The Covid-19 pandemic has multiple implications for global agricultural markets and food security. Disentangling some of the relationships will allow policymakers and the agri-food sector to better address implications for the food chain.

This article focuses on the potential macroeconomic impacts of the Covid-19 pandemic on food demand. We use the Aglink-Cosimo model underlying the OECD-FAO Agricultural Outlook 2020–2029 baseline to explore potential macro-economic impacts on future developments in global agricultural markets.

Macroeconomic assumptions

The scenario analysis uses estimates of Gross Domestic Product (GDP) growth, inflation and the world crude oil price for the next two years; these are based on April 2020 projections from the World Economic Outlook of the International Monetary Fund (IMF).

According to the IMF projections, global GDP will contract by 3 per cent in 2020, a larger decline than experienced during the 2008–2009 financial crisis. It is then assumed that the pandemic will fade in the second half of 2020, and that containment measures will be gradually relaxed allowing global GDP to grow by 5.8 per cent in 2021, as economic activities normalise (Figure 1).

Additionally, the average crude oil price is projected to be USD 37/barrel in 2020, 40/barrel in 2021, down from 64/barrel in 2019.

The IMF projections were made during the first months of the Covid-19 pandemic and are subject to high uncertainty.

Impacts on agricultural commodities and markets

The Covid-19 induced contraction in economic activity is projected to weaken global demand for agricultural commodities. Supply-side reactions will be delayed as production decisions (e.g. sowing of crops) were made prior to the onset of the Covid-19 pandemic, leading potentially to an oversupply of many agricultural commodities in the short run. In response, stocks of agricultural commodities are expected to increase significantly.

Figure 1: Estimated change in Gross Domestic Product (GDP)

Source: Own calculations based on the World Economic Outlook database (IMF, 2020).
commodities would be expected to increase, causing commodity prices to fall further until normal levels of consumer demand resume. In addition, the drop in oil prices will reduce agricultural production costs (e.g., lower fuel and fertiliser costs).

All these factors will contribute to lower agricultural commodity prices in this scenario compared to those projected in the baseline (Figure 2).

Projected food demand is determined by two main counteracting drivers: lower economic growth tends to reduce food demand; whereas lower commodity prices tend to increase demand. The overall outcome differs among agricultural products and countries. The consumption of staple foods like rice and wheat would be less affected under the Covid-19 scenario. Whereas, the consumption of higher value commodities such as vegetable oil and animal products would decline more substantially.

Figure 3 shows higher demand impacts in LDCs compared to the world average. In all countries, the impacts will be even larger for the poorest segments of the population. Therefore, further efforts will be required to achieve global food security.

The macroeconomic impacts of the Covid-19 pandemic have already caused a considerable shock to world food demand and consequently food security. Policy makers should consider this when introducing measures to address the overall impact of the current pandemic. Policy measures that impede the functioning of the food chain are likely to negatively impact global food security.

**Further Reading**

- IMF (2020). World Economic Outlook database (Washington, DC: IMF). Available online at: https://www.imf.org/external/pubs/ft/weo/2020/01/weodata/index.aspx.
- OECD/FAO (2020). *OECD-FAO Agricultural Outlook 2020-2029*. OECD Publishing, Paris. Available online at: https://www.oecd-ilibrary.org/agriculture-and-food/data/oecd-agriculture-statistics/oecd-fao-agricultural-outlook-edition-2020_491965f4-en?parentid=http%3A%2F%2Finstance.metastore.ingenta.com%2Fcontent%2Fcollection%2Fagr-data-en.
- OECD/FAO Agricultural Outlook, agriculture statistics database. Available online at: https://www.oecd-ilibrary.org/agriculture-and-food/data/oecd-agriculture-statistics/oecd-fao-agricultural-outlook-edition-2019_ecd409b4-en?parentid=http%3A%2F%2Finstance.metastore.ingenta.com%2Fcontent%2Fcollection%2Fagr-data-en.

Stephan Hubertus Gay, Marcel Adenauer and Clara Frezal, Organisation of Economic Cooperation and Development (OECD).

Emails: hubertus.gay@oecd.org; marcel.adenauer@oecd.org; clara.frezal@oecd.org