



Asia-Pacific  
Economic Cooperation

# Export Restrictions and Food Security in the Context of the COVID-19 Pandemic

By Carlos Kuriyama

## KEY MESSAGES

- While WTO rules allow export bans and restrictions in specific situations, the implementation of such measures could affect food security. Price of food could increase, affecting mostly the poorest households.
- Maize, rice and wheat contribute to around 40 percent of the global intake of calories. Looking at their stocks-to-use ratios, the food security situation is stronger now compared to the 2007–2008 global food crisis. However, these ratios are low, or not improving, in a number of APEC economies, which suggests the need to pursue open trade policies to strengthen food security in APEC economies.
- Since the COVID-19 pandemic started, few export restrictions have been observed in APEC economies, but APEC needs to stay vigilant to prevent a health crisis from becoming a food crisis as well.
- APEC could intensify cooperation efforts in the following areas:
  - Working toward a collective commitment to avoid unnecessary export bans and restrictions on food products.
  - Lowering import tariffs and other quantitative import restrictions on food products, as well as pursuing deals to maintain connectivity and avoid supply chain disruptions.
  - Strengthening international cooperation and transparency to share information in a timely manner.
  - Exchanging best practices on efforts to keep the food value chain moving during the COVID-19 pandemic.

The COVID-19 pandemic has brought disruptions worldwide. Many activities have been restricted as part of government measures to contain the pandemic and avert a collapse of health services. Lockdowns have caused labour shortages in many sectors, including those considered essential.

In addition, cross-border restrictions affecting the movement of people have affected the supply of goods, despite several governments committing to keep borders open to cargo. For example, airlines have reduced flight frequency due to falling passenger demand, which cut air cargo capacity in March 2020 by 22.7 percent compared to the same month the previous year.<sup>1</sup>

Food is particularly sensitive to the restrictions, in particular perishables such as fruits, vegetables, dairy, seafood and meats. A number of cities have

experienced episodes of panic buying and some governments have reacted by implementing export bans or restrictions on certain food products, with the intention of securing food provision. Supply restrictions combined with growing demand could lead to higher food prices, with the potential to destabilise economies.

This Policy Brief presents an overview of World Trade Organization (WTO) rules on export bans and restrictions, and argues that governments should adopt an open trade policy as one of the most important tools to improve food security. It also looks at the current situation in the APEC region concerning the implementation of export bans and restrictions targeting food products, and evaluates food security in the region by looking at food stocks and consumption levels. Finally, it highlights recommendations for APEC fora on what they could

<sup>1</sup> International Air Transport Association (IATA), "Air Cargo Market Analysis" (March 2020), 1, [https://www.iata.org/en/iata-](https://www.iata.org/en/iata-repository/publications/economic-reports/air-cargo-market-analysis---march-2020/)

[repository/publications/economic-reports/air-cargo-market-analysis---march-2020/](https://www.iata.org/en/iata-repository/publications/economic-reports/air-cargo-market-analysis---march-2020/).

do collectively to ensure the provision of food in APEC economies.

### **Are Export Prohibitions and Restrictions Allowed by WTO Rules?**

Article XI:1 of the General Agreement on Trade and Tariffs (GATT) bans export prohibitions and restrictions in the form of quotas, licenses or other measures; however, Article XI:2 allows governments to implement these measures temporarily to ‘prevent or relieve critical shortages of foodstuffs or other products essential to the exporting contracting party’. The measures have to be implemented on a non-discriminatory basis, as stated by GATT Article XIII:1.

In addition, the implementing party has to follow Article 12 of the Agreement on Agriculture, which states that the implementation of the export ban or restriction has to ‘give due consideration to the effects of such prohibition or restriction on importing Members’ food security’.<sup>2</sup>

As such, there is room to implement export bans and restrictions under current rules, but GATT Article XI:2 is clear that these measures can be implemented only on a temporary basis and on food products that are considered essential. GATT Article XI:2 and Article 12 of the Agreement on Agriculture are designed precisely to avoid a situation in which the food security of both exporting and importing parties is compromised.

An export prohibition or restriction can also be WTO-consistent if it meets the conditions stipulated in GATT Article XX on General Exceptions. For example, it is possible to implement export-related measures that are ‘necessary to protect human, animal or plant life or health’, as long as the measure is not a case of arbitrary or unjustifiable discrimination between parties where the same conditions prevail, or a disguised restriction on international trade.

However, where GATT Article XX has been invoked to apply an export-related measure affecting food trade in the context of COVID-19, the measure could be challenged if there is no necessity to implement this measure to protect human life or health, or if this legitimate policy objective could be

achieved by other means that are more consistent with WTO rules.

### **Open Trade Policies as the Better Option for Food Security**

WTO rules on export prohibitions and restrictions on food products, intended to help economies enhance their food security, ironically could hamper efforts to strengthen food security, as such measures introduce market distortions and could generate concerns in partner economies.

For instance, restricting food exports to increase availability locally may keep prices in the domestic market lower than international markets, which could discourage local farmers from producing more food for the domestic market, and encourage illegal food smuggling to international markets. International food prices could also increase significantly, particularly if the economy implementing the export restriction on a product is an important global producer of that product. Food importers also may find it harder to secure enough supply.

In addition, such measures could affect international cooperation efforts, as they could trigger similar trade-restrictive or retaliatory measures from other economies, exacerbating food security problems and affecting global value chains in the food industry.

Past experience shows the detrimental effect of export restrictions in food markets. In 2011, an APEC economy (‘Economy A’) implemented a policy to purchase rice from local farmers at above market prices.<sup>3</sup> This measure acted as a de facto export restriction as it significantly reduced rice exports. This had a large effect on the international rice market, as Economy A accounted for more than a quarter of the world’s rice exports and supplied nearly half of the APEC region’s rice imports.<sup>4</sup>

After implementing this measure, the participation of Economy A in world rice exports fell from 28 percent (in 2011) to 23.7 percent (in 2012) (Table 1). World rice exports fell by 15.7 percent and Economy A accounted for nearly half of the reduction. The amount of rice imported by the APEC region from Economy A declined by 37.6 percent (USD 0.9 billion), but the total amount imported by the region

associations among small and medium size farmers; developing proper pest control mechanisms; and promoting soil conservation techniques. Investment in infrastructure such as irrigation projects and roads are also important. See APEC Policy Support Unit, ‘Perceptions on the Use of Non-Tariff Measures within the APEC Region’ (APEC#214-SE-01.10, Singapore: APEC, 2014), 33,

<http://publications.apec.org/Publications/2014/06/Perceptions-on-the-Use-of-Non-Tariff-Measures-Within-the-APEC-Region>.

<sup>4</sup> For more details, see APEC Policy Support Unit, 35–6.

<sup>2</sup> In addition, this article states that the implementing party has to inform the Committee on Agriculture in advance on the nature and duration of the measure, and consult, upon request, with any other importing party with a particular interest in the measure.

<sup>3</sup> If the intention were to assist farmers to increase their income, the same objective could be achieved using measures that are less trade-restrictive and, at the same time, more sustainable for the government in the long term. For example, the government could help farmers become more competitive and facilitate their effective insertion into the food supply chain. This could be done by making available market information systems; encouraging

remained steady as APEC economies were able to purchase rice from other sources.

Besides economies having to find alternative sources of rice, this measure also led to higher global rice prices. Figure 1 shows that the international price of the three main types of rice exported by Economy A went up, by 36.9 percent for 'long grain', 23.2 percent for 'broken rice 25%' and 15.2 percent for 'broken rice 5%'.

Implementing export restrictions during the COVID-19 pandemic could exacerbate people's concerns about having enough stores of food, and trigger panic buying, hoarding and speculation.<sup>5</sup> The poorest households would be the most affected, as higher food prices mean a greater percentage of their income being allocated to food.

Instead, governments should pursue open trade policies to safeguard food security. In the Economy A example, APEC economies were able to react quickly by importing rice from other sources. This option would not have been available if all economies had decided to implement export bans and restrictions. In fact, if the objective of a government is to facilitate access to food in the domestic market at lower prices, it is less trade-distorting to reduce tariff rates than to implement an export restriction. By doing so, domestic consumers and firms will have access to larger quantities of food at cheaper prices due to the increased availability of imported products.<sup>6</sup>

### Implementation of Recent Export-Restricting Measures Affecting Food in the APEC Region

Based on the WTO and Global Trade Alert (GTA) databases on trade-related measures implemented by governments due to the COVID-19 pandemic, the number of new trade-restricting measures affecting food exports in the APEC region is low in comparison to the rest of the world, and to the similar measures affecting exports of medical goods (Figure 2). Only four of these measures have been put in place and notified by an APEC economy to the WTO since the beginning of 2020. Similarly, the GTA database, an initiative of the Centre for Economic Policy Research, has identified one additional measure to the four notified to the WTO.<sup>7</sup> In contrast, outside the APEC region ('rest of the world'), the WTO database shows 10 measures affecting food exports while the GTA database reports 28 measures (Figure 2).

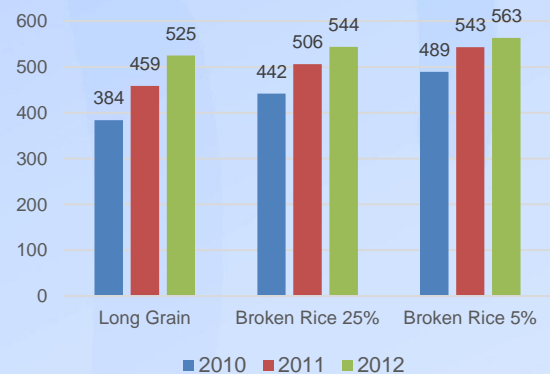
<sup>5</sup> Bernard Hoekman, Matteo Fiorini and Aydin Yildirim, "Export Restrictions: A Negative-Sum Policy Response to the COVID-19 Crisis" (EUI Working Paper RSCAS 2020/23, San Domenico di Fiesole: European University Institute, 2020), 6, [https://cadmus.eui.eu/bitstream/handle/1814/66828/RSCAS\\_20\\_23.pdf?sequence=1&isAllowed=y](https://cadmus.eui.eu/bitstream/handle/1814/66828/RSCAS_20_23.pdf?sequence=1&isAllowed=y).

**Table 1. International trade of rice (USD billion)**

World Rice Exports	2010	2011	2012	% Change (2011–12)
By 'Economy A'	5.3	6.5	4.6	-28.8%
By World	19.5	23.2	19.6	-15.7%
Share by 'Economy A'	27.4%	28.0%	23.7%	
APEC Rice Imports	2010	2011	2012	% Change (2011–12)
From 'Economy A'	2.0	2.4	1.5	-37.6%
From World	4.3	6.3	6.2	-1.4%
Share from 'Economy A'	47.2%	38.8%	24.6%	

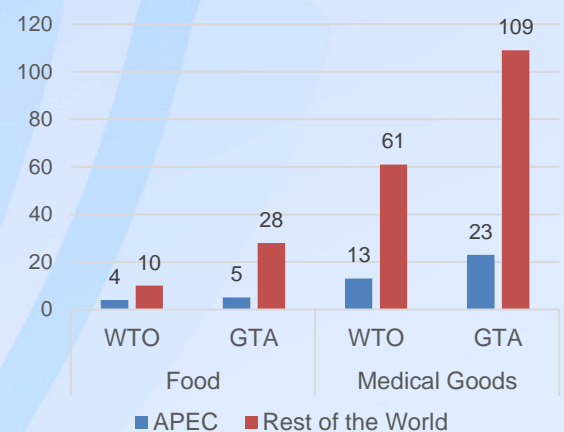
Source: World Bank, World Integrated Trade Solution (WITS); United Nations, Comtrade; APEC Policy Support Unit (PSU) calculations.

**Figure 1. International rice prices (yearly average USD per metric ton)**



Source: World Bank, Global Economic Monitor (GEM) Commodities; APEC PSU calculations.

**Figure 2. Number of export-restricting measures implemented in 2020 by source and type of product (as of 8 May 2020)**

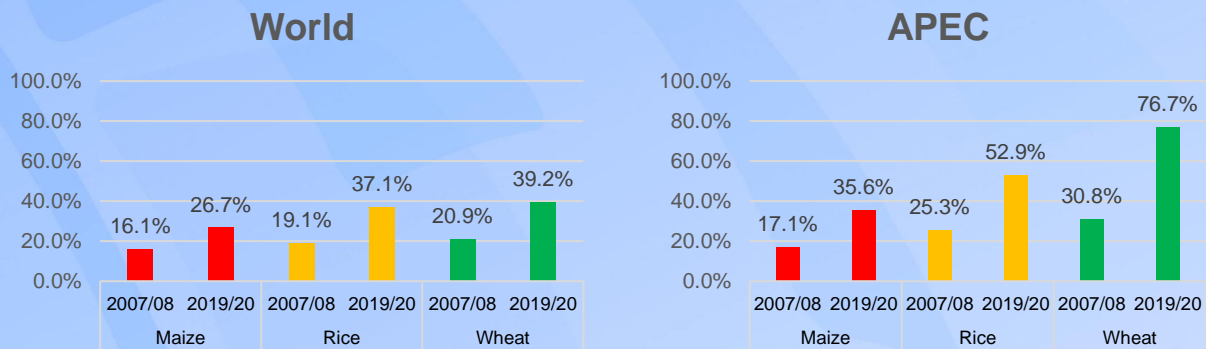


Source: World Trade Organization (WTO) and Global Trade Alert (GTA); APEC PSU calculations.

<sup>6</sup> APEC Policy Support Unit, "Perceptions on the Use of Non-Tariff Measures within the APEC Region," 37.

<sup>7</sup> Four APEC economies have export-restricting measures affecting the food products listed in the WTO and GTA databases. In contrast, those databases include 13 APEC economies that have put in force export-restricting measures on medical goods.

Figure 3. Stocks-to-use ratios for selected grains



Source: US Department of Agriculture – Production, Supply and Distribution Online database; APEC PSU calculations.

In the APEC region, the export-restricting measures include temporary export bans and quotas on food products such as rice, buckwheat, soybeans, wheat, maize, barley and eggs. While the number of export restrictions seem not to be high at this point, it is important for APEC to stay vigilant and intensify cooperation efforts to avoid an escalation of these types of measures, which could lead to a deterioration of the food security position in the region.

### Food Stocks in the APEC Region

Is there any need to worry about food security in the APEC region? The stocks-to-use ratio, which measures the ending stocks of a food staple as a percentage of the total domestic consumption of the same staple, could provide part of the answer, as it is an indicator that compares existing supply with recent demand. Higher stock-to-use ratios indicate that supply is large relative to demand, and food prices could move down. Conversely, lower stocks-to-use ratios mean that it is harder to meet demand, so food prices should increase.

According to the Food and Agriculture Organization of the United Nations (FAO), maize, rice and wheat contribute to around 40 percent of the global intake of calories.<sup>8</sup> Looking at the stocks-to-use ratios of those three staple foods, the food security situation is stronger worldwide and in the APEC region as a whole now (market year 2019/2020) compared to the period of the global food crisis in 2007 to 2008, when food supply was tighter and prices increased. Figure 3 shows that the food security position in the APEC region is twice as secure now compared to 2007/08. Likewise, global food security has strengthened significantly for the three grains, in particular for rice and wheat.

<sup>8</sup> Food and Agriculture Organization of the United Nations (FAO), "Once Neglected, These Traditional Crops Are Our New Rising Stars," 2 October 2018, <http://www.fao.org/faostat/articles/en/c/1154584/>.

<sup>9</sup> Joseph Glauber, David Laborde, Will Martin and Rob Vos, "COVID-19: Trade Restrictions Are Worst Possible Response to

However, a more detailed analysis shows that the improvement in the stocks-to-use ratio is not taking place across all APEC economies. The fact that the ratios show significant progress at the global and regional levels, but not necessarily at the individual economy level, demonstrates the need to maintain open markets for food products to strengthen food security in all APEC economies.

Table 2. Stocks-to-use ratios for staple foods

Staple Food	Number of APEC Economies*	
	Positive	Negative
	Improved Stocks-to-Use Ratio between 2007/10 and 2017/20	Stocks-to-Use Ratio below 10% in 2017/20
Maize	8	12
Rice	5	8
Wheat	6	2

\* APEC comprises 21 economies.

Source: US Department of Agriculture – Production, Supply and Distribution Online database; APEC PSU calculations.

There is a clear need to improve stocks of the main staple foods in the APEC region. A comparison of average stocks-to-use ratios in the periods 2007/10 and 2017/20 across APEC economies shows that only less than a third of APEC economies were able to improve their rice and wheat stocks-to-use ratios, and in more than half of the APEC economies, maize stocks-to-use ratios were at low levels, below 10 percent, in the period 2017/20 (Table 2).

Harvests are expected to be good this year, and major disruptions to production due to the COVID-19 pandemic should not be an issue, as much of the work does not require major labour input.<sup>9</sup> Thus, experts expect that there should be no reason to implement any export restriction or ban on these food products.

Safeguard Food Security," International Food Policy Research Institute: IFPRI Blog, 27 March 2020, <https://www.ifpri.org/blog/covid-19-trade-restrictions-are-worst-possible-response-safeguard-food-security>.

However, it will be important to keep essential activities open during lockdowns (e.g., food production, supermarkets, distribution) as well as open trade lines to carry food products across borders and ensure that people can obtain enough food to satisfy their nutritional needs. Otherwise, economies risk jeopardising their food security.

### Policy Recommendations

The COVID-19 pandemic has the potential to worsen food security conditions in the APEC region. However, APEC economies have the resources to implement measures at both individual-economy and collective levels to prevent a health crisis from becoming a food crisis as well.

In fact, economies could work within relevant APEC committees and working groups toward a collective commitment to avoid implementing unnecessary export bans and restrictions on food products, as such measures could be detrimental for both consumers and firms. As noted earlier, governments could achieve the same policy objectives through measures that are less trade-restricting.

Similarly, APEC economies should consider lowering import tariffs and other quantitative import restrictions on food products,<sup>10</sup> as well as pursue deals to maintain connectivity and avoid supply chain disruptions.

The impact of COVID-19 is an opportunity to increase international cooperation on issues that are critical to food security. Several APEC economies have already done so. For example, New Zealand and Singapore issued a Declaration on Trade in Essential Goods for Combating the Covid-19 Pandemic on 15 April 2020, which includes the commitment to eliminate customs duties and not to impose export restrictions for 124 essential goods, including food and healthcare products.<sup>11</sup> And, on 3 May 2020, 11 participants, including 6 APEC economies (Australia; Brunei Darussalam; Canada; Chile; New Zealand; Singapore), issued a Joint Ministerial Statement committing to maintain open and connected supply chains.<sup>12</sup>

International cooperation and transparency are also essential for sharing information in a timely manner

<sup>10</sup> In 2018, the average applied most favoured nation (MFN) tariff for agricultural products was 11.6 percent in the APEC region, while that for non-agricultural products was 4.3 percent only. See Divya Sangaraju, "APEC's Bogor Goals Dashboard" (APEC#219-SE-01.19, Singapore: APEC, 2019), 2, <https://www.apec.org/Publications/2019/12/APEC-Bogor-Goals-Dashboard>.

<sup>11</sup> The text of this declaration can be found at [https://www.beehive.govt.nz/sites/default/files/2020-](https://www.beehive.govt.nz/sites/default/files/2020-04/FINAL%20TEXT%20Declaration%20on%20Trade%20in%20Essential%20Goods.pdf)

to prevent food security deterioration in APEC economies.

Finally, APEC economies could exchange experiences and learn from efforts to keep the food value chain moving during the pandemic, an example being measures allowing small and medium farmers to keep their production going and avoid bankruptcy.

The findings and views presented in the Policy Brief are preliminary. In response to the COVID-19 pandemic, food security and trade are important and complex areas that require further analysis. The APEC Policy Support Unit could work closely with relevant APEC groups, such as the Policy Partnership on Food Security, the Committee on Trade and Investment, and the Market Access Group, to have a better understanding of the current challenges and support appropriate food security policy responses to COVID-19.

---

**Carlos Kuriyama** is a Senior Analyst with the APEC Policy Support Unit.

The views expressed in this Policy Brief are those of the author and do not represent the views of the APEC member economies.

The author would like to thank Shubhalaxmi Sen (Kankon) for her research assistance.

This work is licensed under the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 Singapore License.

---

**The APEC Policy Support Unit (PSU)** is the policy research and analysis arm for APEC. It supports APEC members and fora in improving the quality of their deliberations and decisions and promoting policies that support the achievement of APEC's goals by providing objective and high-quality research, analytical capacity and policy support capability.

Address: 35 Heng Mui Keng Terrace, Singapore 119616

Website: [www.apec.org/About-Us/Policy-Support-Unit](http://www.apec.org/About-Us/Policy-Support-Unit)

E-mail: [psugroup@apec.org](mailto:psugroup@apec.org)

Publication Number: APEC#220-SE-01.8

---

04/FINAL%20TEXT%20Declaration%20on%20Trade%20in%20Essential%20Goods.pdf.

<sup>12</sup> "Joint Ministerial Statement by Australia, Brunei Darussalam, Canada, Chile, Laos, Myanmar, Nauru, New Zealand, Singapore, the United Arab Emirates and Uruguay Affirming Commitment to Ensuring Supply Chain Connectivity Amidst the COVID-19 Pandemic," 3 May 2020, <https://www.mti.gov.sg/-/media/MTI/Newsroom/Press-Releases/2020/05/Joint-Ministerial-Statement-on-supply-chain-connectivity-3-May-2020.pdf>.