

One year of war in **Ukraine**

Assessing the impact on global
trade and development



About the WTO

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Executive summary

The war in Ukraine is causing immense human suffering. At the same time, it has delivered another severe challenge to the global economy already strained by the impact of the COVID-19 pandemic. However, the multilateral trading system has withstood this disruption relatively well so far.

Global trade continued to increase in 2022, including for products greatly affected by the war, highlighting the resilience of the multilateral trading system. Early estimates suggest that trade growth was above the WTO trade forecast from April 2022 (around 3 per cent) and substantially higher than the more pessimistic predictions for 2022. This stability is also reflected in trade in supply chains, which grew by

4 per cent year-on-year in the second quarter of 2022, when measured in terms of trade in intermediate goods. Trade in products and by countries greatly affected by the war was remarkably resilient. Even in the short run and for unexpected disruptions, alternative suppliers filled in the gaps – at least for the majority of products affected by the conflict.

For the longer term, new simulations highlight the importance of strengthening the multilateral trading system. The latest simulations run by WTO economists modelling different scenarios for the global economy show that the gains from further multilateral liberalization are large. In line with this, the opportunity costs of decoupling into two rival blocs relative to



Port of Odessa, Ukraine.

more liberalization are estimated at 8.7 per cent of real income at the global level, varying between 6.4 per cent for developed countries, 10.1 per cent for developing countries and more than 11.3 per cent for least-developed countries.

The benefits of reglobalization are not only about income gains but also about resilience and security for the supply of goods. The positive trade performance of countries dependent on imports from the conflict region was facilitated by their ability to switch their import supply to unaffected economies. For example, Ethiopia used to rely on Ukraine and Russia for 45 per cent of its wheat imports. The country reacted to the loss of most supplies from these two countries by increasing purchases from other producers, including the United States (shipments increased by 20 per cent in volume terms) and Argentina, which supplied 21 per cent of Ethiopia's imported wheat, up from zero in the previous year.



Ukraine's exports collapsed by 30 per cent in 2022 in value terms. The drop was relatively consistent across trade partners, although some neighbouring countries, such as Hungary and Poland, increased their imports from Ukraine. This was driven mostly by increased imports of agricultural products such as oilseeds, fats and oils, meat and dairy. Exports of cereals, which are central to the food security of many African economies, declined by 14.9 per cent, forcing these economies to adjust their trade patterns.

Increases in prices led Russia's exports to expand by 15.6 per cent in value terms, but estimates suggest that Russia's export volume might have slightly declined. The increase in Russia's exports in value terms is driven mostly by goods in the primary sector such as fuels, fertilizers and cereals. The relatively limited increase in trade values in combination with the sharp increase in prices for these goods suggests a slight decline in export volume. In contrast, trade flows have fallen sharply for industrial goods, such as motor vehicles, pharmaceuticals and aircraft, where sanctions are likely to be particularly restrictive.

Prices rose for goods most affected by the war but by less than expected at the beginning of the war. Among these products, prices increased between 4.4 per cent for palladium – a key input in the production of catalytic converters in the automotive sector – and 24.2 per cent for maize. While these price increases are substantial, they are significantly lower than the gloomiest predictions. Simulations run by WTO economists in a scenario of cascading export restrictions on food forecast wheat prices increasing by up to 85 per cent in some low-income regions. However, the actual increase was 17 per cent.

The relative restraint by WTO members in imposing export restrictions likely played a key role in keeping price increases in check.

The WTO's latest trade monitoring report, covering mid-October 2021 to mid-October 2022, shows that regular (non-COVID-related) import-facilitating measures introduced by WTO members covered US\$ 1,038.4 billion of trade, far exceeding the trade coverage of import-restrictive measures (US\$ 163.5 billion). This, in combination with the limited price increases in grains, suggests that the success of the WTO's 12th Ministerial Conference, which resulted in the Ministerial Declaration on the Emergency Response to Food Insecurity, has had a meaningful impact on reducing food insecurity.

1 Introduction

The war in Ukraine started one year ago. The human and economic costs are enormous and growing. Through trade, particularly in food and some raw materials, its effects have spread globally, manifested by supply chain disruptions and increased food insecurity. Early assessments of the impact of the war, including a WTO Secretariat note (WTO, 2022), laid out different scenarios for spill-overs to other regions and identified countries and sectors at heightened risk. After one year of war, the WTO Secretariat has reassessed the situation and examined how the multilateral trading system has reacted to the crisis.

This note examines analytically how global trade and the trade of Russia and Ukraine have evolved over the past year. It looks at how countries highly dependent on Russian or Ukrainian exports of agricultural and primary goods have responded to the crisis, and how prices and trade in goods greatly affected by the war have developed. Tracking these impacts is important to understand and address the repercussions of the war for developing economies. It can also reveal how resilient the trading system is and help to identify potential bottlenecks.

This note also studies trade policy responses in the short run and assesses potential long-term impacts of the war under different scenarios. While the immediate impact of the war is most severe on Ukraine, any disintegration of the multilateral trading system in response could significantly harm growth prospects around the world. Mapping out these impacts enables policymakers to compare the effects of different policy options.

The analytical assessment shows that the multilateral trading system has been relatively resilient. While prices for many affected commodities have increased steeply in the aftermath of the war, importers were able to substitute both geographically and across products. Supply from the Black Sea region, for instance, has been replaced by imports from other sources including Argentina, the European Union and the United States. Similarly, imports of wheat and sunflower oil seem to have been replaced by imports of rice and other

Trade is an effective tool to cushion the effects of crises.

vegetable oils. As a result, the direst scenarios foreseen at the onset of the war have so far not materialized. Instead, a flexible, open and rules-based multilateral trading system, supported by a restraint in the imposition of export restrictions by many commodity exporters, has been able to respond and adjust.

In line with this, the results of simulations run by WTO economists indicate that reinvesting in multilateral trade liberalization can create by far the biggest income gains compared to fragmented trade scenarios (Métivier *et al.*, 2023). The opportunity cost of foregoing further multilateral liberalization and moving to geopolitical rivalry instead is estimated at 8.7 per cent at the global level, varying between 6.4 per cent for developed countries, 10.1 per cent for developing countries and more than 11.3 per cent for least-developed countries. This is particularly important as the price hikes triggered by the polycrises of war and pandemic, in combination with other macroeconomic trends, have put a severe strain on the finances of developing and least-developed countries. Additional negative effects from fragmentation would significantly worsen their situation.

Overall, the assessment suggests that trade is an effective tool to cushion the effects of crises. However, this requires a multilateral trading system that remains open and inclusive. Fragmentation and nearshoring would severely limit a country's potential to substitute imports from sourcing partners, as observed in 2022. For example, Ethiopia's reorientation of wheat imports away from the Black Sea region might not have been possible in a trading system divided into separate blocs.

A container ship approaches a storm on the Suez Canal, Egypt.



2 Analytical assessment of the trade and economic effects

Global macroeconomic and trade effects

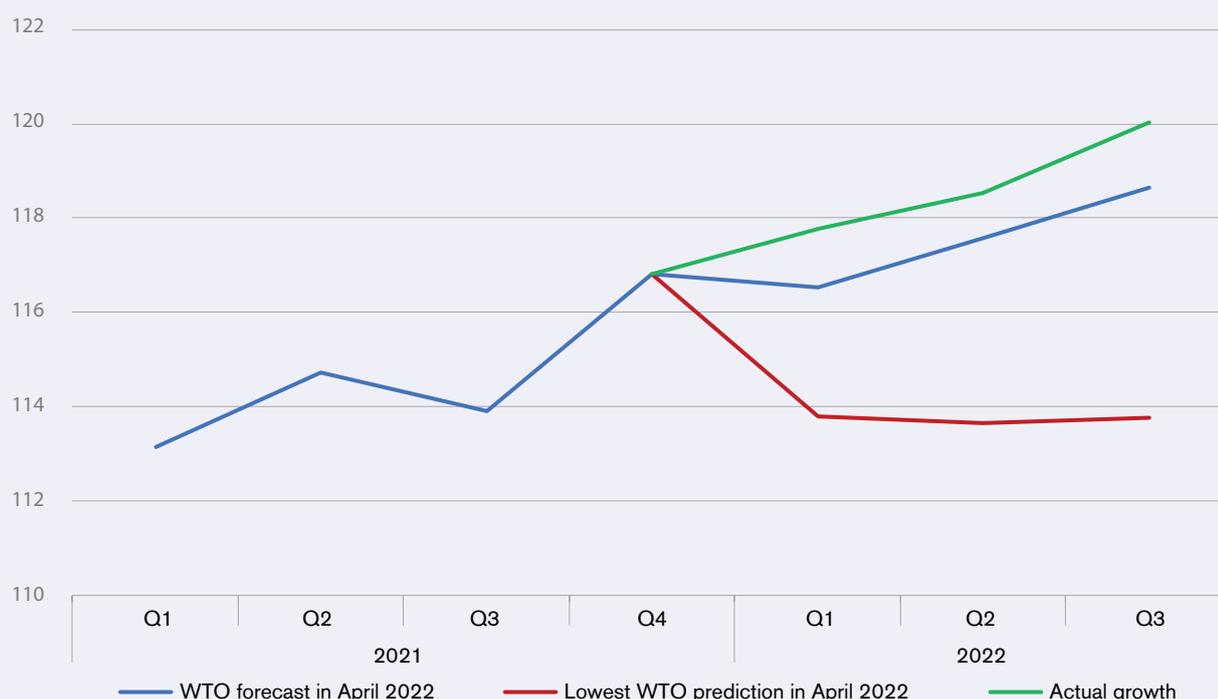
Economic forecasts from the WTO and other organizations were downgraded following the outbreak of war in Ukraine last year. Shortly before the start of hostilities, the International Monetary Fund (IMF) estimated that world GDP at purchasing power parity would grow 4.4 per cent in 2022 and that the volume of goods trade would increase 6.0 per cent (IMF, 2022a). With no fresh economic data available at the onset of the conflict, WTO economists used a simulation model to calculate its likely impact. They estimated that the war would reduce world GDP growth by between 0.7 and 1.3 percentage points, bringing it somewhere between 3.1 per cent and 3.7 per cent. Meanwhile, growth in the trade of goods was expected to halve, bringing the WTO's forecast of October 2021¹ down from 4.7 per cent to between 2.4 and 3.0 per cent, with pessimistic scenarios putting trade growth as low as 0.5 per cent.

While most of these predictions materialized to some degree, worst case scenarios have largely been avoided. Instead, output and trade have been remarkably resilient. The most recent estimates put output growth in the middle of its expected range, while trade growth exceeded the WTO forecast in April 2022 (see Figure 1).² The *IMF World Economic Outlook* of October 2022 forecast GDP growth in 2022 to be 3.2 per cent, later revised up to 3.4 per cent in January 2023 (IMF, 2022b, 2023). Their GDP forecast for 2023 was revised up at the same time, from 2.7 per cent to 2.9 per cent.

Ukraine's total exports decreased by 30% from 2021 to 2022.

FIGURE 1

World merchandise trade volume (Index, 2015 = 100)



Source: WTO estimates.

The WTO's merchandise trade forecast for 2022 was also revised upwards in October to 3.5 per cent, up from 3.0 per cent in April.³ Trade performance was better than expected, which can be attributed to several factors, including relatively strong consumer demand as labour markets remained strong in advanced economies. Transport and supply chains pressures also eased in the second half of 2022, while shipping rates declined and commodity prices receded. Despite these positive signals, trade growth in 2023 is still likely to be sluggish, since monetary policy tightening takes effect with long and variable lags. The WTO's current forecast of 1.0 per cent growth in merchandise trade in 2023 will be revised in April.

With regard to global supply chains, world exports of intermediate goods, a proxy for supply chain trade, grew 4 per cent year-on-year in the second quarter of 2022 to US\$ 2.5 trillion.⁴ The overall growth, while slower than the increase recorded in the same period a year ago, continues to indicate stable activity in global supply chains. Hence, firms appear to have responded quickly and flexibly to disruptions from the war, so that they do not show up in the aggregate data.

In sum, the multilateral trading system has withstood the disruption by the war. Firms appear to have adjusted quickly and effectively. Analysing the response of countries and products greatly affected by the war can shed light on how these adjustments have taken place and on how the multilateral trading system contributed to these developments.

The impact on Russian and Ukrainian exports

Examining how Russian and Ukrainian exports have developed during the war has its caveats, as direct data are not observable in the case of Russia and are likely distorted in the case of Ukraine. Instead, it is necessary to rely on so-called mirror estimates obtained from importers reporting trade with the two countries.

In addition, it is less reasonable to use global average prices to obtain volume estimates due to the presence of sanction and other country-specific measures in place that might drive a wedge between global prices and prices charged by Russia and Ukraine. As a result, the focus is on trade values, which do not necessarily reflect changes in traded quantities.

Mirror estimates indicate that the war has had a substantially more detrimental impact on Ukraine than on

Russia. When comparing exports for the same March to November periods in 2021 and 2022 and for the same reporting importers, Ukraine's total exports decreased by 30.0 per cent, while Russia's exports increased by 15.6 per cent. These aggregate figures hide substantial variation in the responses across products and importers. Russia's increase in exports is driven primarily by goods in the primary sector, such as fuels, fertilizers and cereals (see Figure 2). However, the relatively limited increase in trade values in combination with the sharp increase in prices for these goods suggests that Russia's export volume might have declined slightly.

Russia's exports increased by 15.6% from 2021 to 2022.

Trade values for industrial goods have fallen. This holds for non-complex goods, such as wood products and steel, and for goods dependent on complex supply chains and inputs from advanced economies, such as motor vehicles, pharmaceuticals and aircraft, where sanctions are likely to be particularly restrictive.

Figure 2 also illustrates that importers have reacted very differently in the past year. While some countries reduced their imports significantly, such as the United States, the United Kingdom, Poland, the Republic of Korea and Finland, others increased their imports, such as China, India and Türkiye. This corresponds partly to whether or not countries imposed sanctions. However, some countries which imposed sanctions, such as Italy, Greece and France, also saw their imports increase due to the temporary exemption of fuels from the sanctions coupled with price increases in oil and gas.

Ukraine's decrease in exports of 30 per cent was relatively consistent across trade partners, although some neighbouring countries, such as Poland and Hungary, increased their sourcing from Ukraine. This was driven mostly by increased imports of agricultural products such as oilseeds, fats and oils, meat and dairy (see Figure 3). Exports of cereals, which are central to the food security of many African economies, declined by 14.9 per cent, which forced these economies to adjust their trade patterns as discussed below.

FIGURE 2

Changes in Russia's export values, 2021-2022 (In US\$ million, March to November)



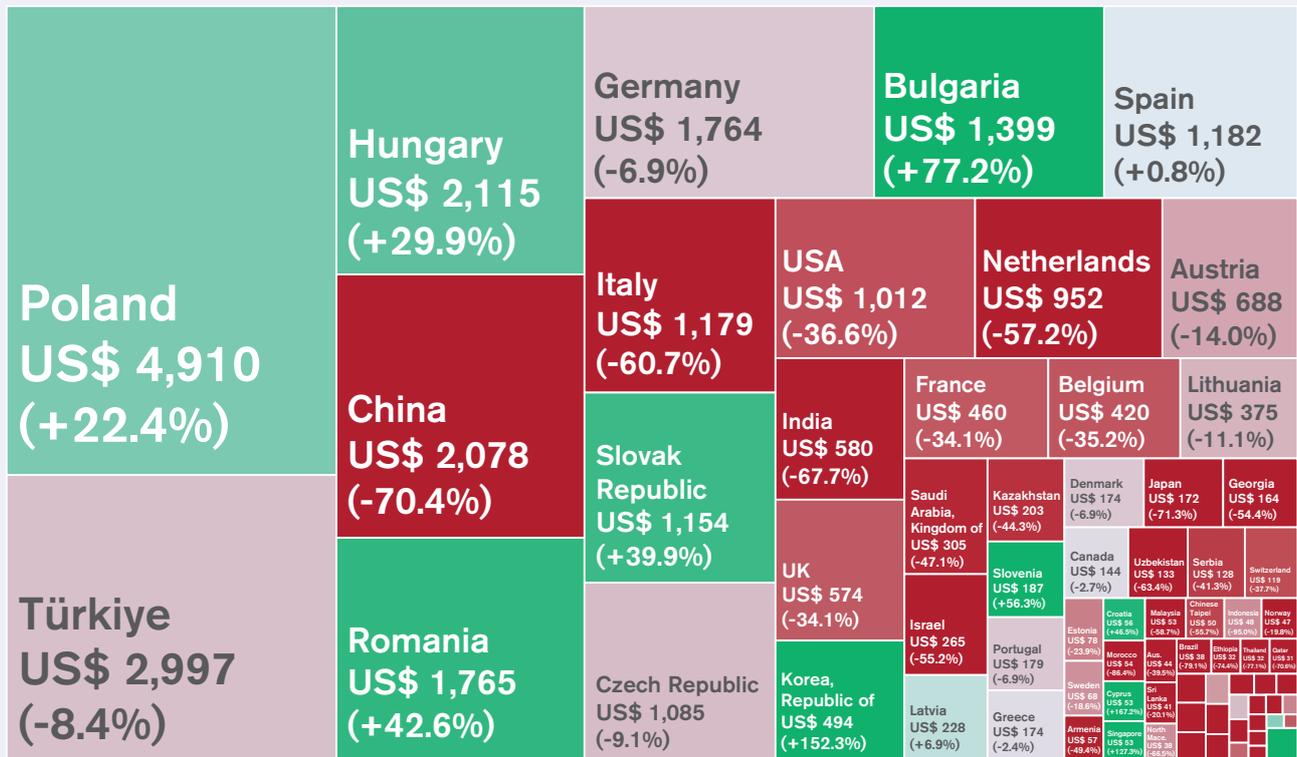
Note: The vertical axis shows economies sorted by total share of products imported from Russia, while the horizontal axis shows product categories. The colour variation represents the change in US dollar value of products imported from Russia by individual economies. The darker the colour, the greater the change of import value from Russia.

Source: WTO estimates based on monthly data compiled by Trade Data Monitor. Exports from Ukraine and Russia are calculated based on mirror imports statistics from the same 90 economies.

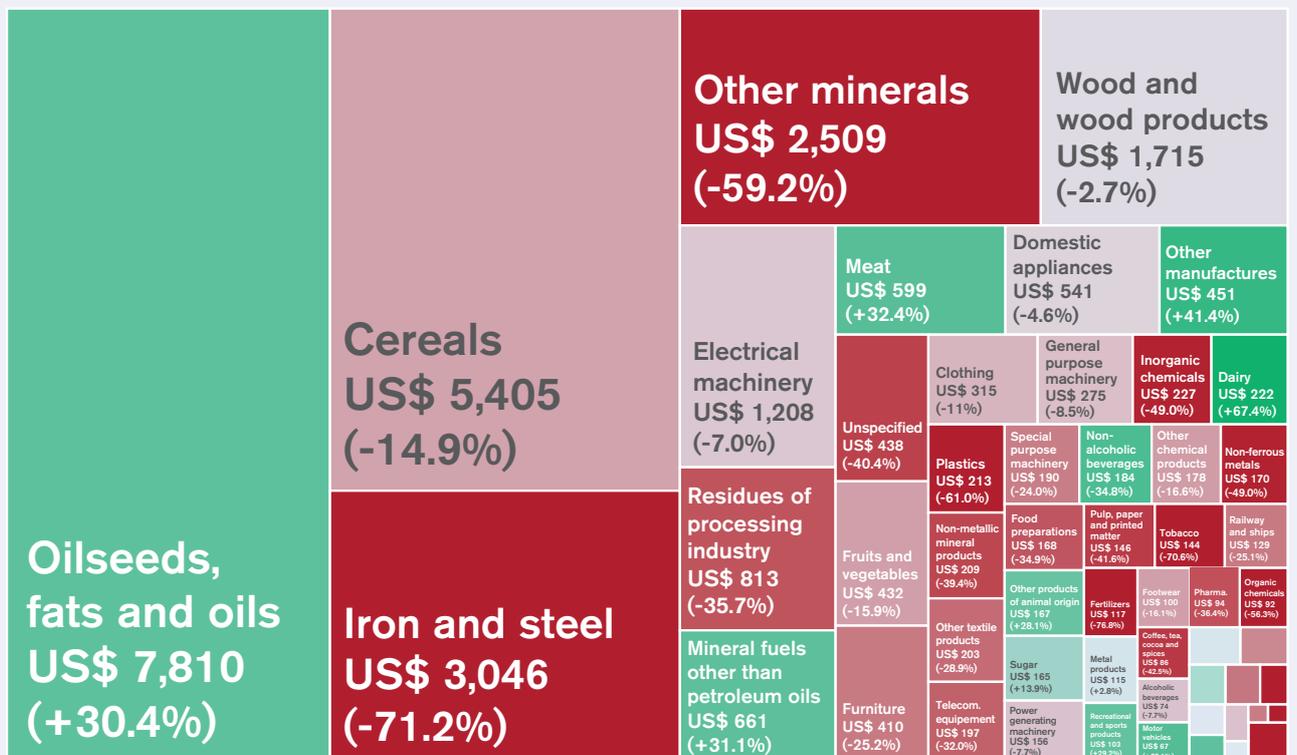
FIGURE 3

Ukraine's export values by importer and product, 2022

(In US\$ million; year-on-year change March to November 2022 in per cent)



Change in %
 -50% < > 50%



Note: The colour variation represents the change in US dollar value of products imported from Ukraine by individual economies.

The darker the colour, the greater the year-on-year change in import value from Ukraine.

Source: WTO estimates based on monthly data compiled by Trade Data Monitor. Exports from Ukraine and Russia are calculated based on mirror imports statistics from the same 90 different economies.



The war has stopped commercial traffic on the Dnipro, the longest river in Ukraine.

On the import side, Russia and Ukraine both saw a substantial decrease in the March to November period 2022 relative to 2021. Russia's imports declined by 28.9 per cent and the response of individual products and exporters appears to reflect the sanctions in place. For instance, imports of motor vehicles and other high-tech equipment, such as electrical machinery and telecommunication equipment, incurred the largest reduction in import values.

At the country level, the relative decline was largest for Germany, the United States, Poland and France, while a number of countries increased exports to Russia, predominantly China and Türkiye. Ukraine's imports fell by 32.6 per cent, with imports of oil, arms and ammunition being the exception at the product level. At the country level, exports to Ukraine increased for only a small set of countries, including Poland, Slovakia and Romania.

Developments in the trade of countries and products highly dependent on supply from Russia and Ukraine

Russia and Ukraine play a relatively minor role in the global economy, with important exceptions in certain agricultural and industrial goods. WTO (2022) identified

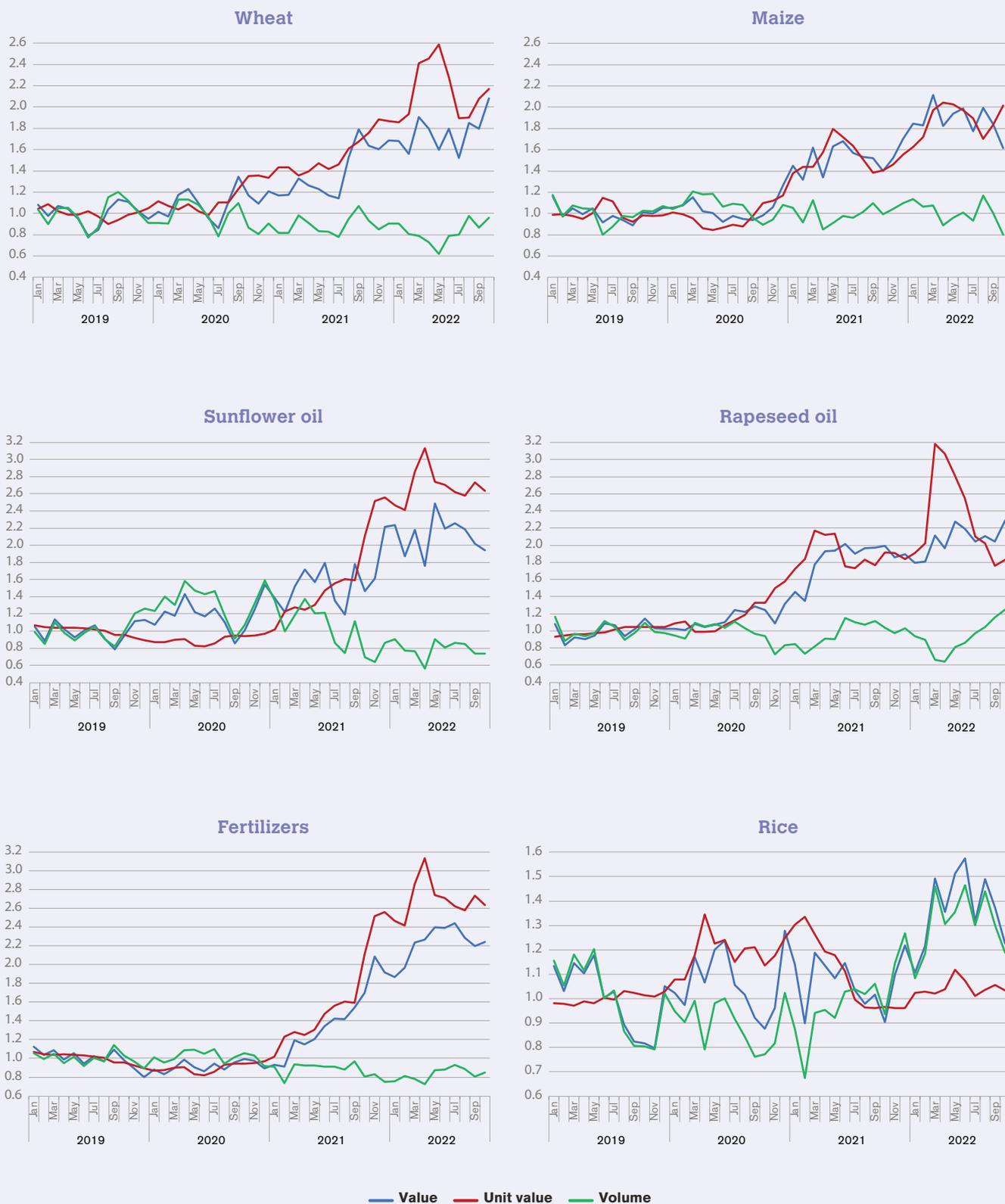
wheat, maize, sunflower products, fertilizers, fuels and palladium, suggesting that the war could cause severe shortages in the supply of these products.

This shortage scenario has not materialized, as an examination of price and volume trends in the trade of these goods over the past year illustrates. In contrast, Figures 4 and 5 show that trade values have sharply increased. A closer look at the data reveals, however, that this increase is driven largely by price hikes, as captured by changes in unit values. Between January and October 2022, prices for the selected commodities increased between 4.4 per cent (palladium) and 24.2 per cent (maize).

While these price increases are substantial, they are significantly lower than some scenarios had predicted at the onset of the war, partly due to the restraint in the imposition of export restrictions. Simulations run by WTO economists highlighted that in the case of cascading export restrictions on food, prices for wheat could have increased by up to 85 per cent in some regions (WTO, 2022). Hence, the impact of the war on prices has been comparably minor so far. However, the increases add to already high price levels on account of the pandemic. Relative to the 2019 average, prices have increased between 46.7 per cent (palladium) and 175 per cent (sunflower oil, fertilizers) (see Table 1).⁵

FIGURE 4

Estimated value and volume of world trade in selected agriculture-related products, January 2019 to October 2022 (Indices, 2019 average = 1.0)

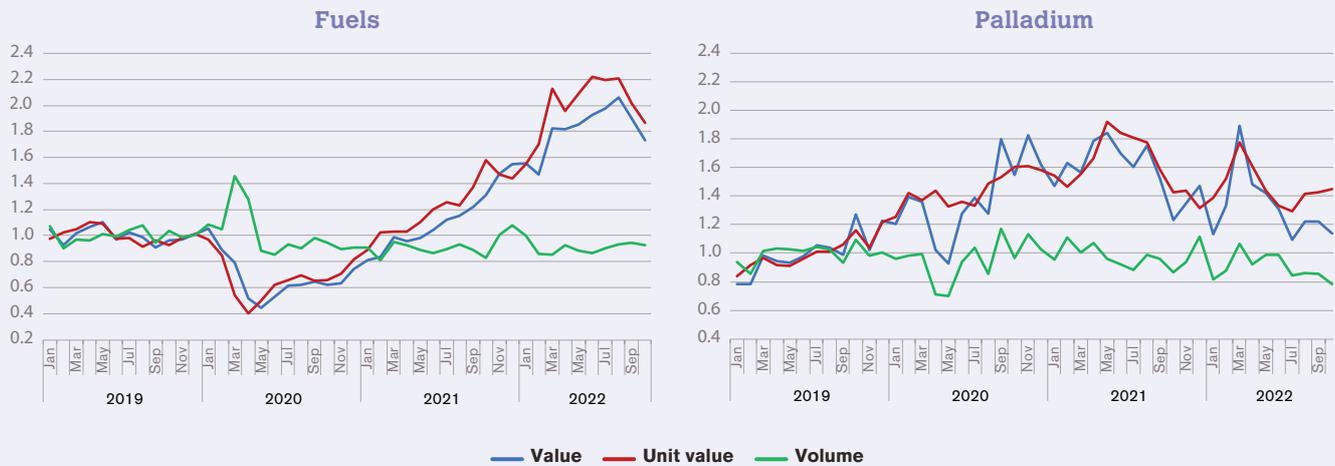


Source: WTO estimates. Trade value indices are estimated based on national customs statistics compiled by Trade Data Monitor. Unit value indices are based on World Bank commodity prices. Volume indices are calculated by deflating the value indices by the unit value indices.

FIGURE 5

Estimated value and volume of world trade in industrial inputs, January 2019 to October 2022

(Indices, 2019 average= 1.0)



Source: WTO estimates. Trade value indices are estimated based on national customs statistics compiled by Trade Data Monitor. Unit value indices are based on World Bank commodity prices. Volume indices are calculated by deflating the value indices by the unit value indices.

Despite higher prices, trade volumes have remained fairly stable. That said, the effect across the six commodities has been heterogenous, which is suggestive of different margins of adjustment. Importantly, the data are consistent with relevant substitution patterns across suppliers and products. This highlights the importance of an open trading system to the resilience of economies, as it facilitates switching between different sources of supply.

Trade volumes for wheat and maize, for instance, fell by 18.7 per cent and 2.4 per cent, respectively, between March and October 2022 compared to the 2019 average. However, this decline corresponds roughly to increases in the trade of rice (up by 34.8 per cent), which is a suitable substitute. This could indicate that countries replaced imports of wheat and maize with comparable products to make up for the supply disruptions. This highlights the importance of alternative suppliers being available. Analysing the import trends of countries highly dependent on wheat imports from Russia and Ukraine is instructive in this context.

For example, Türkiye sourced 75 per cent of its wheat imports from Russia and Ukraine in 2019 (WTO, 2022). From March to December 2022, the value of Türkiye’s wheat imports actually rose by 31 per cent compared to the previous year. However, since the price of wheat increased by 37 per cent, the estimated volume of imports fell around 4.5 per cent. Over the same period,

Egypt’s imports of wheat from Ukraine plunged 81% in the first eight months of the war.

the country’s imports of rice jumped 53 per cent in terms of volume, illustrating substitution across food products in response to changes in supply.

Egypt was the fifth largest wheat importer in 2019, sourcing 48 per cent of its imports from Russia and 26 per cent from Ukraine (WTO, 2022). Based on data from the first eleven months of 2022, Egypt looks set to be the world’s largest importer of wheat, which it needs to feed its fast-growing population. The value of Egypt’s wheat imports rose 90 per cent from March to November 2022. The 42 per cent price increase over this period suggests that the volume of imports rose 34 per cent.

However, Egypt’s imports of wheat from Ukraine plunged an estimated 81 per cent in volume terms in the first eight months of the war. While increased imports from Russia make up for some of this decline, Egypt also increased its sourcing from other suppliers, including the European Union (imports rose by 128 per cent) and the United States (a nine-fold increase, albeit from a low base).

TABLE 1

Changes in value and volume of world trade by product, January 2019 to October 2022

	Mar-Oct year-on-year change (in %)	Mar-Oct change vs 2019 average (in %)	Change between January 2022 and October 2022 (in %)
Wheat			
Value	-0.2	79.3	24.0
Unit value	11.9	122.2	17.0
Volume	-27.7	-18.7	5.9
Maize			
Value	-2.8	88.7	-12.3
Unit value	-0.1	93.4	24.2
Volume	-22.2	-2.4	-29.4
Sunflower oil			
Value	5.0	112.9	-13.2
Unit value	27.6	175.0	6.9
Volume	-37.2	-22.4	-18.8
Rapeseed oil			
Value	-11.5	112.9	27.9
Unit value	0.8	141.5	-3.7
Volume	-26.8	-7.5	32.8
Fertilizers			
Value	23.2	130.7	20.1
Unit value	27.6	175.0	6.9
Volume	-23.8	-15.7	12.4
Rice			
Value	5.0	41.7	10.9
Unit value	-20.5	4.8	1.1
Volume	4.9	34.8	9.7
Fuels			
Value	28.0	88.7	11.4
Unit value	31.3	108.6	20.5
Volume	-21.9	-9.6	-7.6
Palladium			
Value	-31.9	34.7	0.4
Unit value	-28.1	46.7	4.4
Volume	-24.8	-8.4	-3.8

Source: WTO estimates. Trade value indices are estimated based on national customs statistics compiled by Trade Data Monitor. Unit value indices are based on World Bank commodity prices. Volume indices are calculated by deflating the value indices by the unit value indices.



Ethiopia relied on Russia and Ukraine for 14 per cent and 31 per cent of its wheat imports in 2019, respectively. The total value of Ethiopia's imports rose 39 per cent in the initial ten months of the Ukraine conflict. This increase is nearly identical to the 37 per cent rise in the price of wheat during this period, suggesting that the volume of imports was stable, growing just over 1 per cent. Imports from Russia in quantity terms are estimated to have fallen around 75 per cent, while the quantity of imports from Ukraine dropped 99.9 per cent, nearly to zero. This loss of supply was mostly made up for by increased shipments from the United States (up 21 per cent) and Argentina, for which growth is undefined because the quantity imported in 2021 was zero. Argentina supplied roughly 20 per cent of Ethiopia's imported wheat in 2022. These examples underscore the importance of having market access to a range of producing countries.

The situation differs for sunflower oil, where trade is highly concentrated and alternative suppliers are not available. This could explain a steep fall in its global trade volume by 18.8 per cent. As shown in WTO (2022), Russia and Ukraine had a combined global market share of 45 per cent for sunflower products in 2019, including a 73 per cent share of crude sunflower oil. The next largest exporters barely reached market shares

of 5 per cent. Hence, substitution across suppliers is substantially harder. Substitution across products, however, is still possible. In line with this, trade volumes in rapeseed oil and other vegetable oils increased by 32.8 per cent between January and October 2022.

The quantity of Ethiopia's imports of wheat from Ukraine dropped 99.9%.

There are, however, products for which substitution is more complicated because neither alternative suppliers nor easily substitutable products are available in the short run; as is the case for fertilizers and palladium. Trade volumes in these products are down by 15.7 per cent and 8.4 per cent, respectively, compared to the 2019 average. WTO research on concentration and potential bottlenecks in trade highlights that an increasing share in international trade suffers from concentration which could limit the potential for geographical substitution in the future and emphasizes the need for a more diversified trading system (see Figure 6).



A grain sorting machine in operation, Egypt.

FIGURE 6

Share of global trade with high concentration of exporters, 2000-2021 (In per cent)



Note: Harmonized System six-digit trade flows are considered concentrated if (i) trade value exceeds a threshold value to capture product relevance and (ii) the Herfindahl–Hirschman index of concentration reaches at least 0.25, indicating on average a maximum of four major suppliers.
Source: See the forthcoming WTO staff working paper by S. Majune and V. Stolzenburg, “Potential Bottlenecks in International Trade”.

For fuels, the data indicate a decline in trade volumes of 7.6 per cent. This is consistent with reports of energy savings by industry and households. The International Energy Agency reports a record US\$ 560 billion investment in energy efficiency measures in the past year, and that the global economy used energy 2 per cent more efficiently than it did in 2021 (IEA, 2022). Survey evidence from Germany finds that out of the industrial companies that rely on gas for production, 75 per cent were able to reduce gas usage without cutting production.⁶ In line with this, a 2022 study reports that industrial and small users reduced gas consumption by up to 19 and 36 per cent, respectively, in September 2022 compared to the previous year (Ruhnau *et al.*, 2022).

Overall, the data show that trade in products and by countries highly dependent on supply from Russia and Ukraine was remarkably resilient. An important part of this seems to be importers sourcing products from other suppliers. Countries either switched suppliers for the same product or replaced products with substitutes, which also required establishing trading relationships with new partners. This underscores the substantial flexibility and adaptability of the multilateral trading system. Even in the short run and for unexpected disruptions, alternative suppliers can fill in the gaps, at least for the majority of products affected by the conflict.

The role of trade policy in the past year and in the longer term

Price increases for grains observed during 2022 have been relatively limited. Simulations performed early during the war included scenarios with much more substantial increases. An important assumption of these pessimistic scenarios was a rapid propagation of export restrictions by net food exporters similar to developments observed during the world food price crisis in 2007 and 2008. This, however, has not occurred.

The WTO’s Trade Monitoring Exercise reports that WTO members showed relative restraint in the imposition of trade-restrictive measures during the first months of the war, despite the early spike of such measures amidst economic uncertainty.⁷ It finds that during the review period covering mid-October 2021 to mid-October 2022, the estimated trade coverage of the regular (non-COVID-related) import-facilitating measures introduced by WTO members (US\$ 1,038.4 billion) far exceeded the trade coverage of import-restrictive measures (US\$ 163.5 billion).

The WTO Trade Monitoring Exercise, which started amid the financial crisis in 2008 and 2009, has played a valuable role in providing transparency around and fostering restraint in the use of protectionist measures.

This has likely contributed towards keeping price increases in check. Monitoring and reporting on trade measures taken in relation to the current crisis will assist members gain a broader understanding of the trade response and subsequently adjust policies to better reflect requirements. It is an important tool of the multilateral trading system in providing regular information on trends in trade policymaking to further predictability and transparency in international markets. This has proved particularly important in times of crises when domestic incentives to implement restrictive trade policies is high and, at the same time, their negative spill-over effects are likely to be large.

In this context, the success of the WTO's 12th Ministerial Conference, in June 2022, was central. In the Ministerial Declaration on the Emergency Response to Food Insecurity, WTO members committed to taking concrete steps to facilitate trade and to improve the functioning and long-term resilience of global markets for food and agriculture, including cereals, fertilizers and other agriculture production inputs.⁸ In addition, they ensured that any emergency measures introduced to address food security concerns shall minimize trade distortions as far as possible. The restraint by WTO members reported by the WTO Trade Monitoring Exercise shows that the declaration had a meaningful impact on reducing food insecurity.

That said, the pressure to impose new restrictions will remain as long as the war continues. In fact, the monitoring report has observed an increase of export

The opportunity costs of foregoing further multilateral liberalization would be more than 11.3% for least-developed countries.

restrictions taken related to the war in Ukraine. As of 17 February 2023, 95 export-restrictive measures on food, feed and fertilizers had been introduced since the start of the war, and 67 are still in place, covering roughly US\$ 85 billion of trade.⁹ These numbers have increased since mid-October 2022 but are still well below the level of restrictions seen during the food price crisis in 2007 and 2008. Moreover, during the review period for the report, the point still holds that WTO members introduced more trade-facilitating than trade-restrictive measures on goods, with the average number of trade-facilitating measures per month at its highest since 2012 (see Figure 7). Nevertheless, the war-related increase observed since the end of February 2022 should be a cause of concern.

Simulations

Turning to the longer-term outlook, simulations run by WTO economists highlight the importance of open trade policies and securing an open multilateral trading system. Expanding on work presented in WTO (2022) that examined how incomes would respond to a fragmentation of the world economy into two blocs, Métivier *et al.* (2023) analyse different scenarios for future trade cooperation, including a revival of multilateralism and geopolitical rivalry. In this new work, there is a more detailed underpinning of the decoupling scenarios with potential tariff and non-tariff measure increases varying by country based on econometric estimates from the literature. Furthermore, a division into three blocs is also studied, with some developing countries and least-developed countries remaining neutral and able to access both blocs.

The reglobalization scenario involves reducing tariffs and non-tariff measures on a most-favoured-nation basis at the multilateral level. In the decoupling scenario, trade costs would go up between a Western and an Eastern bloc, with tariffs increasing to trade conflict levels between countries in the different blocs. In contrast to the previous study, the simulations distinguish between full rivalry, under which all

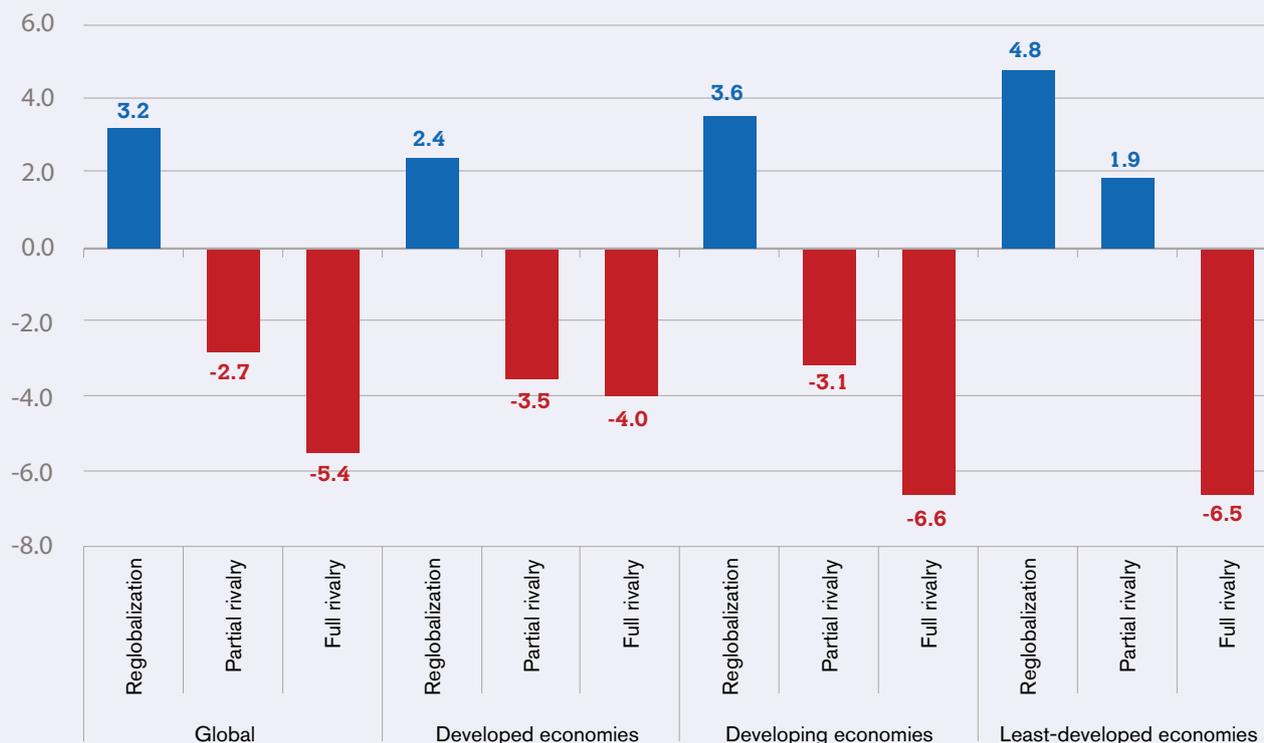
FIGURE 7

Number of trade policy measures, 2021-2022 (Mid-October to mid-October)



Source: Overview of Developments in the International Trading Environment: Annual Report by the Director-General, WTO document WT/TPR/OV/25, 22 November 2022.

FIGURE 8

Real GDP impact of different trade policy scenarios (Cumulative impact 2020-2050, in per cent)

Note: Impact on real GDP is relative to a baseline with no trade policy change.

Source: Métivier et al. (2023).

countries are part of a bloc, and partial rivalry, with some least-developed countries and developing countries remaining outside the conflict, thus not increasing trade costs *vis-à-vis* countries of the two blocs.

A revival of multilateralism would lead to a global increase in real income of more than 3.0 per cent in the long run (until 2050), with the largest increases in low-income regions (see Figure 8). Geopolitical rivalry would have a negative impact on real income, with global losses exceeding 5.0 per cent under full rivalry. Partial rivalry is better for low-income regions not part of a bloc, conditional on the assumption that both blocs would remain open to them. The projections show that under partial rivalry the regions staying outside the conflict would gain. The share of global trade between countries in the two different blocs would fall from 46.0 per cent without decoupling to 25.0 per cent with decoupling, a reduction of 21.0 percentage points.

The opportunity costs of foregoing further multilateral liberalization and moving to geopolitical rivalry instead are very large. The simulations indicate that the opportunity costs would be about 8.7 per cent of real GDP at the global level, varying between 6.4 per cent

for developed countries, 10.1 per cent for developing countries and more than 11.3 per cent for least-developed countries. As in the earlier work on decoupling, the stakes are highest for low-income countries, because they stand to benefit most from the positive technology spill-overs generated by international trade.

Endnotes

¹ See https://www.wto.org/english/news_e/pres21_e/pr889_e.htm.

² See https://www.wto.org/english/news_e/pres22_e/pr902_e.htm.

³ See https://www.wto.org/english/news_e/pres22_e/pr909_e.htm.

⁴ See https://www.wto.org/english/res_e/statis_e/miwi_e/info_note_2022q2_e.pdf.

⁵ 2022 trade volumes up to October were averaged and compared with the 2019 average, as trade in 2020 and 2021 was distorted by the COVID-19 pandemic.

⁶ See <https://www.ifo.de/pressemitteilung/2022-11-22/viele-industriefirmenschenken-gasverbrauch-ohne-produktion-zu-drosseln>.

⁷ See *Overview of Developments in the International Trading Environment: Annual Report by the Director-General*, WTO document WT/TPR/OV/25, 22 November 2022.

⁸ See https://www.wto.org/english/news_e/news22_e/mc12_17jun22_e.htm.

⁹ For WTO trade monitoring data, see <https://tmdb.wto.org>.

3 Way forward and policy implications

The war in Ukraine is causing immense human suffering. At the same time, it has delivered another major challenge to the global economy already strained by the impact of the COVID-19 pandemic. This series of crises has given rise to a move for reshoring, nearshoring and for “friend-shoring” – either making strategically important goods at home or procuring them from allies.

This note highlights that a widespread push to reconsolidate global supply chains based on geopolitical considerations would come at a high cost for all economies in terms of diminished growth and reduced innovation.

Reduced growth prospects could be particularly large for many developing countries, especially least-developed countries, which are dependent on inputs and knowledge from more advanced economies to fight poverty and escape growth traps. Their opportunity costs of foregoing further multilateral liberalization and moving to geopolitical rivalry instead amount to a staggering 11.3 per cent of real GDP. This would place further strain on an already fragile situation triggered by the pandemic.

Importantly, the issue of decoupling versus reglobalization is not only about income gains but also resilience and security of supply – topics of particular concern to advanced economies. In crises such as the current one, importers need to respond by adapting their ways of sourcing goods quickly – as Egypt did.

Concentrating sourcing and production at home would create new vulnerabilities to localized natural disasters or outbreaks of disease. When hurricanes hit, crops fail and factories are forced to shut down. Trade is a critical means of adaptation to crises. If demand for certain

products surges unexpectedly, even purely domestic supply chains will struggle to respond. Reglobalization is crucial because it maximizes the number of available suppliers and prevents, in contrast to fragmentation, an artificial cap being established on the number of suppliers to which countries have access.

Trade is a critical means of adaptation to crises.

The current multilateral trading system the WTO embodies, which allows countries to choose freely between available suppliers, has held up well in the current polycrises, in particular in managing the spill-overs of the war. Global trade flows were up in 2022, including trade in supply chains.

The worst scenarios foreseen at the onset of the war for food prices and security have so far not materialized. Instead, the initial impacts have been contained thanks in part due to the openness of the multilateral trading system and the transparency and commitments it requires from its members. This shows that that resilience will ultimately be best served by fostering deeper and more diverse international markets, anchored in open and predictable trade rules.



Wheat harvest in Krasne, Ukraine.

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This note examines how the war in Ukraine has affected global trade. It looks at how exports from Russia and Ukraine have evolved over the past year. It then analyses how countries highly dependent on Russian or Ukrainian exports of agricultural and primary goods have responded to the crisis, and how prices and trade in goods greatly affected by the war have developed. These impacts reveal the repercussions of the war for developing economies and demonstrate the resilience of the multilateral trading system.

This note highlights that a widespread push to reconsolidate global supply chains based on geopolitical considerations would come at a high cost. Reduced growth prospects could be particularly large for many developing countries, especially least-developed countries. Their opportunity costs of foregoing further multilateral liberalization and moving to geopolitical rivalry instead could amount to 11.3 per cent of real GDP – placing further strain on the fragile situation triggered by the COVID-19 pandemic.