis focuses on trends in growth of GDP and military spending, the purpose is not to provide an estimate of the total cost for Russia of the war. As sources, it uses published Western analyses and data from the IMF and SIPRI, supplemented with Russian sources, when possible. Russian sources have been difficult to access and use in 2022 due to the fact that once published materials disappear and websites are blocked. In the present analysis of the federal budget, the

1 The authors are indebted to Cecilie Sendstad, Per Olsson and Julian Cooper for valuable comments on the draft of the memo. We are grateful to Richard Langlais for language editing. Any remaining errors or deficiencies of clarity are of our own making.

2 See further in Figure 3 below.

3 This publication has appeared about every third year since the late 1990s. In total, nine reports have been published in the series. The reports contain in-depth analyses of Russia's Armed Forces, security policy, economy and defence industry.

4 *Gosudarstvennaia programma vooruzheniia 2011-2020* (GPV-2020).

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Russian Federal Treasury's monthly reports on budget implementation are used to calculate spending on the budget item "national defence" 2011–2021. Since the Federal Treasury stopped releasing its monthly reports in April 2022, data from the draft federal budget for 2023 is used for the analysis of spending plans for 2022 and 2023.

The paper is organised as follows. The first part recapitulates the long-term economic development in Russia and the characteristics of Russia's political economy to provide a context for the recent development. Then, the effects of Western sanctions are discussed. The second part of the paper analyses both Russian military expenditure 2011–2021 and the trends for military and other public spending in 2022 and 2023. Finally, the conclusions are presented.

1. The Russian economy

After the financial crisis in 2009, when GDP dropped by 7.8 per cent, the Russian economy has grown slowly, by 1–2 per cent per year (Figure 1). In comparison, the average for 2000–2008 was 7 per cent per year. Growth during later years has been too weak for catching up with the leading economies of the world. Russia's gross national income (GNI)[5] is presently ranked 11th globally and 6th when adjusted for PPP, purchasing power parity (Georank 2022). Russia has 3 per cent of the global GDP (IMF 2022). The reasons for the high growth in the beginning of the 2000s were high oil prices, the market reforms introduced in the 1990s and early 2000s (the Gref plan)[6] and free capacity in the economy.

The low growth rate during the 2010s is due to several factors. Attempts to diversify exports in any radical way failed; Russia has a continuing dependence on incomes of hydrocarbon exports and is globally regarded as a commodity exporter. The economy is sensitive to the international oil price, which affects growth and federal budget incomes. In 2015, the oil price was more than halved and sanctions were imposed, following the 2014 illegal annexation of Crimea, which affected growth negatively. Furthermore, during the 2020s, Russia is experiencing a fall in the working age population, which leads to labour shortages that affect growth adversely. In 2030, according to projections, Russia's labour force will be 10 per cent less than in 2015 (Oxenstierna 2019: 100). The excess mortality[7] due to the Covid-19 pandemic may further have worsened these prospects (Oxenstierna 2021b: 32). In addition, there is low social mobility, low capitalisation of human capital and technological backwardness compared to the West. Several reasons behind the low growth rate are linked to Russia's political economy.

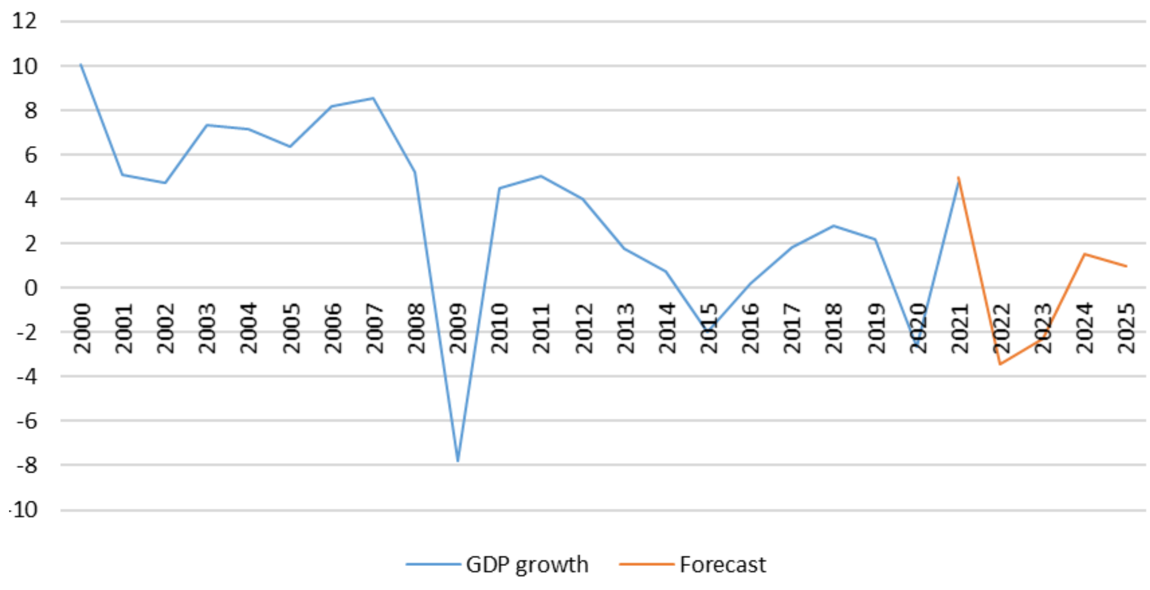

Figure 1: Growth of Russian GDP 2000–2025; *per cent*
Source: IMF (2022)
Note: Estimates from 2021.

5 GNI is GDP plus factor incomes earned by foreign residents minus income earned in the domestic economy by non-residents.

6 The Gref plan describes a set of comprehensive reform measures launched in 2000 by then minister of economic development Herman Gref. Gref is now the chairman of Russia's largest bank, Sberbank.

7 Excess mortality is defined as the number of deaths from all causes that exceeds the pre-pandemic average (Oxenstierna 2021b: 16).

1.1 The Russian political economy

Russia is neither a market economy nor a democracy. During the 1990s, elements of a market economy and democracy were introduced. Prices were liberalised, it became possible to start private businesses, political parties were created, and a civil society began to emerge. However, the reforms did not demolish the old Soviet structures and the economy, after Vladimir Putin became president, has become increasingly dominated by the state; approximately 70 per cent of the economy was controlled by the state in 2015.[8] The social climate is characterised by restricted civil liberties and increasing repression.

Douglass North et al. (2009, 2013) develop a framework that allows the analysis of societies that are neither democracies nor market economies. Societies with *limited access order* (LAO) are characterised by a leading political coalition that manipulates the economy so that different elites get access to rents from different economic activities and therefore abstain from challenging the leading coalition and using violence (North 2013: 3). What distinguishes countries with an LAO is that the power elite controls institutions and can differentiate the access to goods, services and financial means between actors and thereby guarantee allocation according to the ruling elite's preferences. By differentiating access, resources are allocated to socially and politically important groups, which strengthens the ruling elite (Connolly 2018: 32). The opposite of an LAO is an *open access order* (OAO), which describes a democratic market economy. An OAO has independent institutions, rule of law and markets with competition. In an OAO, it is more difficult for the power elite to differentiate access and prioritise between actors.

Richard Connolly (2018) and Andrei Yakovlev (2021) see Russia as an example of an LAO. The three dominating elites who developed in Russia after the dissolution of the Soviet Union are the members of the federal bureaucracy, the oligarchs and the security services. The oligarchs had political influence during the 1990s and in the beginning of the 2000s, but, after the mid-2000s,[9] their influence has diminished, and the security services dominate.

In the Russian economy, rents are created in the commodity sector, primarily in the oil and gas industry. The rents are used to finance other parts of the economy that the political leadership prioritises, e.g., the defence and the machine-building industries, which operate with soft budget constraints and are dependent on subsidies and other types of transfers, such as procurement outside competition, or purchases of goods at overprices. Because the loss-making companies are prioritised and have many employees, they constantly ask for more resources. Clifford Gaddy and Barry Ickes (2002, 2005, 2015) argue that this has led to "rent addiction," and rents must continuously be created in the energy sector to satisfy the "addicts" and ensure their politically important survival. The Russian state controls the rents in a "rent management system" that balances different elites (Gaddy & Ickes 2015). This entails that resources are transferred from a more efficient part of the economy to an inefficient part. This hampers productivity growth but supports companies and organisations that are favoured by the power elite. It follows that the political economy is not geared to fostering economic efficiency and growth but to granting the political leadership control over resource allocation and economic assets. Political considerations are prioritised and, as a result, economic growth stagnates.

Small- and medium-sized enterprises (SMEs) are the losers in the Russian political economy. They lack political influence and have problems getting credits and growing. SMEs are found in, e.g., trade, construction, transport, services and knowledge-intensive information and communication technology. This new private sector constitutes about 20 per cent of GDP, which is low when compared to a share of over 50 per cent in developed economies (Oxenstierna 2015: 97). The sector works under competition, with hard budget constraints, and survival depends on profitability and not on political contacts.

The Russian political economy creates conditions for corruption, since resource allocation is not governed by markets, but by political decisions. Russia is ranked 136 of 180 countries in Transparency International's Corruption Perceptions Index (Transparency International 2022). The economy shows low values in the Worldwide Governance Indicators (World Bank 2022a), which measure several institutional factors: rule of law, government effectiveness, regulatory quality, control of corruption, voice and accountability, and political stability and absence of violence/terrorism over time. These indicators show that institutions are weak in Russia, and they have deteriorated during Vladimir Putin's presidency (Oxenstierna 2015: 102–105).

8 Estimation based on different sources, including the IMF and the Russian Federal Anti-monopoly Service. The state-controlled segment of the economy includes the public sector, state-owned companies and partial state ownership (Connolly 2018: 38).

9 In 2003, Mikhail Khodorkovsky was imprisoned and his oil company, Yukos, was confiscated by the state. This is widely seen as a watershed for less economic influence in Russian politics. Many oligarchs left Russia.

FOI
Swedish Defence Research Agency
SE-164 90 Stockholm

Tel: +46 8 5550 3000
www.foi.se

1.2 Effects of sanctions

Experiences from the Western sanctions in connection with Russia's annexation of Crimea in 2014 and the war in Donbass show that they had limited effects on the Russian economy.[10] The sanction effect in terms of decline in GDP was estimated as 2.4 percentage points 2014–2017 (Gurvich & Prilepsky 2019: 40). Connolly (2018) argues that the fact that Russia has an LAO made the economy more resilient to sanctions than what had been expected by the West. For instance, Western sanctions attempted to squeeze the liquidity of state companies by reducing their access to international financial markets, but the Russian government recapitalised state banks and saw to it that priority sectors such as energy and defence received the financial means to continue production. Nevertheless, it was recognised that the sanctions hurt the economy and the political leadership engaged in import substitution to become more self-sufficient and developed various other ways to reduce vulnerabilities (Johnson & Oxenstierna 2022) and "securitise"[11] the economy. That Russia strengthened its economic security agenda is reflected in the Security Strategy from 2015 (Connolly 2018: 69–70).

Financial sanctions

The sanctions imposed after Russia's invasion of Ukraine on 24 February 2022 have been tougher than those imposed in 2014–2015. Sanctions have been imposed by the European Union (EU) and a multitude of Western and other countries, e.g.: Australia, Canada, Japan, Norway, United Kingdom (UK), United States (US), and Switzerland. The initial sanctions were aimed at the financial sector and included the freezing of the Central Bank of Russia's (CBR) and other state banks' assets abroad, the prohibition of transactions with these banks, exclusion of certain banks from the Society for Worldwide Interbank Financial Telecommunications (SWIFT) and restrictions on Russia's access to international financial markets.

The immediate effect of the sanctions against the Russian financial sector was turmoil on the financial markets and a fall of the rouble. The Moscow Exchange dived and was closed for nearly a month. In April, forecasts of the decline in Russian GDP were 8–10 per cent. In July, the IMF adjusted its original forecast of minus 8.5 per cent to one of minus 6 per cent, while the Central Bank of Russia's was set to minus 5 per cent (Intellinews 2022b); the IMF expected GDP to continue to fall by 3.5 per cent in 2023 (Interfax 2022). In October, the IMF further improved the prognoses to a contraction of just 3.4 per cent in 2022 and 2.3 per cent in 2023 (Figure 1).

Apart from the financial sector, economic sanctions targeted energy, transport and technology companies. Western actors are prohibited from engaging with Russian companies from these sectors. The EU closed its airspace for Russian aviation and prohibited road transportation from Russia and Belarus into the EU (EU 2022). Additionally, the EU and US have imposed sanctions on the export of advanced technologies to Russia. These include weapons and dual-use goods, such as semiconductors.

Energy sanctions

Investments in the Russian energy sector were prohibited, as well as import of Russian iron and steel. The US had already banned the import of Russian oil, gas and coal in March (White House 2022). The EU sanctioned the import of Russian coal in April, but due to EU's dependence on Russian oil and gas, these sanctions were delayed. Oil and refined oil products were sanctioned in June, but the sanctions will only come into effect in December, 2022, and February, 2023 (EU 2022). Russia started to decrease gas supplies through Nord Stream 1 in July and the EU agreed on a gas-saving plan for the winter of 2022–2023 (Council of Europe 2022). By the end of August, Russia had stopped gas deliveries through Nord Stream 1 altogether. Previously, Nord Stream 1 supplied 35 per cent of Russian gas to Europe (CNN 2022).

The main reason behind the forecasts of a milder depression in Russia is the high incomes from energy exports. Energy prices skyrocketed at the start of the war and, despite a fall in production, Russia earned USD 1 billion per day from its energy exports (Sonnenfeld et al. 2022: 10). This has weakened the financial sanctions aimed at reducing public finance and the financing of the war effort. Timely interventions from the Russian government and Central Bank mitigated some of the harm inflicted by sanctions. In August, the Russian budget ran a surplus of 0.5 per cent of GDP (Intellinews 2022c). The situation may change when EU's sanctions on oil enter into force in December 2022 and its sanctions on refined oil products take effect in February 2023. A large part of the gas trade has already ceased. Nevertheless, in the short run, energy export incomes have softened the effects of sanctions.

The Russian economist and former deputy minister of finance Sergey Aleksashenko anticipates that the most

10 For a full account of the sanctions 2014–2015 see Oxenstierna & Olsson (2015), Connolly (2018) and Oxenstierna (2018, 2021a).

11 Defined in the fields of international relations and national politics as the process of state actors transforming subjects from regular political issues into matters of "security."

damaging consequences for the Russian economy may come in 2023, after the withdrawal of global oilfield service companies, which announced their departure from Russia in March. The departure of foreign oilfield service companies will not stop the Russian oil industry but will severely slow its development (Free Russia 2022).

Europe is dependent on Russian gas and oil, but Russia is likewise dependent on Europe to sell its energy products, due to the vast pipeline system that carries Russian oil and gas to Europe. This system is not linked to the pipeline system going eastward to Asia, which is less extensive. Russia has only one existing pipeline to China; it can move only a fraction of the volume of its pipelines to Europe. Furthermore, substituting European with Asian customers poses challenges, because China pays less for the gas than Europe and there is a need for huge investments in infrastructure (Sonnenfeld et al. 2022: 22).

Technology sanctions and trade

In July, due to the war and sanctions, it looked as if Russia's imports had crumbled by over 50 per cent since February (Intellinews 2022a). Russia is integrated in the global economy and dependent on international supply chains, which means that reduced imports of inputs cause disturbances in production. The restrictions put in place by the West on the export of advanced technologies to Russia has led to disruptions in production and maintenance, a situation that the Central Bank noted as a problem for certain sectors in the economy (CBR 2022a: 6). For instance, aviation and car production have been severely hurt. Some branches resort to using existing products not currently in use to obtain spare parts for products that are in use (Sonnenfeld et al. 2022: 44). Russia is trying to substitute foreign technology with domestic products, so-called import substitution, but this is not possible in the case of advanced technologies. Based on technical inspection of Russian military equipment captured in Ukraine, Byrne et al. (2022: 5) find that Russia extensively uses Western-produced microelectronics in its military equipment. This indicates that these components cannot be produced domestically. The tighter export controls on these critical components complicate Russia's production of new weapons.

The prohibition and sharper controls on technology export to Russia from the West are probably the most serious consequences of the sanctions in the long-run and lower the economy's potential growth. The lower import combined with high energy earnings led to a high current account surplus of USD 166 billion in June (Intellinews 2022c). However, in the third quarter of 2022, the current account surplus was down, at USD 52 billion (BOFIT 2022). The current account surplus has strengthened the rouble.

New information on trade with Russia in October indicates that export to Russia has increased from third-party countries. Compared to a 5-year average, China has increased its export to Russia by 24 per cent since the invasion and imports grew by 98 per cent. Turkey has increased its export to Russia by 113 per cent and imports by 213 per cent, but India's export has decreased by 19 percent while import has grown by 430 per cent (New York Times 2022). The fact that Russia can import goods and services from non-sanctioning countries weakens the effects of the sanctions.

Withdrawal of foreign companies and "brain drain"

Over a thousand foreign companies are in the process of suspending or closing their activities in Russia (Sonnenfeld et al. 2022: 54). The reasons are that because of the war many companies do not want to be associated with Russia and sanctions rules have made it difficult to work there. These companies employed over 1 million persons. A large share of the foreign investment and expertise transferred to Russia is linked to these departing multinational companies, which have until now played a significant role in integrating Russia into the world economy. The Governor of the Central Bank, Elvira Nabiullina, recognises that this will affect the economy negatively (Sonnenfeld et al. 2022: 38–39).

Many specialists are trying to emigrate because of the war and the repression of civil society. The Russian Association for Electronic Communications (RAEC) estimated that 50–70,000 IT specialists had left the country in March and that another 100,000 would leave during the spring (Moscow Times 2022). This "brain drain" will have a devastating effect on the technological and economic development for a long time to come (Riddle 2022). Also, when potential investors can avoid the Central Bank's capital controls, they flee and take their capital elsewhere (Sonnenfeld et al. 2022: 57). The partial mobilisation announced by Vladimir Putin on 21 September 2022 has increased the number of men wanting to leave the country (Forbes 2022).

To conclude this section, the Russian economy displays the characteristics of an LAO, which means that it is governed by political priorities, with the result that the economy is characterised by low growth and technological backwardness, compared to the West. However, as an LAO, Russia was more resilient to the 2014–2015 sanctions than expected and this seems also to be the case in the present situation. As a commodity exporter, Russia is sensitive to variations in commodity prices and has become dependent on the Western technology that it cannot itself produce. High energy prices during 2022 have weakened the effects of sanctions, but forecasts indicate a contraction of GDP, although smaller than initially forecasted, in 2022 and 2023. The impact of restrictions on technology exports to Russia, the fact that international companies are withdrawing from the country, and "brain drain" are factors foreseen to affect the economy negatively in the medium- and long-term.

2. Military expenditure

The level of Russia's military expenditure gives an idea of what resources the Russian armed forces have access to, and the priority given to the military by the Russian government (Oxenstierna 2019: 97). How has military expenditure been affected by the war and economic sanctions? The analysis is done in two steps. The first part describes Russian military expenditure during the period 2011–2021; in other words, during the decade preceding the invasion of Ukraine in February 2022. Although the war in Ukraine started in 2014, the events of February 2022 represent a watershed in terms of the scale of Russia's war effort and the amount of resources it has spent on the war. The second part of the analysis describes how military expenditure and other public spending has changed in 2022 as a result of the war, and public spending trends for 2023 based on the Russian government's budget plan.

2.1 Data and definitions

In this text, two different terms are used to refer to military expenditure. "National defence" refers to the expenditure contained in the national defence budget item in the Russian federal budget. "Total military expenditure" refers to SIPRI's definition of military expenditure, which is a wider definition than the Russian national defence budget item.

Table 1 shows the composition of the national defence budget item for the years 2019–2021. The national defence budget item is used in Russian publications to describe Russian military expenditure and when comparing different types of Russian public spending (Oxenstierna 2019: 102).[12]

The SIPRI definition is standardised for all countries. It includes spending on the armed forces, including peacekeeping forces; defence ministries; paramilitary forces; military space activities; retirement pensions of military personnel; social services for personnel and their families; military research and development; and military aid (SIPRI 2022a). In the case of Russia, spending that is not included in the national defence budget line regards military pensions, spending on the National Guard and the Federal Border Service, among other items (Cooper 2013: 23–24). SIPRI's definition allows for comparisons between different countries.

Table 1: Disaggregated national defence budget 2019–2021; *current prices, billion RUB, per cent*

	Expenditures			Share of defence budget*		
	2019	**2020**	**2021**	**2019**	**2020**	**2021**
National defence, of which:	2 997	3 169	3 574	100.0	100.0	100.0
Armed Forces	2 216	2 329	2 636	73.9	73.5	73.8
Mobilisation and ex-forces training	8	8	8	0.3	0.3	0.2
Mobilisation of the economy	3	3	3	0.1	0.1	0.1
Collective security and peacekeeping	NA	3	8	NA	0.1	0.2
Nuclear weapons complex	46	47	47	1.5	1.5	1.3
International military cooperation	10	11	23	0.3	0.3	0.7
Applied R&D in the field of national defence	303	330	413	10.1	10.4	11.6
Other questions of national defence	411	438	435	13.7	13.8	12.2

Sources: Federal Treasury (2020, 2021, 2022); authors' calculations.
Notes: NA – not available/applicable. *Calculated by the authors. Numbers are rounded in Excel and may not add up to exactly 100 per cent.

12 For more information on the scope of each subcategory, see Cooper (2013: 17–19).

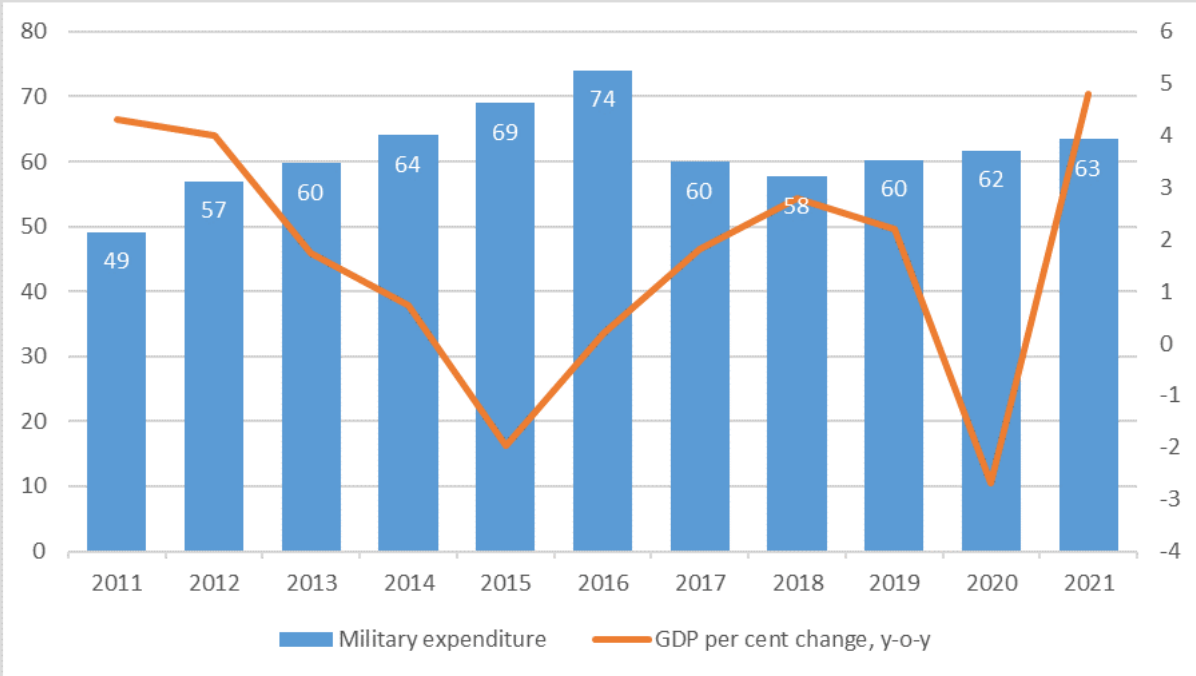

Figure 2: Russian total military expenditure 2011–2021 and GDP growth y-o-y 2011–2021; *constant (2020) billion US$, per cent*
Sources: SIPRI (2022b); World Bank (2022b).
Note: y-o-y – year on year

2.2 Military expenditure 2012–2021

In 2011, Russia's total military expenditure amounted to about USD 49 billion (expressed in constant 2020 USD prices[13]), and the Russian economy grew by 4 per cent per year (Figure 2). In the following years, total military expenditure increased, reaching a peak in 2016. This increase is in large part due to higher expenditure related to the GPV-2020, which aimed to modernise the Armed Forces with newer weapons and equipment (Oxenstierna 2019: 108). In 2017 and 2018, total military spending decreased. In 2019, the trend reversed again, and since then total military expenditure has grown every year, reaching USD 63.5 billion in 2021. The changes in total military expenditure have not been affected by the changes in the GDP growth rate, which turned negative in 2015 and 2020 (Figure 2).

Figure 3 shows total military expenditure as share of GDP for the period 2011–2021 for Russia, the US, China, and the EU member states.[14] The figure shows that Russia's government has chosen to allocate a high share of its GDP to total military spending compared to other countries. Since 2014, Russia has been spending a larger share of its GDP on its military than the US. The average share of total military expenditure in GDP of EU members is smaller than the shares of China, Russia and the US.

Figure 3 also shows that Russia's total military expenditure tends to change more from year to year compared to that of the other countries, going from a low of 3.7 per cent of GDP in 2012 to a high of 5.4 in 2016. In 2021, Russia's total military expenditure as share of GDP decreased slightly. This was due to a stronger GDP growth in 2021, during the economic recovery after the Covid-19 pandemic. Instead of economic growth, military spending is governed by the political priority that the political leadership gives to defence (Oxenstierna 2019: 97–98).

Since Russia's economy is much smaller than those of China and the US, its military budget is smaller, even though it spends a higher proportion of its GDP on the military. Figure 4 compares Russia's, China's and the US's total military expenditures in 2021, in both nominal terms and with a Purchasing Power Parity (PPP) conversion applied. The PPP conversion is used to account for the different prices in different countries and allows for a different comparison than using nominal terms, since it reflects

13 Calculated by SIPRI using a CPI deflator.

14 Excluding the United Kingdom after 2019.

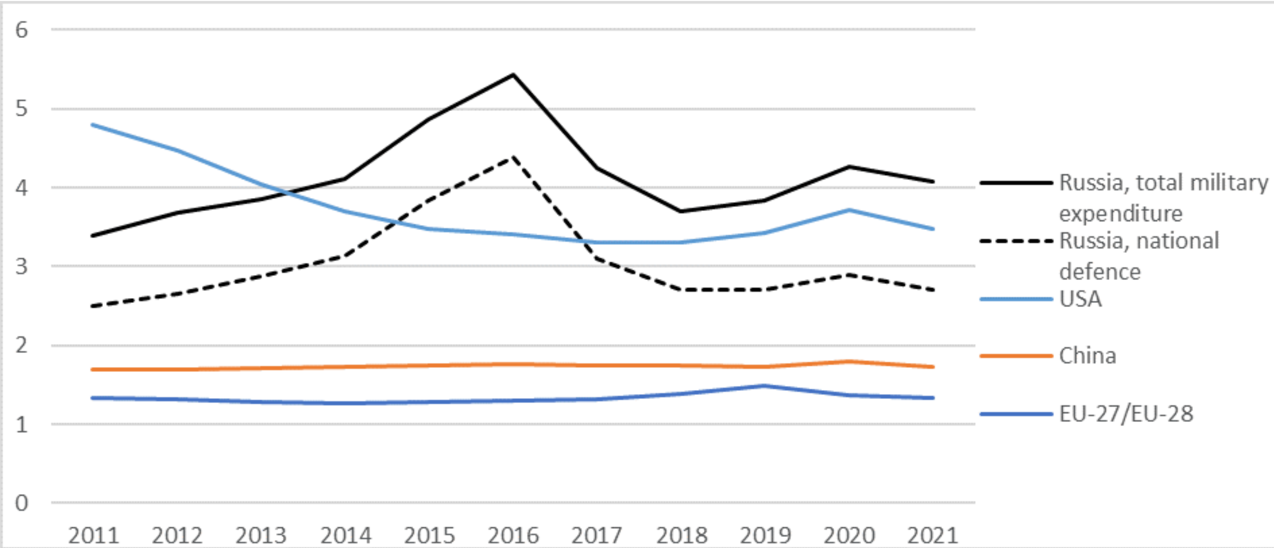

Figure 3: Total military expenditure as share of GDP, Russia (total military expenditure and national defence budget), US, EU and China, 2011–2021; *per cent*
Sources: Gaidar Institute (2019, 2022); SIPRI (2022b).
Note: The UK is included 2011–2019 but excluded afterwards.

purchasing power.[15] The comparison shows that in 2021, nominally, Russia's total military expenditure was 8 per cent of US military expenditure and 23 per cent of China's. Adjusted for PPP, it was about 21 per cent of the US's, and about 37 per cent of China's (see also Olsson et al. 2020).

Figures 2 and 3 demonstrate that the Russian government has consistently chosen to allocate a large share of GDP to total military expenditure over the last decade, even during periods of economic hardship. In other words, the Russian government has prioritised defence expenditure during the last ten years. Another conclusion is that the Russian government steadily increased its total military expenditure during the four years preceding the invasion of Ukraine in February 2022. From 2018 to 2020, the share of GDP going to total military expenditure increased from 3.7 per cent to 4.3 per cent, before dipping to 4.1 per cent in 2021 (Figure 3). However, the increasing trend is more modest than the one observed during the period 2011–2016, when the share of total military expenditure increased from 3.4 per cent to 5.4 per cent of GDP. Much of the high spending in 2016 is explained by the return of credits to the banks for the investments made in the GPV-2020 (Oxenstierna 2019: 108).

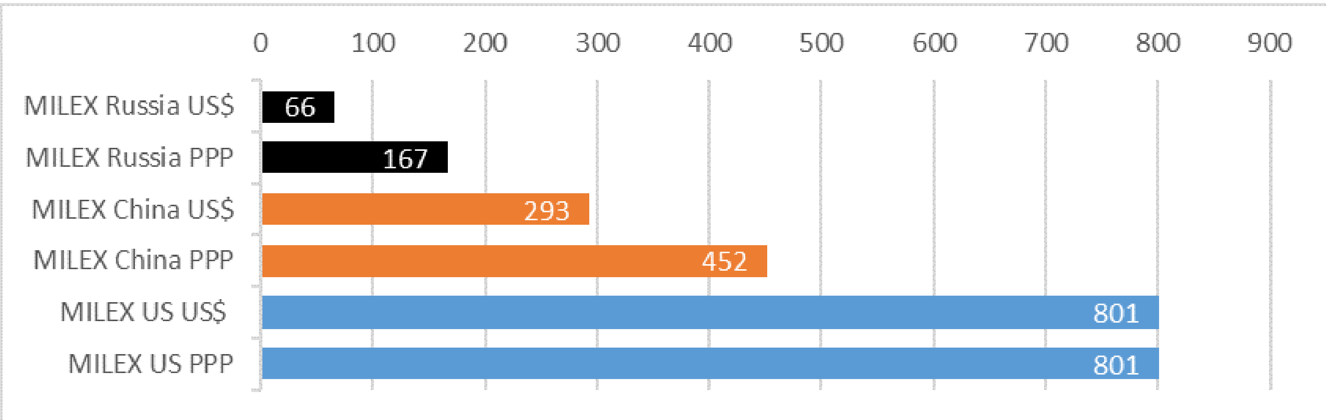

Figure 4: Military expenditure of the US, China and Russia in 2021; *current prices, billion US$; PPP.*
Sources: SIPRI (2022b); IMF (2022).
Notes: MILEX – total military expenditure. PPP – purchasing power parity.

15 The PPP is based on a standard basket of consumer goods and does not include military goods, which entails that it is not clear what the PPP measure says. SIPRI does not report military expenditure according to PPP (Oxenstierna 2019: 104).

2.3 Military expenditure 2022 and 2023

Trends 2022

Table 2 shows the general structure of the federal budget for 2022 and how much the government actually spent on each budget item from January to July in this year (budget implementation). The data shows that from January to July 2022, spending was highest for national defence and social policy. During this period, Russia spent 83 per cent of the 2022 budget law allocation for national defence (Table 2). The increased spending on national defence from January to July is a consequence of the war in Ukraine, while the high spending on healthcare and social spending may be related to lingering effects of the Covid-19 pandemic.

Table 2 also shows the budget listing that the Russian government published on 1 August 2022. The budget listing sets the upper limit of spending of the items in the budget law, and includes additional allocations that do not necessitate an official amendment of the federal budget (Cooper 2022: 6). A comparison between the 2022 budget law, which was passed before the invasion on 24 February 2022, with the budget listing that was published on 1 August 2022, reveals how the war in Ukraine has affected Russian public spending in 2022.[16]

The budget listing shows that the federal budget as a whole increased by 16 per cent between January and August 2022. The increase was not uniform across different budget items. As expected, national defence was prioritised and increased by 30 per cent. General state matters increased by 60 per cent, the national economy and housing by 27 per cent. For the other budget items, including social spending, education, culture and healthcare, the increases were smaller. National security decreased by 2 per cent, and the allocation for the environment decreased by 26 per cent.

Table 2: The federal budget in 2022 and 2023; current prices, *billion RUB*, per cent*

Budget items	2022 budget law	Implementation, January–July 2022	Budget listing, 1 August 2022		Budget law 2023	
				% change compared to 2022 budget law		% change compared to 2022 budget listing
General state matters	1 869	1 022	2 982	60	1 994	-33
National defence	3 502	2 894	4 543	30**	4 981	10
National security	2 826	1 285	2 769	-2	4 417	60
National economy	3 348	1 913	4 250	27	3 514	-17
Housing	460	435	584	27	604	3
Environment	482	204	356	-26	342	-4
Education	1 264	813	1 316	4	1 362	3
Culture	178	120	203	14	196	-3
Healthcare	1 272	923	1 488	17	1 469	-1
Social policy	5 843	4 074	6 208	6	7 343	18
Sports	81	44	89	10	67	-25
Media	115	60	119	3	118	-1
Debt servicing	1 403	793	1 403	0	1 519	8
Budget transfers	1 047	630	1 061	1	1 094	3
Total	**23 694**	**15 216**	**27 379**	**16**	**29 055**	**6**

Sources: Ministry of Finance (2021, 2022); Cooper (2022: 5); authors' calculations.
Note: *RUB/USD 61,8 Central Bank of Russia 3 December 2022. **Our calculation. Cooper (2022: 5) says 27 per cent.

16 The comparisons are made in current prices and are not adjusted for inflation. In October 2022, the Central Bank of Russia expected a 12–13 per cent inflation rate for 2022 (CBR 2022b).

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SE-164 90 Stockholm
Tel: +46 8 5550 3000
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Table 3: Share of national defence in the federal budget 2011–2023; *per cent.*

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
National defence	13.9	14.1	15.8	16.7	20.4	23.0	17.4	16.9	16.5	13.9	14.4	16.5	17.1

Sources: Gaidar institute (2019, 2022); Ministry of Finance (2022); Cooper (2022); authors' calculations for 2022 and 2023.
Notes: 2022 figure refers to 1 August 2022 budget listing. 2023 figure from 2023 draft budget law.

The increased budget for the national economy for 2022 is used for mitigating the effects of the sanctions. In particular, it is used for subsidised loans and loan payment assistance to companies, transfer payments to industries affected by the sanctions, subsidised mortgages and mortgage payments and nationalisation or recapitalisation of companies, among other economic interventions (Sonnenfeld et al. 2022: 59).

The purpose of the increase for general state matters is less clear. According to the Ministry of Finance, a part of this increase is destined to financial assistance and cooperation projects with Belarus (Ministry of Finance 2022: 469–476). Cooper (2022) attributes a part of the increase on general state matters to an increase for the government reserve fund, which has likely been used to channel funds to the Ministry of Defence and other government agencies. It has also been used for social support for the families of the dead and seriously wounded in combat in Ukraine. Spending might have been moved to this budget item in order to conceal the magnitude of these expenditures.

Trends 2023

Table 2 also shows the Russian government's planned budget expenditures in 2023, based on the draft budget for 2023. The federal budget is planned to grow by a further 6 per cent next year compared to the budget listing of 1 August 2022. The government expects the federal budget deficit to grow to 2 per cent of GDP in 2023, because energy-related incomes are expected to contract in 2023 (Ministry of Finance 2022: 30). The deficit is going to be financed by the National Welfare Fund (Kommersant 2022).[17]

National defence spending is increased by a further 10 per cent in 2023 (Table 2). Even larger increases are reserved for national security (60 per cent increase) and social policy (18 per cent increase). Funding for general state matters, the national economy and sports will be decreased. Smaller reductions are foreseen for the environment, culture, media and healthcare.

The planned increases in national defence mean that Russia will spend about 17 per cent of its federal budget on national defence in 2022 and 2023 (Table 3). Compared to 2020-2021, it is a sharp increase. However, during the years before the pandemic, the share of defence spending in the budget was similar to what it will be in 2023. The lower share of national defence spending in 2020–2021 is likely due to increased public spending on other areas to counteract the negative effects of the Covid-19 pandemic. The comparison with previous years shows that the share of national defence expenditure in 2023 will not be exceptionally high, despite the fact that, at the time of writing, Russia is involved in a war of high intensity.

Spending on other budget items

It is also interesting to examine the national security budget item, since it contains military-related spending and is the budget item that will grow the most in 2023. Among other things, it includes spending on the National Guard, an internal military force with the stated mission of securing Russia's borders and combating terrorism and organised crime, but which has been used to garrison and occupy cities in Ukraine (RIA Novosti 2022a). The Ministry of Finance's documentation shows that a large part of the spending increase in 2023 will go to the Ministry for Civil Defence, Emergency Situations and Elimination of Consequences of Natural Disasters; the Ministry of Internal Affairs; and the National Guard (Ministry of Finance 2022: 485–489).

The decrease of the national economy budget line in 2023 might reflect the government's hope that the Russian economy will need less support next year. The Ministry of Finance's documentation reveals that the national economy budget item will be used in 2023 to support sectors that have been affected by the sanctions and the war in Ukraine. In particular, it will include increased subsidies for the agricultural and agro-industrial sector; subsidies for airline companies; investments in railways; and subsidies for the electronics, radio and communication industries (Ministry of Finance 2022: 490–492).

17 The National Welfare Fund is Russia's sovereign wealth fund. Its funds derive from taxes on the production and export of oil and gas.

It is important to note that the spending plans for 2022 and 2023 contained in Table 2 are projections made by the Russian government in a context of high internal political pressure and based on the assumption of economic variables, which are difficult to predict given the uncertain economic environment in Russia (RIA Novosti 2022b). Therefore, it is likely that actual expenditure for 2022 and 2023 will differ from the government's current plans.

Furthermore, it may be noted that it is in the Russian government's interest to manipulate the economic variables that are made public, in order to promote an impression of economic stability. The Russian government interferes directly in the work of the Russian Federal State Statistics Service, *Rosstat*, which means that the rate of inflation and other economic indicators are probably manipulated (Proekt 2022). The use of potentially manipulated variables in the federal budget makes the projections for income and spending more uncertain.

Mobilisation and regional spending

It is unclear to what degree the 2023 federal budget includes the costs associated with the "partial mobilisation" declared by President Vladimir Putin on 21 September 2022. The draft federal budget for 2023 was submitted to the State Duma for examination on 28 September, just a week after President Putin's announcement, which suggests that the Ministry of Finance had a limited amount of time to include the costs associated with the mobilisation in the budget. Though the documentation by the Ministry of Finance (2022: 482–483) shows that some increases in national defence funds are reserved for mobilisation and military registration in 2023, it is probable that expenditure on national defence and other budget items will have to increase even more in order to cover the direct and indirect costs associated with the mobilisation. The mobilisation has negative effects on the Russian economy, not least because of the emigration of a large number of Russian men who want to avoid being drafted into the military (Bloomberg 2022).

It is possible that some military-related spending in Russia comes from the regional budgets, which are not part of the federal budget. On 3 October 2022, the Russian government authorised the regional and municipal administrations to purchase military-related and dual-use products such as drones, vehicles and spare parts, medicines, and night-vision devices for use in the war effort in Ukraine (Government 2022). No data on such expenditure is yet available. There have been media reports of spending from the regional budgets for compensation for families of victims of the war (iStories 2022). It can also be noted that the draft 2023 federal budget does not seem to account for Russia's announcement on 30 September of the annexation of four regions in Ukraine.

3. Conclusions

How do Russia's war in Ukraine and Western sanctions affect the Russian economy and military spending?

Western sanctions have targeted the financial, energy and transportation sectors, which are strategic sectors in the Russian economy. In addition, the West has prohibited export of advanced technologies to Russia and strengthened export control over weapons and dual-use goods. The initial effect in March was turmoil on financial markets and depreciation of the rouble. Different institutions forecasted a drop in Russian GDP of 8–10 per cent for 2022. During the summer, the prospects for the Russian economy improved, largely thanks to high energy prices that resulted in a current account surplus that strengthened the rouble and generated high incomes to the federal budget. Additionally, timely interventions by the Russian government and Central Bank significantly improved the situation in the economy.

The Russian political economy displays the characteristics of an LAO, which is not geared at fostering economic efficiency and growth but at granting the political leadership control over resource allocation and economic assets. It follows that the Russian leadership could respond to the sanctions quickly. The Russian government launched large support programmes for prioritised sectors of the economy and the population. In July, the IMF changed its forecast for the Russian economy in 2022 to a contraction of 6 per cent, and in October to 3.4 per cent.

Russia's total military expenditure has been on an upward trend since the start of the GPV-2020 in 2011. Military spending has been kept at a high level even during economic recessions and the share of the federal budget going to the military has increased. This shows that during the last decade the Russian government has given a high priority to defence spending.

The 2022 sanctions have so far not restricted the Russian government's military expenditure. Instead, the government has raised military spending even higher to finance its war effort in Ukraine. The federal budget as a whole expanded by 16 per cent from January to August, when comparing the adjusted budget (budget listing) with the original budget law. During the first seven months of 2022, the government spent over 80 per cent of the original allocation for national defence. The high rate of spending has led the government to increase the 2022 budget allocation for national defence by 30 per cent. Additional funding for defence has probably been channelled through the government reserve fund. The allocation for support to the national economy aimed at mitigating the effects of the sanctions increased by 27 per cent.

In 2023, the Russian economy is forecasted to contract by 2.4 per cent. Nevertheless, the government plans to expand the federal budget by a further 6 per cent and national defence by 10 per cent. In addition, it will increase spending on national security, which includes the security services, the National Guard and the civil defence, by 60 per cent. The increased defence spending means that there will be less fiscal space for spending on other important budget items such as healthcare and education.

The state of the Russian economy and public finances may be worse than what is assumed in the Russian government's budget documents. Economic variables might have been manipulated, and the economic consequences of the mobilisation have not been taken into account. Since Russia has an LAO, it can choose to continue to direct resources to the sectors of the economy that support the military and the war effort in Ukraine. Other sectors may suffer. The state can adapt the economy to its priorities, as was the case in connection with the sanctions of 2014–2015. However, the more the Russian economy contracts because of the sanctions and falling energy-related income, the less resources the government will have at its disposal. In addition, it will become more difficult to provide enough funding for other sectors, which are important for Russia's long-term growth prospects.

Russia is integrated in the world economy and dependent on international supply chains for inputs and maintenance. The strengthened restrictions on the export of advanced and dual-use technologies to Russia is already causing disruptions in production. Russia intensified its efforts to become more self-sufficient through import substitution after the sanctions in 2014–2015, but this has not been possible in all areas. Russia uses many products where imported brand-specific spare parts and maintenance are required; now they are not available. Microelectronics is an area where Russia is especially dependent on the West, including for use in military equipment. There are serious doubts whether Russia has the capacity to produce advanced technologies that can replace Western technologies. Most observers indicate that the technology sanctions will be the most effective in the medium- and long-run.

In addition, a large number of Western companies have left Russia or have suspended activities and are in the process of leaving. A large share of the foreign investments and expertise transferred to Russia are linked to these companies. Russia is already experiencing a demographic decrease in the working-age population in the 2020s. This problem is now compounded by the emigration of many highly educated workers and IT specialists who seek to avoid mobilisation and the increasing repression. Potential investors are fleeing and taking their capital elsewhere. Labour shortages and "brain drain" will have a devastating effect on the technological and economic development for a long time.

It follows that growth prospects for the Russian economy are rather gloomy: there will be a shortage of technology, capital and labour. The negative effects of the sanctions may have been weakened in the short-run, but, as energy prices normalise, the government's ability to adapt the economy to its own ends will decrease. ■

Susanne Oxenstierna is Doctor of Economics and Deputy Research Director at FOI.
Emil Wannheden is Master of Science in Development Economics and Analyst at FOI.

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FOI
Swedish Defence Research Agency
SE-164 90 Stockholm

Tel: +46 8 5550 3000
www.foi.se