31 Russia's invasion of Ukraine threatens food security in Malawi: How can the country respond?

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Food insecurity is endemic in Malawi, affecting up to 38% of the population every year in the run-up to the harvest in April. Although geographically distant, there are multiple channels through which Russia's invasion of Ukraine can make matters worse this year.

The conflict has disrupted global supplies of key cereals, vegetable oils, and fertilizers, pushing already-high prices higher, and putting particular pressure on low-income countries with vulnerable poor populations. In this post we discuss how rising wheat, maize, cooking oil, and fertilizer prices are likely to impact Malawi and how the government can respond.

Grain and vegetable oil markets in Malawi

Wheat

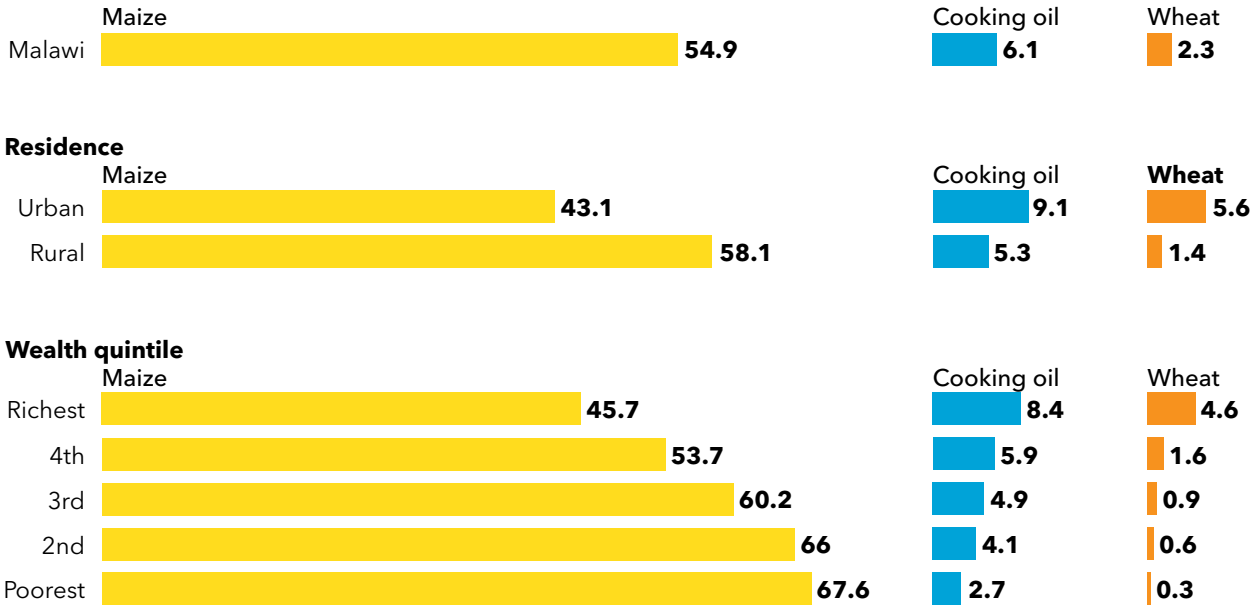
Rising wheat prices have been making global headlines and will affect many countries severely, but their direct impact on Malawi will be limited. Malawians rely on wheat for only 2.3% of their energy intake (Figure 1) and spend only 2.8% of their total food budget on wheat or wheat products like bread and pasta (Figure 2). Moreover, these products are mostly consumed by relatively richer and urban households, so the rising prices of bread will have only moderate direct effects on the country's food security. That said, imports from Russia and Ukraine made up nearly two-thirds of Malawi's wheat consumption in recent years and the country may face a shortage until alternative suppliers are contracted.

Maize

Ukraine and Russia jointly account for 17.4% of world trade in maize, and global maize prices are rising. Malawi is roughly self-sufficient in maize production in years with favorable rainfall, but is often a net importer. On average, the country imports less than 1% of its consumption, but at the extremes, net imports have risen to 10% of domestic consumption, as happened in 2016 when harvests were particularly poor; and net exports have gone up to 10% of domestic production after a good harvest, as in 2011.

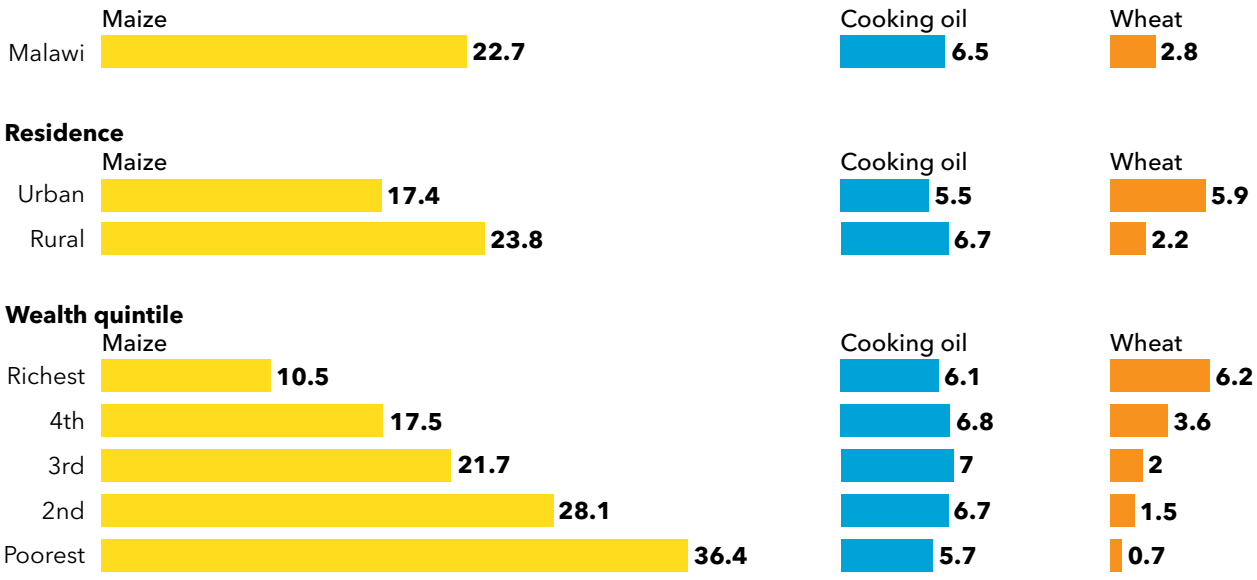
This year, a late onset of the rains and floods in Malawi's southern region are likely to cause production shortfalls in parts of the country, although it is too early to tell how much this will impact total national production. One indication of rising maize prices is that the government's recently announced minimum farmgate price for maize is 47% higher than last year's. Maize imports and exports are heavily regulated, but the country is not at all immune to international price trends.

Figure 1: Share of maize, cooking oil, and wheat in Malawian diets, percent of calories



Source: Fifth Integrated Household Survey 2019-2020

Figure 2: Share of maize, cooking oil, and wheat in Malawian food purchases, percent of value

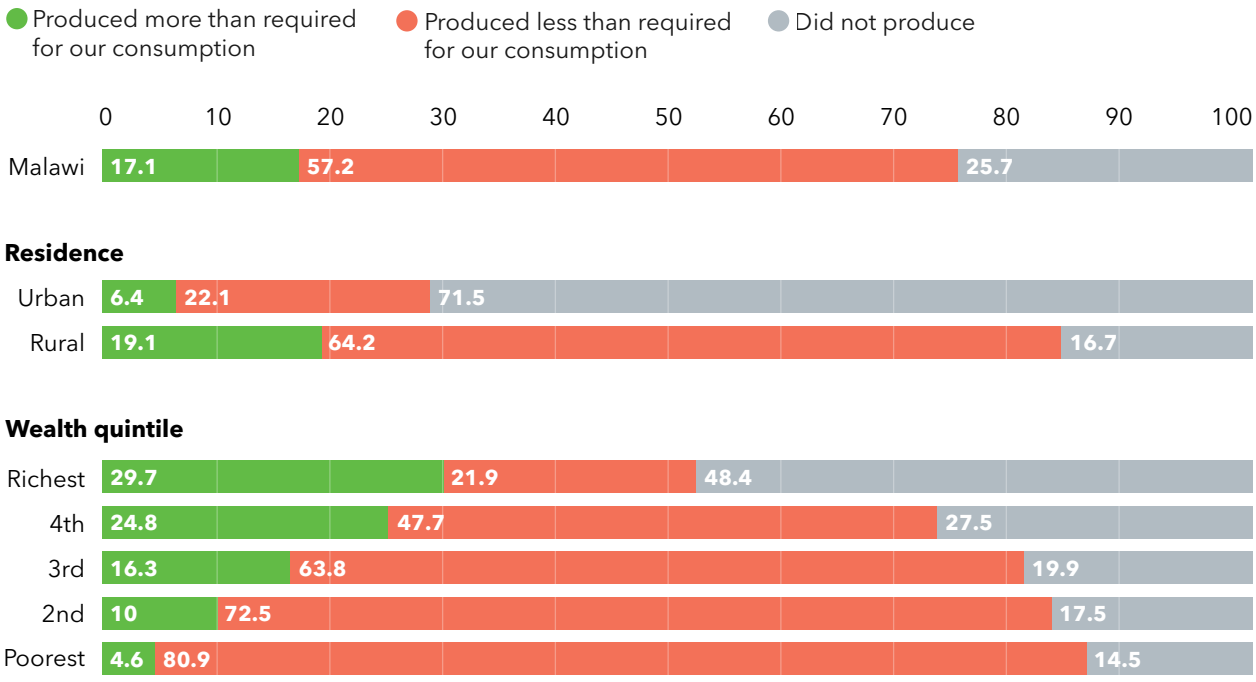


Source: Fifth Integrated Household Survey 2019-2020

Malawian households produce as well as consume maize. In contrast to wheat, maize prices will have a strong impact on the poor, who derive 68% of their calories from this source and for whom it makes up 36% of total purchased food.

Because high food prices benefit those who sell and harm those who buy, it is important to understand who produces and who consumes. While nearly all Malawian farmers grow maize, most of that is for own consumption. Figure 3 shows that richer households are less likely to grow maize, but when they do, they are more likely to produce more than needed at home. These households can potentially benefit from rising maize prices. Most of the poor, by contrast, grow some maize, but only 5% of the poor produce enough for their own needs.

Figure 3: Malawian households by maize production, percent



Source: Fifth Integrated Household Survey 2019-2020

While widespread maize production in Malawi will insulate households somewhat from a global maize price shock, most households will turn to the market at some point in time to purchase locally produced maize for consumption. Poor and urban households are most dependent on purchases of maize and will be hurt most by rising maize prices.

Cooking oil

Even before the war, global weather events had affected soybean and palm oil production, putting upward pressure on the price of vegetable oil; rising prices of cooking oil have been the subject of fierce political discussions in Malawi for months. With Russia and Ukraine jointly accounting for nearly three-quarters of the world's sunflower oil trade, further price increases should be expected.

Figures 1 and 2 offer a glimpse of how this translates to household budgets and calorie sources. Cooking oil makes up a larger share of calories for urban and richer households, but there is no discernable pattern when it comes to share of purchases – across all wealth quintiles and irrespective of urban or rural location, cooking oil makes up a stable 5.4% to 7.0% of total food purchases. This means that while high cooking oil prices are likely to be felt across all segments of the population, the impact will fall harder on the poor, who already consume little oil and therefore have less scope to further reduce consumption.

On the other hand, survey data show that 16% of crop-producing households in Malawi grew soybeans in 2019/20, a number which has likely increased since then because of favorable prices in the 2020/21 growing season. This group of households stands to benefit from the higher soybean prices, which are likely to rise further as cooking oil manufacturers seek substitutes for Ukrainian and Russian sunflower seed.

High fertilizer prices could put agricultural production at risk

Similar supply shocks will reduce the availability and drive up prices of chemical fertilizers. Before the war, Russia and Belarus jointly accounted for 15% of global trade in nitrogenous fertilizers and 33% of potash. When global fertilizer prices nearly doubled in the year to August 2021, it derailed the government's implementation of last year's Affordable Inputs Programme (AIP), which provides eligible farmers with fertilizer and hybrid seed at reduced prices.

Since then, prices have nearly doubled again, and are likely to continue rising. This does not bode well for the AIP, whose budget for 2022 has been reduced by a third in real terms compared to 2021. If the current prices persist and if the government wants to retain current subsidy levels, the number of beneficiaries will have to be reduced by roughly two-thirds. If the government wants to maintain the number of beneficiaries, their co-payment will have to drastically increase. Either way, less fertilizer is likely to be applied in 2022, meaning reduced agricultural production, putting still more upward pressure on local and global food prices.

Policy options

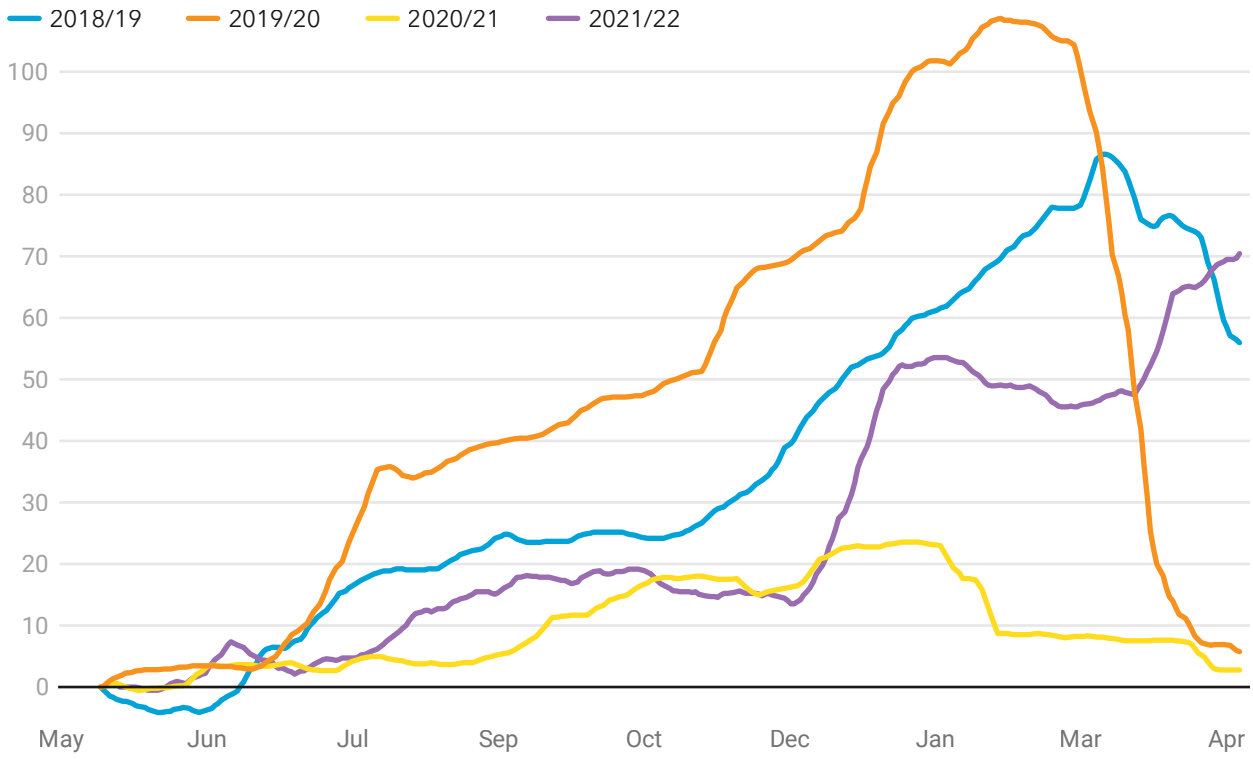
How can Malawian policymakers help steer the country through this crisis unscathed, and prepare for future crises? We lay out a number of complementary policies below.

First, rising food prices are compounded by seasonal fluctuations in maize prices. The government cannot do much to alter global market prices, making it more important than ever to stabilize seasonal fluctuations in maize prices.

Figure 4 shows how volatile maize prices have been over the past four years, rising between 25% and 105% toward the lean season, compared to the price in May right after harvest. Yet many Malawian farmers, cash-strapped after the lean season and lacking safe storage facilities, sell much of their produce shortly after harvest, only to buy it back at a loss later in the year. These fluctuations can be moderated via better management of the Strategic Grain Reserve (SGR).

In recent years, the SGR typically began its replenishment only after the start of the fiscal year in July, putting upward pressure on already rising maize prices. As of 2022/23, however, the start of the fiscal year has been shifted from July to April. This means that government agencies should have their budgets available in time to make the SGR procurement early enough to prop up prices when they are at their lowest, thus reducing the disparity between the buying and selling prices that Malawian farmers face. This would primarily benefit the poorest farmers, who are most likely to sell their harvest early and the most vulnerable to rising price levels in the country.

Figure 4: Seasonal maize price fluctuations 2018–2022, percent change since May



Source: Fifth Integrated Household Survey 2019-2020

Second, Malawi imports all its fertilizer, so unlike maize, there are few options to alter or smoothen the price of fertilizer. Policy responses should thus focus on increasing efficiency of fertilizer applications. Unfortunately, yield responses to fertilizer have been declining over recent years due to deteriorating soil health. Even before the Russia-Ukraine war, some farmers could not make profitable use of fertilizer, in the sense that the total cost of the fertilizer would be higher than the value of the additional yield resulting from its application. Further increases in the fertilizer prices will only exacerbate such inefficiencies.

Policy options to make more efficient use of fertilizer and fertilizer subsidies have been discussed at length by De Weerdt and Duchoslav (2022), Chadza and Duchoslav (2022), and Nyondo et al. (2022), who have called for increased investments in soil health, in agricultural research and development, and in agricultural extension.

Third, social safety nets should be agile and aware of who is affected by a particular shock. During the COVID-19 pandemic, the urban poor suffered disproportionately from lockdown restrictions. Rising maize prices are likely to impact the same group, which is completely dependent on food purchases that take a large chunk of their budget. Malawi's flagship social safety net, the Social Cash Transfer Programme (SCTP), is rigid, so ad hoc interventions such as the COVID-19 Urban Cash Intervention or the recurrent but ad hoc funded Lean Season Food Insecurity Response Plan have been deployed to respond to shocks. Making the SCTP sufficiently flexible both horizontally (that is, promptly increasing and decreasing the number of beneficiaries as needed) and vertically (that is, varying transfer sizes) would help to better protect the most vulnerable households from shocks like the current high food prices.

Finally, despite decades of policies that promote maize self-sufficiency at the household level, and despite three-quarters of Malawian households growing maize and over 50% of the agricultural budget allocated to subsidizing agricultural inputs primarily geared toward maize production, the vast majority of Malawian households depend on market purchases of maize.

Among the poorest 20% of the population, 86% grow maize, but only 5% are likely to produce sufficient quantities to satisfy their own consumption needs (Figure 3). The focus on subsistence is clearly not producing the desired results in terms of resilience to external shocks, while it is simultaneously crowding out investment in other, more productive activities.

We have already noted that making strategic use of the grain reserves will be especially important to bridge this volatile year, but in the longer run, diversifying agricultural production to more lucrative, commercially oriented crops, as well as diversifying beyond agriculture, are crucial goals. A necessary condition for such a shift is that farmers should be confident that they will have access to their staple food at predictable prices. At the national level, this can be achieved by ensuring that government actions in the maize market are predictable and rules-based, while at the international level, strengthening regional integration of maize markets can play a key role.