

Recent trends in food imports bills and export earnings: the COVID-19 challenge

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The onset of the COVID-19 pandemic triggered fears as to whether international markets would still have the capacity to meet demands from countries that depend on trade for ensuring the food security of their populations. Actual data available up to June 2020, however, suggest strong, albeit not complete, resilience of the global food markets to COVID-19 shocks. Tables 1 and 2 present these data at global level, for values (Table 1) and volumes at constant 2015 prices (Table 2), contrasted with the periods from H1-2017 to H1-2020. The commodities for which global trade underwent the highest contraction in H1-2020, compared with H1-2019 and H2-2019, can be regarded as highly income elastic, consisting of ‘beverages’ and ‘fish products’, and to some extent ‘livestock products’. These traded commodities could conceivably have been substituted with domestic products. COVID-19 has had an unarguable and profoundly negative impact on gross domestic product (GDP) in countries integrated with global markets. In June this year, the International Monetary Fund (IMF) downgraded global GDP growth in 2020 to almost -5 percent, compared with -3 percent in April 2020. In October, the IMF projected global growth in 2020 at -4.4 percent. While international prices have so far fallen in 2020 for all these high-value foodstuffs¹ lower incomes have rendered these particular products less affordable, offsetting the price effects and resulting in lower volumes transacted.

Assuming seasonal effects in patterns of international procurement, the world food import bill expanded by 0.5 percent in H1-2020 compared with H1-2019 while it contracted by 1.1 percent for the period H1-2020 compared with H2-2019. Purchases of staple foodstuffs, such as cereals, oilseeds and vegetable oils, sugar, and fruits and vegetables, which are less income elastic, recorded an increase in H1-2020 in both value and volume terms, despite generally higher prices for these products. Requiring suitable agro-ecological conditions, options for import substitution – i.e. replacing staple food crops through

domestic production – are limited, at least in the short term. Furthermore, a considerable amount of trade in these products (with the exception of fruits and vegetables) takes place in bulk shipments, in a highly capital-intensive setting, and trade logistics in many routes are highly automatized, with little human interaction. Against this backdrop, the global food import bill for the full calendar year of 2020 is expected to remain close to its 2019 level, potentially exceeding it slightly in view of firming prices for most food commodities in recent months.

Decomposing sources of resilience

Among the economic groups presented, developing countries have shown by far the greatest resilience to COVID-19 in sustaining trade inflows. Indeed, for 7 of the 11 food groups, import volumes increased in H1-2020 compared with H1-2019 (Figure 4), and for meat, sugar and oilseeds, trade expanded in percentage terms by double-digit points. The global tendency for volumes of beverages and fish to decline is also shared by developing countries as a whole. The higher import demand by developing countries, relative to world levels, is a reflection of the currently projected 3.3 percent contraction in GDP², which stands much lower than the world projected contraction, and underscores the generally low income elasticity of food demand.

Table 3 provides a ‘factor decomposition’ of the change in food import bills globally, and the dichotomy of developed and developing countries’ bills over the period H1-2019 to H1-2020. The absolute change of USD 3.33 billion (+0.5 percent) in the global food import bill is mostly driven by the effect of higher volumes imported, and the level of expansion is significantly limited by the sharp contractions in product inflows to developed countries. While GDP for this country group is forecast by the IMF to contract by 5.8 percent,³ it is likely that supply chain

² <https://www.imf.org/en/Publications/WEO/Issues/2020/09/30/world-economic-outlook-october-2020>

³ The IMF forecast is based on “advanced economies”, an aggregate which is

¹ See <https://www.imf.org/en/Research/commodity-prices>

disruptions due to COVID-19 have had a greater impact on trade than the influence (if any) of falling incomes. Furthermore, consumers in developed countries may be in a position to substitute imports with domestic food inventories, at least in the short run.

Table 3 also confirms the remarkable trade resilience of developing countries to COVID-19 shocks, in that volumes of many imported foodstuffs have increased considerably, offsetting the contractions registered in developed countries, and thus helping to stabilize changes in the global food import bill. A closer inspection of the table, as well as of Figure 4, reveals that meat, oilseeds and cereals have registered the most pronounced increases in absolute terms. Hitherto, and since the outbreak of COVID-19, these commodity flows have been altered by trade policy shifts and animal disease outbreaks, and were centred around the major international destination market of China. For instance, notwithstanding that domestic prices for grains and oilseeds in China are much higher than world prices, the Phase 1 trade deal between the United States and China stipulated that China will import more agricultural products from the United States in exchange for tariff concessions on Chinese imports.⁴ China's rising demand for grains and oilseeds also led the country to source imports from other destinations, especially those situated in South America (namely Brazil and Argentina⁵) while an outbreak of African swine fever in China resulted in elevated imports of pig meat from non-affected countries (particularly the United States and the European Union).

Table 4 highlights the performance of the Americas in sustaining export quantities of many key food commodities during the COVID-19 pandemic, to the extent that export volumes of oilseeds, vegetable oils and livestock products have reached record, or near-record highs.

In summary, China maintained its role as the world's largest net importer of agricultural products⁶ under COVID-19⁷. Its import growth was the main contributor to the remarkable trade resilience seen during the pandemic; it remains important to note that the unabated import growth was not caused by the outbreak of COVID-19 in China, but took place in spite of it, and despite the ensuing global health crisis. The causal factors behind China's import growth for food and agricultural products lie in the

almost identical to the categorization of "developed countries", except for the inclusion of the Republic of Korea, Singapore, Hong Kong, Taiwan and Macau, and the exclusion of the Russian Federation.

⁴ https://en.wikipedia.org/wiki/China%E2%80%93United_States_trade_war#2019.

⁵ Both countries, in theory, benefitted from currency depreciation making exports more competitive.

⁶ This is in spite of China's currency appreciating rendering imports more expensive.

⁷ See https://unctad.org/en/PublicationsLibrary/ser-rp-2020d3_en.pdf

outbreak of the ASF disease and subsequent restructuring of the country's agricultural sector; the causal factor for the shift in the composition of its trading partners toward suppliers from Latin America resulted from the US-China trade conflict, again a factor that emerged before the COVID-19 pandemic

Agricultural export revenues

Agricultural exports constitute an important source of revenue for many countries.⁸ This is particularly true for poorer nations, whose economies remain highly dependent on the agriculture sector for GDP growth and foreign exchange earnings, and which have not yet embraced wider economic diversification. Nevertheless, exports from developing countries as a whole have been instrumental in sustaining international trade in agriculture during the COVID-19 pandemic, and have far exceeded the performance of developed countries in meeting global import needs of agricultural products.

Table 5 shows both values and volumes of agricultural exports by developed and developing countries to help assess the underpinning trends at the world level. It can be seen that developed countries outperformed developing countries in terms of agricultural export activity. For instance, in 2019, the value of absolute export earnings by developed countries was some 61 percent higher. In many product groups, developed countries surpassed agricultural exports of developing countries, both in volumes and values, and especially for non-food items, as well as for beverages, cereals and livestock products. However, the most recent trends in the export of agricultural products by developing countries reveal their dynamism in their ability to cover shortfalls in many products exported typically by their developed country counterparts. Export revenues of developed countries fell over the periods H1-2020 compared with H1-2019, and H1-2020 versus H2-2019, while developing countries increased their export earnings by 4.6 and 3.4 percent, respectively, over the two periods. Again, changes in H1-2020 in comparison with H1-2019 are scrutinized, discounting the possibility of seasonal patterns in trade, especially in terms of volumes.

The increase of 4.6 percent in the revenues of developing countries are on the back of sharp rises in the export volumes of oilseeds, sugar and miscellaneous edible products, also exceeding the volumes exported by developed countries. In fact, developing country exports of coffee, tea, cocoa and spices, as well as meat and fruits and vegetables, registered a higher pace of growth than

⁸ The definition of "agricultural" exports is derived from the World Trade Organization (WTO), which excludes fishery products.

those from developed countries. While, as mentioned earlier, increases in the growth rates of developing country exports of certain products, especially oilseeds and meat, are fundamentally unrelated to COVID-19, the same cannot

be said of other agricultural products, and is testament to the vivacity of developing countries in sustaining food and agricultural exports in the wake of the pandemic.

Table 1. Recent trends in the World food import bill, products and total (USD billion, current)

Food Group	H1-2017	H2-2017	H1-2018	H2-2018	H1-2019	H2-2019	H1-2020	Change H1-2020 over H2-2019 (%)	Change H1-2020 over H1-2019 (%)
Fish, crustaceans, molluscs and preparations thereof	68.0	79.2	76.3	80.6	75.0	78.7	67.1	-14.7	-10.5
Animal and vegetable oils, fats and waxes	48.6	48.9	47.5	45.1	43.1	44.7	47.4	6.0	9.9
Beverages	48.5	58.5	55.2	60.1	55.3	60.3	48.4	-19.7	-12.4
Cereals and cereal preparations	81.2	88.2	90.9	91.5	90.1	91.2	91.4	0.2	1.5
Coffee, tea, cocoa, spices and manufactures thereof	52.9	55.6	54.0	54.8	52.6	54.9	52.5	-4.4	-0.2
Dairy products and birds' eggs	42.8	46.5	48.3	45.7	47.5	45.9	46.5	1.1	-2.3
Meat and meat preparations	65.5	74.0	72.7	73.3	72.4	79.0	75.6	-4.4	4.5
Miscellaneous edible products and preparations	39.8	44.1	46.3	47.2	47.7	48.2	48.5	0.7	1.6
Oilseeds and oleaginous fruits	45.0	45.1	47.1	45.0	42.7	44.6	46.5	4.3	9.0
Sugar, sugar preparations and honey	25.7	26.7	23.3	22.8	21.0	22.5	22.4	-0.7	6.5
Vegetables and fruits	133.8	130.7	146.0	129.5	143.0	131.4	147.5	12.2	3.1
6-MONTH TOTAL	651.9	697.4	707.7	695.5	690.4	701.5	693.7	-1.1	0.5
ANNUAL TOTAL	1,349		1,403		1,392				

Source: Trade Data Monitor (TDM), authors' calculations. H1 and H2 refer, respectively, to the first and second half of the year in question.

Table 2. Recent trends in the World food import volumes (USD billion, 2015 prices)

Food Group	H1-2017	H2-2017	H1-2018	H2-2018	H1-2019	H2-2019	H1-2020	Change H1-2020 over H2-2019 (%)	Change H1-2020 over H1-2019 (%)
Fish, crustaceans, molluscs and preparations thereof	62.7	68.4	64.2	68.8	65.7	71.0	62.8	-11.5	-4.4
Animal and vegetable oils, fats and waxes	47.0	45.8	45.3	46.0	46.3	48.0	47.7	-0.5	3.0
Beverages	48.6	54.5	51.2	58.4	54.0	56.8	47.6	-16.2	-11.9
Cereals and cereal preparations	88.6	90.0	90.0	90.5	88.9	88.6	92.7	4.7	4.3
Coffee, tea, cocoa, spices and manufactures thereof	56.4	55.1	56.6	55.4	57.1	55.6	54.9	-1.2	-3.9
Dairy products and birds' eggs	42.7	40.0	41.4	40.6	44.3	43.0	43.3	0.8	-2.2
Meat and meat preparations	67.4	71.3	69.2	71.1	70.8	74.7	71.8	-3.8	1.5
Miscellaneous edible products and preparations	38.8	40.6	42.2	40.8	43.9	43.8	45.0	2.6	2.5
Oilseeds and oleaginous fruits	49.1	47.9	52.5	51.1	50.2	52.3	55.8	6.6	11.2
Sugar, sugar preparations and honey	21.8	22.4	22.5	23.1	20.7	22.5	22.1	-2.2	6.5
Vegetables and fruits	134.2	125.5	135.0	124.8	140.0	127.7	143.5	12.4	2.5
6-MONTH TOTAL	657.2	661.5	670.0	670.6	681.9	684.0	687.2	0.5	0.8
ANNUAL TOTAL	1,319		1,341		1,366				

Source: Trade Data Monitor (TDM), authors' calculations. H1 and H2 refer, respectively, to the first and second half of the year in question.

Table 3. Decomposing changes in food import bills (H1-2020 over H1-2019): price, volume and mixed effects in USD*

Food Group	World				Developed Countries				Developing Countries			
	Price effect	Volume Effect	Mixed effect	Observed change	Price effect	Volume Effect	Mixed effect	Observed change	Price effect	Volume Effect	Mixed effect	Observed change
Animal and vegetable oils, fats and waxes	3.13	1.07	0.08	4.28	0.97	1.15	0.05	2.17	2.14	-0.02	-0.01	2.11
Beverages	-0.07	-6.79	0.03	-6.83	-0.08	-4.20	0.03	-4.25	0.00	-2.58	0.00	-2.58
Cereals and cereal preparations	-3.00	4.49	-0.16	1.32	-1.12	1.00	-0.04	-0.17	-1.86	3.47	-0.13	1.49
Coffee, tea, cocoa, spices and manufactures thereof	2.12	-2.12	-0.12	-0.12	1.79	-1.95	-0.13	-0.29	0.33	-0.15	-0.02	0.17
Dairy products and birds' eggs	-0.04	-1.03	0.00	-1.07	-0.39	-0.96	0.02	-1.33	0.34	-0.06	-0.02	0.26
Fish, crustaceans, molluscs and preparations thereof	-5.41	-2.72	0.25	-7.89	-3.69	-1.97	0.20	-5.47	-1.72	-0.75	0.05	-2.42
Meat and meat preparations	2.02	1.07	0.13	3.22	1.41	-3.62	-0.06	-2.27	0.58	4.72	0.18	5.49
Miscellaneous edible products and preparations	0.77	0.04	-0.03	0.78	0.28	-0.41	-0.01	-0.15	0.44	0.50	-0.02	0.93
Oilseeds and oleaginous fruits	-0.72	4.66	-0.12	3.82	-0.24	0.94	-0.02	0.68	-0.47	3.70	-0.09	3.14
Sugar, sugar preparations and honey	0.02	1.38	-0.04	1.37	0.03	-0.21	-0.02	-0.19	0.02	1.55	-0.02	1.55
Vegetables and fruits	0.94	3.50	0.02	4.45	0.95	1.16	0.00	2.11	0.00	2.35	-0.01	2.34
TOTAL	-0.27	3.55	0.05	3.33	-0.10	-9.07	0.01	-9.15	-0.18	12.73	-0.06	12.48

Source: TDM, authors' calculations.

$$\begin{aligned}
 * \Delta FIB_{USD} &= \Delta Q \cdot P_{USD,o} \quad (\text{volume effect}) \\
 &+ Q_o \cdot \Delta P_{USD,i} \quad (\text{price effect}) \\
 &+ [\Delta Q \cdot \Delta P_{USD}] \quad (\text{mixed effect})
 \end{aligned}$$

Table 4. Recent trends in food export volumes from the Americas (USD billion, 2015 prices)

Food Group	H1-2017	H2-2017	H1-2018	H2-2018	H1-2019	H2-2019	H1-2020	Change H1-2020 over H2-2019 (%)	Change H1-2020 over H1-2019 (%)
Fish, crustaceans, molluscs and preparations thereof	12.8	15.0	13.6	14.9	13.9	15.5	13.6	-12.3	-2.0
Animal and vegetable oils, fats and waxes	8.3	8.0	7.7	8.0	8.0	8.1	9.0	11.9	13.4
Beverages	8.0	8.3	8.1	8.8	8.7	8.7	8.6	-1.5	-1.1
Cereals and cereal preparations	27.4	27.7	27.5	28.0	27.4	29.2	29.4	0.5	7.2
Coffee, tea, cocoa, spices and manufactures thereof	12.3	11.0	10.7	10.7	11.5	10.8	11.3	4.7	-2.0
Dairy products and birds' eggs	4.0	3.8	4.0	4.2	4.0	4.4	4.5	3.4	12.5
Meat and meat preparations	23.1	24.1	22.3	25.2	24.5	27.2	26.2	-3.7	7.0
Miscellaneous edible products and preparations	7.6	7.3	7.3	7.8	7.9	8.1	8.1	1.1	2.8
Oilseeds and oleaginous fruits	34.7	32.6	34.3	32.9	33.6	33.7	39.8	18.0	18.4
Sugar, sugar preparations and honey	9.9	9.2	7.7	7.2	7.1	7.3	7.9	7.8	11.2
Vegetables and fruits	38.9	35.6	38.3	35.5	41.5	37.5	40.8	8.7	-1.8

Source: Trade Data Monitor (TDM), authors' calculations. H1 and H2 refer, respectively, to the first and second half of the year in question.

Table 5. Recent trends in agricultural exports: developed and developing countries

Food Group	Developed Countries					Developing Countries				
	H1-2019	H2-2019	H1-2020	change H1-2020 over H2-2019 (%)	change H1-2020 over H1-2019 (%)	H1-2019	H2-2019	H1-2020	change H1-2020 over H2-2019 (%)	change H1-2020 over H1-2019 (%)
Non-Food	95.7	90.2	93.2	3.4	-2.6	48.6	47.7	46.7	-2.1	-3.8
Animal and vegetable oils, fats and waxes	16.6	16.9	18.7	10.6	12.7	26.0	27.3	28.7	5.4	10.4
Beverages	43.3	46.6	37.4	-19.8	-13.7	12.0	12.7	10.3	-18.7	-14.1
Cereals and cereal preparations	55.8	54.8	58.8	7.3	5.4	32.8	35.6	34.1	-4.2	3.9
Coffee, tea, cocoa, spices and manufactures thereof	25.1	28.6	24.4	-14.4	-2.8	28.2	27.4	28.8	5.2	2.2
Dairy products and birds' eggs	40.9	40.1	40.7	1.3	-0.5	5.8	5.7	5.4	-5.0	-7.3
Meat and meat preparations	54.6	59.1	55.5	-6.2	1.6	19.6	23.1	20.4	-11.7	3.9
Miscellaneous edible products and preparations	34.5	34.3	34.3	0.1	-0.7	13.7	13.7	14.2	3.1	3.4
Oilseeds and oleaginous fruits	17.1	20.9	16.9	-18.8	-1.1	23.9	21.4	30.0	40.4	25.6
Sugar, sugar preparations and honey	8.5	9.2	8.6	-6.0	1.3	12.2	12.7	13.5	5.9	11.0
Vegetables and fruits	72.0	67.6	72.4	7.2	0.5	64.4	63.5	68.5	7.8	6.2
6-MONTH TOTAL	464.2	468.2	461.0	-1.5	-0.7	287.3	290.8	300.6	3.4	4.6
ANNUAL TOTAL	932					578				

Food Group	Developed Countries					Developing Countries				
	H1-2019	H2-2019	H1-2020	change H1-2020 over H2-2019 (%)	change H1-2020 over H1-2019 (%)	H1-2019	H2-2019	H1-2020	change H1-2020 over H2-2019 (%)	change H1-2020 over H1-2019 (%)
Non-Food	90.4	85.5	90.3	5.7	0.0	47.1	47.1	47.1	-0.2	-0.1
Animal and vegetable oils, fats and waxes	17.4	18.0	19.6	9.3	13.1	28.2	29.3	28.6	-2.4	1.4
Beverages	41.8	43.1	37.8	-12.5	-9.7	11.6	11.9	10.2	-13.5	-11.5
Cereals and cereal preparations	55.4	56.5	59.9	6.0	8.1	31.5	35.1	33.8	-3.9	7.0
Coffee, tea, cocoa, spices and manufactures thereof	26.2	28.3	25.6	-9.3	-1.9	29.4	27.1	29.4	8.5	0.1
Dairy products and birds' eggs	38.3	37.0	37.7	1.7	-1.6	5.5	5.3	5.0	-4.9	-8.5
Meat and meat preparations	53.4	55.0	52.6	-4.5	-1.6	19.5	22.1	20.1	-9.0	2.9
Miscellaneous edible products and preparations	31.1	31.2	31.3	0.2	0.8	12.5	12.5	13.2	5.1	5.8
Oilseeds and oleaginous fruits	17.8	21.8	17.5	-19.6	-1.5	25.6	22.7	33.0	45.4	29.2
Sugar, sugar preparations and honey	8.5	9.1	8.5	-7.1	-0.1	12.5	13.1	13.5	2.8	7.8
Vegetables and fruits	71.5	64.1	69.3	8.1	-3.1	64.0	60.1	64.9	8.0	1.3
6-MONTH TOTAL	451.6	449.7	450.1	0.1	-0.3	287.3	286.3	298.7	4.3	4.0
ANNUAL TOTAL	901					574				

Source: TDM, authors' calculation

Figure 1. Recent trends in the World food import bill, products and total (USD billion, current)

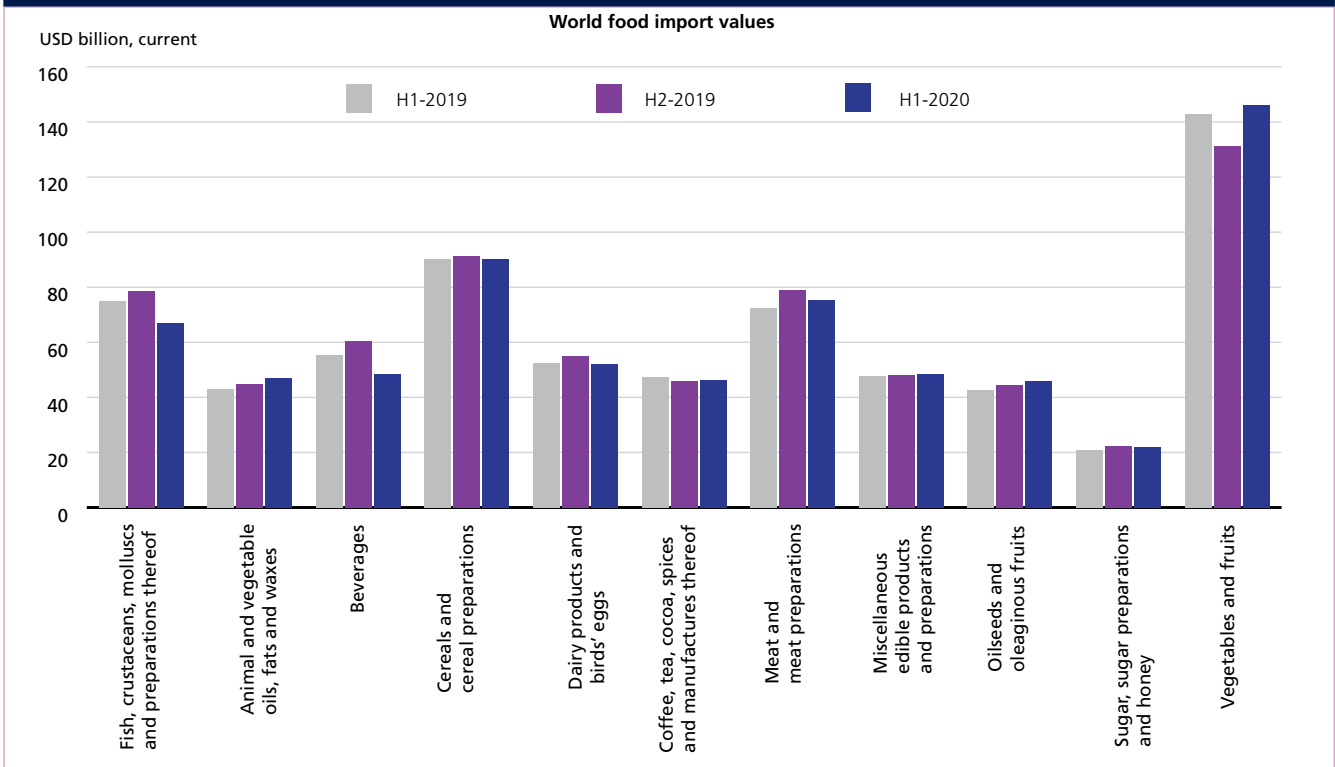


Figure 2. Recent trends in the world food import volumes (USD billion, 2015 constant prices)

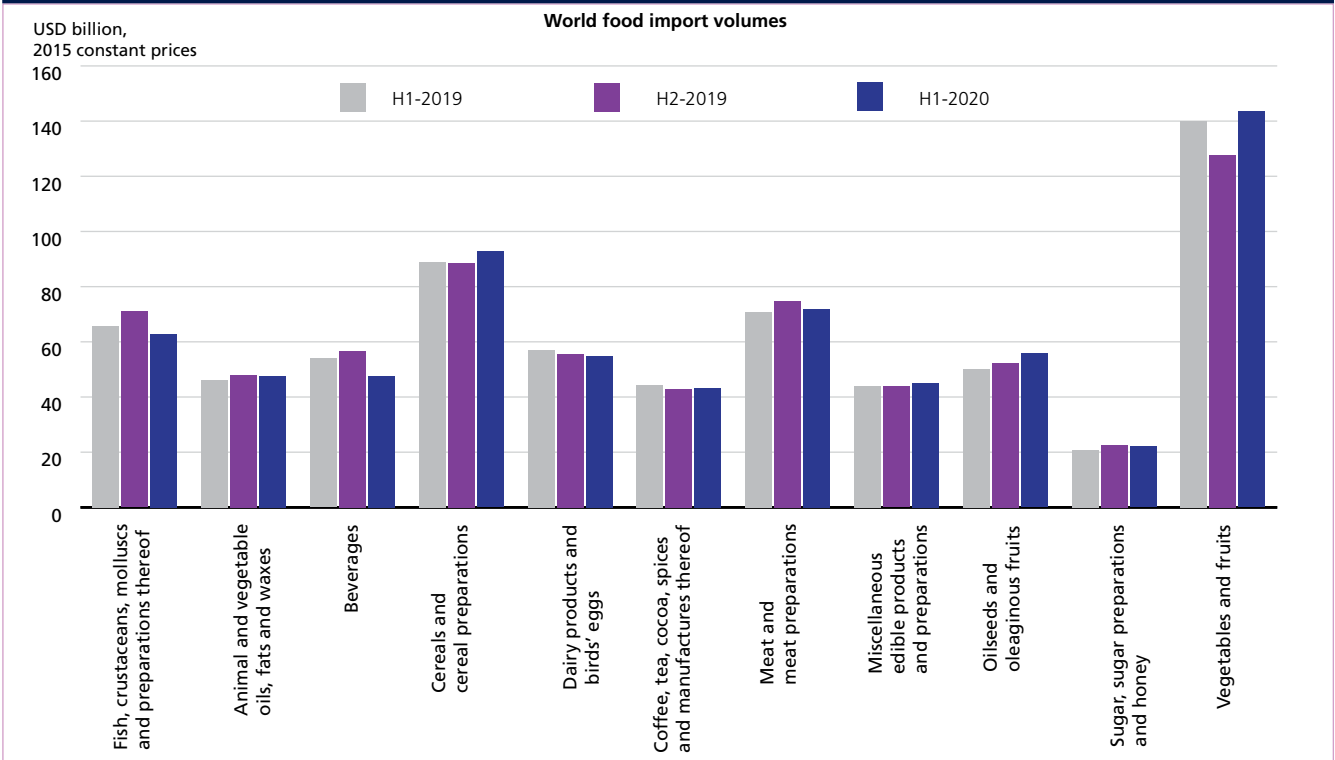


Figure 3. Recent trends in the developing countries' food import bill, products and total (USD billion, current)

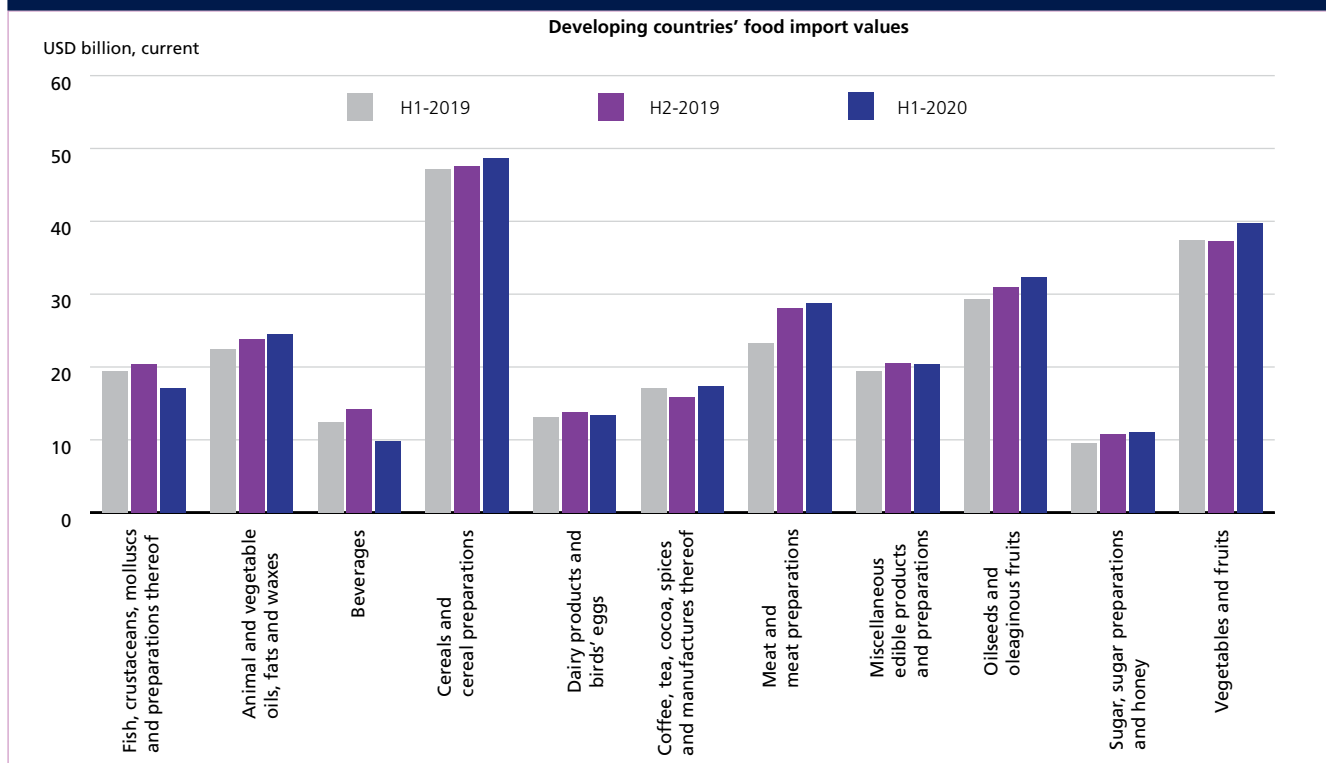


Figure 4. Recent trends in developing countries' food import volumes (USD billion, 2015 prices)

