



Russia-Ukraine War and Its Impact on Global Oil and Food Prices

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Abstract

Due to the war between Russia and Ukraine, oil and gas prices and food prices have risen worldwide. This disruption has affected the distribution and production of trade commodities for which Ukraine and Russia are key players. Among the reasons for the price increase were oil and food items, such as wheat, oilseeds, and gas. Due to this, people who are low-income survivors have a hard time surviving. In response, policymakers provided relief for these people with subsidies or lowered taxes. However, these short-run subsidies are inadequate and ineffective remedies that will lead to a shortage of supplies. Through targeted measures, such as cash transfers, policymakers can reduce the impact of these higher prices on lower-income households. Historically, commodity price shocks have induced policy and market responses that led to a larger supply of resources and, in the case of oil price shocks, greater efficiency in consumption and substitution away from oil. Likely, the recent price spike will once again spur more efficient energy consumption and a faster transition away from fossil fuels, especially if policy responses are supportive. We collected data from different sources, including the World Bank, the IMF, and the International Energy Agency, and reports from British Petroleum and the European Commission. The trends show that besides the rise in energy prices, prices of food items are also increasing, and this trend is making people's lives very hard. These price hikes will have the most significant impact on low-income countries, and this will also lead to food shortages worldwide. Changes in relative prices will also affect global food production. As a result of the war, however, there are many uncertainties related to food supply availability, and low-income countries may have a prolonged need for international assistance due to the war.

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Introduction

On February 24, 2022, the Russian army attacked Ukraine. As a result of the attack, countries receiving about 60% of Russian exports and contributing about 55% of global GDP restricted Russia's commercial and financial relations (Bulletin, 2022). As a result, the global economy has started to slow down. Now the world is facing an extraordinary increase in food and energy prices, especially in Europe and developing countries, as a result of the Russian-Western confrontation over Ukraine's invasion. In all of its manifestations, the conflict in Ukraine is having dangerous cascade effects on a global economy already devastated by COVID-19 and climate change. UNCTAD has predicted, based on its most recent predictions, that the conflict will significantly disrupt the already constrained food, energy, and financial markets, resulting in a full percentage point slower growth rate of GDP than predicted (UNCTAD, 2023). Ukraine and the Russian Federation are the breadbaskets of the world. They export one-fifth of their maize, half of their sunflower oil, 30% of world wheat and barley, and one-fifth of their maize (United Nations, 2020). Russian Federation is also the world's second-largest oil exporter and top natural gas exporter. Belarus and the Russian Federation, two neighboring countries, export around a fifth of the world's fertilizers together. Consequently, commodity prices are at all-time highs. On April 8, 2022, the Food and Agriculture Organization of the United Nations (FAO) released its third straight record food price index. The cost of food is at an all-time high since FAO started tracking it, up 11% from last year (FAO, 2023). The price of crude oil has increased by more than 86%, and the price of gas and fertilizer has doubled (Bloomberg, 2022). Developing nations' vulnerable communities are more vulnerable to price fluctuations because they spend a large portion of their income on food and energy. Poor nations are often net importers of food, and trade policies that limit exports and imports may increase food prices.

The significant reaction of local energy prices to the conflict in Ukraine may be attributed to Europe's considerable dependence on Russian energy imports. Russian energy imports made up around 29% of crude oil imports and 43% of natural gas imports into the EU in 2020. However, member states' reliance on Russian energy varies greatly, with Germany, Italy, and nations in central and eastern Europe showing the highest levels of dependency (Eurostat, 2022). As a result of a similar analysis, the EU imports more than three-quarters of its natural gas from Russia (43%), Norway (21%), Algeria (8%), and Qatar (5%), while more than half of its solid fossil fuel imports, primarily coal, come from Russia (54%), followed by the United States (16%) and Australia (14%) (Tajoli, 2022).

Russia and Ukraine's position in international trade and impact on global economies

The Global Economy

There have been indications of a slowdown in global economic activity since the start of the year, which has been ascribed to the escalating geopolitical tensions that culminated in Russia's invasion of Ukraine. Inflation has increased almost everywhere and is a result of growing energy prices and supply-side limitations. The crisis in Ukraine is increasing the negative risks to the economic cycle and the upside risks to inflation; it is estimated that in 2022, global trade growth will be nearly 1% lower than it was forecasted before the conflict.

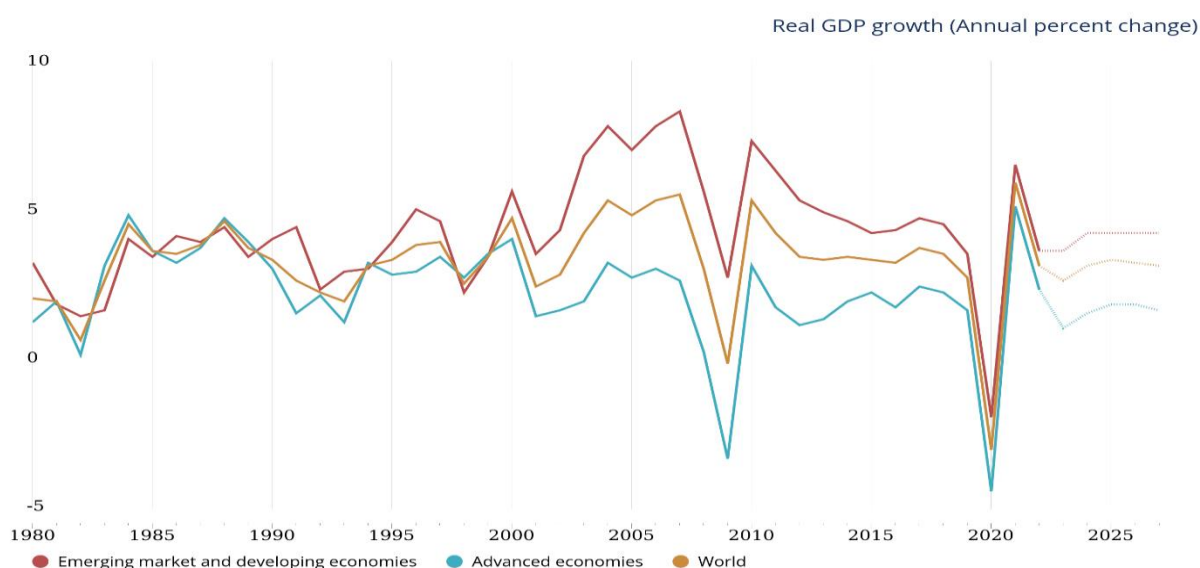


Figure 1 advanced and emerging economies and the world

The above figure shows that developing and underdeveloped countries are experiencing a decrease in GDP due to the pandemic when these nations started the improved conflict made it even harder. As a result of the conflict, the situation has gotten more difficult, and it is predicted that this will affect the whole world, especially developing countries, in the future.

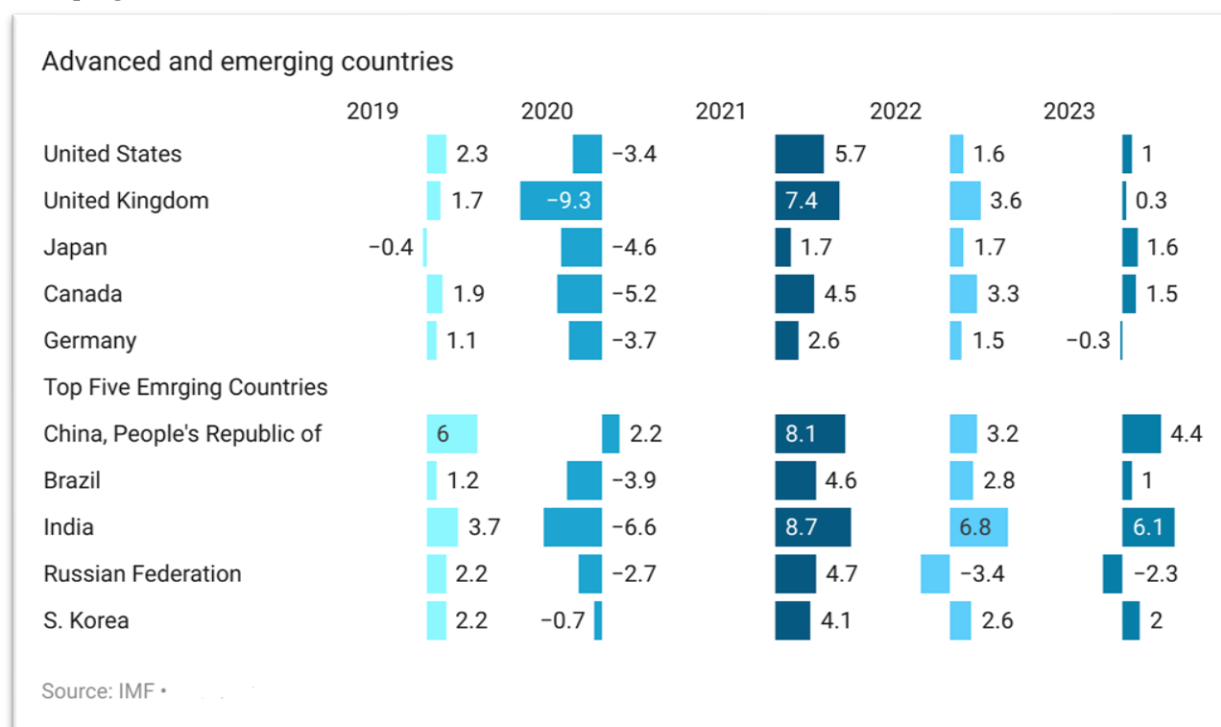


Figure 2 Real GDP growth

The graph above shows the real GDP in five advanced economies and five emerging economies, which are not showing positive signs for the future. The world will have many challenges in the future as well as in the present.

The major advanced economies' economic activity continued to be constrained by high inflation, difficult financial conditions, ongoing supply-side restraints, and uncertainties related to the conflict in Ukraine. According to Table 1, the United States GDP shrank for the second consecutive quarter due to lower investment and government expenditure. On the other hand, the labor market environment remained quite favorable.

Table 1 GDP and world trade growth and macroeconomic projections

GDP and world trade growth and macroeconomic projections (Percentage changes)					
	Growth			Forecasts	
	2021	2022 Q1	2022 Q2	2022	2023
GDP					
World	6.0			3.2	2.7
Of which					
Advanced Countries					
Euro Area	5.3	2.4	3.3	3.1	0.5
Japan	1.7	0.2	3.5	1.7	1.6
United Kingdom	7.4	3.1	0.9	3.6	0.3
United States	5.7	-1.6	-0.6	1.6	1.0
Emerging Countries					
Brazil	4.6	1.7	3.2	2.8	1.0
China	8.1	4.8	0.4	3.2	4.4
India	8.7	4.1	13.5	6.8	6.1
Russia	4.8	3.6	-4.1	-3.4	-2.3

Sources: National statistics for actual data on GDP and the IMF for world GDP; for GDP forecasts, IMF, World Economic Outlook, October 2022 (Lambert, 2020).

The United Kingdom had a noticeable downturn, mostly because of decreased investment. Instead, the rebound in both capital accumulation and family consumption which was aided by a relaxation of pandemic response measures accelerated GDP growth in Japan. The rising economies had different economic patterns. Lockdowns implemented from March through the majority of the spring in several of the key manufacturing centres and unfavourable developments in the real estate sector both dramatically reduced China's economic activity. Due to strong commodity prices that have increased the value of exports and resulted in the accumulation of sizable current account surpluses, the International Monetary Fund's most recent predictions have reduced the predicted decrease in Russian GDP in 2022 from -6.0 in October to -3.4 (Bulletin, 2022).

Ukraine war's impact on trade and development

According to a quick assessment of the war's effects on trade and development by UNCTAD, the prognosis for the global economy is fast deteriorating, with the situation being particularly concerning for African and least developed nations.

Price index (base year = 2008)

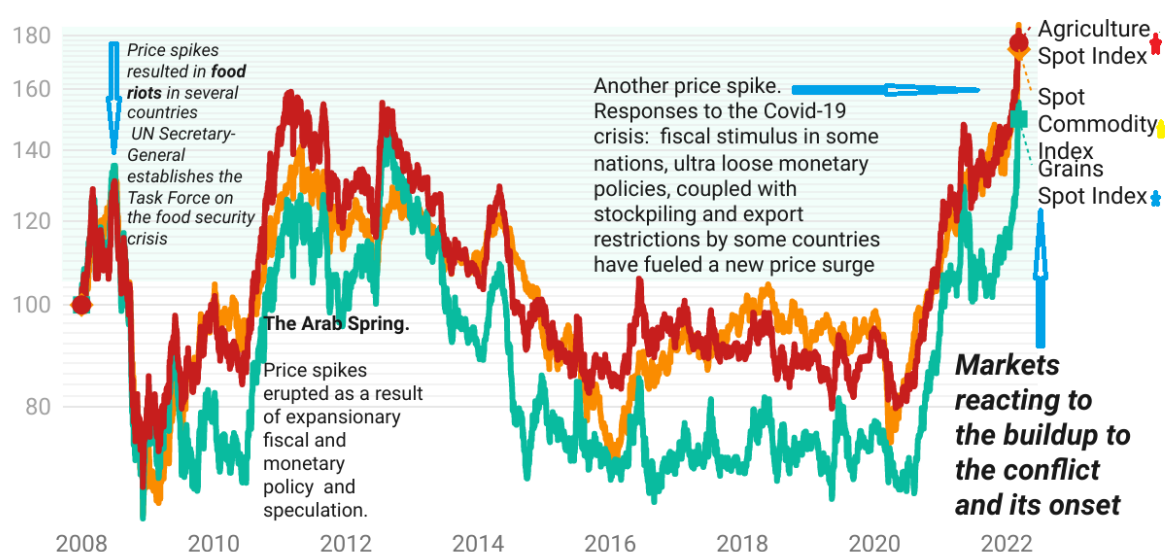


Chart: Mudasir Ahmad Tass • Source: UNCTAD

Figure 3 The link between food price spikes and political instability

It can be seen from the above figure that food prices started increasing due to riots in different countries around the world in 2008. The Arab spring caused the price hike in the world again in December 2010. Since then, it has started again rising due to COVID-19 and is higher than it has ever been due to the war between Russia and Ukraine.

All these factors jeopardize progress in containing COVID-19 and obstruct sustainable growth." Food and fuel markets, the two essential "Fs," are in a state of flux. Russian and Ukrainian exports of wheat and sunflower oil and seeds make up 27% and 53% respectively of the world's agri-food trade (Miriam Kosmehl, 2022). This rapidly changing position is particularly concerning for developing countries. Twenty-five African nations, many of them least developed countries (LDCs), import more than one-third of their wheat from the two at-war nations. More than half (15) of them have a share of half (FAO, 2022). The import basket of the poorest nations often contains more than 5% of items that would likely see price hikes as a result of the conflict. For wealthier countries, the percentage is less than 1% (World Trade Organisation (WTO), 2022)

Trade and production of agricultural products in Ukraine

It plays a critical role in supplying oilseeds and grains to the global market as one of the world's top agricultural producers and exporters. Ukraine has more than 55 percent of arable land. Ukraine's agriculture employs 14 percent of its population. The most important exports from Ukraine are agricultural products. As a percentage of overall exports, they brought in \$27.8 billion in 2021, accounting for 41 percent of the country's \$68 billion (USDA, 2022a).

Table 2 Ukraine Agricultural Production and Exports (Year 2022/23)

Product	Production			Exports		
	Volume (1,000 MT)	Rank Among Global Producers	% of Global Production	Volume (1,000 MT)	Rank Among Global Exporters	% of Global Exports
Corn	25,000	8 th	2.1%	9,000	4 th	4.9%
Wheat	21,500	9 th	2.8%	10,000	8 th	4.9%
Sunflower	9,500	3 rd	19.3%	750	1 st	20.7%
Barley	5,700	7 th	3.9%	1,800	6 th	5.9%
Sunflower Oil	4,085	3 rd	21.4%	3,600	1 st	34.7%
Sunflower Meal	3,924	3 rd	19.0%	2,700	1 st	39.8%
Rapeseed	3,200	6 th	4.0%	2,750	3 rd	16.6%

Source: USDA WASDE and PSD Database, July 2022.

Usually, Ukraine is the leading exporter of sunflower oil and meal as well as the top producer of sunflower seed. Sunflower seeds are planted in April and May, and the harvest usually starts in September. The eastern and south-eastern regions of the country are where most of the production is focused. Ukraine is anticipated to overtake Russia and the European Union as the third-largest producer of sunflower seeds in the marketing year 2022–2023 since the output is anticipated to decline significantly due to obstacles from the conflict. Since 2008–2009, Ukraine has been one of the leading producers of sunflower seeds. Ukraine typically produces one-third of the world's sunflower oil and accounts for close to half of all exports; however, in the marketing year of 2022–2023, it is anticipated that these percentages will drop to 21 and 35%, respectively. India (31 percent), the European Union (30 percent), and China were the top three markets in 2021. (15 percent).

Table 3 Exports of Ukrainian agricultural products in 2021

Product	Value	Top Markets		
TOTAL	\$27.8 billion	EU \$7.7B	China \$4.2B	India \$2.0B
Sunflower Oil	\$6.4 billion	India \$1.9B	EU \$1.9B	China \$0.9B
Corn	\$5.9 billion	China \$1.9B	EU \$1.8B	Egypt \$0.5B
Wheat	\$5.2 billion	Egypt \$0.9B	Indonesia \$0.7B	Turkey \$0.4B
Rapeseed	\$1.7 billion	EU \$1.1B	Pakistan \$0.2B	UK \$0.2B
Barley	\$1.3 billion	China \$0.7B	Turkey \$0.2B	S. Arabia \$0.1B
Sunflower Oilcake	\$1.2 billion	China \$0.6B	EU \$0.3B	Belarus \$0.1B

Source: Trade Data Monitor LLC

Ukraine normally supplies nearly two-thirds of the world's sunflower meal, with exports valued at \$1.2 billion in 2021. In the marketing year 2022/23, Ukraine's share of global exports is projected to decline to 40 percent. Top markets in 2021 were China (48 percent), the European Union (25 percent), and Turkey (7 percent) (USDA, 2022b). In light of the available data, we can project that the world will face challenges in the upcoming years as Ukraine's Agri-product production declines. In order to fill this gap, it would be impossible for the rest of the world to produce enough food. Consequently, this will not only affect the countries importing food from Ukraine but also the whole world because of the need to meet global demand.

Global effects of the conflict on oil prices and food security

Global food supplies are being disrupted as a result of the conflict in Ukraine, with serious ramifications for many poor nations. Russia and Ukraine are both large manufacturers of fertilizer components and exporters of food. However, various nations will experience the war's impacts quite differently. Some nations depend on commodities coming from Ukraine and Russia. Others rely more on the purchase of fertilizers from Russia and Ukraine than they do on food imports. Others, particularly in the long run, will mostly be affected by broad worldwide price hikes (within the next three years) (Eriksen, 2022).

The world's largest exporter of natural gas, which is necessary for heating homes, powering airplanes, and refueling automobiles, is Russia. It is also the second-largest exporter of crude oil. Russia supplies just 6% of its crude oil to the UK and 5% of its gas, but it provides roughly 50% of the gas to the EU. People all across the globe are still affected by energy costs and bills because if one nation dependent on Russian supplies gets less gas and oil, they must replace it, affecting the supply of gas for other countries (Jones, 2022).

Increasing risks to food security in the Mediterranean

For low-income, food import-dependent regions and people, notably those in the Southern and Eastern Mediterranean, the conflict in Ukraine will be a significant strain. Food import costs in these nations are increased by the cost of obtaining food abroad due to the record-high worldwide prices for food, particularly wheat. The cost of importing food is predicted to reach an all-time high of USD 1.8 trillion in 2022, mostly due to increasing prices and representing an additional 3% growth from the record high set last year. This might then result in a further rise in world hunger and malnutrition. (Olu Anisere, 2022).

The major exporters of grains and sunflower oil are the Russian Federation and Ukraine. It's expected that between 20 and 30 percent of the land planted with winter crops will go unharvested. Overall, fewer harvested areas and restricted access to inputs are anticipated to lead to lower yields and grain output. (Food and Agriculture Organization of the United Nations, 2022). Approximately 25% of world wheat exports are expected to come from the Russian Federation and Ukraine in 2021. Jordan and Morocco imported over 30% of their wheat from the two nations, Tunisia and Egypt imported over 40%, and Lebanon imported over 75% of their wheat from these two nations (World Bank, 2022).

The impact of the Russia-Ukraine crisis on Africa

Africa's poorest are the hardest hit as a large

proportion of their consumption expenditure is on food and transport. Food insecurity is likely to last and have a negative impact on all aspects of human development. The most visible impact of the war on Africa is rising fuel and food prices, inflation, and financial instability (United Nations, 2022). The degree of reliance on exports or imports of oil and gas, tourism, imported food, and fertilizer, among other things, determines the true effect on any economy. There are obvious long-term effects, such as a potential realignment of geopolitics, social and economic instability, and unsustainable debt. This will probably result in more inequality and increased poverty (Lusigi, 2022).

The Russian-Ukrainian war is likely to have an adverse impact on several African communities that rely on imported agricultural products. Both nations are significant exporters of foodstuffs, particularly across the majority of Africa. Price increases are making food poverty worse in nations already impacted by climate change and Covid-19 (AFD, 2022).

It has become clear that the 2022 Russian invasion of Ukraine will jolt the world's food supply networks exogenously. It portends unsettling effects for Africa's nutrition and food security. It might undermine attempts to eradicate hunger and poverty on a national and international level. Additionally, it hinders continental attempts to accomplish sustainable development objectives. The availability and cost of agricultural production inputs, local food price inflation, trade restrictions, and other financial measures are the four main ways that the invasion affects African food supply chains (Hatab, 2022).

Future Suggestions and implications

The analysis of the various crises that developing nations are currently experiencing is an urgent plea for an immediate and prompt response from the international community. Time is of the essence. It is unacceptable to wait months to implement the essential actions to avoid another lost decade for development, a widespread debt crisis, and social and political upheaval. The tools and capability are available for the global financial system to respond appropriately and meet the current crisis. Governments of nations that depend on importing food and fertilizer have to diversify their sources of supply in order to assure the availability of food supplies and fertilizers in environments where imports are necessary.

Conclusion

The data used in the research above support Russia's uneven growth and economic fragility, particularly when compared to other rising economies. Despite its size, Russia's dependence on fuel exports led to this weakness, which caused the nation to experience the Dutch disease effect. Despite being a member of the WTO for ten years, Russia has neither developed a competitive manufacturing sector nor fully integrated into the global economic system, and its participation in GVCs is highly distorted. Due to their reliance on imported food and energy, some Middle Eastern and North African nations are particularly vulnerable to economic shocks brought on by the Ukraine crisis. Numerous nations purchase significant quantities of wheat from Russia and Ukraine. The possibility of shortages is extremely real because some countries, like the Gulf Arab states, have large reserves while others, like Lebanon, do not. The countries that rely heavily on Russia will be impacted by the sanctions on Russian grain imports. Due to sanctions on Russian trade, importers are finding it harder and harder to buy grain from Russia. Dependence on foreign oil and gas is another issue. Israel, Egypt, Iran, Iraq,

Libya, and parts of the Gulf Arab states may be immune to the recession, whereas Lebanon, Palestine, Jordan, Yemen, and Tunisia may experience economic hardship with worsening conditions for their people.

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