



EQUITABLE GROWTH, FINANCE, AND INSTITUTIONS POLICY NOTE

Implications of the War in Ukraine for the Global Economy

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WORLD BANK GROUP
Equitable Growth, Finance & Institutions

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This EFI Policy Note was produced by Justin-Damien Guenette, Philip Kenworthy, and Collette Wheeler, with contributions from Patrick Kirby, Peter Nagle, Vasiliki Papagianni, Lorez Qehaja, Lucia Quaglietti, and Kaltrina Temaj. The project was managed by Franziska Ohnsorge and Carlos Arteta, under the general guidance of Ayhan Kose and Indermit Gill. Richard Damania, Asli Demirguc-Kunt, Viven Foster, Lalita M. Moorty, Ricardo Puliti, Karlis Smits, Daria Taglioni, Penny Williams, and many colleagues provided thoughtful comments and suggestions.

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Executive Summary

The war in Ukraine is causing an enormous humanitarian crisis. More than 12 million people are estimated to have been displaced and more than 13 million need urgent humanitarian assistance. Ukraine's economy is being devastated. Trauma suffered by the population will have enduring consequences.

The war is triggering global ripple effects through multiple channels, including commodity markets, trade, financial flows, displaced people, and market confidence. In the surrounding region, a large wave of refugees will put pressure on basic services. The damage to Russia's economy will weigh on remittance flows to many neighboring countries. Disruptions to regional supply chains and financial networks, as well as heightened investor risk perceptions, will weaken regional growth.

The war has markedly eroded near-term global economic prospects. The initial global economic impact has primarily been through commodity markets. Prices for commodities that Russia and Ukraine supply, including energy, wheat, fertilizers, and some metals, are sharply higher. In many emerging market and developing economies (EMDEs), rising food and energy prices are exacerbating poverty and, in some cases, food insecurity, and heightening inflation pressures that were already building. Financial markets have been volatile amid increased uncertainty and geopolitical tension. Many commodity-importing EMDEs have seen capital outflows and markedly higher borrowing costs. Expected monetary tightening in advanced economies has also accelerated, heightening vulnerability to financial stress in EMDEs.

If protracted, the war could further dampen global confidence and weaken global growth, worsen food insecurity, and increase financing costs and the risk of financial crises in some EMDEs. It could also intensify policy uncertainty and lead to fragmentation of global trade and foreign investment networks—channels that in the past have played a fundamental role supporting growth, poverty reduction, price stability, and energy and food security. These risks could be magnified by ongoing vulnerabilities, including high debt and low inventories of some commodities, such as wheat and oil. These risks are interrelated and mutually amplifying and could possibly lead to a hard landing for the global economy.

Mitigating the effects of the war on lives, livelihoods and economic growth will require carefully calibrated policies. A concerted effort will be needed to house refugees, meet their basic needs, and foster smooth integration into host communities. When the war subsides, a large mobilization of resources will be needed for reconstruction in Ukraine. Under the pressure of higher prices for food and other essentials, governments may be tempted to implement price control and subsidy policies, but these could prove counterproductive. Instead, appropriately calibrated safety net policies can protect vulnerable groups from sharply higher consumer prices. Monetary and financial authorities can communicate clear, data-dependent strategies to control inflation, while strengthening macroprudential frameworks to guard against financial stress. To offset the damage to long-term growth, including from disruptions to global trade and investment networks, reforms to improve business climates, strengthen human capital, and boost productivity are needed. These policy interventions are all the more important in light of the lasting adverse impact of the pandemic on human capital formation.

I. Introduction

Russia's invasion of Ukraine is causing an intense humanitarian crisis. More than 12 million people are estimated to have been displaced and more than 13 million require urgent humanitarian assistance. Ukraine's economy is being devastated and the acute trauma suffered by the population will have enduring consequences.

The war in Ukraine has set back the global response to—and the recovery of the global economy from—the COVID-19 pandemic.¹ Prior to the invasion, the world was focused on the health and economic challenges caused by the pandemic: reversing the severe loss of human capital and supporting the global economy amid an uneven recovery characterized by lingering supply bottlenecks; the withdrawal of policy support; and rising inflation, including for food and energy. The war has already added an immediate global adverse impact, especially through commodity markets.

The war is worsening near-term global economic prospects. It is having significant economic spillovers through commodity and financial markets, trade and migration linkages, and investor and consumer confidence. Because of their substantial direct trade, financial, and migration ties with Russia and Ukraine, neighboring countries in Eastern Europe, the South Caucasus, and Central Asia are expected to suffer considerable economic damage. Several major economies in Europe are dependent on Russia for natural gas and oil, and they will also continue to be adversely affected. While most of the effects has been limited to the region thus far, there are also important implications for the global economy. Sharply higher food and energy prices are adding to inflation pressures and leading to expectations of markedly faster monetary policy tightening around the world. Moreover, since Russia and Ukraine are large exporters of commodity inputs that are upstream in many global value chains, shortages of these commodities may severely affect a wide range of industries globally, including food, construction, petrochemicals, and transport.

The war has increased the risks to global growth. It has increased the likelihood of acute financial stress across emerging market and developing economies (EMDEs), a de-anchoring of inflation expectations, and widespread food and energy insecurity. A protracted war could heighten global policy uncertainty and lead to lasting fragmentation of global financial, trade, and investment networks. Human capital would also be further affected, including in neighboring countries, like those in Central Asia and others being impacted by spikes in food insecurity, especially for vulnerable households. Severe education losses would also have long-run implications for human capital formation in Ukraine. The materialization of any of these risks could further degrade the fundamental drivers of growth, weighing on long-run growth prospects, and increasing poverty and inequality.

The war requires a coordinated response at the global, regional, and national levels. The global community needs to support humanitarian relief efforts and share the burden of sustaining refugees. When hostilities subside, a large-scale mobilization of resources will be needed to reconstruct Ukraine. At a time when countries will be tempted to implement trade restrictions and price controls and intervene with subsidies and similar measures, it is critical to construct a coordinated response to avoid

¹ This note reflects information and data as of April 13th, 2022.

counterproductive policies. Otherwise, individual countries' decisions could trigger a race to the bottom, delay economic recovery even more and exacerbate fiscal imbalances, inflation, and food insecurity. At the national level, policy makers need to avoid introducing distortive policies in response to surging commodity prices, opting instead to offer targeted support to vulnerable households and expanding social safety nets. Pressures on fiscal space and increasing vulnerabilities also call for protecting essential basic services like education and health, especially for the poor and vulnerable. In addition, monetary policy efforts can focus on moderating inflation expectations by avoiding surprise announcements, improving communication, and strengthening commitments to a credible monetary framework. With the disruption in oil, gas, and coal markets, measures to increase energy efficiency and reduce dependence on fossil fuels have become even more pressing.

This policy note is organized as follows. The next section outlines the state of the global economy on the eve of the invasion. Section III briefly describes the sanctions imposed on Russia in response to the invasion. Section IV discusses the impact of the war on the global economy thus far. The subsequent section examines how this impact may affect the global economic outlook. Section VI concludes with policy implications.

II. Global conditions before the war

The global economy was already slowing before the outbreak of hostilities. After reaching an estimated 5.5 percent in 2021, global growth was expected to slow to 4.1 percent in 2022 and 3.2 percent in 2023 (figure 1.A; World Bank 2022a). The projected slowdown reflected intermittent COVID-19 flareups, the exhaustion of pent-up demand, reduced monetary and fiscal policy support, and lingering supply disruptions. These forecasts masked uneven prospects, with that of EMDEs lagging substantially behind advanced economies (figure 1.B).

Most EMDEs were ill-prepared to face another adverse economic shock. The pandemic had exacerbated unprecedented debt runups in most EMDEs (Kose, Ohnsorge, and Sugawara 2021). By the end of 2021, EMDE fiscal deficits were wider than at the onset of the pandemic, with current account deficits similarly deteriorated (figure 1.E and 1.F). Vulnerabilities were particularly acute in low-income countries, with about half of them either experiencing or at high risk of debt distress (World Bank 2022a).

Logistical bottlenecks, shortages of intermediate inputs, and sluggish supply of energy commodities had been fueling global inflationary pressures. Global inflation had repeatedly surprised central banks and market participants on the upside (figures 1.C and 1.D). After declining to 1.2 percent (year-on-year) in May 2020, global inflation reached 6.5 percent in February 2022, mainly due to supply disruptions and rising food and energy prices. Global inflation was expected to peak in the first half of 2022 before declining through 2023, aided by well-anchored expectations in the majority of countries.

The withdrawal of macroeconomic support in 2022-23 was set to continue. Most advanced economies were expected to gradually tighten monetary policy, unwind long-term asset purchases, and raise policy rates. In EMDEs, the withdrawal of monetary policy support had begun earlier, and was expected to quicken to stave off inflationary pressures. Meanwhile, fiscal policy would keep tightening in most

countries over 2022-23, with attendant impacts on basic services and human capital already affected by COVID-19.

Prior to the invasion, economic recoveries in Ukraine and Russia were already being held back by lingering structural issues. Ukraine's economy had been slowly recovering from the pandemic, as drags from high energy prices and fiscal consolidation partly offset the boost to exports from a bumper harvest and improving domestic demand amid easing COVID-19 restrictions. A broad-based recovery was hinging on completing key reforms to stimulate private sector-led growth and job creation by addressing bottlenecks to investment. After rebounding strongly in 2021, growth in Russia was set to moderate to 2.4 percent in 2022. Continued recovery was hampered by high inflation, tighter macroeconomic policy support, rising geopolitical tensions, and lingering structural issues. Despite these headwinds, Russia had accumulated sizable macroeconomic buffers in recent years. Following the annexation of Crimea and the oil price plunge of 2014-16, Russia introduced an inflation target, exchange rate flexibility, and a fiscal rule that directs excess oil and gas revenue to the National Wealth Fund. It had also accumulated substantial foreign exchange reserves while running a large current account surplus, which reached a record US\$ 159 billion on a 12-month rolling basis in February 2022.

III. International response to the invasion

In response to Russia's invasion of Ukraine and subsequent actions, a number of countries have imposed escalating financial, trade, and other sanctions (Box 1). The extent of these sanctions is unprecedented for an economy of Russia's size and economic significance. They have been implemented on top of existing sanctions.

- **Financial sanctions.** The United States, the European Union (EU), and other countries have imposed blocking sanctions on the Central Bank of the Russian Federation (CBR). These prevent the Russian authorities from accessing foreign exchange reserves in the custody of institutions in sanctioning countries, or the liquidation of which would require access to financial systems in sanctioning countries. This amounts to freezing about half of Russia's foreign exchange reserves. Transactions with Russia's National Wealth Fund and Ministry of Finance have similarly been blocked. Seven Russian banks—including VTB, the country's second largest—have been cut off from the SWIFT financial messaging system. Other prominent banks—including Sberbank, Russia's largest—are subject to direct sanctions ranging from restricted access to correspondent banking networks to outright blocking of all transactions with entities in sanctioning countries. The United States and United Kingdom have also implemented a ban on new investment in Russia, widening prohibitions on investing in the Russian energy sector and some other entities.
- **Trade sanctions.** The United States, the EU, and other countries have enacted a growing list of export bans, import restrictions, and other trade sanctions on Russia. Restrictions on exports to Russia have focused on "dual-use" technologies, including semiconductors, goods and services related to aviation, aerospace and oil and gas production, and luxury goods. Measures to curtail imports from Russia include plans to reduce energy purchases, alongside a wide array of tariffs,

import bans and restrictions on other Russian goods and services. Regarding energy, the United States has ended all imports of Russian fossil fuels, the United Kingdom is phasing out Russian coal and oil imports, and Japan and the EU are phasing out Russian coal imports. The EU is also actively considering sanctions on Russian oil, while Lithuania has become the first European country to cease Russian gas purchases. In addition, the US, EU, and UK have closed their airspace to Russian flights. In response, Russia has demanded payment for energy in rubles and introduced additional export licensing restrictions, including within the Eurasian Economic Union, in an effort to secure domestic food supplies (World Bank 2022b).

- **Other sanctions.** A large number of asset freezes and travel bans have been introduced targeting the personal wealth and activities of specific Russian officials, politicians, and businesspeople. In addition, more than 150 multinational companies have announced complete withdrawals from Russia, while a further 250-plus have suspended operations or new investments. Entities and persons in Belarus associated with Russia's invasion, including financial institutions and defense and security sector companies, are subject to various travel bans, asset freezes and export bans.

IV. Impact on Ukraine and Russia

The war has caused an enormous humanitarian crisis in Ukraine. Urban centers in many parts of the country have been badly damaged, maritime, road and rail transit have been severely disrupted, and vital economic and social service infrastructure including power generation, digital infrastructure, bridges, and ports has been destroyed or rendered unusable. As of the end of March, nearly 6 million Ukrainians had little or no access to safe water. About 12 million people are estimated to have been displaced as of mid-April and a similar number of people—especially the elderly and infirm—urgently require humanitarian assistance (UNHCR 2022). The war is also substantially eroding human capital. It is likely to have a particularly acute impact on children by increasing malnutrition and stunting, reducing years of schooling, and worsening labor market outcomes (Akresh, Caruso, and Thirumurthy 2022; Acosta et al. 2020).

Ukraine's economy is being devastated. To support the economy and ease pressures on FX reserves and banks, Ukraine imposed emergency financial measures (including capital controls and banking sector restrictions) and announced tax deferrals, while fully meeting domestic and external debt obligations. These measures have helped to prevent financial collapse. Economic activity in Ukraine has been rendered impossible in some areas, with the war destroying a critical amount of productive infrastructure and forcing businesses to close. Goods trade has come to a grinding halt, as damaged transit routes impede shipment by land while the loss of access to the Black Sea cuts off all seaborne trade, which accounts for half of Ukraine's exports. The war is expected to halve output in 2022, with GDP falling around 45 percent, according to the World Bank's recently released *Europe and Central Asia Update* (Table 2; World Bank 2022b). The forecast assumes the war continues for several more months but remains contained to the geographical areas where it is currently occurring. Going forward, Ukraine will require additional

external financial assistance and its debt will likely have to be restructured to support a robust reconstruction and recovery and to anchor fiscal sustainability.

In Russia, financial asset prices have sustained severe losses, with the economy likely to remain at risk of financial turmoil for the foreseeable future. Yields on Russian dollar-denominated debt have surged, while activity on the Moscow Stock Exchange was suspended between February 25th and March 24th after sharp falls in equity prices (figure 2.A). The trading of Russian securities has also been suspended on many international exchanges, with Deutsche Boerse, for example, halting all trading in Russian securities until further notice at the beginning of March. The value of the ruble fell as much as 40 percent in two weeks following the start of the war, but has since substantially rebounded as capital controls were imposed, with Russian authorities taking numerous steps to prevent foreigners selling ruble-denominated assets or hard currency leaving the country. To help limit the ruble's depreciation and ensuing inflation, the CBR raised its policy interest rate by 10.5 percentage points in late February, to 20 percent; it subsequently reduced it to 17 percent on April 8th as pressures on the ruble abated. In late March, the Russian government had announced it would require European energy imports to be invoiced in rubles. European countries have resisted the proposed change of payment terms and it is as yet unclear whether or how it will be enforced.

Russia has been assigned a “selective default” credit rating, and credit default swap prices indicate a high probability of future sovereign default. The likelihood of a sovereign default increased in April when the Russia attempted to service international debt in rubles rather than dollars, following moves by the U.S. government to block Russian debt service payments made from dollar accounts held with U.S. financial institutions. Subsequently, S&P Global Ratings assigned a “selective default” rating to Russia, indicating that it was unlikely the ruble payments would be converted to dollars within a 30-day grace period, starting April 4th, 2022 (Govind 2022). On April 11th, a creditor committee determined that Russian Railways was in default on participation notes in a Swiss franc-denominated loan, marking the first international default by a Russian entity since the war started (Strohecker and Do Rosario 2022).

The Russian economy is being tipped into a recession. High-frequency indicators point to a sharp decline in economic activity in March, with the composite PMI falling deep into contractionary territory as sanctions trigger a collapse in domestic demand. Inflation soared alongside the initial depreciation of the ruble and supply shortages, rising from 9.2 percent (y/y) in February to 16.7 percent (y/y) in March. For this year as a whole, Russia's GDP is projected to contract by about 11 percent compared to previous projections for a 2.4 percent expansion (World Bank 2022b). The withdrawal of many foreign enterprises from Russia and a sharply deteriorated outlook will dry up investment, while pressure on households from fast-rising prices and declining incomes will weigh heavily on consumption; this will only be partly offset by fiscal policy support. Import compression due to the plunge in demand and export bans to Russia will ameliorate external financing. Nonetheless, the disruption of imports has already interrupted domestic production, including in the automobile and aerospace sectors. Announced bans and reductions in purchases of Russian oil and gas are expected to lead to a moderate fall in shipments this year. Exports of key high-tech goods—including software and semiconductors—to Russia have been banned which

will starve it of critical inputs and exacerbate supply chain disruptions in the country. The current package of sanctions will have a lasting negative effect on Russia by curtailing oil production due to the exit of foreign oil companies, fall in investment, and reduced access to foreign technology.

V. Regional and global impact

Several economies in Europe and Central Asia (ECA) have been particularly hard hit because of strong linkages with Russia and, to a lesser extent, Ukraine. Linkages through trade, remittance, commodity, and confidence channels are especially tight in Eastern Europe, the South Caucasus, and Central Asia (figures 2.B and 2.C). A steep slowdown in Russia and Ukraine will affect neighboring countries through disruptions to trade, financial, and remittance flows; severance of supply chains and transport links; impacts on digital connectivity and associated services; and heightened risk perceptions by investors. Higher energy prices are having important knock-on effects on the affordability and financial viability of electricity and heating services. Remittances from Russia account for a sizable share of GDP in economies such as Tajikistan and the Kyrgyz Republic (figure 2.D). The real value of remittances from Russia is expected to drop substantially through a combination of reduced economic activity and a weaker ruble. Russia, and to a lesser extent Ukraine, are also major export destinations for several ECA economies and an important source of tourists to some countries in the region. Overall, growth in ECA excluding Russia and Ukraine is set to slow sharply from 7.8 percent in 2021 to 2.2 percent in 2022 (World Bank 2022b).

Outside ECA, direct economic exposure to Russia and Ukraine is generally small (Table 1). Russia and Ukraine account for a combined 2.2 percent of global GDP, 2.2 percent of global exports and 1.7 percent of global imports, and a negligible fraction of global foreign direct investment assets and bank claims.² Nearly half of exports from Russia consist of fuels and energy related products. While several jurisdictions have indicated plans to phase out Russian energy imports, at present energy has not been directly sanctioned beyond U.S., U.K., and Canadian import bans on Russian hydrocarbons. Nonetheless, energy exports are being indirectly affected, for example through difficulties making transactions or obtaining insurance. Euro area linkages with Russia are small and have declined since 2014; China's linkages with Russia have increased but remain limited. Russia was the world's sixth largest source of tourism in 2019 (by expenditure) and a large decline in Russian tourists will be material for global tourism. For most of the region's economies, trade and financial linkages are much stronger with the euro area than Russia. In nearly all ECA economies, exports to Russia and Ukraine are less than 5 percent of total exports, while tourists from Russia and Ukraine usually account for up to one quarter of tourist arrivals.

² That said, the share of importing and exporting firms in EMDEs directly exposed to Russia or Ukraine is likely higher than the combined share of Russia and Ukraine in global trade. For instance, the share of exporting firms directly exposed to Russia or Ukraine exceeds 20 percent in Georgia and Ecuador (Fernandes and Forero 2022).

Nevertheless, the war will reverberate globally through commodity and financial markets, as well as refugee flows. It has already caused the largest refugee crisis in Europe since World War II, surges in commodity prices, disruptions to global trade, and financial market volatility. The spillovers from the war are expected to be negative on net for most EMDEs and have contributed to downgrades to near term growth in the East Asia Pacific, and South Asia regions (World Bank 2022c; World Bank 2022d). The net effect is also likely to be negative for Latin America and the Caribbean, despite the prevalence of net commodity exporters in the region, as a sluggish supply response, the squeeze on energy importers, and implications for inflation and monetary policy more than offset potential export gains (World Bank 2022e). In contrast, the Middle East and North Africa region as a whole will likely see upgrades to near-term growth as the net benefits of sharply higher oil prices to oil exporters outweigh the net losses to oil importers in the region (World Bank 2022f). The next section discusses the channels of transmission in turn. These will have consequences that can have permanent effects in the absence of a robust policy response.

V.1 Refugees and remittances

The war has led to a large refugee crisis. Over 7 million people have been displaced within Ukraine, while UNHCR is reporting the number of refugees (to neighboring countries) at 4.7 million as of the 15th of April (IOM 2022; UNHRC Data Portal 2022). A large share of refugees are women and children. Of the estimated 7.5 million children in Ukraine, 4.3 million (57 percent of the total) have been displaced: 1.8 million (24 percent of total) are estimated to have fled to neighboring countries as refugees, and another 2.5 million (33 percent of total) are internally displaced (IOM 2022; UNHRC 2022).

The wave of refugees from Ukraine will affect Central European economies. It will test their capacity to mobilize aid to meet immediate needs. The health, education, and social protection systems in some host countries already had challenges to deliver services to more remote areas and to include marginalized groups. This could impact host countries' abilities to provide basic services and impact refugees. Support will be needed for both refugees and host communities to avoid overwhelming local public services.

A recession in Russia will affect Central Asian economies. In addition, hundreds of thousands of Russians are reported to have fled their country and it is likely that many migrant workers in Russia will be affected by income losses or forced to return home. This will impose economic hardships at the household level but also severely impact reserves of some of the Central Asian countries heavily dependent on remittances. The war is magnifying other vulnerabilities, including high debt distress risks in the Kyrgyz Republic and Tajikistan. Both countries are expected to experience a contraction in output this year, wider deficits, and sharp exchange rate devaluation.

The South Caucasus will also face spillovers from the war. The South Caucasus region will be hard hit because of its strong economic links with Russia. Armenia and Georgia rely on Russia as an important export destination and source of tourism receipts and remittances. The South Caucasus

depends heavily on imported wheat from Russia and has been adversely affected by Russia's announced restrictions for various agricultural products. Some of these drags could be offset by the influx of Russian migrants, particularly of educated and skilled workers, which could have positive effects in the near term on domestic demand and in the medium to long term on the labor supply.

V.2 Global commodity markets

Russia and Ukraine are major exporters of several commodities. As a result, the war has triggered large surges and volatility in the prices of these commodities.

- **Russia** is the world's largest exporter of *wheat*, accounting for 18 percent of global exports; Ukraine accounts for a further 7 percent. Russia is also the largest exporter of *natural gas* (25 percent), *palladium* (23 percent), *nickel* (22 percent), and *fertilizers* (14 percent). It also accounts for 18 percent of global exports of *coal*, 14 percent of *platinum*, 11 percent of *crude oil*, and 10 percent of *refined aluminum*.
- **Ukraine** is the largest exporter of *seed oils* primarily used in cooking, accounting for two-fifths of global production, and is also the fourth largest exporter of *corn*, accounting for 13 percent of global exports. Ukraine also produces up to 50 percent of global neon gas which is a critical element used in chipmaking.

Energy and agricultural commodity prices have surged. Price increases have been large for commodities where Russia and Ukraine are key exporters (figure 3.A). Since the beginning of the war, coal prices have jumped by 60 percent, European natural gas by more than 30 percent, and wheat prices by around 40 percent. Brent crude oil prices reached a 10-year-high of \$130 per barrel at the beginning of March as the UK and US banned Russian oil imports; however, prices later fell to close to \$110 per barrel. Prices have been extremely volatile, with very large intraday moves, and in the case of oil, shifts in futures curves (figure 3.B). Sanctions on financial intermediaries have also made it costlier to settle transactions involving Russian oil. Russia has struggled to find buyers for its crude as a result, and the price of Urals (the Russian benchmark) has been trading at a discount of more than \$25/bbl relative to Brent (figure 3.C). As noted earlier, the increases in the price of agricultural commodities and related inputs such as fertilizers are particularly pernicious, as they compound the impact on poor and vulnerable groups.

The rise in commodity prices comes on top of sharp increases since January 2022. In addition to geopolitical risk premia, the overall rise in prices has been driven by rebounding demand for commodities as the global economy recovers. Production among OPEC+ countries has also been weaker than expected (figure 3.D). Higher energy costs have pushed up prices of other energy-intensive commodities, such as fertilizers and aluminum. Inventories of industrial commodities have fallen sharply, particularly for crude oil and tin.

Europe's dependence on Russia for energy renders its economy vulnerable. The euro area is grappling with a 400 percent increase in gas prices and a doubling of oil prices since January 2021. Increasing

energy prices account for nearly two thirds of the 7.5 percent increase in euro area annual inflation in March 2022 and are weighing on euro area production costs and purchasing power.³ Should Russia curtail exports of crude oil and/or natural gas to Europe, regional prices would spike further—Russian exports account for more than 35 percent of the euro area’s imports of natural gas, more than 20 percent of oil, and 40 percent of coal (figure 3.E; Bachmann et al. 2022). Russia is also dependent on the euro area for its exports, with around 40 percent of its crude oil and natural gas going to the euro area. While Russia may eventually be able to redirect some of its exports of gas and oil to others, this will be constrained by the existing pipeline infrastructure.

Some EMDEs rely heavily on Russia and Ukraine for food and fertilizer. Russia and Ukraine account for more than 75 percent of imports of wheat in many countries, especially in ECA, MNA, and SSA (figure 3.F).⁴ Similarly, for corn and seed oils, Ukraine accounts for a large share of imports of some countries. Ukraine’s wheat production is concentrated in the South and East of the country where the conflict is most intense, and the spring planting season for other key crops such as corn, barley, and sunflowers is expected to be partially disrupted. Logistics relating to transporting crops also remain a challenge; about 90 percent of Ukraine’s grain trade flows through Black Sea ports that are not currently operational. Russia has recommended that fertilizer manufacturers halt exports of fertilizer, which will hinder food production in parts of the world, since Russia is the largest exporter of fertilizers, accounting for 13 percent of global exports.

Conversely, net commodity exporters, particularly energy exporters, may benefit in the near term from higher commodity prices. The impact is likely to be largest in some Organization of Petroleum Exporting Countries (OPEC) and other energy exporters, especially in Latin America, which will see increased export and fiscal revenues, although some of the windfall may be limited by previous hedging activity. Among some exporters of non-energy commodities, however, the benefits of higher prices will be eroded by increased input costs from energy and fertilizer.

V.3 Global trade flows

The war has disrupted trade, including global transport routes, and adding stress to existing supply disruptions. The reciprocal ban on flights between Russian and European air space risks disrupting global air cargo, pushing global transport costs up as re-routing occurs through longer and more expensive routes, especially between Europe and East Asia. Around 20 percent of global air cargo is reported to be affected by airspace bans. In addition, shipping lines comprising nearly 50 percent of global container shipping capacity have announced they will suspend bookings with Russia, making it more difficult for Russian businesses to export. Trade through the Black Sea has already been

³ Reflecting this concern, the International Energy Agency released a 10-point plan for Europe to reduce its dependency on Russian natural gas (IEA 2022). The EC issued a communique discussing policy options to mitigate the price impact on consumers and businesses, proposing the creation of a Task Force on common gas purchases to aggregate EU bargaining power, and advocating for a jointly coordinated European gas storage policy (EU 2022).

⁴ Many economies in East Asia and the Pacific and South Asia also rely heavily on net energy and food imports.

disrupted, with dry bulk vessels at Ukrainian ports down 82 percent on March 1st relative to the beginning of February. Calls to Russian ports fell by more than 20 percent.

V.4 Global financial markets

Equity market volatility has risen markedly, especially in Europe. The European VSTOXX index briefly spiked to more than 50 in early March and remains unusually elevated. Equity volatility in the United States (as proxied by the VIX Index) also increase substantially in the month following the start of the war, though has since declined somewhat (figure 4.A). Global stock prices fell sharply in early March but have largely recovered.

Sovereign borrowing costs have increased since the start of the war. U.S. 10-year government bond yields have risen considerably, reflecting a range of factors including higher expected inflation. Spreads on EMDE bonds have not widened significantly on average, although bond issuance by EMDEs across February-March was weaker than in the same period of any year since 2016. EMDE-wide averages mask substantial divergence between groups. Excluding Russia, Ukraine and Belarus, sovereign spreads are lower for commodity-exporting EMDEs since the eve of the invasion, but substantially higher for commodity importers (figure 4.B). Debt and equity flows since February 2022 have generally remained positive in LAC and strengthened in MNA—both commodity exporting regions—while turning sharply negative in other regions (figure 4.C).

For some financial institutions, a recession in Russia is likely to result in substantial losses. Some European banks have material linkages with Russian entities facing severe losses, such as Sberbank. In countries whose banks have the greatest exposure, the liabilities of Russian entities account for about 1.5 percent of total banks assets and about 8 percent of total foreign exposures (figure 4.D). The majority of European banking exposures to Russia are through the claims of Russia-based subsidiaries, however, which are primarily funded by local creditors and depositors. Combined with the healthy capitalization of European banks prior to the war, this should reduce the probability of losses being amplified into European bank funding markets. Nonetheless, large equity losses for exposed banks seem probable, as implied by drops in the equity prices of European banks perceived to be exposed to Russia following the introduction of sanctions. The profits and liquidity positions of institutional investors will also be impacted by write-downs on Russian assets with encumbered liquidity, and by the need to hold additional margin against implicated exposures.

V.5 Implications for the near-term outlook

The war has markedly eroded near-term global economic prospects, point to difficult times ahead. The war is affecting global activity through multiple channels, including commodity and financial markets, trade, migration links, and confidence. As a result, advanced economies and many EMDEs are facing weaker economic prospects. Commodity-importing EMDEs are likely to suffer notable adverse consequences due to a deterioration in terms-of-trade, a softening of advanced-economy growth, a deceleration in trade, and a substantial tightening of financing conditions due to rising inflation and higher borrowing costs. In contrast, some commodity-exporting EMDEs (especially

energy exporters) may ultimately benefit from sharp increases in commodity prices if these translate into a sustained improvement in their respective terms-of-trade.

The war heightens various downside risks to the near-term outlook. It could aggravate geopolitical tensions, trigger intense financial stress, worsen refugee crises, exacerbate food insecurity, amplify inflationary pressures, and further weaken long-term growth drivers. These risks could be magnified by global vulnerabilities such as high debt and low inventories of some commodities, such as wheat and oil. These risks are interrelated and mutually amplifying and could possibly lead to a hard landing for the global economy.

- ***Geopolitical tensions and higher uncertainty.*** Russia's actions and the responses of other countries have sharply increased the level of geopolitical risk, weakening confidence and likely heralding a period of high policy uncertainty (figure 5.A). The war could destabilize the region further because of uncertainty about potential escalation, spillovers of economic and political stresses to other countries, and additional sanctions or other policy responses. The risk of large-scale cyber security events linked to heightened geopolitical tensions—including attacks targeting public infrastructure and financial systems—has also increased. High policy uncertainty is associated with weaker investment and trade as firms seek to hedge against adverse outcomes.
- ***Higher inflation and accelerated monetary policy tightening.*** The inflationary pressures caused by surging commodity and food prices may accelerate monetary policy tightening, heighten the risk of stagflation, and increase poverty and inequality (Box 2). Market-based measures of long-term inflation expectations in the United States and Germany have reached their highest levels on record (figure 5.B). While the U.S. Federal Reserve was expected to implement several policy rate increases this year even before the war, higher inflation and inflation expectations may warrant a steepening of this monetary tightening cycle. Similar pressures may emerge in the euro area and in EMDEs. Global financial conditions have already tightened considerably since February. A further tightening will put pressure on EMDEs with pre-existing financial vulnerabilities such as elevated debt, large foreign currency-denominated debts, sizeable near-term debt rollover requirements, and twin current account and fiscal deficits. EMDE commodity importers with weaker credit ratings are especially susceptible to escalating financial strains.
- ***Financial stress.*** The war could worsen risk-off sentiment across a range of EMDEs, while heightened volatility in markets could escalate into broadening financial stress. Given extreme intraday price movements in some commodities and financial assets, market-specific dislocations are an ongoing risk. Already, large companies have faced large margin calls related to extreme volatility in nickel prices, leading to the cancellation of trades and suspension of trading (LME 2022). Financial institutions could also suffer larger than expected losses through under-appreciated exposures to Russia, for example via leveraged non-bank financial

institutions or failures of Russian institutions that propagate across borders in unexpected ways. More broadly, financial instability could spread across countries through a generalized rise in investor risk aversion, leading to capital outflows from EMDEs, currency depreciations, falling equity market valuations, and rising risk premia in bond markets. With debt levels already at historic highs and long-term growth prospects weakened by the COVID-19 pandemic, investors could start to reappraise the sustainability of some countries' debt.

- **Refugee crises.** More than 4.7 million people have fled Ukraine since the Russian invasion (figure 5.C). Globally, refugee levels were already at a historical high in 2020 with over 26 million forcibly displaced as refugees and the Syrian civil war the largest single cause (UNHCR 2021). The war in Ukraine, with more than twice the population of Syria (44 million versus 18 million), is likely to cause many more to seek safety abroad—mostly women and children. Accommodating the sudden arrival of a very large number of refugees with extensive needs is a challenge for host countries which puts pressure on public finances and the delivery of basic services. If protracted, refugee crises may also foster social tensions and political fragmentation. In countries such as Moldova and Poland, the ratio of refugees to local populations could reach extremely high levels—though many may only be in transit.
- **Human development crisis.** Beyond the human tragedy of lost lives, the human costs of the war in Ukraine are large, as learning is deteriorating at a rate not seen worldwide since the Afghan, Yugoslav and Syrian civil wars. The shock of the war is exacerbating a learning crisis already present in Ukraine—schools had already been closed for a total of 36 weeks because of COVID-19, the longest school closure in Europe. Moreover, refugees are moving to countries already impacted by COVID-19 and school closures. For instance, in Poland, estimates suggest that 30 weeks of COVID-19 restrictions imply a loss of the equivalent of a year in school. Low birthweights, polio outbreaks, and other adverse health indicators with critical effects on wellbeing and productivity are being reported.
- **Increased food and energy insecurity.** Disruptions to commodity production could exacerbate food and energy insecurity. Both Russia and Ukraine are major exporters of agricultural commodities, especially to EMDEs in Middle East and North Africa (MNA) and Sub-Saharan Africa (SSA). The war is severely disrupting the shipping of agricultural commodities via ports in Ukraine and Russia and these disruptions could persist for an extended period. A prolonged conflict could severely curtail Ukraine's agricultural output in the near term and weigh on future global agricultural output by sharply increasing the price of inputs, including fertilizer. The reduced global availability of grain—wheat in particular—could cause food prices to rise further across EMDEs, triggering a rise in food insecurity. Countries with a high share of imported grains and oilseeds in their consumption basket are particularly at risk. Indeed, imported cereals exceed 30 percent of dietary energy in over 40 countries supported by the United Nations' World Food Programme, including several African countries (WFP 2022).

The COVID-19 pandemic and its economic consequences have already contributed to the number of undernourished people in the world increasing by more than 120 million since 2019 (figure 5.D); the war could substantially exacerbate this trend. If high wheat and corn prices persist, model-based estimates suggest that they could lower average real household income in EMDEs by 1.5 percent and raise inequality and poverty in many countries (Artuc et al. 2022). More broadly, an additional 1 percent rise in food prices could tip up to 10 million people into extreme poverty (Mahler et al. 2022). Meanwhile, reduced oil and gas exports from Russia could raise energy insecurity across Europe and EMDEs more broadly, causing further energy price hikes.

V.6 Longer-term implications

Global trade, production, and investment networks may become fragmented. Shortages and price spikes of impacted commodities could severely disrupt a range of sectors, including the food, construction, petrochemical, and transport industries. For example, palladium and neon are important inputs in the production of catalytic converters in the automotive industry and microchip lithography in the semiconductor industry, where inventories are already tight. Nickel and copper are widely used in manufacturing and buildings. Sunflower oil, the bulk of which is produced in Russia and Ukraine, is a key input in the cosmetic industry. If disruptions persist, global supply chains and trade may adjust and shift toward more reliable but less efficient producers, to the detriment of consumers everywhere.

High commodity prices and the war are likely to exacerbate debt and other fiscal challenges in many EMDEs, particularly commodity importers. Even for energy exporters the benefits of higher prices will be somewhat offset by fossil fuel subsidies; more than 30 EMDEs, including both commodity importers and exporters, subsidize fossil fuels. Fiscal space in many EMDEs had narrowed significantly due to the pandemic, and higher energy prices are likely to further erode fiscal and current account balances in commodity-importing EMDEs. Pressures for food and energy subsidies, trade protectionist measures, and price controls may increase, despite many of them being fiscally costly and poorly targeted. Indeed, already since the war began, there has been a marked acceleration in governments introducing trade restrictive measures on food products and fertilizers (Chavez 2022). Once in place, these policies are typically difficult to dismantle (Guénette 2020). A number of countries have also announced plans to ramp up defense spending, putting further pressure on fiscal budgets.

The precedents set by sanctions on Russia could lead some sovereigns to reappraise reserves management policies, and the development of decentralized financial technologies could accelerate. These changes can lead to fragmentation of existing financial networks. If governments come to view access to G10 currency reserves as potentially at risk, they may be inclined to diversify more aggressively into instruments denominated in other currencies. Countries may also seek to build increased stockpiles of valuable precious metals and non-perishable real assets, as alternative stores of wealth that can be accessed in a crisis. Such strategies would have increased costs compared to conventional reserves management, but they might be perceived by some governments as worthwhile partial insurance against potential future sanctions and supply disruptions. The extent of coordinated

sanctions applied by the G7 nations could accelerate the development of crypto asset-linked financial products and decentralized financial architectures designed to skirt the existing financial system. Investors may also begin to assign higher “sanction-risk premia” to the assets of countries embroiled in geopolitical tensions.

The war may contribute to a pronounced softening of the fundamental drivers of growth, compounding the lasting damage of the pandemic. Conflict-affected areas could experience serious losses of human capital as displaced populations see their skills and education atrophy as a result of prolonged unemployment and extended schooling disruptions, as well as the impacts from an interruption in essential health services. With physical capital and vital assets destroyed and degraded the recovery will be more difficult without significant capital inflows. More broadly, sharply higher policy and economic uncertainty could weigh heavily on business confidence, reducing the appetite for new investment and the adoption of new technology—both important drivers of productivity growth. Over the longer term, persistent conflict may cause a shift in global norms and a shift away from the current rules-based international economic system, resulting in the fragmentation of trade, investment, and financial networks.

VI. Policy responses

A still unfolding economic crisis requires carefully calibrated policies. In preparing an effective policy response, it is helpful to think of the economic consequences of the Russia-Ukraine conflict on EMDEs as coming in two rounds—one immediate and the other indirect. The war is already affecting the region and the global economy through large and unanticipated changes in the movement of people and commodities, leading to major social consequences. If protracted, the conflict will affect EMDEs through sizeable debt and equity flows triggered by policies to contain the macroeconomic effects of the first round. These changes could have major fiscal and financial implications.

Global, regional, and national responses are needed. Addressing the worsening humanitarian crisis triggered by the war will require a concerted and coordinated effort by the global community. At the same time, tackling the conflict’s many spillovers, including unprecedented refugee flows, commodity market disruptions, food insecurity, and heightened financial market volatility will necessitate a comprehensive menu of national policy priorities. Policy responses at the national level encompass schooling, health services, safety nets, and other essential services.

Global and regional priorities include humanitarian relief followed by reconstruction as hostilities abate. The immediate priority for the global policy community is to support humanitarian relief efforts in war-torn Ukraine. In Europe, a collective effort will be required to develop a regional approach to equitably share the responsibility of housing, sustenance, and possible settlement of refugees displaced by conflict (OECD 2022). The need to protect vulnerable groups and ensure basic services like health and education is also critical. Meanwhile, the global community can expand support to international agencies working to alleviate the burden of rising food prices, including the United Nations World

Food Programme, which face dramatic increases in operational costs (WFP 2022). When the war subsides, a large-scale mobilization of resources will be needed to reconstruct Ukraine and start to rebuild human capital. The economic outcomes of reconstruction can be improved, among many recommendations, by offering grants rather than loans and closely aligning international support with Ukraine's interests (Becker et al. 2022).

National policy priorities include managing the fallout from the war and preparing for the possibility of a fragmentation of global trade, energy, and investment networks. Success will depend on implementing credible and appropriately calibrated fiscal and monetary policy measures that are clearly communicated. Structural measures are needed to mitigate the long-term damage and, if necessary, reduce disruptions caused by an adjustment in international trade and investment networks.

Fiscal policies should factor in the costs of targeted social safety nets. National authorities can expand and strengthen social safety nets to mitigate the impact of food and energy price increases. They can also protect crucial basic services like nutrition, health, and education by introducing policies that support both the supply and demand of such services. Inefficient and distortive policies such as energy subsidies, price controls, and export quotas need to be avoided. To preserve fiscal space, support can be targeted to the most vulnerable populations while investments with the highest economic returns can be prioritized. Commodity exporters experiencing fiscal windfalls can invest these gains in protecting and improving human capital, accelerating business climate reforms, and strengthening governance.

Monetary and financial policies should be strengthened and clearly communicated. Monetary policy authorities can clearly communicate a data-dependent strategy to preserve the stability of inflation expectations without unduly weighing on the recovery. Clear communication will be particularly important to help shape expectations from financial markets, households, and firms so that inflation dynamics do not translate into destabilizing increases in wages and production costs (Coibion, Gorodnichenko, and Weber 2021). In addition, macroprudential policies can be strengthened and risk monitoring systems expanded to guard against the risk of financial crisis; financial forbearance during the last two years will make this a difficult task. Protecting critical financial and other infrastructure and building resilience against possible cyber-attacks is a priority (G7 Leaders' Statement 2022).

Social policies for refugees and migrant workers have to be designed keeping the domestic poor in mind. In frontline countries experiencing a large influx of refugees, the added burden on fiscal expenditures and domestic services can be partially alleviated by removing legislative barriers to work and facilitating labor market access. Some refugees may move on to third countries, which may reduce the pressures on countries neighboring Ukraine, but this requires acceptance by the next set of destination countries. Integrating refugees also requires providing rapid access to education, health, and childcare for displaced children, and putting measures in place to proactively prevent gender-

specific risks such as gender-based violence. An expansion of public services must also support host communities to avoid social tensions and backlash against newcomers.

Structural policies need to be strengthened. The implications of the war also require structural policy responses in a wide range of areas, including energy security, food security and productivity, trade and logistics, and long-term growth potential.

- ***Energy security.*** In the near-term, efforts can be made to increase energy efficiency and diversify sources of energy imports. The latter is likely to require significant investments in infrastructure such as pipelines and liquid natural gas terminals to support new patterns of trade (OECD 2022). Over the longer term, policy makers can accelerate domestic transitions toward low-carbon energy sources by encouraging investment in renewable energy.
- ***Food security and productivity.*** Efforts are needed to ensure uninterrupted trade in agricultural commodities. Trade restrictions on food commodities should be avoided since they tend to exacerbate global food price swings and their impact on poverty (Laborde, Lakatos, and Martin 2019). Instead, well-targeted household support measures, such as cash transfers, can be implemented to protect the poor from global food price rises, backed up by international financial support if necessary. Policy actions to boost the productivity of farmers and entrepreneurs can also include targeted support to producers to cope with rising input prices, and investments aimed at promoting farming systems that use climate-smart techniques and produce a diverse mix of foods. Improving supply chains to reduce post-harvest food losses and better link production to consumption will also be key.
- ***Trade and logistics.*** Geopolitical tensions could have a longer-term impact on supply chain logistics and preferred trading corridors. This will affect, in particular, the substantial trade of high value goods between China and Europe over land, creating the need to diversity routes and expand capacity on more southerly rail corridors.
- ***Long-term growth.*** To offset the damage to long-term growth, including from disruptions to global trade and investment networks, reforms to improve business climates, strengthen human capital, and boost productivity are needed. These are all the more important in light of the lasting damage of the pandemic to human capital formation (Azevedo et al. 2020).

Box 1. Sanctions on Russia

Russian entities and prominent individuals have been placed under a wide range of sanctions by the United States, the European Union (EU), and other countries. These sanctions are the most severe to be implemented on any major economy. They fall into three categories: sanctions on financial institutions, on trade transactions, and on individuals. In turn, Russia has imposed retaliatory sanctions on entities and individuals from the United States, the EU, the United Kingdom, and other sanctioning jurisdictions.

Existing sanctions before the war

New sanctions are being imposed on top of existing sanctions. In response to Russia's invasion and annexation of Crimea in 2014, the United States introduced sanctions on entities and persons considered strategic for the Russian economy, or those seen as undermining Ukraine's democracy, sovereignty, or security; operating businesses in occupied Crimea; or supporting the Russian armaments industry. The U.S. Treasury also restricted the provision of new financing by U.S. entities to selected Russian financial, energy and commodities firms. The United States also put export bans on military, dual-use and energy-related goods. These sanctions are believed to have reduced investment and output, but their precise impacts are difficult to disentangle from the oil price collapse and concurrent domestic policy changes.

Financial sanctions

Financial sanctions have focused on limiting Russia's access to its foreign exchange reserves and impeding the international operations of Russian financial institutions. Most significantly, the United States, the EU, and other countries have imposed blocking sanctions on the Central Bank of the Russian Federation (CBR). These prevent the Russian authorities from accessing foreign exchange reserves in the custody of institutions in sanctioning countries, or the liquidation of which would require access to financial systems in sanctioning countries. This likely amounted to freezing roughly half of the \$643 billion in international reserves that Russia held in mid-February 2022. A large portion of the remaining reserves (around half) is physical gold in Russia. Given G7 sanctions also cover transactions to liquidate gold holdings, it may be challenging for the CBR to monetize gold efficiently without access to G10 currency clearing. Yuan-denominated assets make up most of the balance. There are, therefore, severe constraints on Russia's capacity to support the ruble via foreign exchange interventions or provide dollar or euro liquidity to the domestic banking system. Transactions with Russia's National Wealth Fund and Ministry of Finance have similarly been blocked.

Seven Russian banks—including VTB, the second largest—have been cut off from the SWIFT financial messaging system. SWIFT provides an international network for financial institutions to communicate about cross-border transactions, so cut-offs impede international operations. Other prominent banks—including Sberbank, Russia's largest—are subject to direct sanctions ranging from restricted access to correspondent banking networks to outright blocking of all transactions with entities in sanctioning countries. These sanctions make much international business for sanctioned banks non-viable and are distinct from SWIFT-related actions because financial institution themselves are targeted, rather than their means of communication. The United States and United Kingdom have also implemented a ban on new investment in Russia, widening prohibitions on investing in the Russian energy sector and other specific entities.

In all, up to three quarters of Russia's banking sector by assets is estimated to be under international sanctions of varying severity (World Bank 2022b). It should be noted that exceptions have been built into the structure of some sanctions to allow certain categories of transaction. For example, U.S. sanctions stipulate those payments related to energy purchases may continue, while payments servicing Russian debt obligations can be received by U.S. persons until late May. Russia's ongoing sales of oil and gas also imply that, while the pre-war stock of international reserves is largely frozen, Russian institutions retain the ability to build new reserves, albeit with the added complexity of needing to avoid sanctioned entities.

Trade sanctions

The United States, the EU, and other countries have enacted a growing list of export bans, import restrictions and trade sanctions on Russia. While these are likely to have less instantaneous effects than financial sanctions, their impacts on economic activity relying on industrial and technological imports will build quickly and sustain over time.

Restrictions on exports to Russia have focused on ‘dual-use’ technologies, including semiconductors, goods and services related to aviation, aerospace and oil and gas production, and luxury goods. Dual-use technologies are those with potential military as well as civilian applications. Restrictions on oil and gas inputs are intended to degrade the efficiency of Russian extractive industries in the future and may be compounded by voluntary withdrawals from Russia by prominent multinational oil and gas companies. Aviation restrictions could quickly degrade Russia’s commercial air fleet, given the concentration of airplane manufacturing supply chains in sanctioning countries. A large proportion of airplanes currently in Russia belong to lessors from sanctioning countries who are required by sanctions to terminate contracts with Russian airlines. It remains unclear what will happen to these planes. Bans on exporting semiconductors into Russia will diminish Russian capacity to manufacture a wide range of industrial and consumer technological goods.

Policies intended to curtail imports from Russia encompass a widening array of tariffs and import restrictions, including plans to reduce energy purchases from Russia in the coming months. The United States has banned imports of Russian fossil fuels and Canada has banned Russian oil imports (though these only made up a small fraction of U.S. and Canadian energy imports), while Lithuania has become the first European country to end purchases of Russian gas. The United Kingdom has announced a phasing out of Russian coal and oil imports by the end of 2022, while the EU and Japan are also phasing out Russian coal imports. The EU is also actively considering further sanctions on Russian oil imports, while the European Commission has endorsed an EU-wide reduction to Russian gas imports by two-thirds by end-2022. A coalition of allies has moved to rescind Russia’s most-favored-nation status at the World Trade Organization, opening legal routes to a wide range of tariffs and import prohibitions. Alongside, allies variously banned or increased tariffs on imports of a range of Russian exports (for example, steel, cement, wood, fish and seafood products, alcoholic beverages, and non-industrial diamonds). To compound logistical impediments to Russian exports, the EU has also banned Russian vessels from accessing EU ports and cut off all but essential road freight from Russia and Belarus.

In addition, the United States, the EU, and the United Kingdom have closed their airspace to Russian flights. As well as limiting commercial air connections, this will further impede Russia’s trade connections by reducing air freight options. **Russia has introduced export bans in retaliation to sanctions and has suspended grain exports to surrounding Eurasian Economic Union countries.** The Russian government has banned the export of over two hundred products to countries imposing sanctions on Russia, but the ban does not include critical raw materials or energy commodities. Separately, a restricted licensing regime has been introduced for Russian grain exports to the Eurasian Economic Union in an effort to secure domestic Russian food supply (World Bank 2022b).

Other sanctions

A large number of asset freezes and travel bans have been introduced targeting the wealth and activities of several Russian officials, politicians, and businesspeople. Asset freezes can have implications beyond the targeted individual when they also result in blocking sanctions against companies majority-owned by sanctioned persons and entities.

Further to formal sanctions, a large number of multinational companies have voluntarily withdrawn from Russia. More than 150 multinational companies have announced complete withdrawals, while a further 250-plus have suspended operations or new investments. As well as adding to the reduction of economic activity in the short-term, the almost total cessation of FDI will curtail Russia’s longer-term economic prospects. In some cases, voluntary withdrawals may have material impacts on strategic sectors of the Russian economy—example, the withdrawal of oil majors such as Shell and BP.

Belarus has also come under new sanctions. Belarussian entities and persons associated with Russia’s invasion, including financial institutions and defense companies, are variously subject to travel bans, asset freezes and export bans. While not as extensive as sanctions on Russia, these measures build on prior sanctions and will strain Belarus’ already fragile economy.

Box 2. Implications of the War in Ukraine for Global Inflation

The war in Ukraine has fueled global inflation, which was already running above target in the majority of inflation-targeting advanced economies and EMDEs. As such, it may trigger a faster monetary policy tightening than currently expected. EMDE policy makers need to focus on calibration, credibility, and communication of their policies to make their economies more resilient to sudden shifts in global financial markets.

Recent inflationary shocks. Amid a rapid rebound in global activity from the depth of the pandemic-induced global recession in Q2 2020, global inflation had risen to over 6 percent in February 2022, its highest level since 2008. Inflation is now running well above inflation targets in almost all advanced economies and most inflation-targeting EMDEs. The energy and food price surge triggered by Russia's invasion of Ukraine has further fueled inflation.

Prospects for inflation. In the near-term, inflation is likely to remain elevated as demand and supply shocks pass through wage and price setting processes. Over the medium-term, current inflation expectations point to a return of inflation to low and within-target inflation (Ha, Kose, and Ohnsorge 2022). As central banks tighten monetary policy and pandemic-related fiscal stimulus is unwound, growth will slow; as the supply disruptions caused by the war in Ukraine are priced in, commodity prices will stabilize; and as global production lines and logistics adjust, supply bottlenecks will ease (Reifenschneider and Wilcox 2022). After decades of building credibility, inflation expectations are likely to remain well anchored over the medium-term (Armantier et al. 2022). There is a material risk, however, that recent inflationary shocks combine with a fading of structural forces of disinflation to usher in an era of higher inflation that weakens the anchoring of inflation expectations. This would mark a turning point after two decades of low and stable inflation.

Risk of rapid monetary policy tightening. If this risk materializes, advanced economy central banks may have no choice but to increase policy rates more rapidly than currently anticipated. A sudden upward shift in interest rate expectations in the United States could lead to a sharp repricing of risk by financial markets. The macroeconomic effects of an abrupt tightening of global financial conditions, as well as weaker consumer and business confidence, would compound the unwinding of global fiscal support and deepen the global slowdown underway. This could interact with heightened macroeconomic vulnerabilities in EMDEs to trigger an even sharper slowdown in growth as negative spillovers via confidence, trade, and commodity price channels would reduce private sector activity. These countries would experience capital outflows, leading to currency depreciation, which in turn would worsen debt burdens and further boost inflation. Foreign currency-denominated debt accounted for one-half or more of government debt in one-half of EMDEs in 2020. Even when not denominated in foreign currency, government and private debt at multi-decade highs makes these economies vulnerable to rising borrowing cost and rollover risk.

Structural forces for inflation. Globalization, robust policy frameworks, demographic changes, structural factors, and technological advances have been instrumental in keeping inflation low over the past five decades. Should these forces recede, increases in short-term inflation may become more persistent, and thus may threaten the anchoring of long-term inflation expectations (Ha, Kose, and Ohnsorge 2019). For example, rising protectionist sentiment and geopolitical risks may slow or even reverse the pace of globalization; mounting public and private debt in EMDEs in the past decade could weaken commitment to disciplined fiscal and monetary policy frameworks; global aging is expected to lower saving rates and raise inflationary pressures.

Policy implications for EMDE central banks. EMDEs and advanced economies may find themselves in a steep and prolonged monetary policy tightening cycle to bring inflation under control. Communicating monetary policy decisions clearly, building and leveraging monetary policy credibility, and strengthening monetary policy frameworks, including by safeguarding and further buttressing central bank independence, will be critical to manage inflation. Inflation expectations are unlikely to remain well anchored when fiscal sustainability is at risk. The withdrawal of pandemic-related fiscal support therefore needs to be finely calibrated and closely aligned with credible medium-term fiscal plans. Policy makers need to address investor concerns about long-run debt sustainability by strengthening fiscal frameworks, enhancing debt transparency, upgrading debt management, mobilizing government revenues, and improving spending efficiency.

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Table 1: Exposures to economic activity in Russia and Ukraine

	Tourist arrivals from Russia and Ukraine (percent of tourist arrivals)	Fertilizer imports (percent of fertilizer imports)	Energy imports from Russia and Ukraine (percent of energy imports)	Wheat imports from Russia and Ukraine (percent of wheat imports)	Share of wheat imports from Russia and Ukraine in caloric intake	Food imports from Russia and Ukraine (percent of food imports)	Exports to Russia and Ukraine (percent of goods exports)	Imports from Russia and Ukraine (percent of goods imports)	Remittance inflows from Russia and Ukraine (percent of remittance inflows)	FDI liabilities to Russia and Ukraine (percent of FDI liabilities)
Advanced economies	1.4	5.9	7.7	0.0	0.0	1.1	1.2	1.9		
EU-27	2.6	29.9	29.4	18.7	0.0	5.9	2.2	2.9		
EAP	0.4	2.8	2.3	10.1	9.2	2.1	0.4	0.8	0.0	0.1
ECA	15.4	25.0	34.6	4.2	4.3	8.5	5.3	9.9	17.8	3.4
LAC	0.2	15.7	0.0	0.0	0.0	0.1	0.4	0.5	0.0	0.0
MNA	1.2	2.5	0.7	39.1	10.4	5.1	0.1	1.7	0.0	0.0
SAR	1.6	2.2	1.0	44.9	3.2	10.4	0.5	1.5	0.0	0.1
SSA	0.4	4.5	0.0	31.5	22.5	3.8	0.1	1.4	0.0	0.0

Sources: Food and Agriculture Organization; International Monetary Fund; UNComtrade; USDA; World Bank; World Tourism Organization.

Note: Green indicates that the median country's exposure in the region is in the bottom tercile of the EMDEs; red indicates that it is in the top tercile.

(a) Tourist arrivals refer to non-resident tourists at national borders by nationality in 2019. For countries where this data series is not available, estimates use number of non-resident visitors at national borders by nationality; (b) share of fertilizer imports from Russia and Ukraine as percent of total fertilizer imports in 2020; (c) share of energy imports from Russia and Ukraine as percent of total energy imports in 2020; (d) share of wheat imports from Russia and Ukraine as percent of total wheat imports in 2020; (e) share of wheat imports from Russia and Ukraine as percent of total wheat imports in 2020 multiplied by the share of dietary energy supply derived from cereals, roots and tubers multiplied by the share of wheat imports over wheat consumption; (f) food imports from Russia and Ukraine as percent of total food imports in 2020; (g) exports to Russia and Ukraine as percent of goods exports, 2019-20 average; (h) imports from Russia and Ukraine as percent of goods imports, 2019-20 average; (i) share of remittance inflows from Russia and Ukraine in total remittance inflows, 2017; (j) share of FDI liabilities to Russia and Ukraine in total FDI liabilities, 2019-20 average.

Table 2. Growth projections

	2020	2021e	2022f	Percentage point differences from January 2022 Projections 2022f;
Ukraine	-3.8	3.4	-45.1	-48.3
Russia	-2.7	4.7	-11.2	-13.6
Europe and Central Asia excl. Russia and Ukraine	-1.4	7.8	2.2	-1.2
Europe and Central Asia (ECA)	-1.9	6.5	-4.1	-7.1

Source: World Bank (2022b)

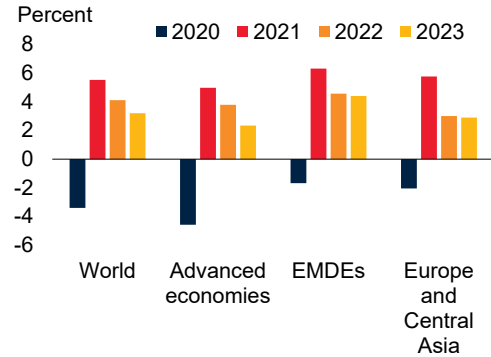
Note: World Bank forecasts are frequently updated based on new information and changing (global) circumstances. Consequently, projections presented here may differ from those contained in other Bank documents, even if basic assessments of countries' prospects do not differ at any given moment in time. Due to lack of reliable data of adequate quality, the World Bank is currently not publishing economic output, income, or growth data for Turkmenistan, and Turkmenistan is excluded from cross-country macroeconomic aggregates. GDP is measured in average 2010-19 prices and market exchange rates.

e = estimate; ECA = Europe and Central Asia; f = forecast.

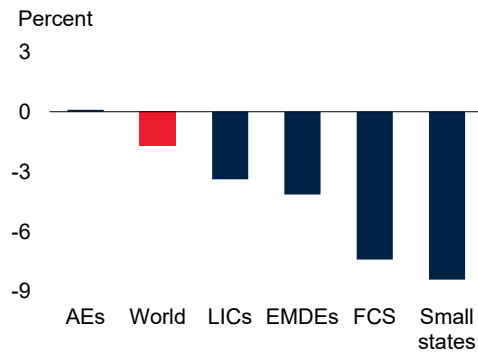
Figure 1: Global economic context

Prior to the war in Ukraine, global growth was already expected to slow sharply, with notable divergences between advanced economies and EMDEs. Supply bottlenecks are being exacerbated by the war. Ongoing global inflationary pressures have been compounded. EMDEs face heightened financial and external vulnerabilities.

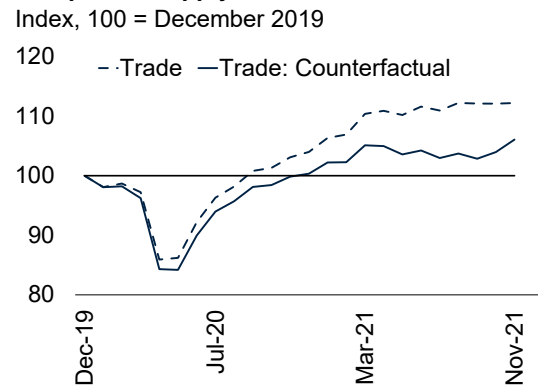
A. Global growth, January 2022 GEP



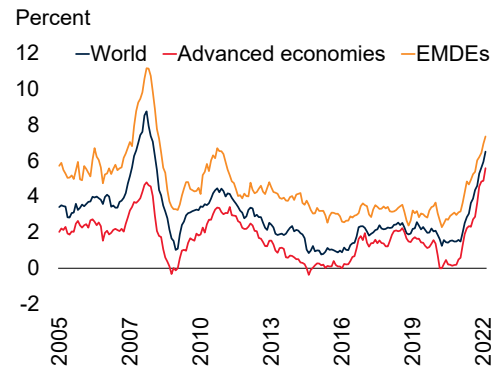
B. Deviation of output vs pre-pandemic trends in 2023



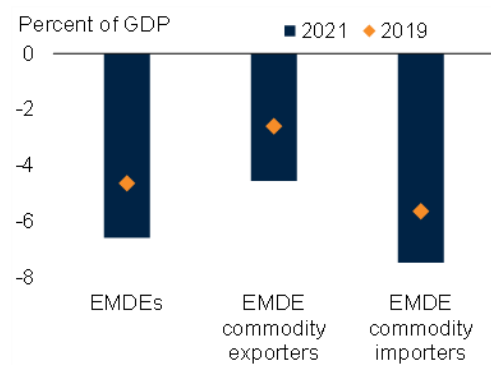
C. Impact of supply bottlenecks on trade



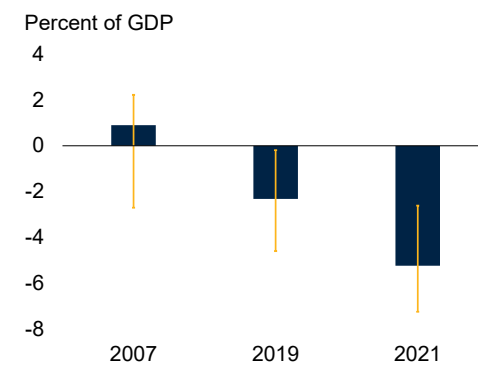
D. CPI Inflation



E. Fiscal Balance



F. EMDE current account balances



Sources: Consensus Economics; Ha, Kose, and Ohnsorge (2021); Haver Analytics; International Monetary Fund; Kose et al. (2021); World Bank.

Note: AEs = advanced economies; EMDEs = emerging market and developing economies; FCS = fragile and conflict-affected situations; LICs = low-income countries. Small states are EMDEs with a population of less than 1.5 million.

A,B,E. Aggregate growth rates and levels are calculated using GDP weights at average 2010-19 prices and market exchange rates. A. Data for 2021 are estimates and data for 2022 and 2023 are forecasts.

B. Figure shows the percent deviation between the levels released in the January 2020 edition of the Global Economic Prospects report (World Bank 2020).

C. The effect of supply bottlenecks is derived from OLS regressions. Estimations are performed over the period 2000-19.

D. CPI refers to consumer price index. Year-on-year group median inflation for 31 AEs and 50 EMDEs.

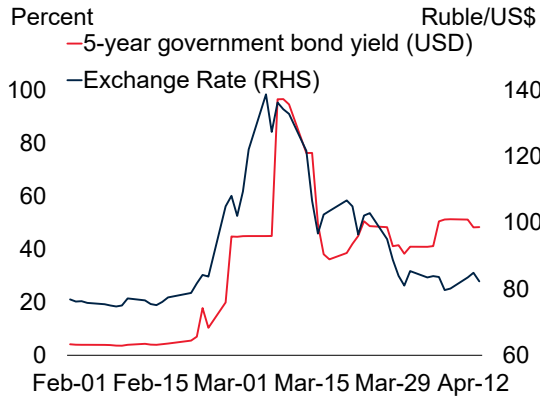
E. Aggregate includes 155 EMDEs—93 EMDE commodity exporters and 62 EMDE commodity importers.

F. Bars show unweighted average current account balances for EMDEs, yellow whiskers indicate interquartile range.

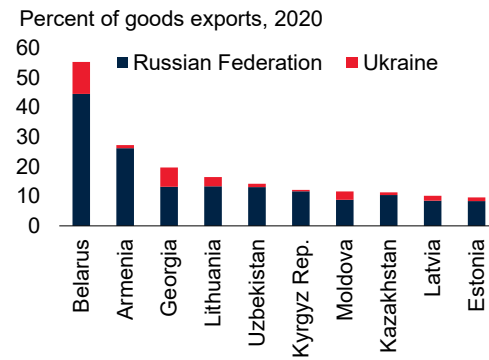
Figure 2: Potential spillovers from Russia and Ukraine

Following the imposition of sanctions, Russia's financial markets have seen significant dislocations. Direct trade and financial linkages with Russia and Ukraine are important for neighboring countries but less so globally. However, Russia and Ukraine are key exporters of a wide array of commodities.

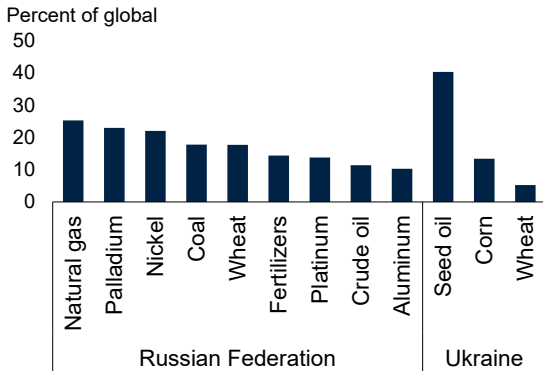
A. Russia's financial markets



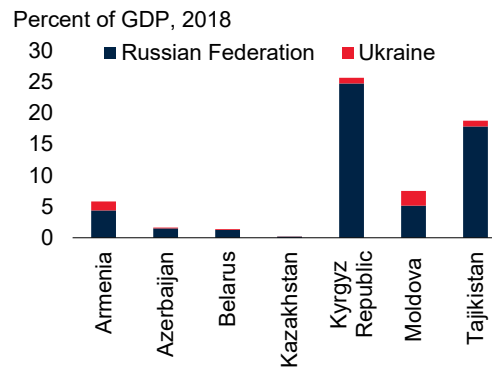
B. Trade links with Russia and Ukraine



C. Russia and Ukraine commodity exports as share of global exports



D. Remittances



Sources: Bloomberg; Haver Analytics; Comtrade (database); World Bank.

A. Five-year government bond yield refers to yield on Russian sovereign bonds denominated in U.S. dollars. Last observation is April 13, 2022.

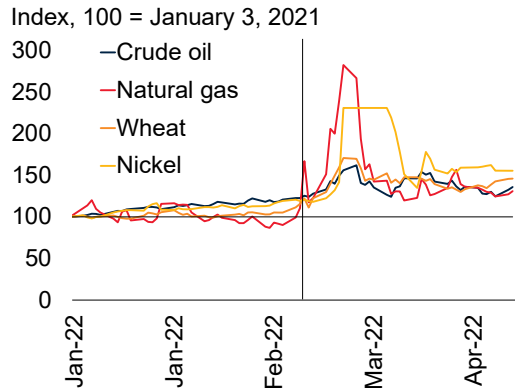
C. Data for 2020. Export shares for energy commodities are in volumes, and for non-energy commodities are in value terms.

D. Data for quarter ending September 2021

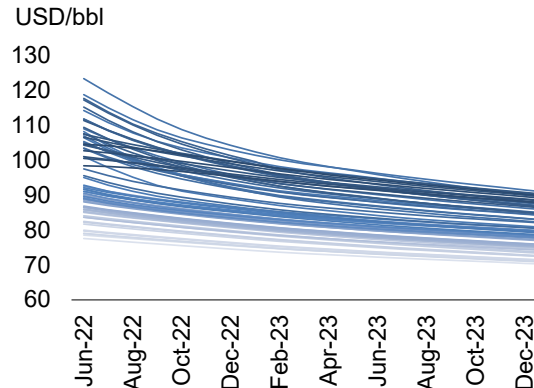
Figure 3: Impact so far: Commodity market developments

The prices of commodities supplied by Russia and Ukraine have risen sharply since the onset of the war. Oil prices have been exceptionally volatile, with futures curves displaying a wide range of future price outcomes in response to news. Spared from sanctions, Russian crude oil continues to find international buyers, albeit at a steep discount. Crude oil prices have been supported by lower-than-expected production among OPEC+. Russia is the dominant gas supplier for many European countries, while many EMDEs source wheat imports from Russia and Ukraine.

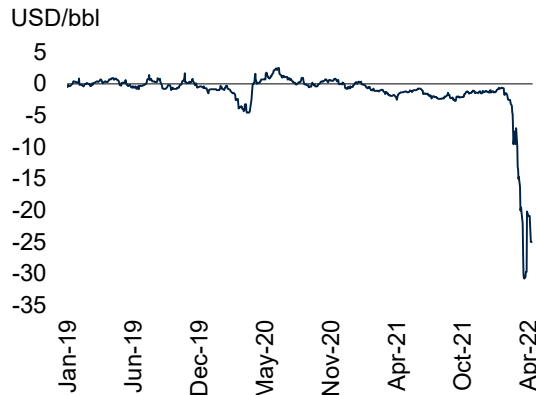
A. Commodity price changes since January 3rd



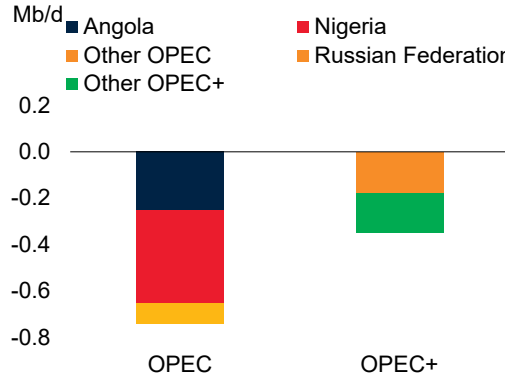
B. Brent crude oil price futures curves since January 3rd 2022



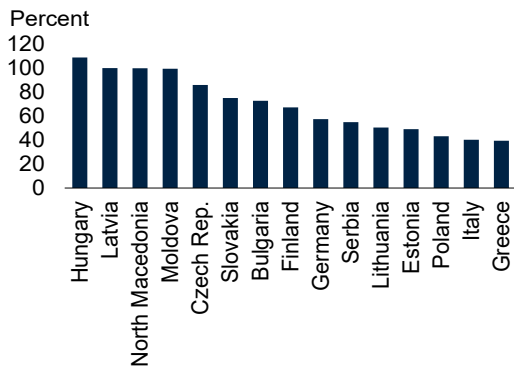
C. Spread between Urals oil price and Brent oil price



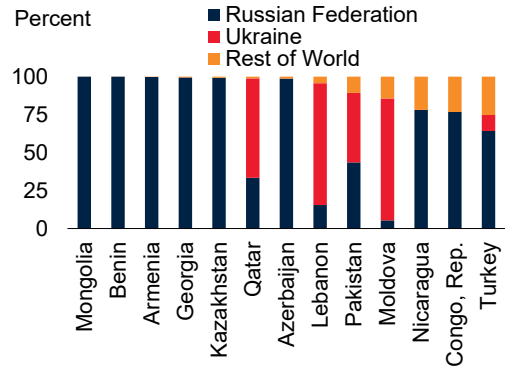
D. OPEC+ oil production vs target in February 2022



E. Europe's dependence on Russian natural gas



F. Geographical composition of wheat imports



Sources: Bloomberg; IEA (2022); World Bank.

A. Crude oil refers to Brent. Natural gas is European natural gas. Last observation is April 13, 2022.

B. Futures prices available until December 2023.

C. Last observation is April 13, 2022. Urals is the benchmark price for Russian crude traded on international markets.

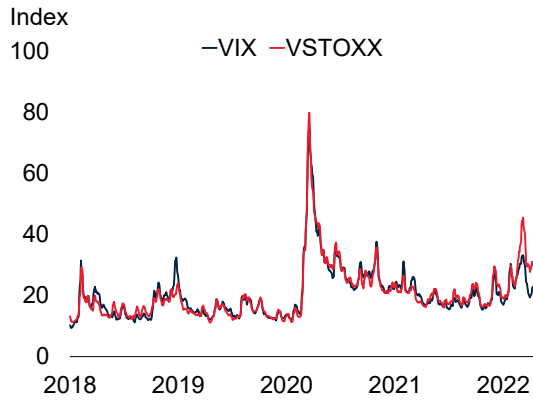
D. Change in crude oil production compared to target set by OPEC countries for February 2022.

E. Dependency is defined as imports from Russian Federation over consumption. Data for 2020. F. Data for 2020.

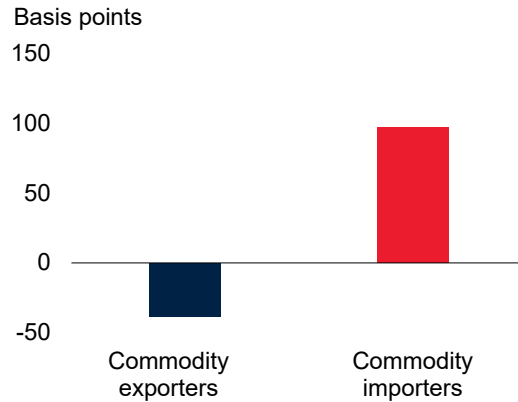
Figure 4: Impact so far: financial markets

Equity volatility has spiked, especially in Europe, while debt and equity flows have turned sharply negative and sovereign spreads have risen for commodity importers. However, European banks' exposures to Russia appear mostly contained.

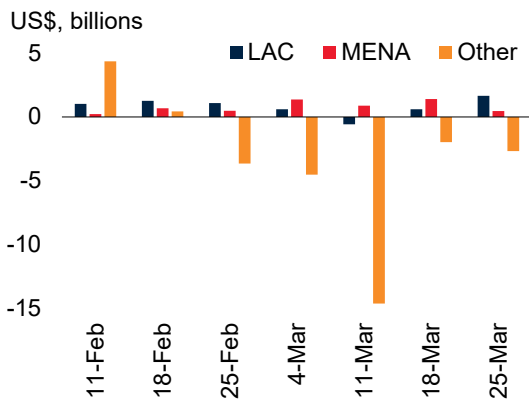
A. Increased global equity volatility



B. Cumulative increase in EMDE sovereign spreads by commodity status



C. Net weekly debt and equity inflows



D. Bank claims on Russia and Ukraine



Sources: Bloomberg; Institute of International Finance; JP Morgan; World Bank.

A. Graph shows 5-day moving average of VIX and VSTOXX equity volatility indices. The last observation is April 13, 2022.

B. Figure shows the difference in average bond spreads between the latest available data and February 23, 2022. Last observation is April 11, 2022.

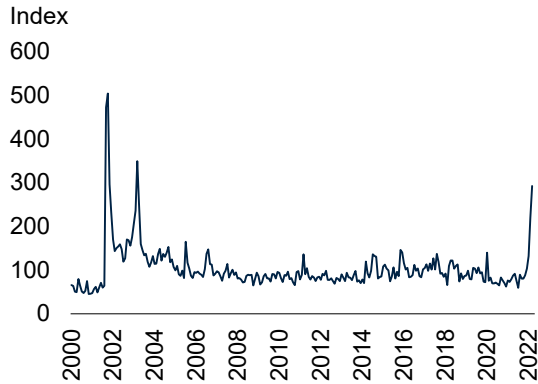
C. Data for 19 countries. Sample does not include Russia or Ukraine.

D. The chart shows claims of BIS reporting foreign banks on Russian residents on a consolidated basis. For each reporting country, claims are expressed as shares of total outstanding cross-borders claims.

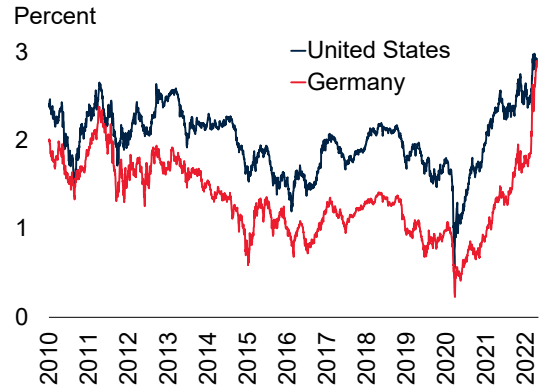
Figure 5: Risks to global growth

The war could escalate, increasing the level of geopolitical tensions. It is stoking already significant inflation, increasing the risk of a faster tightening of monetary policy in advanced economies and EMDEs. Millions of Ukrainians have fled to neighboring countries, greatly exceeding previous refugee flows from the Balkan and Syrian wars. Disruptions to global agricultural production and shipping are contributing to sharply higher food prices, which could in turn push millions into food insecurity.

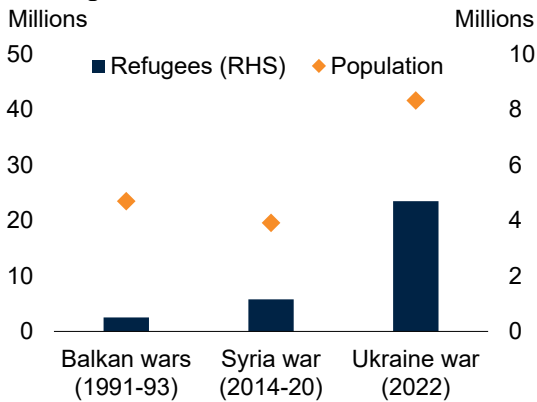
A. Geopolitical risk



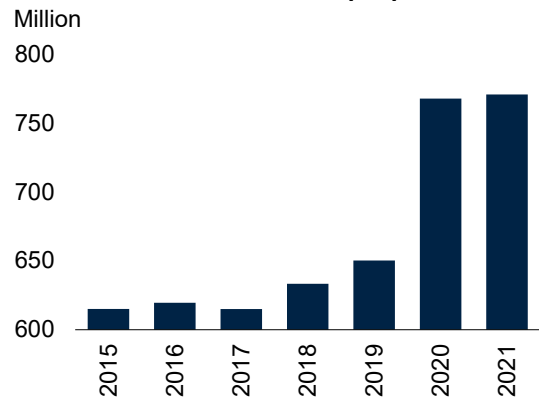
B. Ten-year inflation expectations



C. Refugees from war



D. Number of undernourished people in the world



Sources: Bloomberg; Caldara and Iacoviello (2021); Eurostat; Food and Agriculture Organization of the United Nations; World Bank; World Food Program.

A. Chart shows monthly average of daily geopolitical risk index (1985-2019 average=100) as in Caldara and Iacoviello (2021). Last observation is April 11, 2022.

B. Figure shows 10-year breakeven inflation expectations derived from 10-year government bond yields and 10-year inflation-protected government bond yields. Last observation is April 13, 2022.

C. Current estimate of refugees fleeing Ukraine is 4,796,245 as of April 15, 2022, based on UN data.

D. Data for 2022 is estimate.