

The Cost of the Ukraine War for Russia

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Russia's renewed invasion of Ukraine encompassed a large increase in defense spending; unleashed a global economic maelstrom of elevated energy, food, and fertilizer prices; and sparked a historic economic sanctions campaign by a united West opposed to the invasion. Russia failed to reach its initial military goals and ended up in a protracted war with significant numbers of dead and wounded, depletion of munitions, and destruction of equipment. As the war continues, it is useful to understand the initial economic costs to Russia and the outlook for Russia's economy.



APPROACH

We estimated the overall cost of the war to Russia's economy and the direct costs of the military campaign; we then considered the potential consequences of the war and Western sanctions for Russia's economic outlook. We focused on data from the first six months of the war (through August 2022) plus highly selective updates to account for the costs of mobilization in September 2022 and further sanctions against Russian oil and oil products. The findings should be considered rough order-of-magnitude estimates because of the difficulty of obtaining reliable data about Russia's economy. We used data from the Bank of Russia and the Ministry of Finance, as well as a variety of other sources that we assessed to be credible. Given the difficulties of assessing the true market value of the ruble, we used the January 2022 exchange rate of 76 rubles to the dollar.



CONCLUSIONS

We estimated that as of late summer of 2022, the war had involved direct costs of almost \$40 billion, or 84 percent of 2021 national defense spending. Of this, operations and compensation amounted to \$29 billion, and materiel amounted to \$11 billion. Furthermore, losses in national income in the economy, as measured by GDP, had amounted to about \$30 billion, with annual losses for 2022 likely to be between \$103 billion and \$160 billion, between 6 percent and 9 percent of 2021 GDP, if not higher. As of the end of June, Russia had experienced \$289 billion in financial capital destruction as measured by the market value of companies on the Moscow Stock Exchange.

For comparison, in 2021, Russian national defense spending was \$47 billion, federal budget revenues were \$333 billion, federal budget expenditures were \$326 billion, and GDP was \$1.776 trillion, all in nominal terms.

Regarding costs to Russia, these estimates include both flows (operations and national income) and stocks (materiel and capital destruction). Some of the military costs are likely captured in national income costs, and so we refrain from aggregating them into a single number.

Over the long term with a stalemated war, Russia's economy and the standard of living of its people are likely to decline. The relative level of technology used in the economy is likely to regress as Russian competitors advance. The main factor sustaining Russia as of late summer 2022 is the export revenues it earns from oil and gas sales, particularly oil. Blocking those could be the most powerful tool in the West's economic toolkit to hamper Russia's war effort, but doing so would be politically difficult in a world in which major countries beyond the Western alliance benefit from continued purchases of Russian oil at discounted prices.

Even though the Russian economy is declining because of sanctions and other structural factors, and war operations are proving expensive, we judge these costs to be sustainable for the next several years. War costs alone will not cause Russia to end its Ukraine invasion. More likely, a combination of battlefield losses, economic decline, a drop in living standards, social unrest, and elite dissatisfaction will be among the driving forces behind any potential change in Russia's war effort.

This report was cleared for public release by the Department of the Air Force on September 13, 2023. To account for this publication delay, we have added a brief postscript with updated costs, using the same methods. Using updated data, we estimated that the war caused Russia GDP losses of between \$81 billion and \$104 billion in 2022. Regarding direct military spending, we estimated that Russia is poised to spend a minimum of \$131.6 billion from early 2022 through 2024. The war remains sustainable for Russia from the perspective of costs.



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