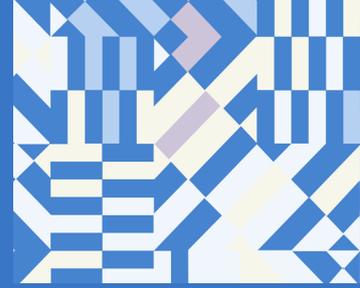




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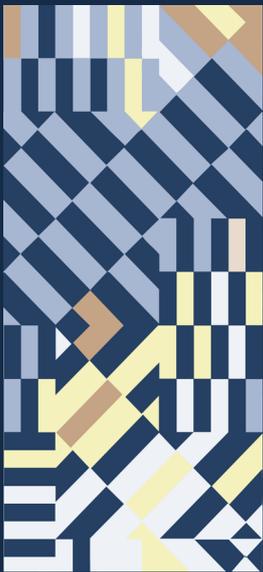
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UKRAINE CRISIS BRIEF SERIES

The Russia-Ukraine Conflict: Impacts on Commodity Markets in Malawi

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Introduction

While many international conflicts and crises raise serious concerns, they are often not equal in impact beyond their geographical boundaries—some of them bring about consequences that spill over into distant places and times. Indeed, previous crises, including the ongoing COVID-19 pandemic, provide evidence that countries geographically distant from the epicenters of crises can still experience their effects through international trade disruptions, as well as from the protective measures undertaken by countries to limit the negative impact of the crisis¹. It is therefore no surprise that the effects of the Russia-Ukraine conflict are being felt beyond the borders of the warring countries. These impacts are felt in the following ways: firstly, countries that trade directly with Russia and Ukraine in food and other commodities that must be transported through ports near the epicenter of the conflict experience the effects quickly and directly as trade volumes from the warring countries decline. Secondly, countries that do not trade directly with Russia and Ukraine but trade with others that buy commodities from the two countries would also be affected indirectly as stocks decline with use in the absence of replenishment. Thirdly, due to concerns about immediate food shortages, countries often resort to hoarding their food stocks instead of making them available to the market.

¹ Matchaya G, Nhlengethwa S, Greffiths J, and Bhekiwe F. 2020. Maize Grain Price trends in food surplus and deficit areas of Mozambique under Covid-19. AKADEMIYA2063 COVID-19 Bulletin.

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Fourthly, increasing fuel, transport and general trade transaction costs put pressure on commodity prices, leading to price hikes. In each of these cases, the induced scarcity would trigger price hikes in the short and medium term for those commodities directly affected, eventually leading to international contagion².

If the affected goods are substitutable, the price hikes may be short-lived; instead, the substitute commodities would also experience an increase in prices. However, this effect may be the opposite for complements, such that an increase in the price of one commodity due to induced scarcity would lead to a decline in demand for the complementary good. It has also been shown that for commodities, the effects of crises on prices are often dependent on several other factors, including market location³. Therefore, the impacts of the Russia-Ukraine war on commodity prices may vary not only depending on the commodity characteristics or trading relationships between the warring countries and the country under study but also on whether the markets examined are rural or urban. Location matters due to the high import dependency and larger incomes in urban centers compared to rural areas.

Malawi's total wheat imports in 2020 amounted to 38 million USD (190,000 Metric Tons (MT), primarily from Russia (27 million USD), Canada (8.1 million USD), Mozambique (1.9 million USD), Argentina (1.27 million USD), and Ukraine (222 thousand USD). Russia and Ukraine were jointly responsible for 72% of Malawi's wheat imports in 2020⁴. The current gap between the supply and demand of wheat in Malawi is large, with 99% imported due to low domestic production⁵. While Russia and Ukraine are big fuel exporters, neither of the warring countries ranks among Malawi's top import sources for petroleum. In 2020, Malawi imported 187 million USD in refined petroleum, mainly from the United Arab Emirates (96.5 million USD), Kuwait (62.6 million USD), Switzerland (14.9 million), South Africa (6.96 million USD), and Mozambique (3.67 million USD)⁶. Malawi is a net sugar exporter, with exports valued at over 97.9 million USD in 2020. The principal export destinations included: Spain (23.4 million USD), Kenya (17.9 million USD), Burundi (15.6 million USD), the United States (8.65 million USD), and Rwanda (7.96 million USD)⁷. Malawi is also a net exporter of maize, exporting mainly to Zimbabwe⁸. While Malawi produces high-quality rice, it is a net importer of rice; in 2020, it was imported primarily from China (540 thousand USD), Pakistan (330 thousand USD), India (299 thousand USD), United States (139 thousand USD), and Mozambique (43.4 thousand USD)⁹. Russia and Ukraine do not directly participate significantly in maize, sugar, rice, and millet trade with Malawi.

1. Price Responses for Selected Commodities

This brief used price data for various commodities from four markets in Malawi to study commodity price dynamics during the conflict period. These four markets include two city markets (Lilongwe in Lilongwe and Lunzu in Blantyre) and two rural markets (Mchinji in Mchinji and Embangweni in Mzimba). Price trends for these markets were evaluated in relation to world market trends to understand whether the war influenced the observed price trends. In general, world market prices for these commodities increased at different rates during the period under study (see Table 1).

2 Chang, R., Majnoni, G. (2001). International Contagion: Implications for Policy. In: Claessens, S., Forbes, K.J. (eds) International Financial Contagion. Springer, Boston, MA. https://doi.org/10.1007/978-1-4757-3314-3_15

3 Mbaye, Matchaya, Karugia, et al. 2021. The impact of COVID-19 on staple food prices: Location matters. AKADEMIYA2063 and IFPRI. <https://www.ifpri.org/publication/impact-covid-19-staple-food-prices-location-matters>

4 <https://oec.world/en/profile/bilateral-product/wheat/reporter/mwi>

5 Guwela, V. F., Maliro, M. F. A., Joy, E. J. M., Tang, K., Bokosi, J., Hawkesford, M. J., Broadley, M. R., King, J. 2021.

Wheat value chains in Malawi: trends, gaps, challenges and opportunities. CABI. DOI: <http://dx.doi.org/10.1079/PAVSN-NR202116046>

6 <https://oec.world/en/profile/bilateral-product/refined-petroleum/reporter/mwi>

7 <https://oec.world/en/profile/bilateral-product/raw-sugar/reporter/mwi>

8 <https://knoema.com/atlas/Malawi/topics/Agriculture/Trade-Export-Quantity/Maize-exports-quantity>

9 <https://oec.world/en/profile/bilateral-product/rice/reporter/mwi>

Table 1: Changes in World Market Prices for Selected Commodities

	Crude oil, average	Liquefied natural gas, Japan	Maize	Rice, Thai A.1	Wheat, US HRW	Beef	Sugar	Sunflower oil
	(\$/bbl)	(\$/mmbtu)	(\$/mt)	(\$/mt)	(\$/mt)	(\$/kg)	(\$/kg)	(\$/mt)
% change (t- t_1)	%	%	%	%	%	%	%	%
2022M01								
2022M02	11,5	1,7	5,8	0,7	4,3	4,0	-2,0	6,2
2022M03	20,2	1,1	14,7	0,3	24,5	0,6	6,7	57,5
2022M04	-8,0	7,8	3,8	0,5	1,8	-1,9	3,2	-3,6
2022M05	6,5	1,5	-1,0	8,3	5,5	-0,8	-1,1	-8,6
Total change	30,1	12,1	23,3	9,7	36,2	1,9	6,8	51,4

Source: Author’s tabulation with World Bank 2022 data.

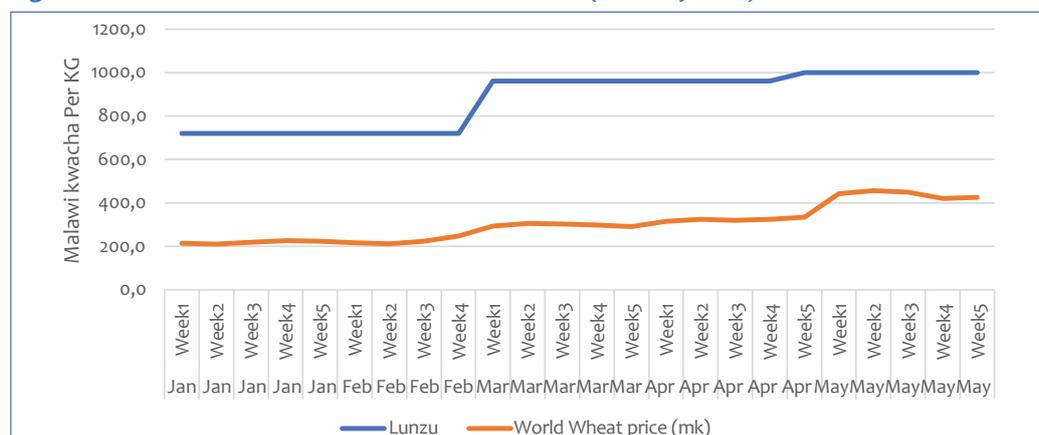
*BBL: Barrel of Oil; MMBTU: Metric Million British Thermal Unit; MT: Metric Ton

Table 1 shows that except for sugar, prices of all the commodities under study increased from January to March 2022, mainly in reaction to the Russia-Ukraine war. Although there were some exceptions in April for crude oil, beef, and sunflower oil, as well as in May for maize, beef, sugar and sunflower oil, prices for all these commodities rose worldwide between January and May 2022. Cumulatively, the highest price increases were experienced in sunflower oil (51%), wheat (36%), crude oil (30.1%) and maize (23.3%) in that order. Russia and Ukraine were among the leading exporters of these commodities before the start of the war. Price increases were lowest for beef (1.9%), sugar (6.8%), rice (9.7%) and liquefied natural gas (12.1%).

a. Wheat

Wheat prices quickly increased in Malawi following the onset of the Russia-Ukraine war^{10 11}. This was expected as Russia and Ukraine jointly accounted for 72% of Malawi’s wheat imports prior to the conflict, and the war led to a reduction in wheat supply from the two countries. Figure 1 shows that world and local wheat prices increased after the third week of February 2022, coinciding directly with the start of the war between Russia and Ukraine. The world prices of wheat in local currency equivalent (Malawian Kwacha (MK)) increased from around MK200/KG to over MK400/KG between the third week of February and the fourth week of May 2022, representing a doubling of prices over the period. Similarly, wheat prices in local markets within Malawi rose from MK720/KG to MK1000/KG over that same period, representing a 39% increase in prices. Figure 1 also shows significant correlated movement implying that the Malawi price mimics the world prices to a large extent.

Figure 1: Domestic and International Wheat Prices (Jan-May 2022)



Source: Author’s construction with data from the Ministry of Agriculture, 2022.

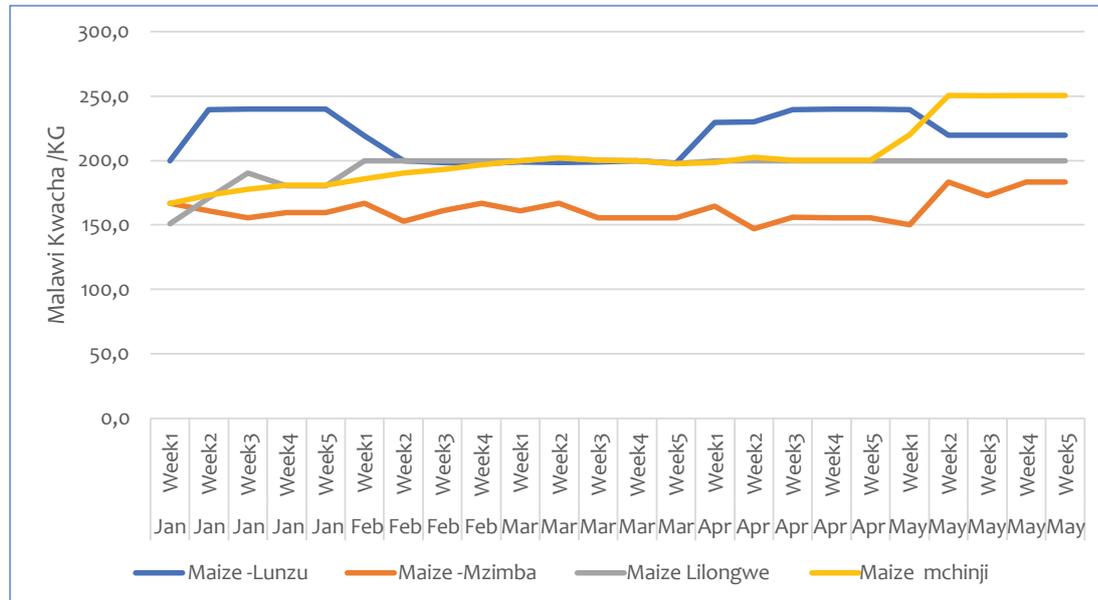
¹⁰ <https://allafrica.com/stories/202203100637.html>

¹¹ <https://allafrica.com/stories/202203100637.html>

b. Maize

As highlighted earlier, Malawi is a net exporter of maize and does not import the commodity from Russia and Ukraine. Within Malawi, key maize-producing districts include Lilongwe, Kasungu, Mzimba, Dowa, and Mchinji, among others, whereas Blantyre and many of the Southern region districts are net importers of maize. Figure 2 shows the price dynamics for maize since January 2022 and covers the war period.

Figure 2: Maize Prices in Urban and Rural Markets, (Jan-May 2022)



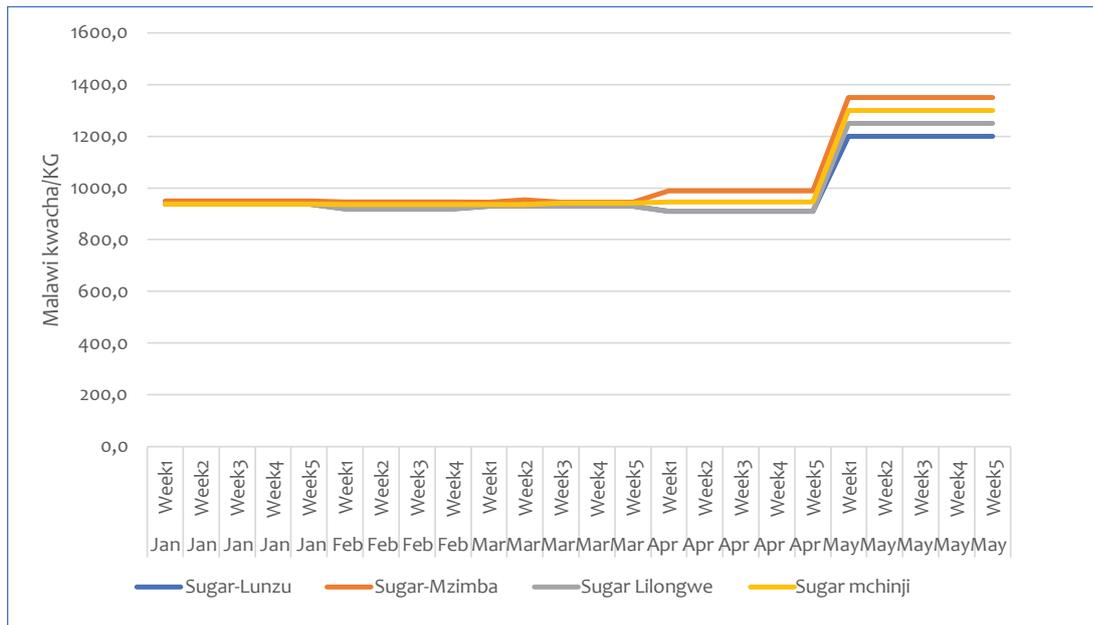
Source: Authors' construction with data from the Ministry of Agriculture, 2022.

For a large part of the period under study (January to May 2022), maize prices were highest in the urban markets of Lunzu (Blantyre) and Lilongwe, where they averaged over MK200/KG and were lowest in the rural markets of Mzimba and Mchinji. After the second week of April 2022, however, maize prices took an upward turn, with the largest increase observed in Mchinji (after the fourth week of April) and Lunzu (after the first week of April). In Mchinji, for example, prices rose from MK200/KG in the fourth week of April 2022 to as high as MK250/KG (a rise of about 25%) in the fourth week of May. Maize prices in Lunzu market rose from MK200/KG in the second week of April 2022 to around MK239/KG in the fourth week of May 2022, representing an increase of around 19.5%. The price increase in the two markets may be attributed partly to a rise in export demand as international maize prices increased. The Agricultural Development and Marketing Board was already discussing maize export contracts worth more than 100,000 MT, valued at over 22 million USD, with various governments, including Zimbabwe, in May 2022. In contrast, maize prices in Lilongwe's main market remained stable over the period, perhaps owing to oversupply from new maize stocks. The Mzimba market showed a steady increase in maize prices over the same period. Comparatively, maize prices increased more in the rural primary markets than in the urban centers, indicating that the rising domestic demand led to more pressures on rural supplies.

These changes were within a similar range as the cumulative change in world prices (23%) for maize, reported in Table 1. The increase is partly attributable partly to the rising regional and international demand created due to various countries trying to secure stocks quickly to avoid being negatively impacted by restricted trade during the war.

c. Sugar

Figure 3: Sugar prices in Malawi's Urban and Rural Markets, (Jan-May 2022)



Source: Authors' construction with data from the Ministry of Agriculture, Malawi 2022.

Whereas sugar prices did not seem to vary conspicuously across the four markets before the fifth week of March, Figure 3 shows that sugar prices were generally higher in the rural markets of Mzimba and Mchinji than in the urban markets of Lilongwe and Lunzu after the fifth week of March 2022. The average price in the rural and urban markets before the week of March 5 2022, was MK94 0/KG. In both the rural and urban markets, prices changed patterns after the week of March 5 2022, rising from MK940/KG in Mzimba and Mchinji to above MK1300/KG between the fifth week of March to the fifth week of May 2022, representing a 40% increase over that period. In contrast, although there were changes in the sugar price patterns in Lilongwe and Lunzu markets after the fifth week of March, the increase was around 31%.

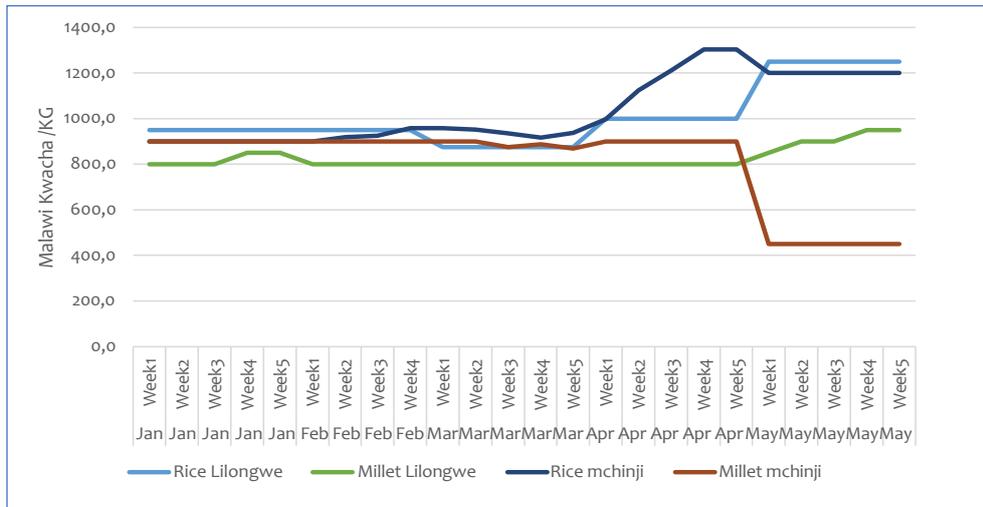
Malawi is a net sugar exporter, yet the general panic about the future scarcity of commodities as a result of the conflict pushed up prices even in net exporting countries. This can also be explained by the fact that some countries (for example, India, Argentina, Turkey, and Egypt, among others)¹² were already prohibiting international trade of their own commodities to ensure that those stocks were reserved for their own populations¹³.

¹² <https://www.firstpost.com/business/india-bans-wheat-export-from-argentina-to-turkey-countries-that-have-stopped-overseas-food-trade-10698441>

¹³ <https://edition.cnn.com/2022/05/14/business/india-wheat-export-banned/index.html>

d. Rice and Millet

Figure 4: Rice and Millet Prices across Urban and Rural Markets, (Jan-May 2022)



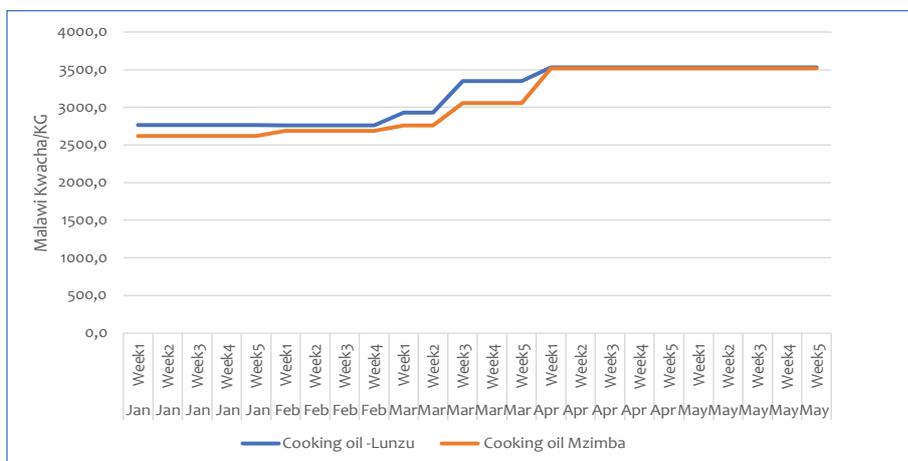
Source: Authors' construction with data from the Ministry of Agriculture, Malawi 2022.

As highlighted earlier, Malawi is a net importer of rice but is self-sufficient in millet. Neither of the two commodities is imported from Russia or Ukraine, so any war effect on these commodities would only be indirect. Figure 4 shows that rice prices increased steadily in both the urban and rural markets of Lilongwe and Mchinji, respectively, after the fifth week of March 2022 – a period close to the start of the conflict in Russia and Ukraine. Comparatively, millet prices in Mchinji declined significantly from MK900/KG to MK450/KG (a 50% decline) after the week of April 5. This price decline may be explained by increased millet supplies in the Mchinji market from fresh harvests.

On the world stage, prices for cereals (rice inclusive)¹⁴ rose during the same period. For instance, Table 1 shows that the world price for rice rose by 9.7% between January and May 2022. This implies that some of the observed price dynamics in Lilongwe and Mchinji for rice may be attributed to international demand and supply, especially because Malawi is a net importer of the commodity.

e. Energy and Cooking Oil

Figure 5: Cooking Oil Prices across Urban and Rural Markets, (Jan-May 2022)



Source: Authors' construction with data from the Ministry of Agriculture, Malawi 2022.

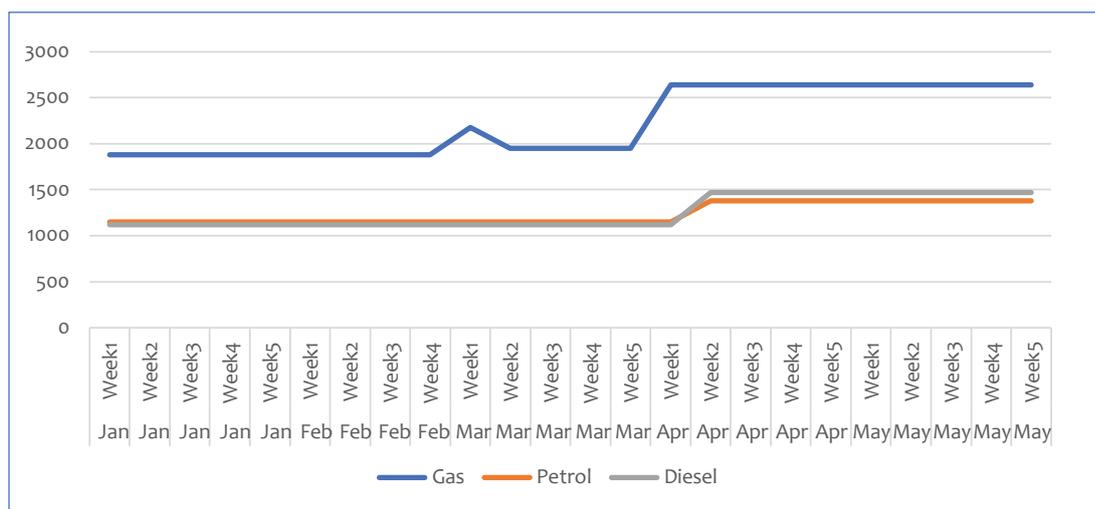
¹⁴ <https://www.reuters.com/markets/asia/asia-rice-prices-rise-across-major-hubs-higher-demand-rice-2022-03-10/>

Figure 5 presents the prices of cooking oil in Lunzu and Mzimba. During the period in focus, cooking oil prices were higher in the urban market of Lunzu, where a liter cost over MK2700/L and lower in the rural market of Mzimba until the first week of April, after which cooking oil sold at around MK3500/L in both markets. Cooking oil prices in both markets increased after the week of February 4 2022. In Lunzu, cooking oil prices rose from MK2760/L in the fourth week of February to a peak of MK3500/L in the second week of May 2022, representing an increase of 26.7% over that period. In contrast, cooking oil prices in Mzimba increased from MK2690/L in the second week of April, peaking at MK3500/L in the fifth week of May 2022, representing an increase of around 30% over that period.

The increase in cooking oil prices is related to the increase in prices for sunflower oil and soybeans at the international level in response to the scarcity created by reduced trade from Russia and Ukraine, which together control more than 75% of the sunflower oil trade¹⁵. Table 1 shows that world sunflower oil prices increased the most (51.4%) among the commodities examined, which can primarily be explained by the reduction in trade from Russia and Ukraine. Moreover, because of the war, other countries banned the export of vegetable oils, thereby exacerbating the problem and leading to further price increases internationally. The increase in cooking oil prices in Malawi in both markets primarily resulted from the Russia-Ukraine conflict.

f. Fuels

Figure 6: Energy Price Trends in Malawi during the Russia-Ukraine Crisis (Jan-May 2022)



Source: Authors' construction with data from the Ministry of Agriculture, Malawi 2022.

On the international stage, oil prices surged following the invasion of Ukraine by Russia. Although Russia and Ukraine do not appear on the list of top fuel exporters to Malawi, the international shortages occasioned by the reduced supply from Russia meant that oil prices increased globally over the study period, resulting in rising commodity prices (including fuels) in many countries. Figure 6 shows that gas, diesel, and petrol prices increased, especially after the fifth week of March 2022. Although Malawi authorities later devalued the currency by 25%, the rise in fuel prices preceded the devaluation, and so its source is more likely the Russia-Ukraine conflict rather than domestic monetary policy in Malawi. Gas prices increased by 35% from MK1,952/L to MK2,640/L over the study period. Similarly, diesel and petrol prices also increased from around MK1,120/L to around MK1,470/L between the last week of March and the last week of May 2022, representing a 31% increase similar to the observed increase of 30% for diesel, more than 38% for gas and more than 19% for petrol. These correlated movements of the domestic and international prices suggest that the war had contagion effects even in markets seemingly unrelated to those of Russia and Ukraine.

¹⁵ <https://www.npr.org/2022/04/26/1094770364/russias-invasion-of-ukraine-heats-up-cooking-oil-prices-in-global-squeeze>

2. Price Changes in Local and Global Markets

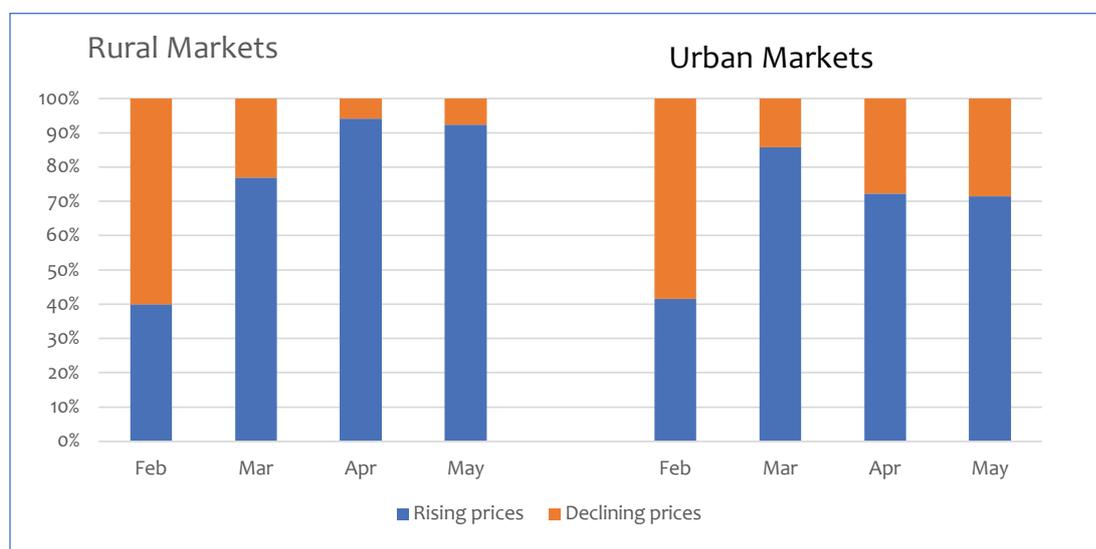
Table 2: Changes in Local and World Market Prices for Selected Commodities (Jan-May 2022)

Commodity	Global price change (%)	Change in local rural market (Mchinji)	Change in local urban market (Lunzu)
Maize	+23.3%	+34.72%	-0.61%
Wheat	+36.2%	+37.5%	+37.5%
Sugar	+6.8%	+38.3%	+28.9%
Rice	+9.7%	+31.80%	+32.40%
Cooking oil	+51.4%	+31.69%	+26.00%
Beef (red meat)	+1.9%	+10.48%	+45.5%
Fuel	Crude Oil: +30.1%	Diesel: +30% Petrol: +19.45%	Diesel: + 30,00% Petrol: +19,45%
Liquefied natural gas (Japan)	+12.1%	+38.43%	+38,43%

Source: Author's construction based on data from Ministry of Agriculture, 2022, Malawi price monitoring survey, and World Bank, 2022.

As highlighted in Table 2, world prices for all commodities rose significantly between January and May 2022. Similarly, prices in local markets for many of these commodities rose over the same period. Besides maize prices in the urban market of Lunzu, which declined by roughly 0.61% between January and May 2022, prices for the other commodities increased over the same period in Lunzu market. Their increase was similar to the increases observed in global markets for the same commodities. Prices of all commodities in the rural markets also generally increased. Overall, prices rose more and faster in rural markets than in urban markets for the commodities under study (Figure 7).

Figure 7: Price Changes in Rural and Urban Markets (Jan-May 2022)



Source: Ministry of Agriculture, Malawi 2022.

Figure 7 shows that prices in the rural and urban markets generally increased over the period (Jan-May 2022); however, the increase was larger and faster in rural markets. For example, by February 2022, more than 40% of the rural markets were experiencing price increases, but this figure quickly increased to 75% in March and 95% in April. In comparison, urban markets experienced an increase slightly above 40% in February and 85% in March, followed by 70% in

April and May. By the end of May, the number of markets with rising prices declined to under 70% in urban markets, while close to 92% of the rural markets were still experiencing price increases.

3. Summary of Observations

The prices of almost all the commodities examined, including wheat, appear to have been affected by the Russia-Ukraine war. This was expected as Malawi imports 75% of its wheat from Russia and Ukraine, and the scarcity created by the war pushed prices higher. These trends were similar to world wheat prices over the same period. Equally, sugar prices went up significantly from March in both rural and urban markets of Malawi, which may partly be a result of the war, as some of its consequences included an increase in transport costs as well as a reduction in the international supply of commodities due to countries hoarding their stocks to smooth their domestic consumption.

While millet and maize prices exhibited a declining trend in some markets, rice prices rose in urban and rural markets. The decline in prices for maize and millet in Malawi over this period is attributed to the onset of the harvesting season from March to May 2022. The new stocks of maize and millet led to excess supplies and reduced prices domestically. On the other hand, cooking oil prices went up significantly in both urban and rural markets and appeared to converge in May, perhaps following government intervention and the removal of value added tax (VAT) as a measure for price stabilization¹⁶. Prices of petroleum products and cooking gas in rural and urban markets increased at the same rate as world market prices, implying that the Russia-Ukraine war had an effect. However, there was no observable difference in price increases between urban and rural markets.

4. Recommendations

As wheat, sugar, cooking oil, petroleum and maize prices seem to have been impacted by the war, it is essential to keep food trade open to facilitate household access to stocks of those commodities from within and outside Malawi as well as limit the negative effects of the conflict on the economy in general, and the poor more specifically. While removing VAT from commodities cushions the population from inflationary pressures, care should be taken to avoid worsening the country's balance of payments, as such measures encourage imports while simultaneously denying the government much-needed revenue.

It would also be crucial to enhance social protections by developing and strengthening programs that support consumers and vulnerable households by providing safety nets, as was done during the most critical period of the COVID-19 pandemic.

To limit the effects of the Russia-Ukraine conflict from persisting for many years to come, Malawi could step up programs that support farmers in increasing future production and thus offset the effects of the war on food prices. In this regard, increasing general funding to agriculture, improving investment prioritization within the sector, and avoiding pilferage of its allocations can increase productivity and enhance the dynamic resilience of Malawian households.

5. References

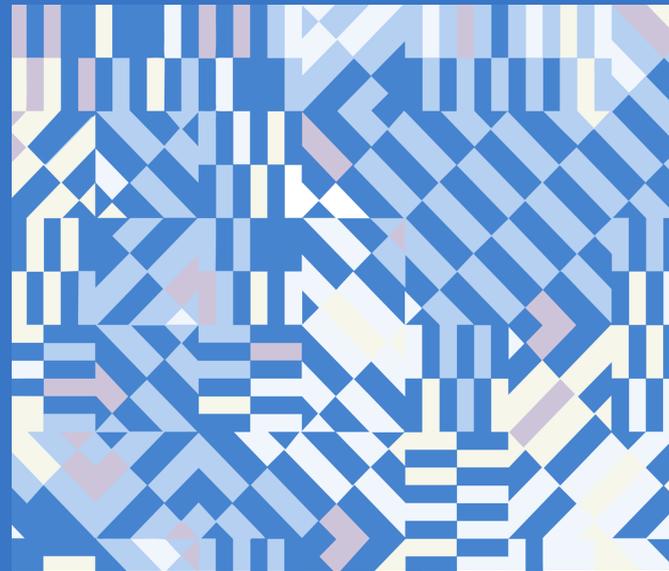
1. World Bank 2019. <https://wits.worldbank.org/trade/comtrade/en/country/MW/year/2019/tradeflow/Imports/partner/ALL/product/100110#>
2. Government of Malawi. 2022. Price monitoring surveys. Lilongwe

¹⁶ <https://www.mra.mw/news/government-exempts-cooking-oil-water-from-vat>

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