



Trade and COVID-19 Guidance Note

TRADE IN CRITICAL COVID-19 PRODUCTS¹

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The covid-19 pandemic is increasingly a concern for developing countries. Using a new database on trade in covid-19 relevant products, this paper looks at the role of trade policy to address the looming health crisis in developing countries with highest numbers of recorded cases. It shows that export restrictions by leading producers could cause significant disruption in supplies and contribute to price increases. Tariffs and other restrictions to imports further impair the flow of critical products to developing countries.

While covid-19 is most virulent today in Europe and North America, many developing countries are experiencing increasing numbers of cases. [The Economist](#) warned that the pandemic could have devastating effects on developing countries. As the health crisis unfolds, some have argued that trade and trade policy can be part of the solution or part of the problem (Baldwin and Tomiura, 2020; Bown, 2020; Gonzalez, 2020; Evenett, 2020; [Mattoo and Ruta, 2020](#); Posen, 2020).

Based on a [new database](#) on covid-19 trade flows and policies (Espitia, Rocha, Ruta, 2020), we document how uncooperative trade policies can lead to shortages of critical medical supplies and higher prices in the 20 developing countries most hit by the crisis so far.³

Developing countries depend on imports for critical covid-19 products

The World Health Organization Covid-19 Disease Community Package (DCP) contains 17 products that are considered key to deal with the current crisis. They consist of essential items for diagnosis and treatment processes such as enzymes; hygiene products such as liquid soap and hand sanitizers; personal protection equipment including gloves and medical masks; and case management products such as oxygen concentrators and respirators.

The global markets for these crucial covid-19 products are highly concentrated (Espitia, Rocha, Ruta, 2020). This is even more true when we focus on developing countries, as the large majority is highly dependent on imports for these products. For the 20 developing countries with the highest numbers of covid-19 cases, five countries account for 80 percent of total imports: the European Union, United States, China, Japan and Korea (Figure 2). For products needed for case management and diagnostics, the shares of imports from top exporters is even higher and close to 90 percent. Import shares for protection equipment and hygiene products are somehow lower, but still between 50 and 60 percent.

Export restrictions could create disruption in supplies and price increases for covid-19 products

The high concentration of imports in certain products makes developing countries extremely vulnerable to changes in policies by exporters. As a result of export restrictions on key covid-19 products, access to medical supplies and other critical products could be disrupted for some developing countries that badly need them. Table 1 shows medical masks are likely to be the product most affected by the restrictions. venturi masks, a medical device needed to deliver oxygen to patients, are also affected by current export

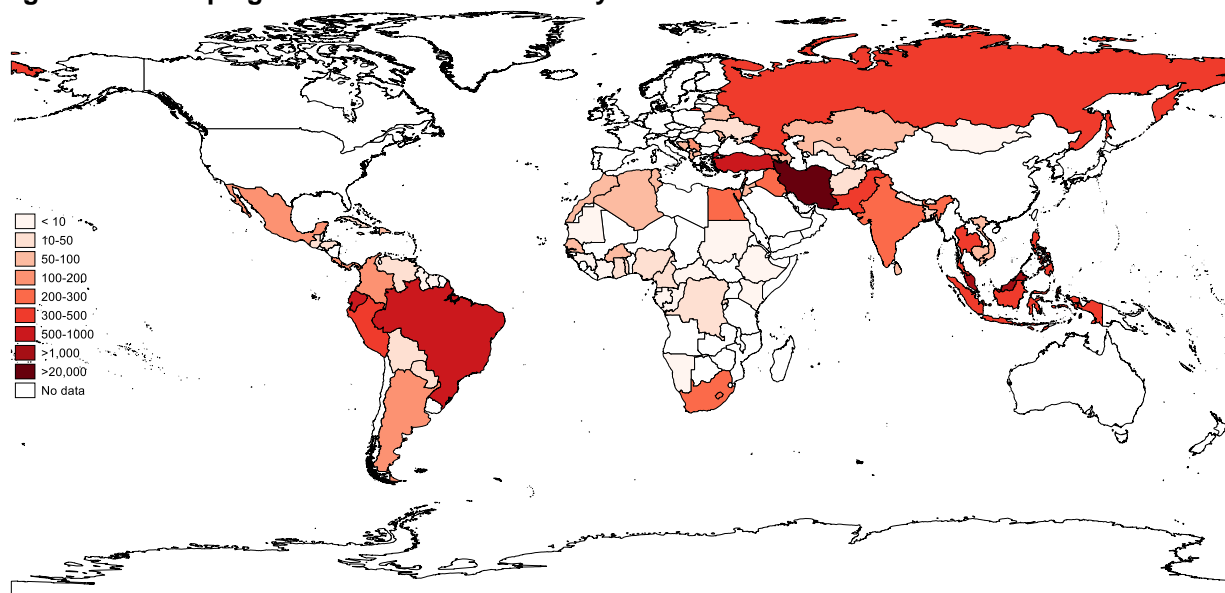
¹ Trade and COVID-19 Guidance Notes are prepared by the Global Trade and Regional Integration Unit of the World Bank to provide practical measures governments can implement to mitigate the impact of the COV19 virus outbreak. Future notes will focus on policy recommendations to leverage trade to mitigate the economic impact of the pandemic and boost the economic recovery. For further information about this note please contact Alvaro Espitia (Consultant; aespitarueda@worldbank.org), Nadia Rocha (Senior Economist; nrocha@worldbank.org), Michele Ruta (Lead Economist; mruta@worldbank.org), or Antonio Nucifora (Practice Manager, Global Trade and Regional Integration Unit, anucifora@worldbank.org, +1202 4731402).

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³ The Espitia, Rocha, Ruta (2020) database covers trade flows and selected trade policies of 76 covid-19 relevant products for 236 exporting countries (219 importing) for 2017-2019. The database can be freely downloaded [here](#).

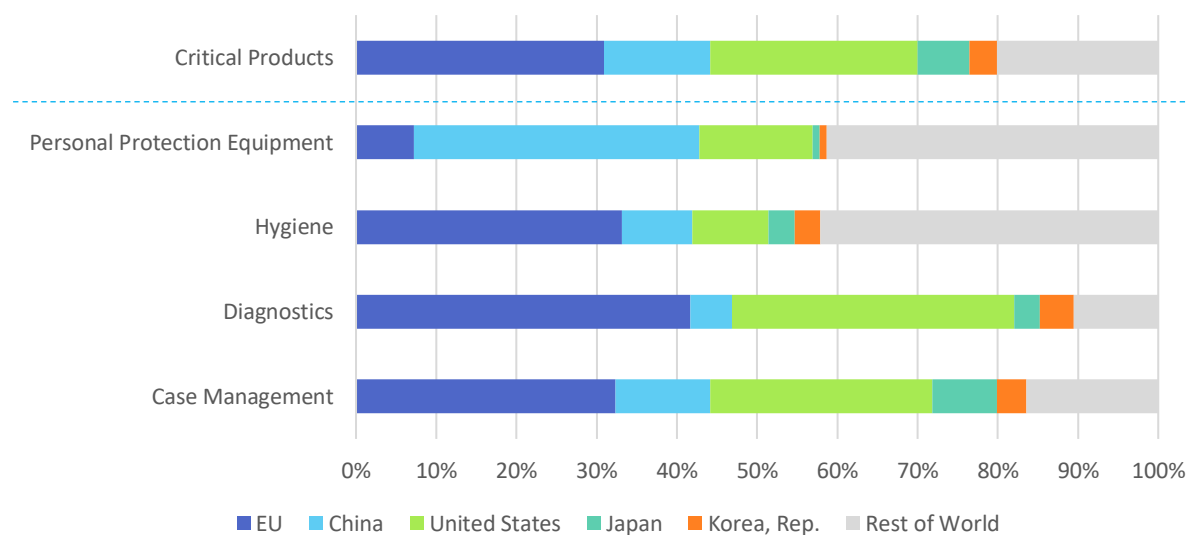
restrictions. In addition, individual countries would likely experience shortages on specific products, as Armenia in the case of protective clothing or Malaysia on hand sanitizers. Smaller disruptions are expected on a number of products for personal protection.

Figure 1: Developing countries most affected by covid-19



Source: World Health Organization Coronavirus disease (COVID-2019) situation report – 62 of 22 March 2020 (<https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports>)

Figure 2: Main sources of critical covid-19 products for the 20 most affected developing countries



Source: [Espitia, Rocha, Ruta \(2020\). "Database on COVID-19 trade flows and policies"](#). **Note:** Total imports calculated as the average for 2017, 2018 and 2019 (in case data is available). For countries without direct trade data, mirror data are used.

Table 1: Share of imports from countries imposing export restrictions, percent

	Case Management						Diagnostics	Hygiene			Personal Protection Equipment							
	Bougies, catheters, drains and	Flow-splitter, for oxygen supply	Humidifier, non-heated	Patient monitors and pulse	Respirators	Venturi mask	Enzymes	Chlorine	Hand sanitizers	Liquid Soap	Apron, heavy duty	Gloves, examination,	Medical Masks	Nitrile and Sterile gloves	Other medical headwear	Protective clothing	Protective Goggles	
Armenia	3.7	25.2	1.0	5.6	0.2	40.8	10.3	0.0	0.0	0.0	21.9	15.0	73.5	3.8	13.0	58.1	12.5	
Brazil	6.1	4.6	1.4	1.5	0.1	38.7	0.1	0.0	0.0	0.0	0.2	0.3	70.1	0.1	2.3	0.0	0.8	
Colombia	1.0	2.1	0.7	0.4	0.3	28.0	0.3	0.0	0.1	0.0	0.4	6.8	48.3	0.4	0.4	2.3	0.3	
Ecuador	5.0	2.6	1.4	1.0	0.6	29.8	0.8	0.0	0.0	0.0	3.4	6.9	44.2	0.1	0.6	0.5	0.3	
Egypt	6.9	3.6	5.8	1.7	0.6	44.1	1.2	0.0	0.6	0.0	10.8	3.6	75.7	0.4	32.3	9.8	3.6	
India	1.3	1.0	0.0	0.7	0.2	41.8	0.4	0.0	1.3	0.0	4.2	0.0	60.8	0.1	6.2	1.0	3.4	
Indonesia	5.4	1.3	5.0	2.0	0.7	51.7	0.8	0.0	0.0	0.0	0.7	10.5	76.7	0.2	3.3	0.0	1.2	
Iran	4.1	2.3	4.5	0.8	0.6	41.5	0.4	0.0	4.1	0.0	1.6	15.4	97.9	0.9	2.9	9.8	2.8	
Iraq	8.6	6.4	0.7	0.3	0.9	56.1	1.1	0.0	0.0	0.0	6.5	8.0	85.3	1.5	2.0	2.5	0.1	
Lebanon	2.4	2.4	0.5	0.9	0.2	36.3	0.2	0.0	0.0	0.0	3.7	3.6	64.5	0.2	1.1	1.9	3.1	
Malaysia	1.5	7.3	1.7	0.2	0.1	30.6	0.7	0.0	34.6	0.0	25.5	2.6	78.5	3.6	4.9	5.0	1.8	
Mexico	0.2	0.5	0.5	0.0	0.0	6.9	0.1	0.0	0.0	0.0	0.2	10.8	14.9	0.4	3.4	0.0	0.8	
Pakistan	1.7	0.4	0.9	0.4	5.0	42.6	0.8	0.0	1.6	0.0	5.0	0.7	95.6	0.5	9.3	45.2	13.8	
Peru	2.0	1.2	1.2	0.7	0.9	39.5	1.1	0.0	0.0	0.0	1.7	0.0	46.1	0.1	1.9	0.0	0.2	
Philippines	3.3	2.7	0.8	0.6	1.2	45.7	1.0	0.0	25.4	0.0	0.0	2.1	72.7	0.2	1.2	1.0	0.7	
Russia	2.8	5.1	1.9	1.0	1.1	53.7	4.2	0.0	0.3	0.0	6.8	26.4	77.4	7.2	16.1	8.6	10.2	
Serbia	4.2	1.1	0.1	0.1	0.5	49.9	0.2	0.0	0.0	0.0	6.4	12.7	32.9	1.8	6.9	4.7	17.3	
South Africa	7.1	5.3	2.4	0.8	1.0	34.1	0.9	0.0	0.1	0.0	3.0	3.4	68.8	0.6	6.0	0.4	5.8	
Thailand	2.1	1.4	0.3	0.2	0.2	40.0	0.5	0.0	0.2	0.0	1.1	0.6	49.1	0.1	2.2	3.6	2.1	
Turkey	5.0	4.3	2.8	1.4	0.3	46.9	0.4	0.0	0.0	0.0	0.4	0.2	61.1	0.5	6.7	0.4	4.7	

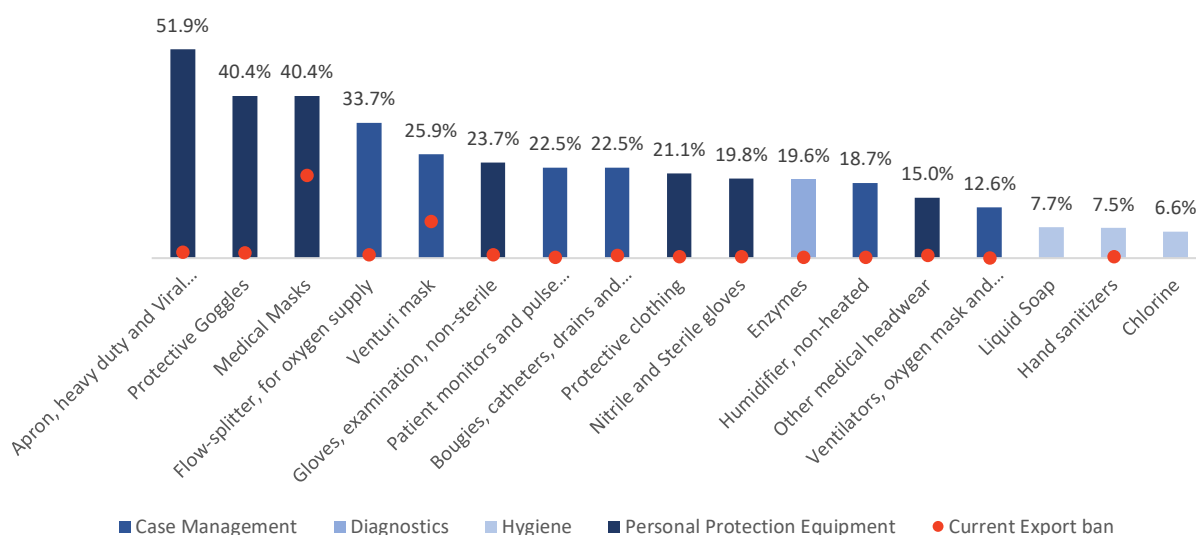
■ Low exposure ■ Medium exposure ■ High exposure ■ Very high exposure

Source: [Espitia, Rocha, Ruta \(2020\). "Database on COVID-19 trade flows and policies"](#). **Note:** Total imports calculated as the average for 2017, 2018 and 2019 (in case data are available).

Export restrictions are also expected to have an impact on world prices (Figure 3). These measures are intended to offset domestic shortages and rising prices as demand for covid-19 related products surges. But restrictive measures by exporting countries reduce global supply, leading to even higher prices. In the short run, we estimate that the impact of current export restrictions could be to increase prices of medical masks by 20.5 percent and of venturi masks by 9.1 percent. Prices of protective equipment such as aprons and gloves are estimated to increase between 1 and 2 percent due to the current restrictions. Other products could experience smaller increases.

A concern with export restrictions is that they could be contagious. As prices of key covid-19 products rise, more governments could respond by imposing export restrictions to mitigate price rises and possible shortages in domestic markets. These actions have aggregate consequences, exacerbating the initial shock and leading to further price escalation -a "multiplier effect" that has been documented in the 2008-11 food crisis (Giordani, Rocha, Ruta, 2016). If similar dynamics played out for critical covid-19 products, we estimate that export restrictions would increase prices of covid-19 relevant goods by 23 percent on average (Figure 3). The products that could be most affected by price increases are those for protection equipment, such as aprons (52 percent increase) and goggles and masks (40 percent increase).

Figure 3: Impact of export restrictions on prices (current policies and escalation)



Source: [Espitia, Rocha, Ruta \(2020\). "Database on COVID-19 trade flows and policies"](#). **Note:** Total imports calculated as the average for 2017, 2018 and 2019 (in case data are available). Direct price effect of export bans calculated using trade elasticities from Fontagne, Guimbar and Orefice (2019) and assuming a total reduction on export quantities for each trading partner. Direct price effect $\Delta p_{ij} = \text{Var } Q_{ij} \times \text{import price elasticity}_{ij}$. Where i is the importer and j is the exporter.

Import protection contributes to tax the health systems in developing countries

Export policy is only part of the story. Many developing countries tax their own health care systems by imposing tariffs on imports of medical products. The effect of these measures is to increase the domestic price of essential products, thus further reducing welfare. Applied tariffs of key covid-19 products in the 20 developing countries with the highest number of cases are on average over 6 percent (Table 2). Personal protection equipment products such as aprons, medical masks and protective clothing are subject to tariffs over 10 percent. Severely affected countries such as Iran impose even higher import restrictions of key covid-19 products, especially for personal protection equipment.

As recent data collected by the Global Trade Alert show, several of the 20 developing countries most affected by covid-19 have started implementing import reforms in the past days. For instance, Pakistan introduced tax and import duty exemption for medical and testing equipment, while Brazil eliminated tariffs on medical and hospital products. Many of these reforms are on a temporary basis: protection is suspended rather than eliminated. While this is a step in the right direction, exporters might be reluctant to enter markets if they perceive policy changes to be temporary. Locking-in tariff reductions and other policy changes in WTO commitments would be a more effective trade policy reform to address the covid-19 health crisis.

Trade policy cooperation as part of the solution to the health crisis

To address the crisis, key medical supplies and other crucial covid-19 products should freely flow from producers to where they are needed. Export restrictions and import protection are collectively inefficient.⁴ For developing countries, as they see the number of covid-19 cases rise, trade protectionism will cost lives. Trade policy cooperation should first aim at preserving open markets in this difficult time.

⁴ Restrictions if used must be targeted, proportionate, transparent, and temporary, and ensure that they do not create unnecessary barriers to trade or disruption to global supply chains, and are consistent with WTO rules.

Table 2: Trade-weighted applied tariffs, percent

	Case Management						Diagnostics	Hygiene			Personal Protection Equipment						
	Bougies, catheters, drains and sondes,	Flow-splitter, for oxygen supply	Humidifier, non-heated	Patient monitors and pulse oximeters	Respirators	Venturi mask		Chlorine	Hand sanitizers	Liquid Soap	Apron, heavy duty	Gloves, examination, non-sterile	Medical Masks	Nitrile and Sterile gloves	Other medical headwear	Protective clothing	Protective Goggles
Armenia	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Brazil	10.7	13.6	11.9	10.5	13.6	8.8	1.0	7.0	14.4	17.1	17.4	16.0	21.9	35.0	19.1	22.6	17.1
Colombia	0.7	0.3	0.3	1.4	1.2	0.6	0.0	0.3	0.8	4.9	11.9	14.9	4.6	9.3	13.6	2.4	8.8
Ecuador	0.0	4.3	3.4	0.0	4.0	0.0	0.0	0.0	1.2	4.8	17.5	14.8	47.6	12.2	23.3	57.8	23.1
Egypt	1.4	1.9	1.2	1.9	1.9	1.4	1.1	3.7	6.1	1.6	19.7	8.8	14.8	9.9	11.5	3.1	8.4
India	5.9	6.5	5.5	6.8	7.1	5.9	8.8	5.8	8.4	7.3	9.5	0.4	8.8	0.1	9.4	7.4	8.5
Indonesia	1.8	1.5	2.4	2.5	3.1	2.7	3.6	0.9	2.1	2.7	3.3	1.2	1.5	0.4	2.0	2.2	0.6
Iran	17.6	10.0	18.4	18.0	4.0	9.6	10.0	4.0	18.0	55.0	45.0	35.0	65.0	57.5	30.0	100	35.0
Lebanon	3.5	1.1	0.6	3.6	2.8	2.8	1.7	0.0	2.4	2.0	4.7	4.6	3.3	4.9	4.3	41.1	4.5
Malaysia	0.0	5.0	0.0	0.0	0.0	0.0	0.0	10.0	0.0	0.0	20.0	0.0	10.0	0.0	0.0	0.0	0.0
Mexico	0.1	0.0	0.9	0.0	0.0	0.1	0.1	0.4	0.1	0.9	6.1	0.0	2.1	9.3	2.5	1.9	6.1
Pakistan	7.0	10.9	3.4	2.7	1.8	2.6	19.5	20.0	19.7	20.0	16.1	16.5	19.7	5.4	15.2	20.0	6.5
Peru	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.2	0.8	0.8	4.9	1.1	2.8	0.5	5.1	0.1
Philippines	0.2	1.4	0.1	0.0	0.5	0.4	1.0	2.5	1.0	1.8	0.3	0.1	1.3	0.1	0.6	5.1	0.2
Russia	0.0	0.0	0.4	1.0	0.0	1.1	4.8	6.4	6.1	6.1	6.1	10.0	0.1	9.9	8.8	12.1	4.6
Serbia	0.6	0.2	0.3	0.6	0.3	0.6	0.3	0.0	0.1	0.1	8.6	0.6	2.1	8.3	2.8	3.7	1.6
South Africa	0.0	0.0	2.8	0.0	0.0	0.0	0.0	6.9	5.0	4.9	9.5	19.9	16.7	14.6	9.0	13.2	0.0
Thailand	3.2	0.0	0.0	0.0	0.0	0.0	3.8	1.6	4.1	2.9	1.5	0.0	2.1	0.3	3.8	2.5	0.5
Turkey	0.0	0.5	0.4	0.0	0.0	0.0	0.0	0.0	0.2	0.3	6.2	0.3	4.1	0.5	1.5	5.3	2.4

■ Low ■ Medium ■ High ■ Very high

Source: [Espitia, Rocha, Ruta \(2020\). "Database on COVID-19 trade flows and policies"](#). **Note:** Trade weighted mean of the applied import tariff rate (last year available).

ANNEX 1: REFERENCES

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ANNEX 2: ADDITIONAL RESOURCES

Trade and COVID-19 Guidance Notes:

- Trade COVID 19 Guidance Note: Managing Risk and Facilitating Trade (add link)
- Trade COVID 19 Guidance Note: Trade Implications and Policy Responses (forthcoming)
- Trade COVID 19 Guidance Note: Implications for Logistics and Recommendations for Policy Actions (forthcoming)
- Trade COVID 19 Guidance Note: Health Services Trade Reform (forthcoming)
- Trade COVID 19 Guidance Note: Country Covid-19 Trade Snapshot (forthcoming)

Other resources:

- [Espitia, Rocha, Ruta \(2020\). "Database on COVID-19 trade flows and policies".](#)