



NATIONAL INTELLIGENCE COUNCIL

MEMORANDUM

28 November 2022

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Potential Global Economic Consequences of a Use by Russia of Nuclear Weapons in Ukraine

(U) Key Takeaways

(U) *Scope Note:* This memorandum responds to a request from the NSC for an examination of the possible global economic impact of use by Russia of one or more nuclear weapons in Ukraine.

We assess that any use by Russia of a nuclear weapon in Ukraine would further aggravate existing fragilities in the global economy and compound the economic strain on countries that already are facing high inflation and elevated economic risks. Financial stability and food security probably would face increased risks while economic growth probably would slow, throwing some countries into recession.

- The dollar almost certainly would appreciate following any use by Russia of a nuclear weapon, because the demand for safe haven assets would pull additional investment into US financial markets.
- With some emerging market economies already experiencing financial crises or on the verge of one, new economic strains probably would push some or all of them into default.
- Global economic growth probably would slow even further, with many countries falling into recession.
- Ripple effects could include a drop in Russian agricultural exports, food export bans, volatility in metal prices, and further cutbacks in Russian energy sales.

We assess that use by Russia of a nuclear weapon in Ukraine would further disrupt the global economy, leading to additional volatility in financial and commodity markets—including energy markets—higher inflation, increased food insecurity, and declining economic growth. This volatility would further strain countries' ability to maintain financial and political stability. We have low confidence in our ability to predict

the duration and severity of economic disruptions because they are subject to a range of key uncertainties, and we have no precedent against which to benchmark. Key uncertainties include the scope of the nuclear weapon or weapons used, the impact of the use of nuclear weapons on the course of the war, potential US and allied responses—including possible military steps, financial sanctions, and trade restrictions—financial markets sell-

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offs, energy market disruptions, and the reactions of foreign firms that still do business with Russia.

Financial Stability at Risk

We assess that many countries would have trouble maintaining financial stability because they are ill equipped to absorb additional economic shocks; their economies already face strains from inflation, currency depreciation, high debt burdens, and reduced prospects for growth. In November, the European Central Bank calculated that risks to financial stability in the euro area had increased amid soaring energy prices, elevated inflation, and low economic growth, increasing the vulnerability of highly indebted governments. In October, the IMF concluded that global financial stability risks had increased since April, with some emerging markets facing risk levels comparable to the height of the COVID-19 crisis.

- (U) As of early October, dollar-denominated debt held by governments and companies in emerging economies stood at \$4.2 trillion, according to the Bank for International Settlements. The relative weakness of other currencies to the dollar, particularly in developing markets, is raising the risks that governments will not be able to afford the rising cost of debt-servicing of dollar-denominated bonds.
- The dollar experienced unprecedented gains this year, and its strength looks set to persist in the near term because of relatively higher US interest rates and demand for safe haven assets, according to an investment firm. As of mid-November, the dollar had strengthened by nearly 15 percent since the beginning of the year against a basket of currencies. The dollar almost certainly would appreciate following any use by Russia of a nuclear weapon because the demand for safe haven assets would pull additional investment into US financial markets.

Some emerging market economies already are experiencing financial crises or are on the verge of financial crisis, and heightened

economic strain probably would push some of these countries into default.

- (U) In May, Sri Lanka defaulted on its government debt for the first time in its history in part because of global shock waves from the pandemic and the war in Ukraine. Sri Lanka faced an acute crisis and growing vulnerabilities owing to inadequate external buffers and an unsustainable public debt dynamic.
- As of October, the governments of Bangladesh, Egypt, Ghana, and Pakistan were in discussions with the IMF about financing options as they struggle to meet their debt-financing needs.
- (U) As of late October, at least 10 countries were in severe stress of sovereign default: Argentina, Burkina Faso, the Congo Republic, El Salvador, Ethiopia, Ghana, Laos, Mozambique, Suriname, and Zambia, according to a global ratings agency. More than one-quarter of the 94 emerging market sovereign debt ratings issued by a US credit rating agency rated as B- or below, suggesting an elevated likelihood of credit distress or default.

Rising Food Insecurity

We assess that global food prices probably would increase in the immediate aftermath of use by Russia of a nuclear weapon in Ukraine because of uncertainty around the continued desirability of Ukrainian grown agricultural products, and probable reduced availability and increased cost of shipping from Ukraine's Black Sea ports. Customers probably would pause their purchase of Ukrainian grain to assess potential contamination, even if the radiation fallout were localized and centered away from grain storage and fields. The resumption of Ukrainian grain shipments via the Black Sea in July has been critical to improving food security; Russia's temporary withdrawal from the Black Sea Grain deal has

reignited concerns about global food insecurity, according to [REDACTED] open-source reporting.

- (U) In late October, wheat and corn prices increased by 5.5 percent and 2.4 percent respectively after Russia temporarily suspended its participation in the UN-brokered Black Sea grain export agreement, an indication of the sensitivity of global food prices to threats to food shipments from Ukraine.
- (U) Shippers also might refuse to allow their ships to traverse Ukraine's Black sea ports or increase insurance costs exacerbating food security vulnerabilities in countries that are reliant on grain shipments. During the suspension of the grain deal in late October, insurance companies refused to provide coverage for ships carrying grain in the Black Sea corridor.

[REDACTED] The combination of lower food supplies and higher prices, particularly if sustained, probably would lead to sharp increases in global food insecurity, as it did between March and July, when Ukraine struggled to deliver food to global markets. Countries probably would continue to face high food inflation costs even if global food prices subsequently declined, judging from recent data that shows that domestic food inflation has persisted in many countries despite food prices falling from February highs, heightening financial and political risks.

- (U) In Laos, the Central Bank reported that the rate of inflation for food prices increased from 30 percent in August to 34 percent in September. In Mexico, rising food inflation reached 15 percent in August on an annual basis. Food inflation in Tunisia increased 13 percent year-on-year in September. In Pakistan, year-on-year food inflation in September rose to 31 percent, and in Hungary, food inflation remains one of the highest in Europe, climbing to 30 percent in September, according to the World Bank.
- [REDACTED] Further inflation in the price of food triggered by use by Russia of a nuclear weapon probably would be amplified in food importing countries because most commodities are

priced in dollars, which is likely to continue to appreciate against national currencies. In October, the World Bank reported that the depreciation of the currencies of developing economies is driving up food prices and could deepen the food crisis that many of them already face. According to the UN's Food and Agriculture Organization, as of October, 62 of the most vulnerable food-deficit countries were spending more money for less food.

- (U [REDACTED]) In September, protests erupted in Tunisia caused by sugar shortages and rising food prices. [REDACTED]

[REDACTED] Further Damage to Economic Growth

[REDACTED] Use by Russia of one or more nuclear weapons probably would lead global economic growth to slow even further, with many countries falling into recession. Global economic growth forecasts have been repeatedly revised downwards since March and in November, the IMF called the war in Ukraine the "single most negative factor" for the global economy.

- (U) Some forecasters expect global economic growth to be below 1 percent in 2023, with some countries already experiencing low or negative growth. The GDP in the United Kingdom and Japan contracted in the third quarter of FY2022, while GDP in the EU grew by a paltry 0.2 percent in the same period, according to Eurostat and European investment bank data. As of November, the IMF expected countries that account for more than one-third of global output would contract during part of this year or next.

(U) Multiple Factors Could Amplify Global Economic Effects

[REDACTED] There are a range of factors that could amplify the global economic effects of use by Russia of one or more nuclear weapons. These include a

reduction in global food supply from a decline in agricultural exports from Russia or new export restrictions imposed by food exporting countries, new sanctions and trade measures directed at Russia that could disrupt energy and metal exports, or a Russian decision to curtail its external trade. The response of the private sector and continued willingness of countries to continue to trade with Russia, particularly in the energy and metal sectors, could further shape the impact on the global economy.

Use by Russia of a nuclear weapon also might trigger panic buying—including crude oil for strategic reserves, refined products used for heating or military use, and natural gas used for heat and power—as countries shore up supplies in preparation for extended conflict. It is even possible that the banking sector could be destabilized in many countries by a decline in liquidity as financial markets adjust to uncertainty. The following are examples of possible ripple effects of use by Russia of nuclear weapons.

- (U) **Reduction in Agricultural Exports From Russia.** Russia's agriculture exports could decline if shipping lines refused to service ports in Russia because of security concerns or if shippers anticipated additional sanctions against Russia. As of November, some insurance and shipping companies refused to insure vessels or raised rates, and many shipping lines were refusing to service Russian ports out of sanctions over-compliance, according to press reporting; amplification of these concerns could remove some Russian grain from world markets.
- **Food Export Bans.** Food exporting countries often have responded to global food crises by imposing export restrictions, and could respond similarly to an increase in global food prices, putting further upward pressure on prices. As of early June, 22 countries including India, Russia, and Turkey had retained restrictions on wheat exports, which were implemented earlier in the year to insulate their populations from rising global food prices.
- (U) The World Bank estimates that policy measures imposed between January and early June were responsible for as much as 14 percent of the price increase in globally traded agricultural products. During the food crisis of 2008–2012, 36 countries imposed export restrictions, which economists believe contributed to the run-up in food prices during this period.
- (U) **Volatility in Metal Prices.** Market anticipation of additional sanctions against Russia could lead to price spikes and increased volatility in a range of strategic materials, including aluminum, copper, enriched uranium, nickel, palladium, and titanium, as would new sanctions and export restrictions in these segments. For example, the price of palladium soared in February, because of fears that Russia, the world's largest exporter of the metal, would be cut off from global markets. The price of nickel, used to make steel and electric car batteries, also spiked.
- (U) In April 2018, Russian aluminum giant Rusal was designated by the United States because its owner was tied to Russian President Vladimir Putin and Russia's malign activities, causing the global price of aluminum to jump 93 percent. New designations could result in significant price hikes and sharply slow or shut down commodity trading activity, further exacerbating price volatility.
- **Further Reductions in Russian Energy Exports.** Oil and natural gas prices probably would face sharp upward pressure in the wake of use by Russia of a nuclear weapon because market participants probably would expect that energy supplies from Russia would face new disruptions. During the first two weeks of the war, global oil prices increased by more than 25 percent, and at the end of March, gas prices in Europe were about 580 percent higher than a year earlier.