

# Russian economic development under forceful defense spending growth

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## Abstract

The article examines historical aspects, general economic logic, and theoretical discussions on the policy of stimulating the economy through increased government appropriations for defense items. It provides a brief overview of empirical studies on economic effects of defense spending in Russia and other countries. The secondary nature and low manageability of economic effects of defense policy are emphasized. The size of the fiscal impulse due to defense items of government expenditure, its positive and negative effects are analyzed in the Russian economy for the period 2022–2024. In addition to the unlikely gains through security and supply channels, the limited availability of free production capacity and labor force are stressed among the factors hindering the positive demand effects of increased defense spending. This gives rise to inflationary consequences, as well as the contradiction between tightening monetary conditions and continuing fiscal stimulation. A conclusion is made about the prevalence and possible aggravation of negative outcomes of sustaining and expanding military outlays.

*Keywords:* fiscal stimulus, military Keynesianism, defense spending, budget multipliers, inflation.

*JEL classification:* E12, E61, E62, H56.

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## 1. Introduction

Since 2014, Russia has increased its spending on defense and this effect only accelerated with the start of a large-scale military operation in 2022. However, despite the unprecedented escalation of sanctions against the country by the coalition of advanced countries and almost unanimous gloomy macroeconomic forecasts,<sup>1</sup> the Russian economy resumed growth in 2023 and continued to outperform thereafter. Military expenditures certainly played a role in supporting such accomplishment. Consequently, a relatively rare hitherto term, “military

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<sup>1</sup> See, for example: <https://www.consilium.europa.eu/en/infographics/impact-sanctions-russian-economy/>

Keynesianism” is now being actively used both in academic and policy discussions about the Russian economy.<sup>2</sup>

This term is usually understood as massive fiscal stimulation of the economy through the implementation of defense and related expenditures by the state. Economic discussions on this topic in the middle of 20<sup>th</sup> century unfolded against the backdrop of unprecedented government spending caused by the preparation and direct participation of the leading powers in World War II, as well as the subsequent arms race during the confrontation between the two world systems, known as a Cold War.

However, at the end of the century this trend was not only stopped, but reversed: according to the World Bank,<sup>3</sup> global military spending in the 2010s in relative terms (as a share of GDP) was almost half as low as in the early 1980s, and almost three times lower than in the 1960s (Kashin, 2022). It is not surprising that changes of such magnitude also affected economic dynamics. The phenomenon of the “peace dividend” has been discussed in Gleditsch et al. (1996), which is essentially the opposite of military Keynesianism: the acceleration of economic development as a result of curtailing the arms race. The world did experience quick growth after the collapse of the communist system and the widespread reduction of defense spending as the severity of the global confrontation dramatically diminished.

Of course, both boost and contraction in military expenditures cannot be equally expansive for economic growth. A closer look at the factors of economic impacts of defense outlays is needed to analyze the trends of current Russian economic development.

## 2. Defense expenditures and economic growth

Economists were treating military assignments in different ways when discussing the impact of government expenditures on economic growth. For example, Barro (1991) considered defense spending (along with education outlays) as an investment item to be deducted from total public expenditures to arrive at current government consumption. However, following IMF (1995), there is a strong tradition of labelling certain kinds of expenditures as “unproductive” though the Fund tried to avoid strict functional attachment when describing this category. On the contrary, the IMF experts insisted that any government expenditures can contribute to economic growth if properly targeted, cost-efficient and structurally balanced. Nevertheless, Kudrin and Knobel (2017) hypothesize that defense expenditures in the Russian economy as such are unproductive and find empirical confirmation in the relatively low level of the corresponding budget multipliers; Balaev (2018) also finds strong negative impact of “unproductive” defense and social spending on growth.

Experts from the Gaidar Institute for Economic Policy considered expenditures on defense and related purposes as a military burden on the economy (Mau et al., 2017). According to other authors following the IMF (1995) original spirit, in the context of the Russian economy defense expenditures cannot be unambiguously classified as

<sup>2</sup> See, for instance: Ishchenko et al. (2023); Buklemishev (2024); <https://lenta.ru/news/2024/06/07/termin-voennoe-keynsianstvo-nazvali-nepodhodyaschim-dlya-ekonomiki-rossii/> (in Russian).

<sup>3</sup> <https://data.worldbank.org/indicator/MS.MIL.XPND.GD.ZS?locations=XT>

“unproductive,” since they make a significant contribution to improving the quality of human capital, increasing total factor productivity, production and export of high-tech products (Shirov et al., 2018). Indeed, there is evidence that *reducing* defense spending and redistributing it in favor of “productive” items (for example, human capital development) do not automatically lead to accelerated economic growth in the short and medium term (Acosta-Ormaechea and Morozumi, 2013).

Given the theoretical uncertainty of the overall effect of military Keynesianism, its numerous empirical studies (see, for example, Alptekin and Levine, 2012; Chen et al., 2014; Dunne and Tian, 2016) have generally yielded contradictory results. This can be explained by the diversity of theoretical and methodological approaches, differences in time periods, country samples and their business cycles’ timelines—the fiscal incentives work best during recessions.

Specifically, studies have noted a persistent divergence in the effects in developed and developing countries, which is associated with both the institutional characteristics of planning and implementing defense spending and the quality of transfer of scientific and technical results obtained in the defense sector to civil industries (Awaworyi and Yew, 2018). Practice shows that technological transfer in the opposite direction—from civil to military industries—is usually much more effective (Roland, 2016). For example, one explanation for the rapid economic progress of Japan and Germany in the second half of the 20<sup>th</sup> century is the focus of these countries on civil innovations that are more effective in terms of economic growth while importing military technologies from allied powers (Toporowski, 2017; Pollin and Garrett-Peltier, 2009).

### 3. Military Keynesianism in practice

With World War II already raging on the European continent, John Maynard Keynes wrote: “It seems politically impossible for a capitalistic democracy to organise expenditure on the scale necessary to make the grand experiments which would prove my case—except in war conditions” (Keynes, 1940). He implied that only military spending can realistically provide sufficient additional impulse to achieve the desired effect in aggregate demand.

In fact, the war itself is not needed as the expensive arms race which often starts in advance also produces the same economic consequences. Moreover, thanks to the feedback between the belligerent powers, a kind of automatic international coordination of fiscal stimulus arises (see the classic model by Richardson, 1960). Such coordination makes it possible to minimize external economic shocks associated with sharp shifts in balances of payments, exchange rates, and capital flows in countries competing in the military sphere. Again, it is virtually impossible to achieve similar coordination with non-military spending. But the arms race as a self-fulfilling prophecy often leads directly to war which amplifies its fiscal effects as defense spending largely turns from a public investment mode into recurrent increased government consumption. The latter usually commands higher multipliers than the former: this is explained by larger crowding-out effects produced by public investment shocks (its multipliers are usually near zero) as compared to public consumption (Boehm, 2020).

However, according to a recent study (Federle et al., 2024), wars have rarely been waged for economic purposes over the last 150 years: as a rule, they were

fought for different (mostly security-linked) reasons. Since planning military and related expenditures requires primary consideration of non-economic strategic issues and takes a significant amount of time, a consistent implementation of the corresponding spending policy motivated by domestic macroeconomic purposes is hardly possible. One should not also forget about the lobbying of the interests of the military-industrial complex, aimed at increasing government military expenditures, regardless of the degree of their rationality (see Mitrokhin, 2023; DeVore, 2022). Thus, in practice, we face, rather, the side economic consequences of a complex action mix driven by predominantly non-economic motives (Smith and Dunne, 1994; Dunne, 2011).

In other words, one should first and foremost think of military Keynesianism as a set of *secondary* and largely *unintended* effects of the development and implementation of defense and strategic policy. It is difficult to expect achievement of any rational macroeconomic goals due to defense spending in this regard. Nevertheless, it is often alleged that such spending played a significant role in the recovery of economies from the Great Depression in the 1930s and several other cases. However, this conclusion is not supported by facts.

For instance, in the United States, defense spending in 1939 still amounted to 1.4% of GDP (with total federal expenditures of about 11% of GDP). The military budget exceeded 2% of GDP only in 1940, and 10% in 1941 (with the maximum level 45% of GDP in 1944). Government military outlays rather supplanted private consumption and capital investment, the main driver of the previous recovery, which were able to return to normal levels only after the war. As a result, labor productivity growth in the United States in the 1940s was minimal for the period 1900–1970 (Rockoff, 1995; Field, 2008).

The rapid economic recovery in Germany, partly reflecting the magnitude and depth of the recession, began in 1932, well before Hitler's ascent to power and start of active militarization. But even after that, the fiscal impulse remained relatively small until 1937. Then private consumption, as in the United States, was being displaced by government spending on rearmament. And when military expenditures fell from 70% of GDP to almost zero after the war, civil output jumped by 30% in 1947 compared to 1943 (Ritschl, 2002).

Of course, it might be said that regarding the size of military effort, the current Russian case is more comparable to lesser conflicts such as Korean or Vietnam wars by the U.S. The size of the U.S. military expenditure was equivalent to 14.1% of GDP in the last year of the former (1953), broadly similar to WWI, as the latter culminated at 9.5% in 1968. Nevertheless, in both cases the U.S. economy was affected by tax and debt increases, price and wage controls limiting private sector consumption and investment which went below the pre-war trends. Inflationary consequences of the Vietnam War complicated fighting stagflation brought on by the 1973 oil crisis (Labonte and Levit, 2004).

#### 4. Current fiscal impulse in Russia

Undoubtedly, the additional fiscal impulse associated with defense spending has played and continues to play a significant role in maintaining the current dynamics and structural transformation of the Russian economy. However, given the mixed macroeconomic results of 2022–2024, the extent of such an impact,

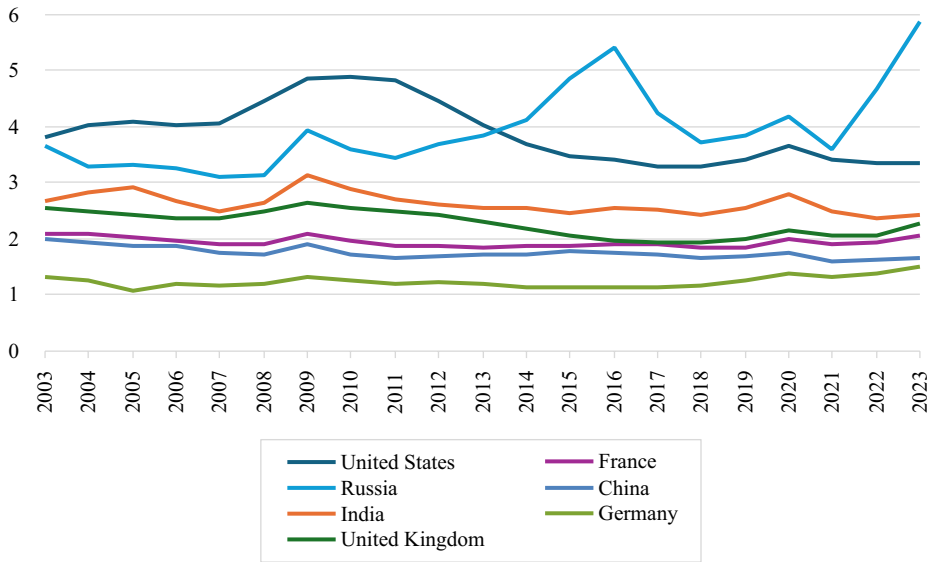


Fig. 1. Military expenditures as a share of GDP (%).

Source: SIPRI.

the direction of the influence of these changes, and their sustainability are not entirely clear. In fact, Russia has been spending much more on defense than other leading powers in terms of GDP share since 2014 (Fig. 1) and the gap has been growing after 2022 invasion to Ukraine.

There are different approaches to assessing the fiscal impulse, usually considering the cyclical component. In this case, it is difficult to be isolated, since the pandemic, war and sanctions shock impacts of the 2020s on the Russian economy. The subsequent fundamental structural shifts in it (Buklemishev, 2020, 2023) do not allow us to form unambiguous ideas about the patterns of evolution and the degree of sustainability of the current economic dynamics for such a short period.

The Ministry of Finance of the Russian Federation (Minfin RF) assessed the total size of the fiscal impulse for 2022–2023 at 10% of GDP (Minfin RF, 2023). The Ministry interprets fiscal impulse as a total volume of net injections of funds that are at the direct disposal of the state, including not only government expenditures themselves, but also quasi-budgetary operations, in particular, the provision of budget and interstate loans, investments of the National Welfare Fund (NWF) in financial assets of Russian organizations (Minfin RF, 2023). A significant part of fiscal easing in 2023 was allegedly caused by a revision of the parameters of “basic oil and gas revenues,” that is, a relative reduction in budgetary transfer to the NWF savings and increase in expenditures compared to the originally planned figures. The Ministry considers three channels of the fiscal impulse’s impact on the economy—income, credit and expectations, and this impact is generally ambivalent: along with an increase in domestic demand and business activity, strengthening of inflation and devaluation expectations also takes place (Minfin RF, 2023).

Of course, not all additional government expenditures concerned relate to the defense sector (in addition to the NWF financial investments, the document also mentions social, infrastructure and other outlays). Despite the relative impor-

**Table 1**  
Russia's defense expenditures in 2021–2024.

Indicator	2021	2022	2023	2024 (plan, estimate)
<b>Minfin RF</b>				
Plan <sup>a)</sup> , trillion rubles	3.1	4.8	5.0	10.8
Actual, trillion rubles	3.6	4.7 <sup>b)</sup>	6.5 <sup>b)</sup>	–
<b>SIPRI</b>				
In trillion rubles	4.9	7.2	9.3	12.8
In constant 2022 dollars	65.9	102.4	109.5	–
Real growth, % <sup>c)</sup>	–5.8	+27.0	+24.0	+29.0
Share of GDP, %	3.61	4.69	5.86	7.1
Share of consolidated budget expenditure, %	10.31	12.94	16.14	18.6
<b>For reference:</b>				
Total volume of federal budget expenditures, trillion rubles	24.76	31.12	32.35	36.66
Increase in federal budget expenditure in real terms, % <sup>c)</sup>	–9.0	+8.5	–1.3	+7.0 <sup>a)</sup>

*Note:* <sup>a)</sup> Initially approved in the federal budget law for the relevant year. <sup>b)</sup> Based on budget estimates (as of September 1 of the relevant calendar year). <sup>c)</sup> Real figures are calculated by the author based on the GDP deflator. *Sources:* Minfin RF; SIPRI; Cooper (2023); author's calculations.

tance of quasi-budgetary operations, they are mainly aimed at solving problems other than defense, and—due to the special mechanism for their implementation—should be analyzed separately. The available data on Russia's defense spending are presented in Table 1.

In total, during the entire period under review, *additional* military expenditures in 2024 prices amounted to about 5 trillion rubles (or approximately 2.8% of 2024 GDP). This actually corresponds to a real doubling of defense spending over three years. It should be noted that the growth rate of defense items in real terms in 2022–2024 is much higher than for total budgetary disbursements. As a result, there has been a notable shift in the structure of government spending, with the share of defense spending in consolidated budget increasing sharply, while the shares of most other major spending categories, including social policy, declined.<sup>4</sup> Given the relative share of defense spending, it can be judged that the Russian fiscal impulse (excluding quasi-budgetary operations) is mainly military in nature.

## 5. The effects of defense spending

Now let us consider economic effects of increased government defense spending. In principle, there are three groups of factors that could have a positive impact on economic activity:

- supply effects (side effects of defense spending that stimulate economic activity in the broad sense—the creation of infrastructure, research and development that finds application in the civil sphere, etc.);

<sup>4</sup> <https://www.bofbulletin.fi/en/blogs/2024/russia-further-increases-military-expenditure-at-the-expense-of-other-financing-needs/>



- demand effects (the direct effect of additional government spending and the Keynesian multiplier effect through the expansion of aggregate demand);
- security effects (reduction of risks of economic activity by eliminating genuine internal and external threats).

However, there are forces pulling in the opposite direction and slowing economic growth (perhaps not earlier than in the medium term). These factors can include additional fiscal burden (under tax financing of extra expenditures), the crowding-out effect on private investment due to increased public borrowing and interest rates (under debt financing), and unfavorable changes in the balance of payments due to persistent fiscal deficits (Awaworyi and Yew, 2018).

If the beneficial supply side effects due to military spending (infrastructure, technology, etc.) exist, they are unlikely to be realized in the short term. In any case, there are much more direct and cheaper alternative ways to achieve the same outcomes without the involvement of the military-industrial complex and military organization, which obviously do not consider economic efficiency as their main goal. Moreover, there is some evidence of a reduction in the productivity of military research and development in Russia in the context of limited resources and the concentration of the system on solving current urgent problems (including “regressive import substitution”; Luzin, 2023).

Security threats in Russia have only increased in recent years. For instance, this can be evidenced by the dynamics of the Security Threat Index, calculated since 2007 (Fig. 2). Russia currently ranks 14<sup>th</sup> of 175 countries in terms of the threat level, and although the value of this index was even higher during the previous decade (although the index was declining then), the current upward trend is also obvious. Thus, it cannot help but imply additional risks for economic activity.

Therefore, currently we could associate a potential positive role of defense spending only with the demand effects. Let us look at the situation in this sphere.

Several authors (Auerbach and Gorodnichenko, 2012; Deleidi and Mazzucato, 2021) found a positive multiplier effect of different defense spending items in the U.S. It is generally lower than multipliers for non-defense and investment expenditures but higher than the one for consumption spending. Stamegna et al. (2024) use an input–output model to assess multipliers in Germany, Italy and Spain and arrive at the conclusion that in all the countries non-military public

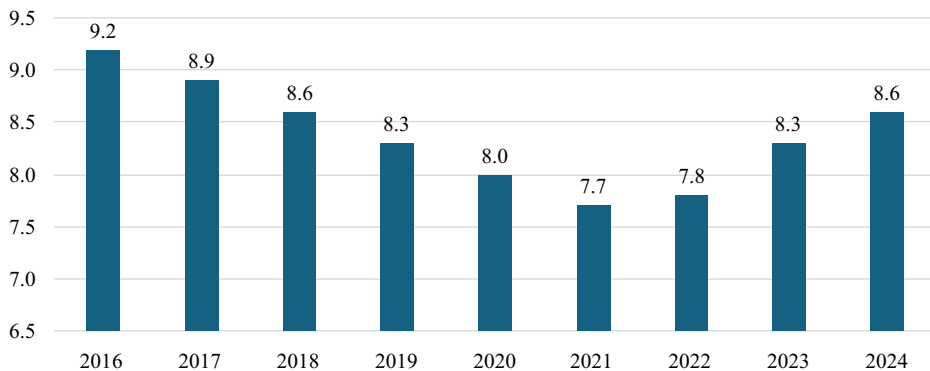


Fig. 2. Security Threats Index for Russia, 2016–2024.

Note: Index values range between 0 and 10 points, where 10 points correspond to the highest threats.

Source: Fund for Peace.

expenditures have a greater impact on the economy and employment than spending for arms acquisition. In general, as Sheremirov and Spirovska (2019) show for 129 countries during the period 1998–2013, one-year defense multipliers are in the range of 0.75–0.85, and the impact is different from zero three years after the shock. The fiscal effect is twice as big for advanced economies than for developing ones; it is also larger during recessions, for closed economies and under the fixed exchange rate regime. For Russia, Shirov et al. (2018) estimated the multiplier of expenditures on state defense orders very close to this range, at 0.8–0.9, which exceeds similar indicators for other areas of government spending (this is explained by the relatively longer length of production chains and the low share of imports). Moreover, as we have already stated, one of the characteristic features of a country turning from war preparations to a real conflict seems to be conversion of public investments into regular consumption, that should increase the corresponding multipliers (Boehm, 2020).

But even if we assume that all the defense expenditure multipliers are that high, it is hardly possible to talk about a significant volume of aggregate fiscal stimulus for 2022–2024. And our assumption also seems quite strong. Firstly, state defense orders represent only a part of military expenditures; although the fiscal role of other components is more difficult to assess, it should apparently be lower. Secondly, a noticeable increase in defense spending should be accompanied by a decrease in multipliers. Thirdly, there exists anecdotal evidence of a reduction in the export of Russian weapons and military equipment, including high-tech,<sup>5</sup> and, on the contrary, an increase in imports of defense items,<sup>6</sup> which also does not increase the multipliers.

Then, a traditional Keynesian assumption of the availability of underutilized resources needs to be examined. According to the enterprises' polls, in recent years, capacity utilization in the Russian economy has increased, wavering around 80%. We also note the relatively high capacity utilization in industrial production—about 78% (Fig. 3). In other words, it looks like the usage of existing production capital is near its limit. Rates of fixed investment growth have also been unusually elevated lately (about 10% in 2023–2024), but it remains to be seen when and if these projects could sufficiently enlarge the economic potential. Luzin (2023) is highly skeptical about it due to the absence of access to modern technologies because of international sanctions.

According to the data, the situation with the available labor force is even worse (Fig. 4). Since 2022, unemployment has been steadily declining, while the demand for workers, on the contrary, has been growing (Kapeliushnikov, 2024; Uzyakova and Shirov, 2024). Complaints from businesses about the impossibility of attracting additional personnel in the labor market have become commonplace. Military mobilization in 2022 was accompanied by growing contract payments for army servicemen—in fact, the government plays a role of the “employer-of-last-resort.” But, as opposed to basic theoretical approach and available evidence (Levrero, 2019), it now pays a much higher salary than its median level in the economy. Thus, it not just eliminates noticeable unemploy-

<sup>5</sup> <https://www.forbes.ru/biznes/507813-sipri-soobsil-o-dvukratnom-sokrasenii-eksporta-vooruzenij-iz-rossii-za-pat-let> (in Russian).

<sup>6</sup> <https://www.trussian.com/novosti/kndr-boepripsy-za-prodovolstvie-17165651> (in Russian).



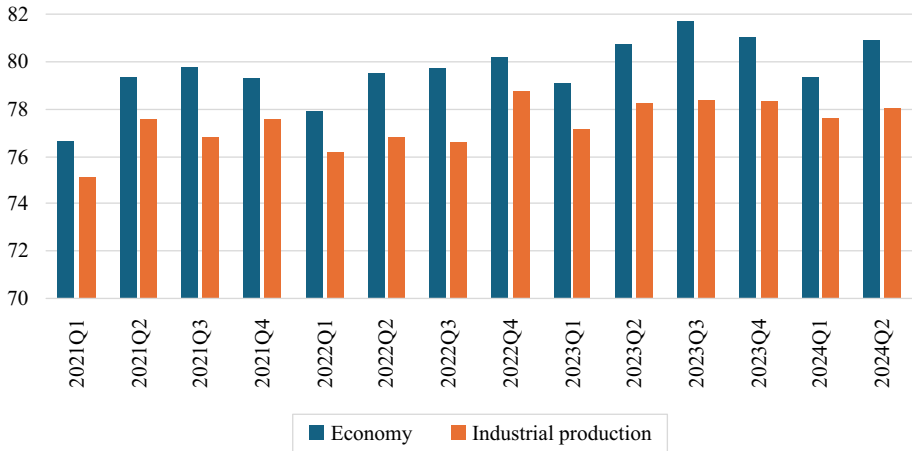


Fig. 3. Capacity utilization in the Russian economy (%).

Source: Bank of Russia.

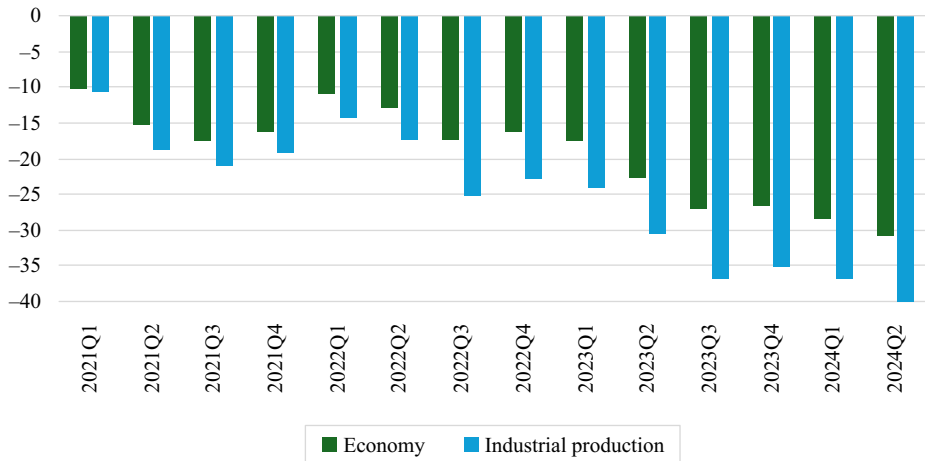


Fig. 4. Balance of answers to the question “How do you assess the company’s staffing level?”

Source: Bank of Russia.

ment, but also creates enormous wage pressure in the labor market. Anti-migrant worker measures intensified in 2024 have only added to these woes.

Limitations associated with the unavailability of free capital and labor, in fact, mean that fiscal stimulus will lead to price imbalances (relative rise in the cost of scarce resources) and a general increase in prices. Growth in production and incomes under such conditions is inevitably associated with increased inflationary pressure.

The growth of inflation causes a predictable reaction from the Bank of Russia gradually raising its key rate (to 21% in October 2024, the highest sustained level so far both in nominal and real terms). However, prices and inflationary expectations practically don’t decelerate, despite the sharp tightening of monetary conditions in recent months (Bank of Russia, 2024a). This, among other things, means that the examined fiscal stimulus is increasingly neutralized due to the high level of interest rates, and the corresponding multipliers are getting lower.

Another important outcome of fiscal stimulation is related to changes in inflation expectations: their increase naturally leads to a redistribution of future consumption in favor of current one, which surges demand from households in the current period, while simultaneously undermining it in the longer term. The frontal growth of prices is aggravated by consumer fever in the high-cost goods sector, which is caused, among other things, by increasing disruptions in supplies and payments for imports due to sanctions.<sup>7</sup> Let us recall that the ongoing spending of the NWF resources actually means a redistribution of past government consumption in favor of current one (Buklemishev, 2013). Thus, we observe a concentration of previously deferred and future demand at the present point of time, which leads to corresponding magnified inflationary consequences.

## 6. Conclusions

From an economic point of view, the functioning of the military organization and the military-industrial complex generally represents costs for the economy and general welfare. It is no coincidence that the first attempts to calculate national income in the United States used a fundamental approach according to which only elements of household income were to be included in the calculation (see, for example, Mitra-Kahn, 2011).<sup>8</sup> In this context, the phenomenon of military Keynesianism generally appears as a pure statistical one that exists due to the fact that during World War II a different philosophy of the system of national accounts prevailed. The diversion of resources (material, financial, intellectual) from areas of their more effective use in the civil sector can cause obvious damage to economies (especially small, institutionally weak and lacking a leading position in the global technological race) in the form of a progressive underperformance beyond the short-term time horizon. This fact should not be forgotten when analyzing the increase in gross indicators through the transfer of resources to the military economy.

This transfer also inevitably entails certain macroeconomic consequences. Even if we agree with the presence of positive short-term economic effects of defense spending, their scaling with the significant growth of military outlays is not at all guaranteed. The results observed in a static state of equilibrium cannot be automatically transferred to nonlinear dynamic processes with large-scale structural shifts—meanwhile, it is precisely such processes that can describe changes in the Russian economy in 2022–2024. Rapid growth of the economy and population incomes due to additional government expenditures in the context of current resource, capacity and technological limitations, as well as sanctions pressure, inevitably turns into a feverish race in prices, interest rates and wages.

The possibility of financing increased defense spending using fiscal savings from previous years—the National Welfare Fund—has been almost exhausted.

<sup>7</sup> Indeed, in recent months, there has been an increase in households' interest in expensive purchases rather than savings: it is near its five-year high (see Bank of Russia, 2024b, fig. 10)

<sup>8</sup> Nobel laureate S. Kuznets (1935), when designing the concept of national income in the 1930s, insisted on subtracting from it not only military expenditures, but also the majority of advertising expenditures, outlays related to financial and speculative activity, and “all the gigantic expenditures of urban civilization”—on infrastructure, housing, etc. as a “necessary evil.”

Fiscal expansion can be maintained at the current level and even expanded either by increasing the tax burden on the economy or by activating domestic borrowing (the external market is currently closed). The first option is already being implemented—the personal income tax progression and the profit tax rate are increased since 2025. However, this may not be enough, and then further steps in the same direction will be required. The second option, under high real interest rates, is fraught with an increased effect of crowding out private borrowing and further degradation of a significant and important competitive segment of the domestic economy, which is unable to finance its current activities and investment projects without attracting loans at market rates.

This competitive part of the Russian economy matters and will matter even more. Last, but not least, post-war reduction of defense spending will be an uphill struggle not only in political terms. Redistribution of resources back to civil industries could take time and become recessionary (Congressional Budget Office, 1992). The painful experience of the Soviet Union bloated military industry's abrupt collapse teaches a key lesson here (Goldstein, 2003). The future period will require not only an unrestrained operation of the market but also strong government efforts to soften social consequences of the transformation.

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