

A Pandemic Trade Deal

Trade and policy cooperation on medical goods¹

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September 2020

Trade in medical goods is essential to cope with health crises. While trade flows have remained robust during the COVID-19 pandemic, trade policies of exporters and importers aimed at securing domestic supplies have magnified scarcity problems for critical medical products. Yet, this inefficient equilibrium sets the ground for a deal: A commitment to limit exporters' flexibility and extend import liberalizations would better equip countries for a second wave of COVID-19 and provide a blueprint for cooperation in future pandemics. This paper outlines five actions that WTO members can take to implement the deal.

Since the beginning of the COVID-19 pandemic in early 2020, global markets for medical goods have been at the center of many policy debates as countries scrambled to obtain necessary medical supplies, often through non-cooperative trade policies (Baldwin and Evenett, 2020; Espitia, Rocha, Ruta, 2020a). The result has been a growing mistrust that the trade system can deliver efficient and equitable outcomes and frequent calls to rely more on domestic production of essential products. How WTO members cooperate on trade policy on medical goods will therefore shape not only the collective ability to respond to the current health crisis, but also be a testing ground for longer term trade cooperation.

The purpose of this paper is to review recent trade and trade policy developments in the market for medical goods and to sketch a proposal for policy cooperation to address the current health crisis and prepare for a second wave of COVID-19 or future pandemics. Using new data on trade and trade policy in COVID-19 relevant products, the paper describes the salient characteristics of world markets for medical goods and illustrates the evolution of international trade and trade policies during the first phase of the pandemic. Based on this analysis, the paper outlines the logic of a bargain between exporters and importers that can improve upon the current trade policy environment and proposes five actions that WTO members can take to implement this deal.²

¹This paper has been prepared for Baldwin and Evenett (eds.), Turning the Corner: A Pandemic-Era Work Programme for WTO Members. We are grateful to Simon Evenett for useful discussions on this topic and to Erik Churchill, Cristina Constantinescu, Ian Gillson, Anabel Gonzalez, Martin Molinuevo for helpful suggestions on an earlier draft. Errors are our responsibility only. Alvaro Espitia, Consultant, World Bank (aespitia@worldbank.org); Nadia Rocha, Senior Economist, World Bank (nrocha@worldbank.org); Michele Ruta, Lead Economist, World Bank (mruta@worldbank.org). The findings, interpretations, and conclusions expressed in this paper are entirely those of the authors. They do not necessarily represent the views of the International Bank for Reconstruction and Development/World Bank and its affiliated organizations, or those of the Executive Directors of the World Bank or the governments they represent.

² The focus here is on trade in medical goods. The related issue of cooperation to develop and distribute a COVID-19 vaccine is addressed in Freund (2020), while Gonzalez (2020) looks at proposals for broader trade policy cooperation to respond to the current health and economics crisis.

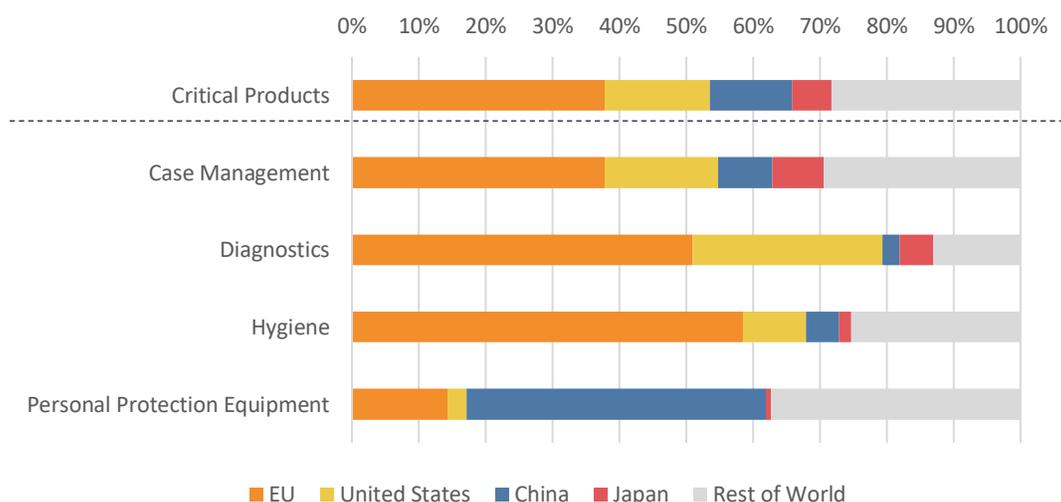
Trade in medical goods

A highly concentrated market to start with

The World Health Organization COVID-19 Disease Community Package (DCP) contains 17 medical products that are considered key to deal with the current pandemic. 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 (PPE) including gloves and medical masks; and case management products such as oxygen concentrators and respirators.

The world markets for these crucial COVID-19 products are highly concentrated (Espitia, Rocha, Ruta, 2020a). Using data before the pandemic, four countries account for more than 70 percent of world exports. The European Union is the largest exporter of these products, with an export share of 37.8 percent, followed by the United States, China and Japan, with export shares of respectively 15.7 percent, 12.3 percent and 5.9 percent. Among the different categories of medical products, export shares from top-four exporters are close to 90 percent for diagnostic products. The export concentration of personal protection equipment is somewhat lower, but still above 60 percent (Figure 1). Top-four exporters of medical products are also large importers of such products, representing approximately 66 percent of world demand.³

Figure 1: Main sources of critical COVID-19 medical products before the pandemic



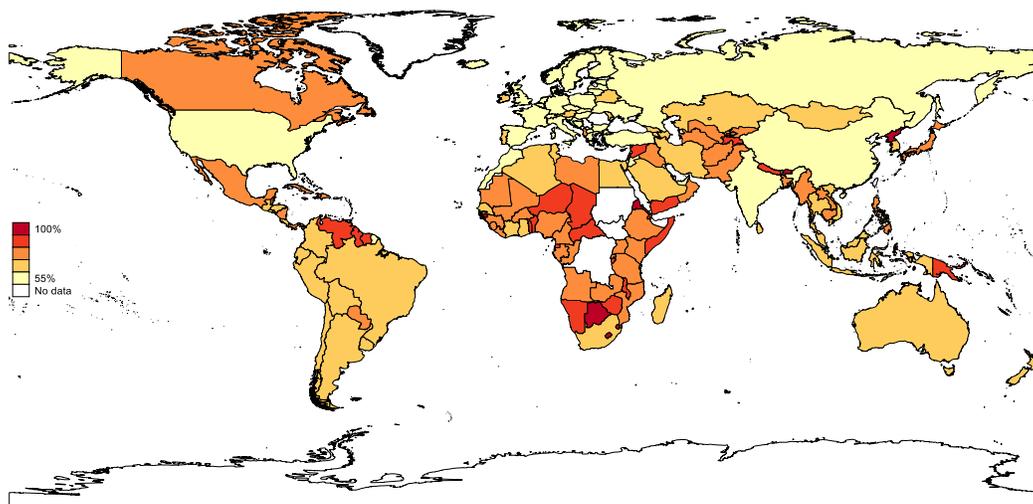
Source: [Espitia, Rocha, Ruta \(2020a\). "Database on COVID-19 trade flows and policies"](#). **Note:** Total imports calculated as the average for 2017, 2018, and 2019 (in case data is available). For countries without direct trade data, mirror data are used.

High concentration of exports of critical medical products makes importers, particularly developing countries, vulnerable to potential shortages in supplies from top producer countries. On average, almost 80 percent of imports from developing countries in Africa and the Middle East come from top-three exporters, with countries such as Lesotho, Swaziland and Botswana having more than 94 percent of their

³ Between 2017 and 2019, the share of world imports for the European Union, United States, China and Japan were respectively 36 percent, 19 percent, 7 percent, 4 percent.

imports coming from three exporters (Figure 2). Import concentration is also high in Southeast Asia and Latin America, with top-three exporters representing more than 85 percent of imports in countries such as Bhutan, Nepal and Mexico. For developed countries such as Canada, the Republic of Korea, Japan and Australia concentration of imports from top-three exporters are above 74 percent on average.

Figure 2: Average vulnerability in terms of concentration of imports of COVID-19 medical products, by country



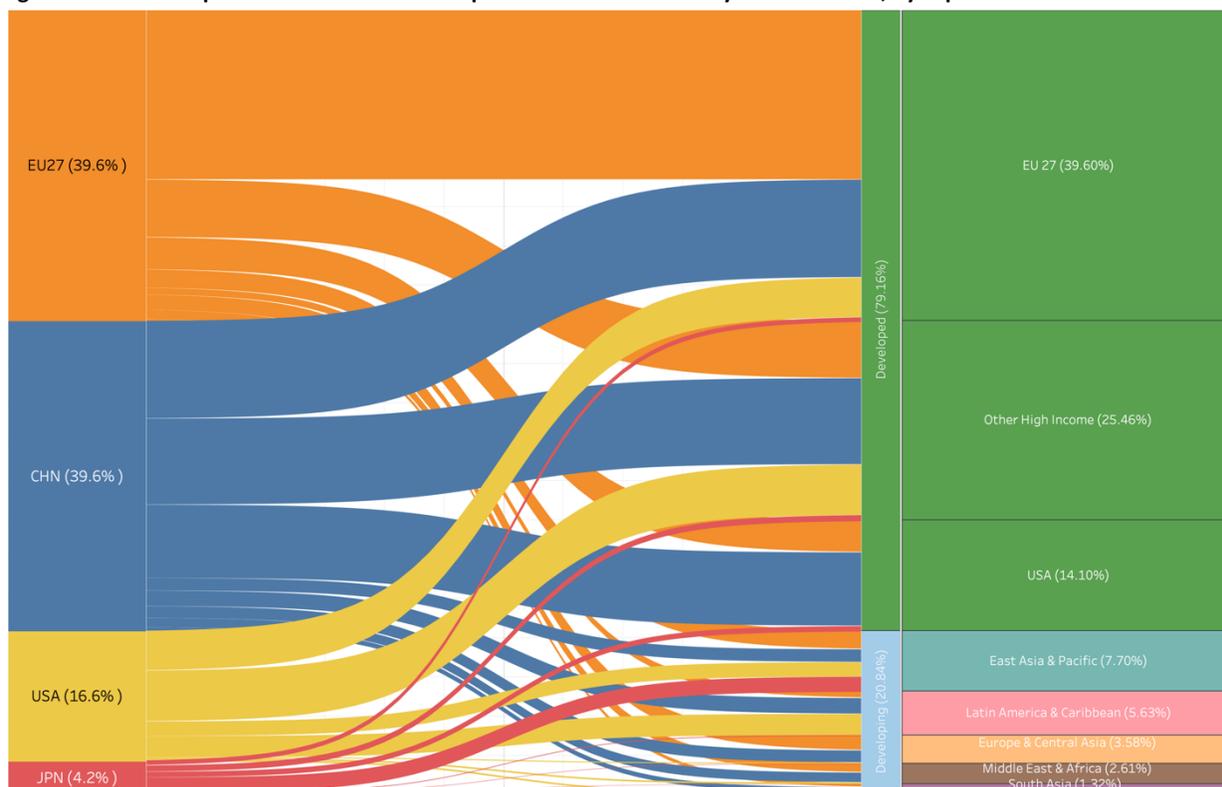
Source: [Espitia, Rocha, Ruta \(2020a\). "Database on COVID-19 trade flows and policies"](#). **Note:** The concentration of imports is calculated as the average, across all COVID-19 products, of the sum of the import shares from top-three exporters.

$Imp\ concentration_i = 100 * (\sum_{n=1}^N \sum_{k=1}^3 imp_{ijn} / Tot\ imp_{in}) / N$, where i, j, k, and n are respectively importer, exporter, exporter rank and product.

Evolution of trade during COVID-19

Despite a flourishing of trade policy interventions (see below), trade in medical products has been sustained during the pandemic. Countries such as China have significantly increased their exports in medical products during the pandemic, matching the European Union as the top exporter. Today, Chinese and EU exports represent each 39.6 percent of the supply of the top exporters. More than three quarters of exports from China, the European Union, United States and Japan have been directed to high-income economies such as the United States and countries in Europe, reflecting both the geography of the pandemic over this period and the larger resources to attract these trade flows. Exports to developing countries in East Asia and Pacific, Latin America, and Europe and Central Asia regions, represented respectively 7.7, 5.6 and 3.6 percent of the exports from top producers (Figure 3).

Figure 3: Share of exports of COVID-19 medical products between January and June 2020, by exporter and destination



Source: Authors estimates using official data from China, Eurostat, Japan, and the United States.

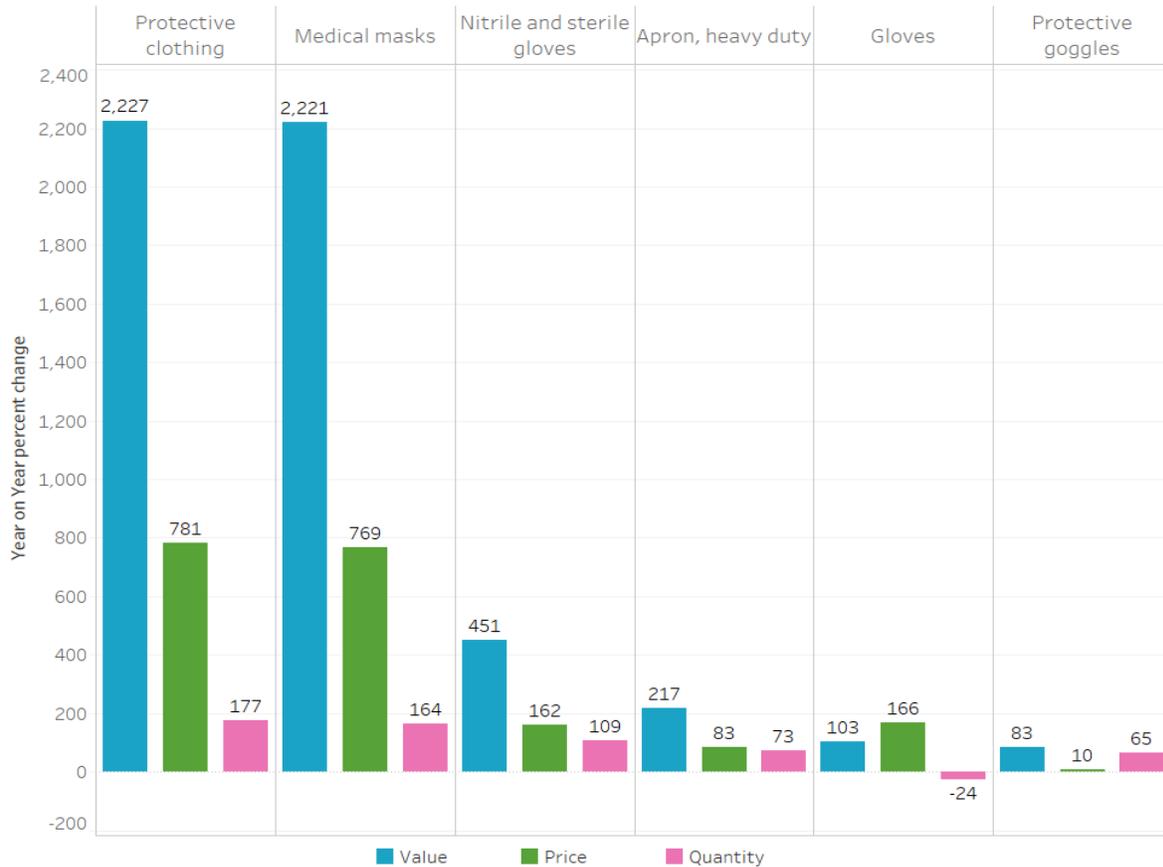
Trade has also been a shock absorber during the current health crisis. Year-on-year changes in exports from top-four exporter countries during the first semester of 2020 suggest that trade in critical medical products contracted during the months where they were experiencing a pick of the pandemic at home and then rebounded once infection rates decreased and lockdown measures eased. During the month of June, the European Union, Japan and United States experienced significant increases in the value of exports of respectively diagnostic products (15.5 percent), hygiene product (32.4 percent) and PPE (43.7 percent).⁴ China’s export values of diagnostic products and PPE surged more than 600 percent, compared to the same month in 2019.

Increases in trade values, however, do not only reflect larger quantities of medical products crossing borders to meet a sudden growth in foreign demand. They are also driven by price surges in these products due to a significant and growing mismatch between world supply and demand. This fact appears most clearly in the large increases in the export values of medical goods from China.⁵ Indeed, a more detailed analysis on the year-on-year changes in prices and quantities for selected products exported by China shows that for PPE such as protective clothing and medical masks, year-on-year prices (unit values) increased on average by 781 and 761 percent, compared to a 177 and 164 percent increase in quantities (Figure 4).

⁴ See Appendix Table A. 1.

⁵ World Bank (2020a) and World Bank (2020b).

Figure 4: China: Export values, unit values and quantities of Personal Protection Equipment products in May-June 2020, YoY growth (%)



Source: Authors estimates using official data from China, Eurostat, Japan, and the United States. **Note:** Percent changes are based on trade values in current US dollars and quantities in kilograms or number of items, depending on the product.

Pandemic trade policy

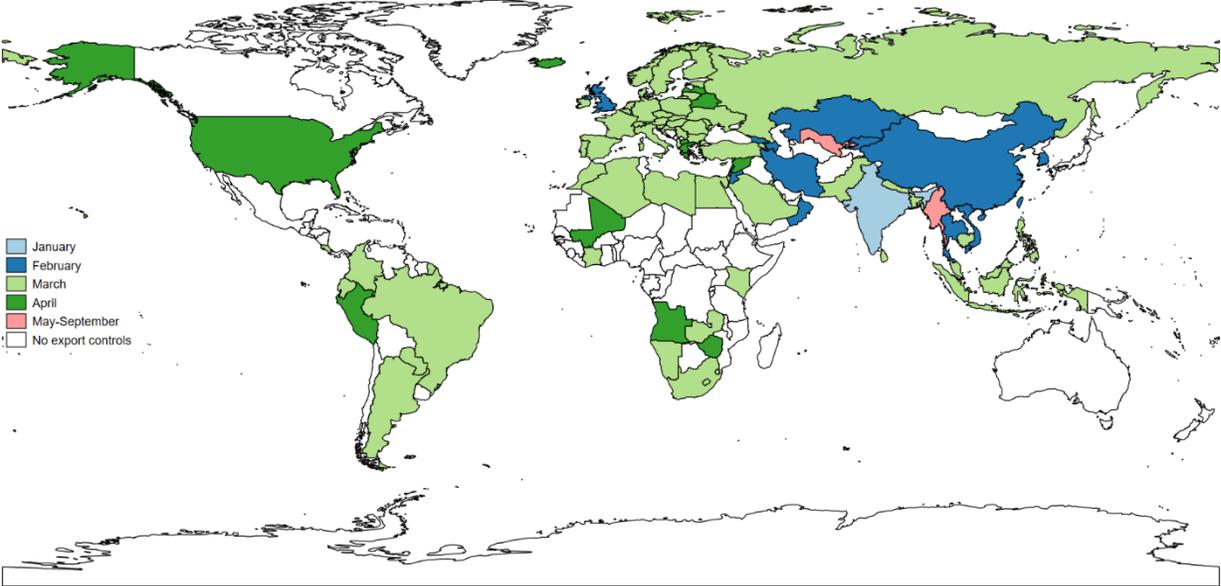
Exporters' restrictions and importers' liberalizations

Pandemic trade in medical goods is characterized by the combination of high concentration of exports and imports and the sudden change in market conditions brought about by the spread of the disease. As the number of cases rises and demand for critical medical goods increases, governments may choose to use trade policy to ensure sufficient supplies and stabilize prices of essential medical goods in the domestic market.

Exporters may resort to various forms of export curbs to address scarcity problems during the pandemic. Instruments can include export taxes, bans, quotas, controls such as export authorizations, non-automatic export licensing requirements, state requisitions or exhortation not to export. While these measures differ in several respects, they all lead to an expansion of the domestic supply of the good on which they are imposed and a reduction of the local price relative to the world price. In the domestic market, this offers relief in a situation of scarcity and an implicit transfer from producers to consumers. These measures also create the usual distortions in the domestic economy as they disincentivize production and investment,

which makes them a second-best policy intervention. Nevertheless, they have been widely used in the current health crisis. Figure 5 shows that between January and mid-September 2020, 91 countries have imposed 202 export controls on medical products. Most countries intervened in the first phase of the pandemic.

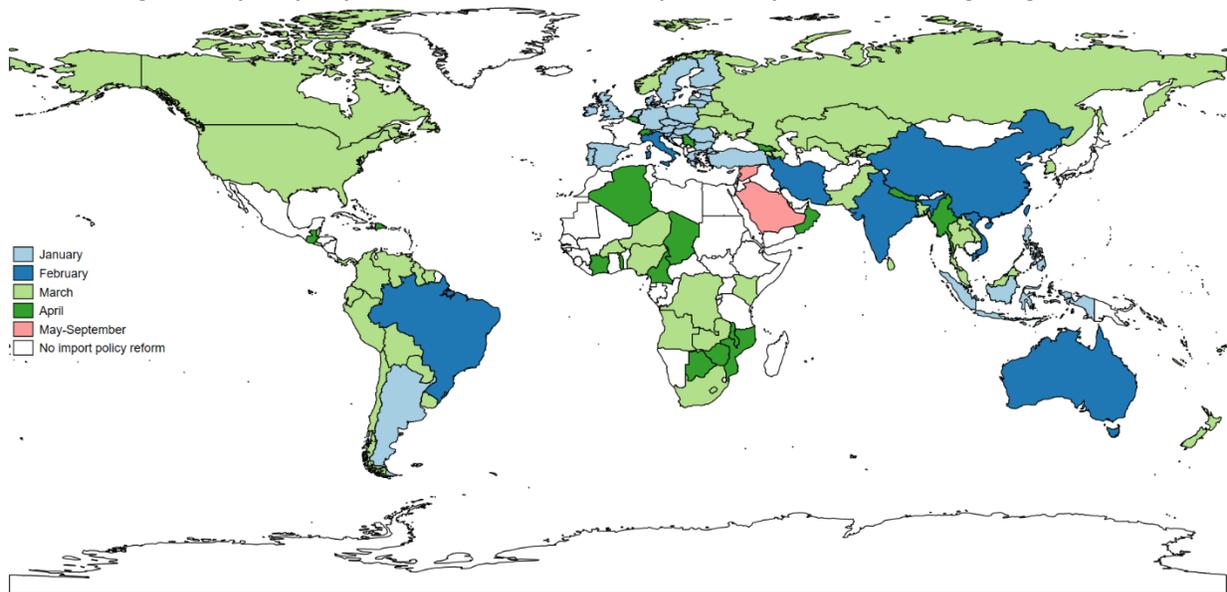
Figure 5: Export controls on COVID-19 medical products reported since the beginning of 2020



Source: EUI, GTA, World Bank (2020). Note: Policy changes identified by official decrees, regulations, and announcements and from media reports. Details on the methodology can be found at <https://www.worldbank.org/en/topic/trade/brief/coronavirus-covid-19-trade-policy-database-food-and-medical-products>

Applied tariffs of key COVID-19 products are on average 4.6 percent globally and 6.4 percent for developing countries. For some medical goods such as hygiene and PPE, average tariffs are 10 percent or higher (see appendix Table A. 2). Countries with these restrictions may choose to liberalize their import regimes during a pandemic outbreak. Policy instruments on the import side include the removal or reduction of import bans, quotas, tariffs and tariff rate quotas, customs-related trade facilitation measures, the simplification of import licensing and monitoring regimes. These measures allow countries to expand imports and hence the supply of medical goods in the domestic market. Pandemic import measures lower distortions in the domestic market as pre-existing tariffs inefficiently restricted trade in medical goods. Figure 5 shows that since the start of the pandemic, 106 countries have implemented 229 import reforms for COVID-19 medical products up to mid-September 2020.

Figure 6: Imports policy reforms on COVID-19 medical products reported since the beginning of 2020



Source: EUI, GTA, World Bank (2020). Note: Policy changes identified by official decrees, regulations, and announcements and from media reports. Details on the methodology can be found at <https://www.worldbank.org/en/topic/trade/brief/coronavirus-covid-19-trade-policy-database-food-and-medical-products>.

An inefficient policy equilibrium

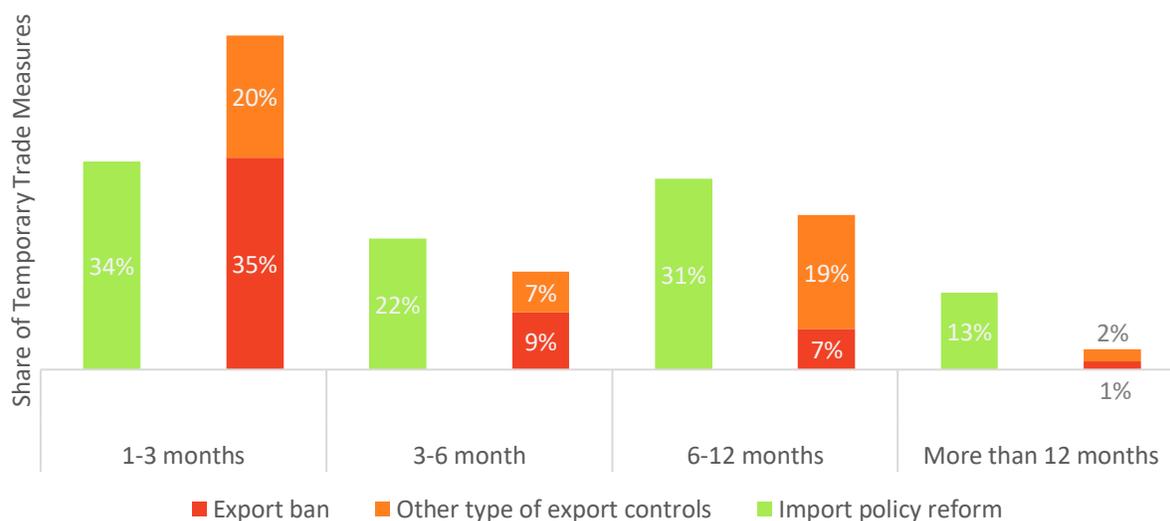
Whatever the domestic rationale for pandemic trade measures, these policies have consequences for global markets in medical goods, which leads to an inefficient policy equilibrium. Because exporters and importers face similar motives and act roughly at the same time (indeed most measures were imposed in March and April 2020), the world export supply shifts in and the import demand shifts out, thus widening the gap between global demand and supply and pushing up prices. This induces further trade policy utilization as governments strive to maintain enough supplies and stable domestic prices. Thus, pandemic trade policies are only in part driven by fundamentals: they are also a reaction to the measures imposed by other governments, in a tit-for-tat that is commonly referred to as a “multiplier effect” (Giordani, Rocha, Ruta, 2017). All countries, and particularly vulnerable importers, stand to lose.

In addition to the immediate effects, pandemic trade policies have longer term consequences. If during a health crisis a country is subject to the export-restricting actions of producing countries, trade will be seen as an unreliable way of maintaining access to essential products (Mattoo and Ruta, 2020). In other words, the use of import restrictions in non-crisis situations can be motivated by the need to move toward more self-reliance as insurance against export restrictions during a health crisis. The current policy equilibrium characterized by the escalation of pandemic measures undermines trust in the system and puts at risk global efficiency in production of medical goods.

A distinctive feature of pandemic trade policy is its temporary nature. The average duration of the trade policy instruments used during the pandemic is roughly similar: 7.4 months for import policy reforms and 4.7 months for export controls (Figure 6). This similarity is problematic for two reasons. First, the temporary nature of pandemic trade measures is efficient for export restrictions and inefficient for import liberalization. In the case of exporters, restrictions should be in place only as long as the extreme conditions in the domestic market persist. This is not the case for importers, as import liberalizations lower

a pre-existing distortion that rendered the level of imports of medical goods inefficiently low. Second, during the last quarter of 2020, 24 percent of export restrictions that were imposed during the pandemic, will still be in place. These might have a negative impact on supply of key medical products during a second wave of the virus. One fifth of import policy reforms will be in place during the last quarter of 2020, suggesting that countries are going back to their levels of import protection pre-pandemic.

Figure 6: Share of temporary trade measures, by duration



Source: EUI, GTA, World Bank (2020). **Note:** Policy changes identified by official decrees, regulations, and announcements and from media reports. Details on the methodology can be found at <https://www.worldbank.org/en/topic/trade/brief/coronavirus-covid-19-trade-policy-database-food-and-medical-products>. Figure only considers observations with information on removal date.

Policy reform

A deal between exporters and importers

The previous sections describe the inefficiency that characterizes the current pandemic trade policy equilibrium. We suggested that both importers and exporters have instruments that they can use to manipulate trade flows and prices in order to meet domestic objectives. And they have a clear motive to use them: achieving larger domestic supply of goods at a time of global scarcity. These measures –which are legal from a WTO perspective⁶– exacerbate scarcity problems and increase price volatility in global markets for medical goods in the short term and can lead to global production inefficiencies in the long term. The timing of these policies may also make the global economy ill-equipped to deal with subsequent waves of the pandemic.

In recent months, a rich debate emerged on policy reforms that can improve upon the status quo and can allow countries to collectively deal with a potential second wave of COVID-19. Some of these reforms have

⁶ WTO members face no constraints in terms of reductions, temporary or not, of import restrictions. Article XI of the GATT specifies that exports should not be subject to quantitative restrictions, but exceptions are allowed for temporary restrictions under Articles XI:2(a), XX(b) and XX(j) of the GATT to relieve critical shortages of essential products, to protect human life, or for products in general or local short supply.

been proposed by WTO members (the initiative by the governments of [New Zealand and Singapore](#)), by the WTO secretariat (e.g. Wolff, 2020) and emerged from the academic debate (e.g. Evenett and Winters, 2020). Here, in line with the evidence of the previous sections, we sketch the economic logic of a possible bargain. The next section describes a consistent set of policy actions that WTO members can take to implement it.

Reforms to improve cooperation on trade policy in medical goods have essentially three goals. First, to defuse the sudden escalation in export restrictions and tariff liberalizations created by the multiplier effect. Second, to increase predictability in export supplies and market access for medical goods. Third, to ensure that goods can smoothly flow across borders during the pandemic as well as in normal times.

The three goals complement and support each other. The essential element of these policy proposals is to strike a balance between exporters' and importers' needs. Importers are hurt by export restrictions imposed by producing countries of medical goods during a pandemic. Exporters are hurt by the restrictions to market access in importing countries during good times. Both sides lose from the policy escalation ignited by the mechanism of the multiplier effect. And both sides gain when markets are predictable, and trade can smoothly flow across borders.

As suggested by Evenett and Winters (2020), a bargain could be struck where importers agree to preserve the lower import restrictions that have been implemented since the outbreak of the pandemic in exchange for assurances that their supplies of critical medical goods will not be arbitrarily cut off. Exporters would limit their rights to introduce temporary export controls in exchange for better market access in the importers' markets. This is not a deal of reciprocal market opening (the standard practice in trade agreements), but a promise to limit disruptions to supply during a health crisis in exchange for a promise to retain open markets in non-crisis situations.

How wide should this bargain be? A clear trade-off emerges in terms of membership and coverage of medical products. A broader membership would reduce opportunities for free riding; expanding the coverage of medical goods (including essential inputs) would ensure that critical products in the next pandemic would not be the target of non-cooperative trade policies. A narrower scope of the deal may allow for a more flexible—even if more limited—approach. Starting from the list of COVID-19 medical goods and the set of large exporters/importers for these products may provide insurance for a second wave and offer a blueprint for trade policy cooperation in case of future pandemics.

Five actions that WTO members can take

The past months since the beginning of the COVID-19 pandemic have shown that trade in medical goods is crucial to address the health crisis and that the lack of trade policy cooperation disrupts markets and distorts trade flows. This chapter shows that, differently from traditional trade policy conflicts, where countries rise protection on each other, here the confrontation is between countries that scramble for scarce supplies. Cooperation is need between exporters and importers.

But what specific actions could WTO members take? Here is a list of five sets of commitments for discussion:

- (i) A commitment to limit trade policy discretion on medical goods during a pandemic.
 - a. A commitment by importers to retain policy reforms on medical goods enacted during a pandemic for a period of three years;

- b. A commitment by exporters that any export restriction would not exceed a period of three months and would not lower exports to partners by more than 50 percent of the average of the past two years;
 - c. A commitment by both exporters and importers that proposed measures would take into account the impact on others –a requirement that already exists for export controls on agricultural products.
- (ii) Actions to ease the flows of medical products across borders, such as commitments to abide to best trade facilitation practices for medical goods or adopt international standards for the critical medical goods for a period of three years.
- (iii) A commitment to improve transparency on policies and production of medical goods.
 - a. A commitment to improve notifications (e.g. by making information on new measures quickly available online);
 - b. Strengthening the WTO monitoring function during a pandemic, including expanding its analysis of trade effects of policy actions;
 - c. Creating a platform for medical products like the Agricultural Market Information System (AMIS) for agricultural commodities to monitor underlying market conditions and identify potential vulnerabilities.
- (iv) A commitment to basic principles for dispute resolution. For instance, partners’ responses need to be proportional and time-bound in case a party walks away from its commitments to restrain export policy or retain import policy reforms.
- (v) A commitment to create a consultation mechanism. This could provide a forum to discuss common and country-specific problems including the emergence of new critical areas such as the shortages of medical goods or inputs not covered by the deal or the trade effects of policy changes by one party on other members. This consultation mechanism could be informed by the analysis and enhanced monitoring of policies by the WTO secretariat.

While this is admittedly only a sketch, an understanding between exporters and importers to limit policy discretion, expand the use of best practices, enhance consultation, improve transparency, surveillance and policy analysis would allow countries to preserve open and stable markets for medical goods and collectively deal with a potential second wave of COVID-19 and with future pandemics.

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Appendix

Table A. 1: Change in exports from main partners to Developing countries, (year-on-year)

Change in exports (year-on-year)	January	February	March	April	May	June
China						
Case Management	2.1%		2.5%	65.5%	90.4%	113.8%
Diagnostics	56.0%		611.5%	877.9%	1,223.3%	684.6%
Hygiene	-13.5%		14.3%	44.5%	-2.7%	17.1%
Personal Protection Equipment	-9.8%		120.2%	974.9%	1,254.6%	693.0%
European Union						
Case Management	-2.4%	-4.2%	-9.1%	-21.1%	-22.8%	-11.8%
Diagnostics	4.5%	18.3%	5.8%	30.3%	11.8%	15.5%
Hygiene	13.1%	9.2%	16.9%	16.6%	-5.2%	-22.5%
Personal Protection Equipment	21.1%	236.5%	-3.8%	-23.5%	8.3%	-10.9%
Japan						
Case Management	-21.0%	1.7%	-10.5%	-23.8%	2.3%	-9.5%
Diagnostics	-41.8%	33.4%	-27.2%	4.7%	3.4%	-10.6%
Hygiene	25.3%	23.9%	-9.8%	9.7%	34.3%	32.4%
Personal Protection Equipment	108.9%	578.3%	27.9%	-0.8%	7.5%	14.8%
USA						
Case Management	2.4%	1.9%	-6.0%	-10.8%	-27.7%	-8.7%
Diagnostics	13.6%	52.1%	3.9%	17.9%	9.8%	5.2%
Hygiene	-8.5%	-12.1%	-2.7%	-13.3%	-5.2%	-23.1%
Personal Protection Equipment	9.2%	89.3%	37.5%	-18.4%	37.4%	43.7%

Source: Authors estimates using Official data from China, Eurostat, Japan, and the United States. **Note:** Trade flows for EU exclude intra-EU trade for June.

Table A. 2: Applied import tariff rates (%)

	Case Management	Diagnostics	Hygiene	Personal Protection Equipment
World				
Simple Average	2.1	2.0	8.3	6.8
Trade Weighted	1.0	1.1	2.7	4.1
Developed Countries				
Simple Average	1.1	0.7	2.6	2.8
Trade Weighted	0.4	0.1	0.9	3.2
Developing Countries				
Simple Average	2.8	2.7	11.9	9.8
Trade Weighted	2.3	3.4	5.1	8.9

Source: Espitia et al. (2020a). **Note:** Simple Average and trade weighted means of the applied import tariff rate (last year available).