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Export restrictions during global health crises:
The international community can and must do better

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Abstract

COVID-19 represents one of the biggest pandemic faced by humanity in recent times, spreading to almost all countries and territories on all continents. Because it spread so suddenly and quickly, COVID-19 produced an unparalleled increase in demand in personal protective equipment, medical products and devices, which far outpaced the ability to increase supply. The outcome was a shortage in these products, which lead several countries to introduce export restrictions. This paper offers a legal and economic assessment of these export restrictions and argues that the current international rules – administered respectively by the World Health Organisation (WHO) and the World Trade Organisation (WTO) – are ill-suited to deal with critical shortages that are likely to arise during, or at least in the early days of, a pandemic. Absent better rules and greater international cooperation, there was no alternative to the proliferation of export restrictions. The paper proposes the establishment of a new normative framework involving both WHO and WTO to avert supply shortages and export restrictions during a pandemic.

Keywords

Export restrictions; pandemic; covid-19; WTO; WHO; 2005 International Health Regulation; supply shortage.

1. Introduction*

The SARS-cov-2 (severe acute respiratory syndrome coronavirus 2), better known as Covid-19, represents one of the biggest pandemics faced by humanity in recent times.¹ The virus has quickly spread to more than 200 countries and territories on all continents.² According to official World Health Organisation (WHO) sources, as of 8 September 2020, there were more than 27 million confirmed cases and more than 891 thousand confirmed death.³ At the time of writing, these numbers were still steadily rising.

Besides the epidemiological and medical predicament, Covid-19 represents a huge challenge for the international trade community, or at least it did so during its initial phase, when Covid-19 turned from a regional health crisis in Asia into a global pandemic. Because of the sudden and quick spread of the disease worldwide, Covid-19 produced an unparalleled increase in the global demand for Personal Protective Equipment (PPE) (such as masks or gloves) and medical products and devices. At the same time, global supply of such products was hampered by the fact that the outbreak of the disease initially took place in China, later spread to the EU, and more recently to the United States, which together are the top producers and exporters of PPE and medical products.⁴ The simultaneous jump in demand and fall in supply lead to critical shortages in PPE and medical products in several countries.

In reaction to these critical shortages, many countries first sought to increase domestic availability by liberalising imports of PPE and medical products needed to fight the pandemic. However, in view of continuous critical shortages, many also decided to restrict the exportation of PPE and medical products. Because the pandemic also affected the food supply chain⁵, some countries also adopted export restrictions on certain essential agricultural goods to prevent food shortages.⁶

While the rules of the World Trade Organisation (WTO) generally prohibit export restrictions, they contain an exception for situations of critical shortages. However, to be fully compliant with WTO rules, such restriction should be applied in a non-discriminatory manner, which has not always been the case during the Covid-19 crisis.

Still, a growing economic literature has highlighted the negative impact of export restrictions on PPE and medical products during the Covid-19 crisis.⁷ In a nutshell, export restrictions during times of pandemics are simply beggar-thy-neighbour policies, which lead to a domino chain reaction that ultimately hurts all countries. Widespread export restrictions are therefore the result of a prisoner's dilemma, where countries have an incentive not to cooperate although it makes them worse off than

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¹ Hilary Brueck and Shyanne Gal, 'How the coronavirus death toll compares to other pandemics, including SARS, HIV, and the Black Death', *Business Insider*, 17 April 2020.

² <https://www.worldometers.info/coronavirus/countries-where-coronavirus-has-spread/> (website visited on 20 April 2020).

³ World Health Organisation, Coronavirus disease 2019 (COVID-19) Situation Report – 169, 7 July 2020.

⁴ World Trade Organisation, 'Trade in medical goods in the context of tackling Covid-19', Information note, 3 April 2020.

⁵ <http://www.fao.org/2019-ncov/q-and-a/impact-on-food-and-agriculture/fr/>

⁶ <https://www.macmap.org/en/covid19>

⁷ Most of this early research on Covid and trade policy has been gathered in the following e-book: R. Baldwin and S. J. Evenett (eds.), *Covid-19 and Trade Policy: Why turning inward won't work*, (CEPR and VoxEU.org eBook, 2020).

having no export restriction. The issue, therefore, is how to create the conditions for cooperation between countries and abstain from introducing export restrictions.

An obvious solution, recently advocated by several scholars, is for countries to formally agree not to use export restrictions along the lines of the stand still on protectionism agreed at the London G20 Summit in May 2009, at the height of the financial crisis. While such an agreement would have been useful at the height of the global shortage of PPE and medical products in the Spring of 2020, and would be helpful in the future in similar instances, our contention is that it is insufficient, and therefore difficult to enforce, because it does not address the fundamental problem, namely the existence of a situation of critical shortages, which creates an incentive to implement export restrictions. International cooperation in times of pandemics and global shortages, therefore, must go beyond trade cooperation. A system ensuring information on supply-demand balances, stocks, and policies as proposed by Hoekman et al. (2020)⁸ would be an important step forward.

However, the only way for the international community to address the problem of global shortages in times of global pandemics in an efficient, cooperative manner is to set up a new governance framework to improve preparedness and crisis responses. Without such framework, it will be difficult to prevent a new wave of export restrictions in the event of another pandemic.

The current international health and trade rules – respectively administered by the WHO and the WTO – are ill-suited to deal with critical shortages of medical products in a more cooperative manner. The crisis response mechanism operated by the WHO focuses largely on the prevention of disease dissemination and treatment. On the logistic side, it only foresees situations of local shortages and is ill-prepared for global shortages of essential equipment or medical products as experienced during the Covid-19 crisis.

The main aim of this paper is therefore to propose such an innovative international framework that can react more effectively to demand surge and supply crisis during a pandemic, and thereby avoid export restrictions. The paper begins with a brief review of the measures introduced during the Covid-19 crisis, their legal compatibility with WTO law and their impact. It then describes and assesses some proposals made to keep trade open and the current WHO crisis response mechanism. Finally, the paper proposes a new international governance framework composed by a preventive and crisis-response mechanism with the WHO and a new normative framework within the WTO, which could enable in the future to exert better preparedness and more efficient crisis response.

2. Export restrictions imposed during the Covid-19 crisis

2.1 Measures introduced during the Covid-19 pandemic

The Covid-19 pandemic reached quickly a global scale, creating unprecedented rise in demand for products needed for preventing the spread of the disease, such as masks and gloves, or protective equipment for medical and nursing staff, and products needed for treatment, such as medical devices (for example, ventilators) and drugs. This upsurge in demand put under pressure the global supply chain of these products.

This situation led to a proliferation of trade measures to increase the domestic availability of medical products. Initially the measures focused on making imports easier, but rapidly they were accompanied by export restrictions (see table 1).

⁸ B. Hoekman, M. Fiorini and A. Yildirim, 'Covid-19: Export controls and international cooperation', in R. Baldwin and S. J. Evenett (eds.), *Covid-19 and Trade Policy: Why turning inward won't work*, (CEPR and VoxEU.org eBook, 2020).

Table 1: Timing of adoption of trade liberalizing and export restriction measures during the Covid-19 crisis

Month	Count of liberalising Measures	Countries liberalising	Count of Export Restrictive Measures	Countries introducing export restrictions
January 2020	2	EU, Singapore	0	
February 2020	6	Australia, China, Viet Nam, Taipei	8	Iran, Kyrgyzstan, Thailand, Azerbaijan, Kazakhstan, Oman, Georgia
March 2020 (first half)	9	Mongolia, Thailand, USA, Ecuador, Japan, India, Panama,	19	Ecuador, Saudi Arabia, Kenya, Russian Federation, Turkey, Morocco, Norway, Malaysia, Albania, Republic of Korea, Bulgaria, Moldova, Viet Nam, Kuwait, Bangladesh, Serbia, Ukraine
March 2020 (second half)	63	Arabia	60	EU, Israel, Slovenia, Belarus, Libya, Slovakia, Uzbekistan, Czech Republic, Egypt, Paraguay, Australia, Brazil, Costa Rica, Indonesia, Turkey, Armenia, India, UK, Argentina, Republic of Korea, Saudi Arabia, Sri Lanka, Algeria, Colombia, Kazakhstan, Lebanon, Nepal, Belgium, Kyrgyzstan, Netherlands, Russian Federation, Ukraine, Eurasian Economic Union, Pakistan, Taipei, Hungary, Norway, Viet Nam, El Salvador, Estonia, France, Switzerland & Lichtenstein, Thailand, Côte d'Ivoire, Cyprus, Philippines, Botswana, Eswatini, Lesotho, Namibia, South Africa, Cambodia, Iran, Belarus, Honduras
April 2020 (first half)	36	Algeria, Antigua and Barbuda, Brunei Darussalam, Costa Rica, Fiji, Georgia, India, Jamaica, Kenya, Morocco, Serbia, Turks and Caicos Islands, Chile, Dominican Republic, Lao, Switzerland & Lichtenstein, Togo, Argentina, El Salvador, Uzbekistan, Russian Federation, Saint Vincent and the Grenadines, Cameroon, Colombia, Samoa, Côte d'Ivoire, Mozambique, Mali, Anguilla, Eurasian Economic Union, Republic of Korea,	23	China, North Macedonia, Russian Federation, Iceland, Latvia, Oman, UK, Georgia, India, Myanmar, USA, Cambodia, Syrian Arab Republic, Turkey, Bahrain, Pakistan, Romania, Morocco
April 2020 (second half)	16	Argentina, Colombia, Nepal, Bosnia and Herzegovina, Dominican Republic, Montserrat, Singapore, India, Indonesia, Malawi, Pakistan, New Caledonia, Senegal, Chad, Myanmar, Cabo Verde	13	Serbia, Sudan, Israel, Peru, Viet Nam, Mali, Belarus, Zimbabwe, Romania, Brazil, Tajikistan, Bulgaria
May 2020	7	Nigeria, Tanzania, Saint Pierre and Miquelon, Canada, Bangladesh, Brazil, Japan	5	Taipei, India, Kazakhstan, United Arab Emirates

Source: Authors' elaboration from ITC market access map, <https://www.macmap.org/en/covid19> (updated 13. July 2020). Legend: **Countries marked in green** have only introduced liberalization measures, **countries in red** have instead introduced only restrictive measures, **countries in blue** have introduced liberalisation measures before introducing export restrictions, **all other countries are in black** and they have introduced liberalisation measures either simultaneously or after having adopted export restrictions.

According to data by the International Trade Center (ITC),⁹ by 13 July 2020, 299 trade measures were introduced in the context of the Covid pandemic by 140 countries and territories.¹⁰ Of these 299 measures, 140 were trade liberalising measures, of which 115 were either tariff reduction, tariff liberalisation or tariff and quota reduction measures. Most of the tariff reduction measures targeted medical supply products. In some cases, tariff liberalization also covered food products (such as in the case of the measures introduced by China, EAEU, Uzbekistan, Morocco, etc.). Gibraltar introduced tariff reductions for all goods except for tobacco, fuel, and alcohol, while Kenya appears to have introduced a VAT cut for all goods. The EU introduced trade liberalization measures in January 2020,

⁹ ITC data can be downloaded here: <https://www.macmap.org/covid19> (data used in the paper was updated last on 13 July 2020). Besides the ITC, a joint European University Institute, Global Trade Alert & World Bank Initiative has also gathered a comprehensive dataset on Covid-19 trade measures. Data can be downloaded here: <https://www.globaltradealert.org/reports/54>

¹⁰ The EU and its Member States were counted separately. Indeed, while the EU introduced an export licensing measure, some Member States also introduced national export bans with various product coverages. This was the case of Bulgaria, Cyprus, the Czech Republic, France and Hungary. Germany had first introduced an export ban but then after the introduction of the EU measure, it introduced an export licensing measure. Belgium introduced both an export ban and an export licensing system. EU Member States are entitled to introduce export restriction inter alia for the protection of public health on the basis of article 10 of EU Regulation 2015/479.

followed by China in February 2020. In March 2020, the US introduced limited liberalization measures on Chinese goods with retroactive effects up to September 2019 as well as other liberalization measures.

Table 2: Trade liberalisation measures introduced in the context of the Covid-19 pandemics

Row Labels	Count of Measure
Authorization requirements for importing certain products	1
Certification requirements	1
Duties on imports are postponed	2
Elimination of import licensing requirements	1
Exceptional measures to facilitate imports	3
Export prohibition repealed	1
Extension of timeframes for automatic registration number	1
Extension of timeframes for payment of customs duties	1
Increasing the import quota	1
Licensing or permit requirements to export	2
Lifted ban on imports	1
Non-automatic import-licensing procedures	2
Relaxed administrative procedures	1
Suspension of anti-dumping duty	3
Suspension of certification requirements	2
Suspension of import ban	1
Suspension of the compulsory certification	1
Tariff elimination	4
Tariff reduction	104
Tariff reduction/ increased quotas	7
Grand Total	140
Total tariff elimination/reduction/increased quotas	115

Source: Authors' elaboration from ITC market access map, <https://www.macmap.org/en/covid19> (updated 13. July 2020)

Export restrictions account for 128 of the 159 trade-restrictive measures introduced during the Covid-19 pandemics until 13 July 2020, as recorded by the ITC. They were introduced after the first liberalization measures were adopted. The first countries to introduce export restrictions were Iran, Kyrgyzstan, Thailand, Georgia, and Turkey in February 2020. They then proliferated in March and April, including to China, the EU, and the US. In some countries, export restrictions and import liberalisation were introduced at the same time rather than sequentially (see table 1 above).

Of the 128 export restriction measures, 87 involved export prohibitions, 5 export quotas, 1 export control measure, 3 export restrictions and 31 export licensing schemes. See Table 3.

Table 3: Restrictive trade measures introduced in the context of the Covid-19 pandemics

Row Labels	Count of Measure
Additional import duties	2
Authorization requirements for importing certain products	1
Certification requirements	1
Conformity assessments	1
Export ban	1
Export control	1
Export prohibition	86
Export prohibition; Licensing or requirements to export	1
Export quotas	5
Export restriction	3
Import ban	9
Licensing or permit requirements to export	31
Prohibitions/ restrictions of imports for SPS reasons	10
Prohibitions/ restrictions of imports for SPS/ TBT reasons	2
Quarantine Requirements; Requirement to pass through specific port of customs	3
Requirement to pass through specific port of customs; transport restrictions	1
Tariff rise	1
Grand Total	159
Total Export restrictions (including export quotas)	128

Source: Authors' elaboration from ITC market access map, <https://www.macmap.org/en/covid19> (updated 13. July 2020)

According to the ITC, until 13 July 2020, only 38 of these 128 export restrictions have been terminated; all remaining 90 export restrictive measures are still in force at the time of writing. Of the 128 measures, 65 are still without a specified termination date, while the others were introduced with end dates ranging between March and 31 December 2020. However, even measures that were announced as temporary can be renewed, as is the case, for instance, of the EU export licensing scheme for PPE introduced on 15 March 2020.¹¹ This scheme was originally meant to last until 26 April 2020, but a new implementing regulation was adopted to extend the measure, though only for some products, until 26 May 2020.¹²

¹¹ Commission Implementing Regulation (EU) 2020/402 of 14 March 2020 making the exportation of certain products subject to the production of an export authorization, OJ L 077/1.

¹² The product coverage of this regulation is smaller than the previous regulation adopted in March 2020 and the exclusion from the licensing scheme requirements for EFTA countries was extended also to the Balkans. See: Commission Implementing Regulation (EU) 2020/568 of 23 April 2020 making the exportation of certain products subject to the production of an export authorization, OJ L 129/7.

Table 4: Status of measures introduced in the context of the Covid 19 pandemics

Status of Liberalising Measures	
Row Labels	Count of Measure
Active	130
Investigation	2
Terminated	8
Grand Total	140
Status of all Trade Restrictive Measures	
Row Labels	Count of Measure
Active	112
Investigation	3
Terminated	44
Grand Total	159
Status of Export Restrictions Measures	
Row Labels	Count of Measure
Active	90
Terminated	38
Grand Total	128

Source: Authors' elaboration from ITC market access map, <https://www.macmap.org/en/covid19> (updated 13. July 2020)

Most export restrictions (113 out of the 128 measures) were applied *erga omnes*, without discrimination between WTO members. Some countries, however, have favoured certain trading partners by exempting them from the restrictions. The EU export licensing requirement for PPE introduced on 15 March 2020 initially covered all trading partners, but it was amended on 20 March to exempt the four European Free Trade Association (EFTA) countries (Iceland, Liechtenstein, Norway and Switzerland) and the United Kingdom (UK).¹³ It was further amended on 24 April 2020 to also exempt the Western Balkan countries (list) from the measure.¹⁴ Similarly, Switzerland and Norway have exempted the EU and the UK from their PPE measures, and the UK has done the same for the EU and the EFTA countries. The UK also exempted the EU from its export prohibition covering 80 vital drugs. Finally, the Russian Federation has exempted the members of the Eurasian Economic Union (EAEU) from its export quotas on wheat, meslin, barley, rye, and corn. According to Bown (2020), the US has also exempted Canada and Mexico from its export restrictions, but this exemption is not recorded in the ITC market access map list.¹⁵

¹³ Article 1 of Commission Implementing Regulation (EU) 2020/426 of 19 March 2020 amending Implementing Regulation (EU) 2020/402 making the exportation of certain products subject to the production of an export authorization, OJ L 84I/1.

¹⁴ Article 2(4) of Commission Implementing Regulation (EU) 2020/568 of 23 April 2020 making the exportation of certain products subject to the production of an export authorization, OJ L 129/7.

¹⁵ See on that: C. P. Bown, 'Covid-19: demand spikes, export restrictions, and quality concerns imperil poor country access to medical supplies', in R. Baldwin and S. J. Evenett (eds.), *Covid-19 and Trade Policy: Why turning inward won't work*, (A CEPR and VoxEU.org eBook, 2020).

Table 5: Opposability of the trade restrictive measures (Erga omnes or with country-specific exemptions)

All Restrictive Measures (total)	
Row Labels	Count of Measure
All countries	137
as specified	1
China	5
Non-EAEU countries	4
Non-EEA countries	12
Grand Total	159
Export Restrictions Measures	
Row Labels	Count of Measure
All countries	113
Non-EAEU countries	3
Non-EEA countries	12
Grand Total	128

Source: Authors' elaboration from ITC market access map, <https://www.macmap.org/en/covid19> (updated 13. July 2020)

Most export restrictions (export controls/export bans/export quotas/export licensing measures) introduced during the Covid-19 crisis targeted medical products, medical equipment, or pharmaceutical products. However, about 21% of the measures targeted instead food products, with most countries restricting exports of only a small number of essential items such as rice, flour, wheat, cereal, maize, or eggs. A few countries, however, imposed restrictions on a much broader range of food products.¹⁶

Table 6: Products affected by the export restrictive measures

Product affected	Number of Measures	Percentage
Measures food products	27	21,09
PPE and Hygiene Products	67	52,34
Medicines and Medical Supplies	65	50,78
Total export restrictions	128	100

Source: Authors' elaboration from ITC market access map, <https://www.macmap.org/en/covid19> (updated 13. July 2020). *Nota bene* some measures affect more than one type of product, so they were counted for all products they affect.

2.2. The legal framework on export restrictions imposed during health crises in WTO law

Article XI of the General Agreement on Tariffs and Trade (GATT) prohibits quantitative restrictions on imports or exports made effective via quotas, licences, or other measures. The term 'restriction' has been interpreted broadly to cover measures that create 'limiting condition' or 'limiting effect'.¹⁷ The finding of a 'limiting effect' on export or import is sufficient to fall under the prohibition without the need for quantifying the impact of the restriction.¹⁸ Moreover, the prohibition covers also de facto

¹⁶ See for example the measure introduced by Algeria: https://macmap.org/OfflineDocument/Covid19/COVID_DZA_1.pdf (link last opened on 25. April 2020).

¹⁷ Panel Report, *India – Quantitative Restrictions on Imports of Agricultural, Textile and Industrial Products*, WT/DS90/R, adopted 22 September 1999, para. 5.142; Panel Report, *India – Measures Affecting the Automotive Sector*, WT/DS146/R, WT/DS175/R, and Corr.1, adopted 5 April 2002, para. 7.269-7.270.

¹⁸ Appellate Body Reports, *China – Measures Related to the Exportation of Various Raw Materials*, WT/DS394/AB/R / WT/DS395/AB/R / WT/DS398/AB/R, adopted 22 February 2012, para. 319-320.

prohibitions since the provision refers to ‘other measures’ that make effective the restriction or prohibition.¹⁹

In the context of the Covid-19 crisis, export restrictions mainly took the form of bans, quotas, or non-automatic licensing schemes. Article XI:1 covers export bans and export quotas, but it also mentions export and import licensing schemes which result in the restriction of exports or imports. As non-automatic import or export licensing schemes are discretionary, they will fall under the provision of Article XI:1.²⁰

However, exceptions or justifications exist under WTO law, which permit to introduce quantitative restrictions on exports in certain circumstances. Covid-19 measures could be eligible for the exception contained under Article XI:2(a) GATT. This provision exempts from the quantitative restriction prohibition any ‘*export prohibitions or restrictions temporarily applied to prevent or relieve critical shortages of foodstuffs or other products essential to the exporting contracting party*’.

Article XI:2(a) allows export prohibitions and restrictions that are applied *temporarily* to prevent or relieve a critical shortage in either food or other essential products. This clause was examined at length in *China – Raw Materials*. In this case, the term temporarily was understood as a measure applied for a limited time, applied at interim.²¹ The concept of *essential products* was given the narrow meaning of ‘absolutely indispensable or necessary products’ and *critical shortages* was understood as ‘*deficiencies in quantity that are crucial, that amount to a situation of decisive importance, or that reach a vitally important or decisive stage or a turning point*’.²²

Therefore, export restrictions introduced temporarily to relieve shortages of products that are essential for the fight against Covid-19 or for the survival of the population can easily be justified under article XI:2(a) GATT. There are, however, some countries which have introduced restrictions on many products, thereby raising doubt as to whether all these products qualify as essential and were subject to critical shortages. Moreover, while some Covid-19 measures did specify a clear end date,²³ which suggests that they are temporary, most did not specify a clear time limit.²⁴

Finally, to be fully compliant with WTO law, any export restriction justified under Article XI:2(a) must comply with the non-discriminatory requirement under Article XIII GATT. Article XIII:1 requires that:

‘No prohibition or restriction shall be applied by any contracting party on the importation of any product of the territory of any other contracting party or on the exportation of any product destined for the territory of any other contracting party, unless the importation of the like product of all third countries or the exportation of the like product to all third countries is similarly prohibited or restricted.’

The purpose of the non-discrimination requirement is to avoid that export restrictions are applied in an arbitrary manner. As mentioned earlier, several European countries (including the EU, EFTA countries, the UK and the Russian Federation), and also the US, have introduced export restrictions but with exemptions for certain key partner countries with whom the countries imposing export restrictions are

¹⁹ Panel Report, *Argentina – Measures Affecting the Export of Bovine Hides and the Import of Finished Leather*, WT/DS155/R and Corr.1, adopted 16 February 2001, para.11.17.

²⁰ Panel Report, *India-Quantitative Restrictions*, above n.17, para. 5.130; Panel Reports, *China – Measures Related to the Exportation of Various Raw Materials*, WT/DS394/R, Add.1 and Corr.1 / WT/DS395/R, Add.1 and Corr.1 / WT/DS398/R, Add.1 and Corr.1, adopted 22 February 2012, para. 7.921.

²¹ Appellate Body Report, *China-Raw Materials*, above n.18, para. 330.

²² Appellate Body Report, *China-Raw Materials*, above n.18, para. 324.

²³ These measures could still be renewed before their end dates.

²⁴ 70 out of the 98 measures labelled as export control, export restriction/ban, export quotas and export licensing). Data computed from ITC data as downloaded on 23. April 2020.

parties to free trade agreements (FTAs) and customs unions notified to the WTO under Article XXIV GATT.

Hence, the question is whether and to what extent, the existence of an FTA concluded under Article XXIV GATT could justify trade restrictions inconsistent with Article XIII GATT. The existing jurisprudence on the link between Articles XXIV and XIII concerns mainly safeguards (*Argentina-Footwear*, *US-Line Pipe Safeguards*) or other import restrictions (*Turkey-Textiles*, *EC-Bananas*). Article XIII:1 applies equally to import prohibitions/restrictions and to export prohibitions/restrictions so the cases on import restrictions can shed light on whether Article XXIV GATT could represent an exception to the application of Article XIII GATT. None of these cases confirms that application of Article XXIV GATT automatically waives the application of Article XIII GATT. In particular, the ruling in the *EC-Bananas* case, only suggests that Article XXIV GATT could waive non-discrimination rules, including article XIII GATT,²⁵ but as the Lomé waiver only waived application of Article I GATT and not Article XIII GATT, the EC was not allowed to violate Article XIII GATT in order to grant Cotonou countries preferential treatment under the Lomé agreement.

The subsequent *Turkey-Textiles* case limits substantially the possibility to rely on Article XXIV GATT to permit violations of Article XIII GATT. The Appellate Body ruled in this case that measures violating article XIII GATT introduced in the context of a custom union must comply with two conditions: they must have been introduced at the formation of a custom union that fully meets the requirement of sub-paragraph 8(a) and 5(a), and the party raising article XXIV GATT in defence of its measures violating article XIII GATT must prove that these measures were necessary to form the customs union.²⁶ Following the *Turkey-Textiles* AB reasoning, Korea argued, in the context of the *US-Line Pipe Safeguards* case, that the US could not use Article XXIV GATT to justify exceptions from safeguards in favour of its NAFTA partners unless it met the double condition that the measures were introduced at the formation of the FTA fulfilling the requirements under sub-paragraph 8(b) and 5(b) and that those measures were necessary to the establishment of the FTA.²⁷ In the context of an FTA, that ‘necessity test’ would imply that the measures were necessary for liberalising substantially all trade between the members of the FTA as requested by Article XXIV GATT. However, the Appellate Body decided not to rule on the justification of safeguards exceptions for FTA partners based on Article XXIV GATT, nor did it comment on the application in the context of FTAs of the conditions stipulated for customs unions in *Turkey-Textiles*. Therefore, the question remains as to whether violations of article XIII GATT in the context of FTAs and CUs can only be envisaged at the time of their formation and in full respect of the conditions imposed by Article XXIV GATT, and whether these measures must be justified as necessary to establish these preferential agreements in line with the conditions of Article XXIV GATT.

As already mentioned, some Covid-19 export restrictions concern food and agricultural products. The prohibition under Article XI GATT has become inoperative for agricultural goods, since it was superseded by Article 4.2 of the Agreement on Agriculture (hereafter AA). This article introduces a prohibition for food products similar to Article XI GATT, but it covers a wider range of measures, including quantitative import restrictions, variable import levies, minimum import prices, discretionary import licensing procedures, non-tariff measures maintained through state-trading enterprises, voluntary export restraints, and similar border measures other than ordinary customs duties.

²⁵ Appellate Body Report, *European Communities – Regime for the Importation, Sale and Distribution of Bananas*, WT/DS27/AB/R, adopted 25 September 1997, para. 191.

²⁶ Appellate Body Report, *Turkey – Restrictions on Imports of Textile and Clothing Products*, WT/DS34/AB/R, adopted 19 November 1999, para. 58.

²⁷ Appellate Body Report, *United States – Definitive Safeguard Measures on Imports of Certain Steel Products*, WT/DS248/AB/R, WT/DS249/AB/R, WT/DS251/AB/R, WT/DS252/AB/R, WT/DS253/AB/R, WT/DS254/AB/R, WT/DS258/AB/R, WT/DS259/AB/R, adopted 10 December 2003, para. 39.

However, the exception under Article XI:2(a) GATT continues to apply to agricultural goods by virtue of Article 12 AA that incorporates article XI:2(a) GATT. Article 12 AA also specifies two further conditions for the introduction of export restrictions on food and agricultural products. First, the country introducing an export restriction must consider its impact for food security of importing countries. Second the country must notify the measure to the WTO. These requirements do not apply to developing countries unless the developing country in question is a net exporter of the food or agricultural product covered by the restrictive measure.

Where an export restriction is not legally compatible with Articles XI and XIII GATT, or with the AA, countries wishing to apply such restriction can try to justify their restrictive measure under Article XX GATT. This article provides General Exceptions to GATT rules that allow the introduction of restrictive trade measures to pursue certain legitimate public policy objectives. The legitimate public policy objectives that can be claimed are listed in an exhaustive manner in the various indents of Article XX GATT. To justify a measure, a country has first to prove that it meets the conditions to claim one of the legitimate public policy exceptions specified in the indents of Article XX GATT. Then the measure must pass the requirements under the chapeau of Article XX GATT, i.e. that it is not applied in a manner which would constitute “a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail” and is not “a disguised restriction on international trade”.

As mentioned by Pauwelyn (2020),²⁸ the following public policy objectives of Article XX GATT could be used to justify some of the Covid-19 crisis measures:

- Article XX(b) GATT covers measures necessary to protect health. Under this exception there is no need to prove that there is an actual shortage of the good, one simply needs to prove that measure is necessary to protect human life and health. The idea of necessity entails that one has to prove the actual contribution of the restrictive measure to the achievement of the health objective as well as to prove that there were no other less trade-distortive measures available to achieve the same goal.²⁹
- Article XX(j) GATT covers measures essential to address general or local short supply. According to the recent jurisprudence on Article XX(j), a country must prove the existence of both local and international short supply of the good. Local short supply alone, in the presence of still functioning international supply of the good, will not be sufficient to justify trade restrictive measure under this indent.³⁰ Article XX(j) covers a broader range of shortages than those covered by Article XI(2) GATT (which refers to ‘critical’ shortages).³¹ ‘Essential’ as for the word ‘necessary’ entails that the country has to prove that the measure was required to achieve the objective and that there was no other less trade-restrictive measure available to achieve it.³² As highlighted by Pauwelyn (2020),³³ Article XX(j) does come with a caveat requiring that measures shall be consistent with the principle that all contracting parties are entitled to an equitable share of the international supply of such products. The contracting party introducing the export restriction must consider whether the other contracting party have a fair share of the supply of the good. According to a 1950 working party on the use of quantitative restrictions for protective and other commercial purposes, this

²⁸ J. Pauwelyn, ‘Export Restrictions in times of pandemic: options and limits under international trade agreements’, 18 April 2020.

²⁹ Panel Reports, *Brazil – Certain Measures Concerning Taxation and Charges*, WT/DS472/R, Add.1 and Corr.1 / WT/DS497/R, Add.1 and Corr.1, adopted 11 January 2019.

³⁰ Appellate Body Report, *India – Certain Measures Relating to Solar Cells and Solar Modules*, WT/DS456/AB/R and Add.1, adopted 14 October 2016, 5.71.

³¹ Appellate Body Report, *China - Raw Materials*, above n.18, para. 325.

³² Panel report, *Brazil – Taxation*, above n.30.

³³ See fn. 29.

equitable share would be decided on a case-by-case manner.³⁴ Moreover, the measure should be lifted as soon as the condition giving rise to the short supply subsidy, i.e. as soon as international or local production rises at levels that resolve the supply difficulty.

- Article XX(i) GATT offers a justification for export restrictions on input materials to ensure essential quantities of such inputs for a domestic processing industry during periods when the domestic price of such inputs is held below the world price as part of a governmental stabilization plan.³⁵ As in the previous justification, also this exception comes with further requirements. First the measure should not be introduced in such a way as to increase the exports or the protection afforded to the domestic industry, and, second, it shall not depart from the provisions of GATT relating to non-discrimination.

While Article XX(i) GATT explicitly rules out the possibility to justify non-discriminatory measures, the other justifications mentioned above (i.e. XX (b) and XX(j) GATT) do not mention non-discrimination within the indent requirements. However, in the jurisprudence, countries imposing discriminatory trade restrictions and providing discriminatory exceptions for preferential trade partners were not capable of justify the discriminatory measures neither under Articles XX(b) nor under XX(g) GATT. Indeed, in order to justify the discriminatory measures, the country would need to prove that the discriminatory element was fundamental to achieve the legitimate objective and that it was the least restrictive trade option.

In *Brazil-Retreaded Tyres*, Brazil failed to prove how the exception for Mercosur countries would be linked to the achievement of the objectives under Article XX(b) GATT. It is obviously true that excluding certain countries from an export restriction allows the measure to be less trade restrictive as it lifts the restriction for at least some of its trade partners. At the same time, the objective causal connection between legitimate objective and exception to the restriction appears (from *Brazil-Retreaded Tyres*) to be the most important element to prove. There must be a clear and objective connection between ends and means employed by the measure including any exception foreseen in the measure. The discriminatory element must be objectively justified considering the legitimate objective so as to ensure that the measure in question is not arbitrary. Taking the example of the EU, which has exempted EFTA countries from its Covid-19 export restriction measure, it would have to try to argue that this exemption was necessary to secure continued supply of essential products because of inter-regional value chains, though this argument may be rejected by the members of the WTO dispute settlement. In the absence of such compelling necessity, Article XX GATT cannot be used to justify a discriminatory application of the export restriction measure.

Overall, therefore, WTO law provides several exceptions to the prohibition of quantitative restriction specified in Article XI:1 GATT that can be used to justify export restrictions measures in times of health crises resulting in critical shortages. Still, our analysis shows that some of the measures adopted during the Covid-19 crisis are not fully aligned with WTO law requirements.

The conclusion is that current WTO law does not prevent the introduction of export restrictions in a severe health crisis like the Covid-19 pandemic. We now examine whether this situation has positive or negative consequences from both economic and health standpoints, and what alternative to export restrictions have been proposed during the Covid-19 crisis.

³⁴ See on this: Espa, I., & Sacerdoti, G., *Export Restrictions on Critical Minerals and Metals: Testing the Adequacy of WTO Disciplines* (Cambridge University Press, 2015).

³⁵ Some of the literature on export restrictions considers the justification under article XX(i) GATT to correspond to an old reality; indeed, Espa and Sacerdoti (2015) writes that actually the government stabilization plans mentioned under this indent have now fallen in disuse. However, if one considers that one of the objectives of export restrictions in the framework of a health crisis is the lowering of domestic prices of the good, and in such a sense the export restriction should contribute to stabilizing the market, the justification under article XX(i) could still be of use. See, Espa and Sacerdoti, above n. 34.

2.3 Consequences of export restrictions imposed during global health crises

Notwithstanding the appealing political perspective and the legal feasibility of the export restriction strategy, its negative economic impacts on both importing and exporting country are well known.³⁶ During an epidemic, i.e. a disease contained within the territory of a single country, the world impact of export restrictions introduced could be lesser as demand for that good in the rest of the world does not necessarily increase. However, in the context of a pandemic where demand upsurge is generalized, the impact of the export restrictions will be stronger. In that context of a global pandemic, the introduction of export restrictions by top exporters inevitably triggers a domino effect, prompting other countries to introduce more export restrictions, which threatens to aggravate the economic and even health situation not only in importing countries but eventually in the exporting countries themselves as the Covid-19 situation illustrates.

Covid-19 started in China and rapidly spread to other continents. See Figure 1. China happened to be one of the main world producers of PPE; China, Germany and the US alone accounted for more than 40% of world exports in PPE in 2019.³⁷ As demand for PPE increased in China due to the epidemic, fears of shortages in China and elsewhere were raised.³⁸ At the end of February, the WHO had warned of a global shortage of masks.³⁹

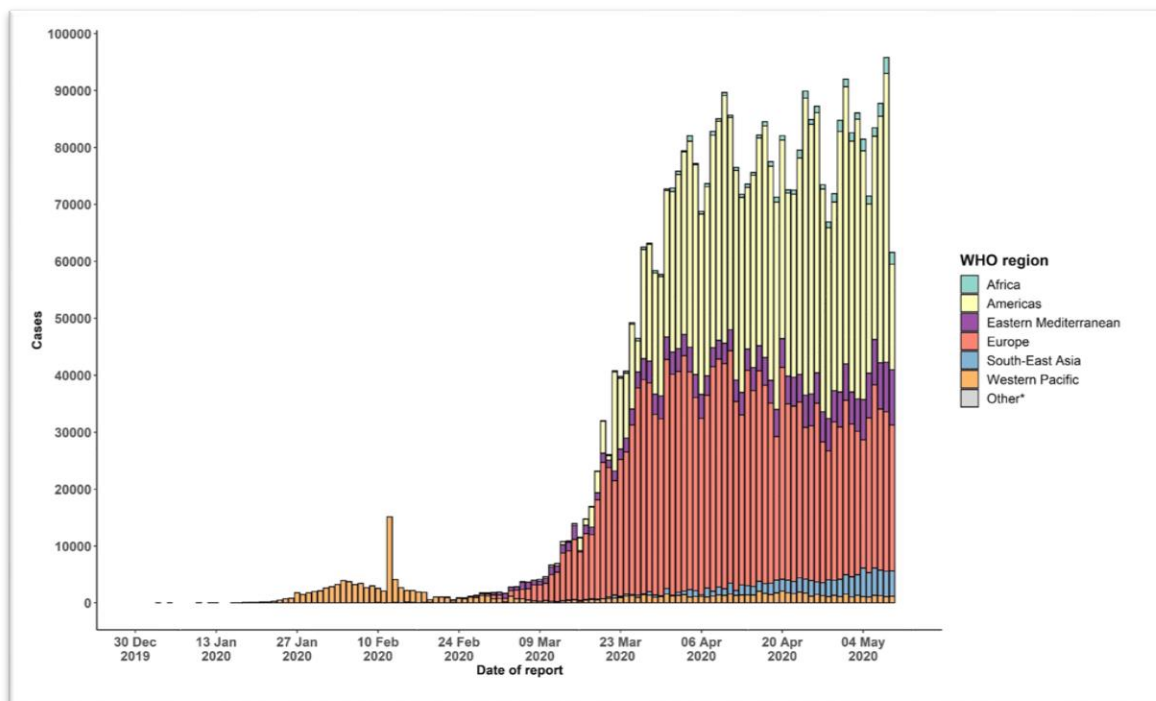
³⁶ Countries introduce export restrictions when they are faced with a sudden increase in demand for an essential good while supply remains inelastic, or when supply of an essential good suddenly decreases while demand remains inelastic. Introducing export restrictions allows the country to contain the internal price increase and ensures a critical stock of the good to provide for internal demand while waiting for supply to adjust. However, export restrictions will reduce supply availability to the rest of the world. If the country imposing the export restrictions is large enough, this will increase world prices for that good, causing negative impact on importing countries. Moreover, export restriction will not necessarily lead to the desired increase in supply in the country introducing the measure. These entails that the export restrictions will not necessarily prevent price increase and could further reduce supply in the country introducing the restrictions. For a good overview of economic effects of export restrictions see: K. C. Fung and J. Korinek, 'Economics of export restrictions as applied to industrial raw materials', OECD Trade Policy Papers No. 155, OECD Publishing.

³⁷ World Trade Organisation, 'Trade in medical goods in the context of tackling Covid-19', Information note, 3 April 2020.

³⁸ Chad Bown, 'COVID-19: China's exports of medical supplies provide a ray of hope', *Peterson Institute for International Economics*, 26 March 2020.

³⁹ OECD, 'Covid-19 and international trade: issues and actions', 2020.

Figure 1: Number of reported Covid-19 cases from December to May by WHO regions



Source: WHO, Coronavirus disease (COVID-19): Situation report 111, 10 May 2020.

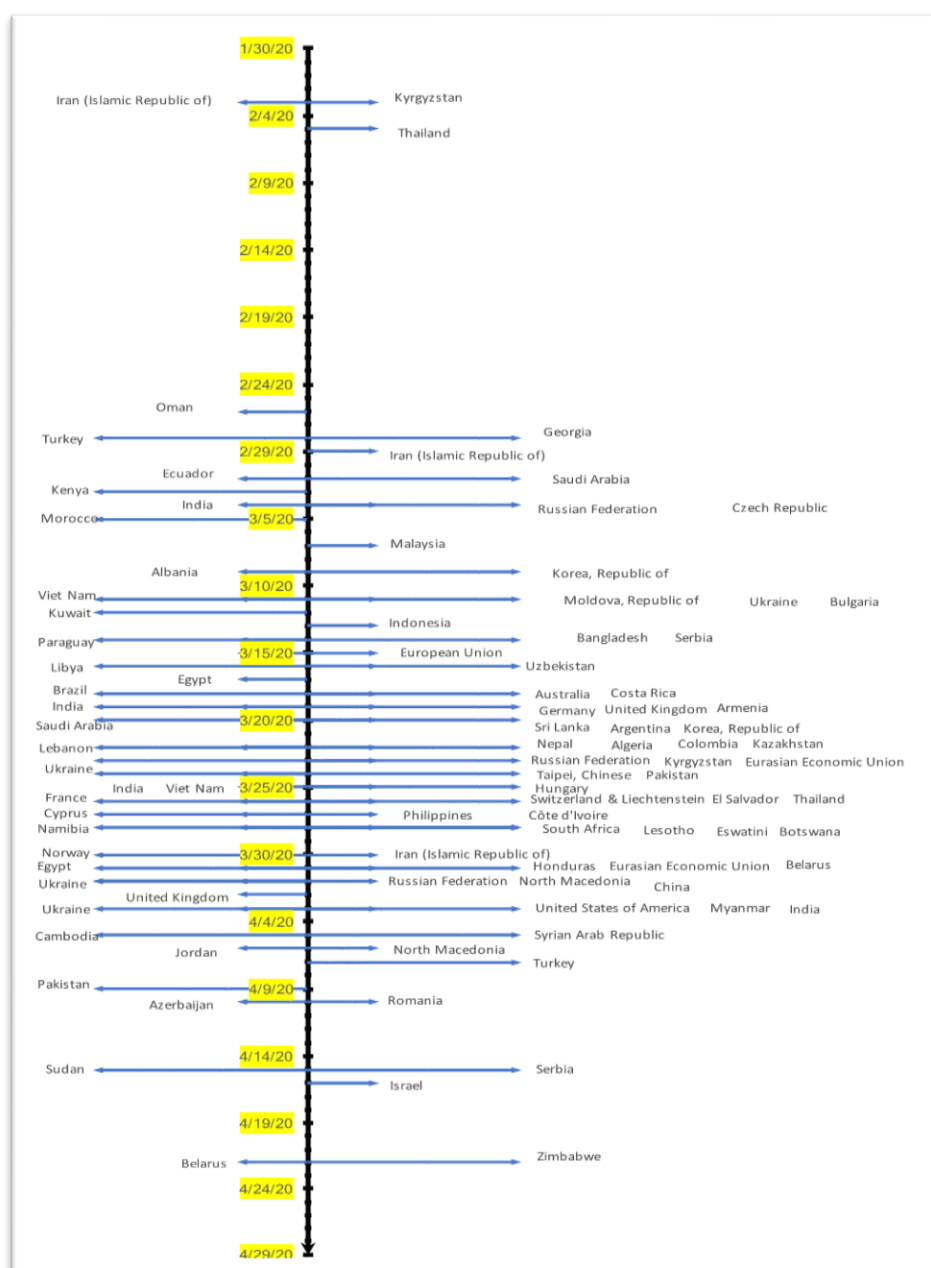
Global supply was strained by the demand increase in China. Fear of shortages and actual shortages spurred a series of export restrictions measures. Early export restrictions measures were introduced at the end of January and beginning February. However, export restrictions proliferated in March as the epidemic reached global levels and exponentially increased demand in certain PPE and medical goods (see timeline in Figure 2). This domino effect of export restrictions put pressure on international trade and prices. Espitia et al. estimate that the wave of export curbs, during the Covid-19 crisis, increased the cost of medical supplies by 23%, the of protective goggles and masks by 40%, of flow splitters for oxygen supplies by 34%, of enzymes by 20% and of medical ventilators by 13%.⁴⁰

Export restrictions were eventually introduced also by the major producers and exporters of PPE and medical products (the EU, US and China). The eruption of the epidemic in Italy created further fears of shortages in some EU countries producing PPE, triggering national export restrictions measures, in particular in Germany and Czech Republic; while France withhold masks for its health care workers.⁴¹ Under pressure, by its own Member States, seeing the spreading of the viral disease in Europe, and desiring to salvage the EU internal market, the EU, who is a large importer of PPE from China, introduced formally export licensing measures for PPE to control exports. The US, which was affected later by the virus, ultimately introduced formally export restrictions in April. With the glooming prospect of a second wave, China also introduced in April export licensing requirements for test kits and medical supplies.

⁴⁰ A. Espitia, N. Rocha and M. Ruta, 'Trade in critical Covid-19 products, Trade and Covid-19 Guidance note', World Bank, March 2020; A. Espitia, N. Rocha and M. Ruta, 'Database on Covid-19 trade flows and policies', World Bank; cited also by S. J. Evenett, 'Flawed Prescription: Export curbs on medical goods won't tackle shortages', in R. Baldwin and S. J. Evenett (eds.), *Covid-19 and Trade Policy: Why turning inward won't work*, (A CEPR and VoxEU.org eBook, 2020).

⁴¹ Chad Bown, 'EU limits on medical gear exports put poor countries and Europe at risk', *Peterson Institute for International Economics*, 19 March 2020.

Figure 2: Timeline of the introduction of export restrictions in the world due to Covid-19



Source: Authors' elaboration from ITC market access map, <https://www.macmap.org/en/covid19> (updated 23. April 2020)

Prior to the Covid-19 crisis, China, the EU and the US were the top 3 exporters of PPE.⁴² Germany, the US and Switzerland account for more than 35% of medical products exports, while the 10 exporters (which include besides the US, Switzerland and the UK, only EU Member States) account for almost three-quarters of world exports.⁴³ As shown by the data compiled by Chad Bown, the export restrictions, introduced by the EU, US and China, left many countries who were import dependent on the EU, US and China, vulnerable to supply shortages.⁴⁴

⁴² World Trade Organisation, Trade in medical goods in the context of tackling Covid-19, Information note, 3 April 2020.

⁴³ Idem.

⁴⁴ See fn. 19 above.

Considering the proliferation of export restrictions several of these import-dependent countries could face trouble finding alternative supplies in the international market. Some of these countries have been exempted from export restrictions by their main supplier (for example this is the case of the Balkan countries or EFTA countries, which were exempted from the EU export licensing scheme, or Mexico and Canada that were exempted from the US measure), however many import dependent countries did not benefit from exemptions.

Export restriction legislations often include exemptions for humanitarian reasons, but an importing country must first be declared to be in a humanitarian crisis before being eligible. Obviously, countries can always activate diplomatic channels to negotiate shipments of essential products before reaching a humanitarian crisis, but this approach is likely to be too slow to avoid a worsening of the public health situation in importing countries.⁴⁵

Moreover, export bans and licensing schemes on medical products can also have an impact on fighting another epidemic. For example, the WHO has warned of disruptions in the supply chains of essential malaria commodities – such as long-lasting insecticidal nets, rapid diagnostic tests and antimalarial medicines – resulting from lockdowns and from a suspension of the importation and exportation of goods in response to Covid-19.⁴⁶

Furthermore, export restrictions introduced in the context of Covid-19 have also negatively impacted exporting countries. Exporting countries also depend on imports for certain medical supplies and PPE. While the US and Germany were among the three top exporters of PPE, they were also the top importers of PPE, accounting for 22% of world imports; similarly, the US, Germany and China were equally the top importers of medical products, accounting for a third of world imports in 2019.⁴⁷

In many countries, export restrictions were used as a stop-gap measure waiting for domestic production to increase. Still, as reported by A. Stelling et al. (2020), in the context of the pharma and medical industry reshoring of production leads to increased costs and ultimately can divert investments from much needed R&D.⁴⁸ Moreover, it can be difficult in the long run to increase domestic production in particular, if the country relies on raw materials or inputs from third countries. If those inputs are also subject to export curbs, increase in domestic production will be impaired. In the context of Covid-19, countries exporting raw materials also imposed export restrictions to avoid local shortages of essential goods. A good example of this problem is the pharmaceutical industry; for example drugs production in the EU relies heavily on imports for Active Pharmaceutical Ingredients (APIs) from India and China.⁴⁹ While France and Hungary have introduced an export ban on hydroxychloroquine (one of the drugs tested to counter the excessive immune response triggered by the Covid-19 virus), India (which is the main supplier of the active ingredient for EU production of hydroxychloroquine) also introduced an export licensing scheme for pharmaceutical products, including a ban on export for hydroxychloroquine and its pharmaceutical ingredients.⁵⁰

⁴⁵ The EU is fully aware of the impact of its export restrictions and created a ‘Team Europe’ package with an overall financial support of 20 billion euros to support partner countries fight the pandemic and its consequences. 502 million euros from this package are allocated to emergency response actions which inter alia must support increased production in Europe of PPE to meet European and partner countries needs and support global efforts to combat export restrictions and ensure supply chains remain intact, notably for essential medical supplies and pharmaceuticals.

⁴⁶ <https://www.who.int/news-room/q-a-detail/malaria-and-the-covid-19-pandemic> (last opened on 27 April 2020)

⁴⁷ World Trade Organisation, ‘Trade in medical goods in the context of tackling Covid-19’, Information note, 3 April 2020.

⁴⁸ A. Stelling, I. Berglund and H. Isakson, ‘How trade can fight the pandemic and contribute to global health’, in R. Baldwin and S. J. Evenett (eds.), *Covid-19 and Trade Policy: Why turning inward won’t work*, (A CEPR and VoxEU.org eBook, 2020).

⁴⁹ Florence Schultz, ‘Europe’s dependence on medicine imports’, *Euractive*, 16 March 2020.

⁵⁰ For hydroxychloroquine export ban by India, see: https://macmap.org/OfflineDocument/Covid19/COVID_IND_1.pdf; for other medicines, see: https://macmap.org/OfflineDocument/Covid19/COVID_IND_2.pdf (websites last opened, 12 May 2020).

Notwithstanding the introduction of export restrictions, countries were ultimately faced with continued price increases and shortages as demand continued to outstrip supply. Countries have then also introduced measures to contain demand increases in an effort to increase sustainability of the situation. Such measures included, for example, subjecting masks and other products to medical prescriptions or for example requisition of certain products by the government to redistribute it to selected actors (medical and nursing staff, pharmacists...). In general, though, these measures lead to sub-optimal strategies in terms of disease prevention, detection, and treatment. For example, creating a prioritizing protocol for tests because of shortage in clinical tests, does not allow to follow WHO requests for wider detection of the Covid-19 disease, but it was required in many countries because of lack of supply. Similarly, the rationing for the distribution and use of masks can impair the ability of countries to contain disease contamination, while shortage of drugs might lead to difficult treatment choices (for example lack of anaesthesia drugs can lead to harder prioritization choices for access to ICU units, implying that some individuals could not be intubated and would ultimately die from the disease, even though they could have had a chance to survive under normal times with regular supply of the drugs needed for intubation).⁵¹

3. Recent proposals to limit export restrictions during health crises

3.1 Proposals tabled during the Covid-19 pandemic

The proliferation of export restrictions during the Covid-19 crisis created an outcry in some quarters to remove such restrictions and abstain from introducing new ones. Both the WTO and the IMF have highlighted the negative effects of export curbs.⁵² Several trade scholars have issued proposals to remove tariffs on imports and limit restrictions on exports of medical supplies. We focus here on proposals pertaining to export restrictions.

The Global Trade Alert report by Simon Evenett and his team proposed that countries:⁵³

- Publicly commit not to implement export bans or limits on relevant medical supplies.
- Reverse existing export bans on medical supplies needed to tackle the Coronavirus.
- Strengthen incentives to ramp up domestic production by instituting generous price floors (minimum prices) for medical supplies sold to the state.

Evenett and Winters (2020) later issued a more detailed proposal,⁵⁴ focusing on a new WTO understanding open to all WTO members and covering medical goods and medicines as listed in a recent study of the WTO secretariat.⁵⁵ In addition to eliminating tariffs, signatories to this understanding would:

- Eliminate export limits on any covered medical goods and medicines.
- Suspend national requirements or accept foreign standards during the Covid-19 crisis.

⁵¹ Short supply in anaesthesia drugs can force ICU units under pressure for the health emergency to impose an age limit for access to ICU in order to privilege patients with higher probability of being saved.

⁵² <https://www.imf.org/en/News/Articles/2020/04/24/pr20187-wto-and-imf-joint-statement-on-trade-and-the-covid-19-response> (last visited 12/05/2020).

⁵³ Global Trade Alert team, 'Tackling Covid-19 Together – the Trade Policy Dimension', *Global Trade Alert*, 23. March 2020.

⁵⁴ S. J. Evenett and L. A. Winters, 'Preparing for a second wave of Covid-19: a trade bargain to secure supplies of medical goods', *Global Trade Alert*, 26 April 2020.

⁵⁵ The WTO study cited is the following: WTO, Trade in medical goods in the context of tackling COVID-19: Information note, 3 April 2020.

- Be allowed to introduce temporary export restrictions that are necessary and proportionate, but subject to notification and justification given in written to the other signatories, and to not reducing the flow of exports by more than 50%.

In a subsequent article,⁵⁶ Evenett (2020) recognised that trade measures alone could not be sufficient to solve the current issues of global supply chains in medical goods, and called countries to introduce measures to incentivise production increases, such as:

- Finance expansion of production capacity of key medical supplies.
- Pool buying power across governments and prevent bidding wars among buyers.
- Create incentives to produce key medical equipment, and procedures for expedited approval for possible variants of existing equipment and other innovations.

Similarly, Chad Bown called for G20 countries to reach an agreement relying mainly on the following four aspects:⁵⁷

- Production liberalization by ‘adapting’ safety requirements.
- Promotion of production via subsidies.
- Removal of export restrictions.
- Transparency and new monitoring measures.

Finally, former WTO Appellate Body member, Jennifer Hillman, presented the following five recommendations besides the elimination of import duties:⁵⁸

- Collective agreement not to impose export bans.
- Temporary authorisation of export subsidies (reinstating article 8 of the SCM agreement).
- (For the US). Waive buy American provisions limiting government procurement.
- Speed up visa applications and entry-permits for medical personnel.
- Agree on compulsory licensing of intellectual property rights on needed pharmaceuticals and medical devices.

International organisations also put forward proposals for greater international cooperation, although they mainly focused on increasing transparency. For example, in response to the G20 Leaders’ statement, WTO Director General Roberto Azevêdo suggested on 20 March that G20 members could:⁵⁹

- Ask WTO, WHO, WCO, and other international organisations to establish coordinated norms and best practices to facilitate trade in health products and services to fight the Covid-19 pandemic.
- Pledge to cooperate to ensure sufficient supply and smooth cross-border circulation of goods and services, in particular, those essential for the crisis and its aftermath.
- Agree that any recourse to export restrictions should be targeted proportionate, temporary, and transparent and commit to sharing information about such measures with the WTO.

⁵⁶ S. J. Evenett, ‘Flawed Prescription: Export curbs on medical goods won’t tackle shortages’, in R. Baldwin and S. J. Evenett (eds.), *Covid-19 and Trade Policy: Why turning inward won’t work*, (CEPR and VoxEU.org eBook, 2020).

⁵⁷ C. Bown, ‘How the G20 can strengthen access to vital medical supplies in the fight against COVID-19’, *Peterson Institute for International Economics*, 15 April 2020.

⁵⁸ J. Hillman, ‘Six Proactive Steps in a Smart Trade Approach to Fighting COVID-19 - Tariffs, subsidies, waivers, licensure, and what a trade agenda to support the fight against coronavirus might look like’, *Council of Foreign Relations*, 20. March 2020.

⁵⁹ https://www.wto.org/english/news_e/news20_e/ddgaw_01apr20_e.htm (last opened 28. April 2020)

The WTO and the WHO also issued a joint statement calling for their members to increase exchange of information, increase transparency and facilitate research and development of Covid-19 health technologies and their rapid dissemination across borders. Specific suggestions included:

- Targeted investment.
- Open access to clinical test results.
- Sharing of relevant intellectual property rights
- Increasing manufacturing capacity.
- Open and transparent procurement regimes.
- Elimination of import duties on relevant health technologies.
- Trade facilitation measures to reduce costs and delays.

The WTO and WHO further engaged to work together to support efforts to ensure the normal cross-border flow of vital medical supplies and other goods and services, promoting them where possible, and to resolve unnecessary disruptions to global supply chains, in furtherance of the International Health Regulations (2005) and WTO rules.⁶⁰ In line with this idea to increase transparency, Hoekman et al. (2020) proposed to share information on supply and demand trends in order to address supply chain bottlenecks. The idea would be to create for medical products and protective equipment goods a platform similar to the Agricultural Market Information System that was created by the G20 during the global food price shock of 2007-2008.⁶¹

In line with these suggestions, New Zealand and Singapore launched an initiative to keep trade flows open in Covid-19 essential goods. The two countries communicated their Declaration on Trade in Essential Goods for Combating the Covid-19 Pandemic to WTO Members on 16 April 2020,⁶² inviting other Members to sign the Declaration.

3.2 Why trade measures are not sufficient to deal with health crises

Not surprisingly, the gist of the proposals discussed above focus on keeping trade open by abstaining from using export restrictions or even by lowering tariff and non-tariff barriers. Though useful these proposals do not address the fundamental problem that lead to the critical shortages during the Covid-19 crisis, namely the difficulty of the PPE and medical industry to adequately adjust production capacity to the sudden rise of demand.

As already discussed in Section 2, the early trade liberalization measures did not prevent the eventual introduction of export restrictions since critical shortages were not resorbed by imports. Shortages were due to a lack of preparedness and late industrial response to the increase of demand and to the difficulty to subsequently re-adjust production capacity both locally and abroad. Incorrect expectations of the production levels needed to face the epidemic crisis lead to hoarding and increase of prices, accelerating shortages of the essential products and forcing countries into the vicious circle of introducing export restrictions. Indeed, as mentioned in a recent OECD brief, at the onset of the crisis, China was the main manufacturer of surgical masks, accounting for about one-half of the world capacity. To meet its own demand upsurge, China apparently stopped exporting masks and instead imported 56 million masks in the first week of January, including those donated by other countries. According to the OECD, during the crisis, Chinese demand was estimated at 240 million masks per day (more than ten times its own

⁶⁰ <https://www.who.int/news-room/detail/20-04-2020-joint-statement-by-wto-director-general-roberto-azev%C3%AAdo-and-who-director-general-tedros-adhanom-ghebreyesus>

⁶¹ B. Hoekman, M. Fiorini, A. Yildirim, 'Covid-19: Export controls and international cooperation', in R. Baldwin and S. J. Evenett (eds.), *Covid-19 and Trade Policy: Why turning inward won't work*, (CEPR and VoxEU.org eBook, 2020).

⁶² WTO Document G/C/W/777.

manufacturing capacity). China started exporting again to other countries after increasing its production capacity.⁶³

As already suggested by Evenett (2020), trade measures (liberalisation of imports and a pledge to abstain from export restrictions) cannot be effective without measures to increase global supply.⁶⁴ In order to keep trade open, countries must ensure supply can keep the pace of the demand increase. Unfortunately, the current international framework under the WHO does not provide effective means to ensure preparedness and sustained supply of essential products, which leads countries to enact export restrictions.

Current WHO international crisis response mechanism relies on the International Health Regulation (hereafter IHR), adopted in 2005 by the Fifty-eight World Health Assembly, and entered into force in 2007.⁶⁵ The scope of the IHR (2005) is ‘to prevent, protect against, control and provide public health response to the international spread of disease in ways that are commensurate with and restricted to public health risks, and which avoid unnecessary interference with international traffic and trade’. As opposed to its predecessors, the IHR (2005) regulation provides a framework covering any illness or medical conditions that presents or could present significant harm to humans. The IHR (2005) institutes rules for:

- ensuring preparedness via obligations for participating States to develop surveillance capacity and a minimum core public health capability,⁶⁶
- an early warning mechanism via an obligation to notify epidemics that may become public health emergencies of international concerns,⁶⁷
- the identification of epidemic that can give rise to international concerns,⁶⁸
- the issuing of WHO recommendations in the framework of public health emergencies, with respect to public health measures that can be introduced regarding persons, baggage, cargos, containers, conveyances, goods and/or postal parcels to prevent or reduce the international spread of the disease and avoid unnecessary interference with international traffic,⁶⁹
- rules to contain the spread of the contamination while allowing continued flows of goods and protection of travellers (rules on quarantines and border controls so that are not more restrictive than necessary to contain spread of the disease).⁷⁰

The above rules focus essentially on preventing the spread of the disease while limiting negative impacts on trade but do not cover issues of global shortage of critical supply.

Moreover, while Evenett (2020) proposes measures to increase production in the midst of the crisis,⁷¹ other measures to increase preparedness for future and unforeseen pandemics are also needed. As

⁶³ OECD, ‘Covid-19 and international trade: issues and actions’, 2020.

⁶⁴ S. J. Evenett, ‘Flawed Prescription: Export curbs on medical goods won’t tackle shortages’, in R. Baldwin and S. J. Evenett (eds.), *Covid-19 and Trade Policy: Why turning inward won’t work*, (CEPR and VoxEU.org eBook, 2020).

⁶⁵ The WHO that has authority, under Art. 21 and 22 of the WHO constitution, to adopt regulation concerning sanitary and quarantine requirements as well as other procedures to prevent the international spread of diseases.

⁶⁶ See articles 5 and 13 as well as annex 1 of the IHR (2005).

⁶⁷ See articles 6 and 7 of the IHR (2005). Consultation with the WHO can also take place with respect to epidemic that might not have the characteristics of public health emergencies of international concern as provided for by article 8 of the IHR (2005).

⁶⁸ See article 12 of the IHR (2005).

⁶⁹ See part III of the IHR (2005).

⁷⁰ See part V of the IHR (2005).

⁷¹ S. J. Evenett, ‘Flawed Prescription: Export curbs on medical goods won’t tackle shortages’, in R. Baldwin and S. J. Evenett (eds.), *Covid-19 and Trade Policy: Why turning inward won’t work*, (CEPR and VoxEU.org eBook, 2020).

already indicated, production can only adjust with a time-lag, so that even incentives to increase production will not be efficient to solve the supply-demand gap, if countries cannot access a sufficient supply of essential goods to at least face the initial phase of the crisis, while waiting for production to increase.

In order to promoting preparedness, Annex 1 of the IHR (2005) on the core public health capabilities requires States to utilize national structures and resources to meet their core capacity requirements with regard to surveillance, reporting, notification, verification, response and collaboration as well as monitoring activities at airports, ports and ground crossings in times of health crises. The public health response capacities include, inter alia: providing support for the fight of the epidemic through specialized staff, laboratory analysis of samples and logistical assistance (e.g. equipment, supplies and transport), and establishing a national public health emergency response plan to respond to public health emergency of international concern. The latter two could suggest that the IHR (2005) creates at least an incentive for States to have sufficient supplies to face a potential health crisis or at least to have a national plan also covering preparedness in terms of medical supplies. Still, there is no precise framework in the IHR (2005) foreseeing and tackling potential disruption in international supply of essential medical goods. Moreover, in the framework of the Covid-19, the WHO has declared this new coronavirus as a ‘public health emergency of international concern’ in January 2020,⁷² thus triggering the application of the IHR (2005). However, notwithstanding the calls of the WHO to build up preparedness, States actions took often place much later, after the WHO called the Covid-19 crisis a pandemic in March 2020.⁷³

4. Towards a WHO-WTO cooperative framework for the management of global health crises

The international community needs a new governance framework to deal with supplies of essential products in times of pandemic. This new framework should mandate crisis preparedness, thereby reducing the incentive to impose export restrictions during health crises.

We propose the creation of a new governance framework broadly inspired by the Agreement on an International Energy Program, the 1974 treaty which established the International Energy Agency (IEA) as an international forum for energy co-operation on a variety of issues such as security of supply, long-term policy, information transparency, energy efficiency, sustainability, research and development, technology collaboration, and international energy relations. The Agreement, whose signatories comprise most of the members of the Organisation for Economic Cooperation and Development (OECD), provides a collective mechanism to face oil supply emergencies, which entails the maintenance of oil stocks and the adjustment of production capacities. The IEA’s collective emergency response system mechanism was activated three times since the Agency’s creation: in January 1991, during the First Gulf War; in 2005, after the hurricanes Katrina and Rita damaged oil infrastructure in the Gulf of Mexico; and in 2011, during the Libyan crisis.

Our proposed governance framework would consist of a WHO agreement (which could be created as an amendment to the IHR of 2005) and a related and connected WTO agreement. This framework would have two main functions: a preparedness mechanism involving stocks of essential medical supplies to face global pandemics; and a crisis response mechanism capable of adjusting production in time to avoid shortages and export restrictions. Like for the IHR 2005, the objective is to have a framework that can be used for any future global public health crisis and not a framework solely aimed at a possible Covid-19 second wave.

⁷² <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/interactive-timeline#!> (last opened on 10 August 2020).

⁷³ See WHO ‘WHO characterizes COVID-19 as a pandemic’, Press Release and Twitter of 11 March 2020: <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/events-as-they-happen> (last opened on 10 August 2020).

By their very nature global pandemics, or epidemics that risk turning into pandemics, must be addressed by mechanisms that cover all countries, since a risk to one country is a risk for all. This is the reason why the WHO is a global institution. It follows, therefore, that the WTO leg of our proposal must also be multilateral (involving all WTO members) rather than involve a sub-set of WTO members as would be the case in a plurilateral agreement. Such agreement, even if it involved all producing countries and gave benefits on a Most Favoured Nation basis, would not be sufficient to ensure the global level of preparedness required under a pandemic. A multilateral framework with adequate technical assistance and support to help poorer countries participate is fundamental for the success of the new governance framework proposed in this article. We are encouraged in our pursuit of a multilateral approach to dealing with pandemics by the recent speech, at the World Trade Forum 2020,⁷⁴ by Sabine Weyand, the Director General of the European Commission's trade department stressing that reforms of rules on potential critical shortages of medical goods during pandemics must involve both the WTO and the WHO.

4.1 A WHO mechanism for the supply of essential medical products

The handling of the Covid-19 crisis by the WHO has not been devoid of controversy. We strongly support, therefore, the call by Bollyky and Fidler (2020) for an independent review of the WHO's coronavirus response aimed at strengthening its ability to deal with future crises.⁷⁵ In September 2020, the Review Committee of the International Health Regulation launched an evaluation of the functioning of the IHR 2005 in dealing with health emergencies, which will suggest recommendations for changes.⁷⁶ Such reviews should also examine proposals to extend the role of the WHO along the lines that we propose here.

The WHO mechanism that we propose would address both crisis preparedness and crisis response in the event of a global pandemic.

Preparedness

The preparedness function is already incorporated within the IHR (2005). Indeed, in the IHR (2005), the WHO requires its members to ensure that they have a minimum health capacity to deal with epidemic crisis. Our proposal would complement this obligation with provisions pertaining to the supply of essential goods.

The new provisions could follow the example of the Agreement on an International Energy Program. This agreement requires its Members to build up emergency reserves sufficient to sustain consumption for at least 90 days, with the reserve amount defined as equivalent to 90 days of net oil imports. The emergency oil reserve commitment can be satisfied via oil stocks, fuel switching capacity (i.e. the capacity of using alternative energy sources), or stand-by oil production (which is defined as potential excess oil production that can be brought into use during an emergency and which is under governmental control).

Similar concepts could be used in the context of preparing for health crises and avoiding or at least minimizing medical product shortages. However, while oil emergency reserves are defined in terms of average daily imports, emergency reserves of essential medical products would have to be computed differently. In the case of an oil supply crisis, emergency plans involve a situation of reduced supply

⁷⁴ For the World Trade Forum programme and links see: <https://www.wti.org/outreach/events/792/world-trade-forum-2020/> (last opened on 5 October 2020).

⁷⁵ J. Bollyky and D.P. Fidler, 'It's Time for an Independent Coronavirus Review', *Foreign Affairs*, 24 April 2020.

⁷⁶ WHO Director-General's opening remarks at the media briefing on COVID-19 - 7 September 2020, <https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---7-september-2020>.

with either constant or rationed demand. By contrast, in an international health crisis, such as Covid-19, even with demand containment measures in place, countries have to face situations of increased demand. Therefore, a different approach must be used to define the level of emergency stocks of medical products needed per country. Maybe lessons from previous as well as the current epidemic can be derived to define the level of emergency stock needed for each essential product. The current epidemic can also give information on the time needed to speed up production to increase the supply of a certain product.

The maintenance of emergency stocks could be provided for some medical equipment with wide applications (such as gloves, protective robes and masks, syringes, tubes) and for some wide spectrum medicines (such as wide-spectrum antibiotics and antivirals). To avoid that stocked products reach their expiration dates, national bodies should manage the stock and replenish it on a rolling basis. The WHO could advise on how to build up and manage these emergency stocks, and mostly ensure a coordination function to ensure that there is a sufficient global (or regional) level of stock of essential medical goods.

Beyond the building up and the monitoring of emergency stocks of essential medical supplies, a framework to build up preparedness must include, as suggested by Hoekman et al. (2020),⁷⁷ information on (actual and potential) production and trade of essential medical supplies and their inputs. Relevant information on tariff and non-tariff barriers as well as on IP rights would also be needed. Such information should be collected by the WHO working in close cooperation with the WTO and WIPO.

Ideally, companies producing essential medical products and medicines would need to draw plans on how they can expand production of some essential medicines and medical supplies in case of national or global emergencies. Manufacturing expansion emergency plans would have to contain amount of possible production increases and the time required for such increase. The WHO and its Members would have to evaluate the appropriateness of these manufacturing expansion emergency plans. While emergency reserve stocks would be defined at national level, the overall outcome of manufacturing expansion emergency plans must be to provide for global demand in times of health crisis, in other words the capacity of production expansion must be capable to reach also import-dependant countries and not only cover increased local demand in countries with domestic production.

Crisis Response Mechanism

The crisis response mechanism could also build on the existing framework provided by the IHR 2005. The notification and information requirement existing under the IHR 2005 already includes information related to epidemics, including basic reproductive ratio, equipment and products essential to fight epidemics, etc.

The framework should also contain a provision concerning early assessment of needs for medical and other essential products, forecasted needs and potential shortage of such products during the epidemic.

This assessment should serve to activate first a coordination plan on the use of the emergency reserves, and second a coordination plan between countries producing those products to speed up incremental production capacity as envisaged in the manufacturing expansion emergency plans.

This kind of coordination should not wait for the acknowledgement of a ‘public health emergency of international concern’ by the WHO. Indeed, supply shortages and disruption in the supply of masks were already present before Covid-19 was declared a ‘public health emergency of international concern’. So, cooperation to respond to possible supply shortages of medical supplies could be initiated before the epidemic is ‘of international concern’, if it affects one of the top exporters of essential medical products and risks disrupting the global (or regional) supply of these products.

⁷⁷ B. Hoekman, M. Fiorini, A. Yildirim, ‘Covid-19: Export controls and international cooperation’, in R. Baldwin and S. J. Evenett (eds.), *Covid-19 and Trade Policy: Why turning inward won’t work*, (CEPR and VoxEU.org eBook, 2020).

Furthermore, the international framework must have global cooperation measures to fight, investigate and sanction hoarding of essential products.

Another WHO mechanism that could be involved in both the preparedness and the crisis response mechanisms is the WHO Global Outbreak Alert and Response Network (GOARN). The GOARN is a global technical partnership, comprising 250 institutions and established by the WHO since 2000. At the request of a Ministry of Health, the Network delivers support to augment the overall WHO response to the public health emergency. This support can include: the deployment of technical experts to the affected countries, under the leadership of WHO; the provision of technical advice through expert committees established during the emergency; provision of resources for the response efforts, such as laboratory and operational logistics, tools and equipment to reinforce field teams, etc.

4.2 A WTO agreement on the supply of essential medical products during global health crises

While a framework dealing with supply preparedness is the *sine qua non* condition for solving supply disruptions in essential goods during a pandemic, it may be difficult to successfully implement such framework if countries are allowed to continue to introduce export restrictions and thereby engage in uncooperative behaviour. A global framework on supply preparedness can only be effective if access to supply remains open. For that reason, a WHO-only framework would be insufficient to provide a comprehensive answer to the problem at hand. The WHO framework on supply preparedness and expansion must, therefore, be complemented by a WTO agreement along the lines suggested by Evenett and Winters (2020).⁷⁸ The proposed WTO agreement would have two main aims: to ensure WTO members continued cooperation within the WHO framework in finding solutions to supply needs; and to maintain global supply chains open.

To that effect, the proposed WTO understanding would reinforce the WHO preparedness framework by:

- Promoting cooperation among WTO members in the implementation of the WHO framework for essential medical products, with the duty to provide information on production, supply-chains, and tariff and non-tariff measures applied on trade of essential medical products covered by the proposed WHO preparedness framework.
- Promoting tariff reductions on essential medical products and their raw materials and inputs included in the WHO preparedness framework.
- Promoting negotiations of minimum international standards for essential medical products to be followed in the context of epidemic.
- Allowing compulsory licensing, in certain circumstances, and after negotiation with the right holder, for instituting emergency reserves in developing countries.

The WTO agreement should also include a number of provisions to reinforce the WHO crisis response mechanism by:

- Imposing a prohibition to refrain from introducing export restrictions, unless the cooperation under the global governance framework has failed to provide the sufficient global supply needed to face the emergency. If cooperation on production and supply of essential products fails at the WHO level, export restriction can be introduced following the WTO GATT rules. In this case, export restriction must be non-discriminatory. Still, the understanding must include the condition that export restrictions provide exceptions for exports to countries, which do not have production or have insufficient production capabilities of essential products. Basically, the agreement must define a right to access to supply of essential products and their raw materials and inputs. The

⁷⁸ S. J. Evenett and L. A. Winters, 'Preparing for a second wave of Covid-19: a trade bargain to secure supplies of medical goods', *Global Trade Alert*, 26 April 2020.

understanding could also include provisions setting more stringent requirements for export restrictions as those proposed by Evenett and Winters (2020).⁷⁹

- Reducing tariff and non-tariff barriers on the essential medical goods. These could include tariff reduction and exemption during the crisis, as well as VAT exemptions, and the application and acceptance of minimum international standards or, in absence of such standards, temporary minimum standards for the purpose of facing the emergency situation.
- Allowing temporary measures, on subsidies, IP rights, TRIMs, or public procurement, to increase production during a global pandemic. As suggested by Hillman (2020),⁸⁰ this could include allowing temporary subsidies to promote the production of essential products and their raw materials and inputs, or allowing compulsory licensing⁸¹ on essential pharmaceuticals and medical devices, in particular where expansion production plans and emergency reserves are insufficient to cover foreseen needs of the relevant products.
- Facilitating trade in services deemed essential for disease prevention and detection (for example testing facilities). As suggested by Hillman (2020), this could include measures to facilitate temporary movements of medical and nursing professionals.

5. Conclusion

Covid-19 is not (yet) the worst pandemic since World War Two in terms of lost lives but it is (already) by far the worst pandemic in terms of economic consequences. Never before did a virus affect so many countries in so little time and interrupt to such an extent economic activity, including in certain essential medical products. It also created an unprecedented surge in demand in some of these products. The result was a global shortage of record magnitude.

Given the circumstances, it is not surprising that many countries decided to implement export restrictions to try and address domestic shortages. The lack of surprise comes not only from the economic and political realities on the grounds in many countries, but also from the fact that WTO rules in fact permit the imposition of otherwise forbidden export restrictions in the event of critical shortages of essential products.

Although not astonishing, the recent export restrictions are nonetheless disturbing because they reflect a lack of international cooperation precisely at a time when the world needs such cooperation the most to handle this truly global predicament. They are also disturbing because trade should be part of the solution to the problem rather than part of the problem itself. Indeed, global pharmaceutical and medical market interdependence showed how trade is fundamental to provide the tools to fight pandemics.

At the same time, it must be recognized that trade can only be a part rather than the entire solution to the problem. During the Covid crisis, trade measures – whether import liberalisation or export restrictions – did not alleviate the situation of temporary global shortage in certain medical products, with direct consequences for disease prevention and treatment.

⁷⁹ Idem. See also section 3.1 of this article for more details.

⁸⁰ J. Hillman, 'Six Proactive Steps in a Smart Trade Approach to Fighting COVID-19 - Tariffs, subsidies, waivers, licensure, and what a trade agenda to support the fight against coronavirus might look like', *Council of Foreign Relations*, 20. March 2020.

⁸¹ Compulsory licensing enables a competent government authority to license the use of a patented invention to a third party or government agency without the consent of the patent-holder. Article 31 of the TRIPS sets forth a number of conditions for the granting of compulsory licences. The requirement to obtain the right holder's permission can be waived in situations of national emergency or other circumstances of extreme urgency, but the right holder must be notified.

An international agreement, for instance by G20 countries and possibly by all WTO members, to abstain from WTO-permitted export restrictions on essential medical products that were (and still may be) in critical shortage during the Covid-19 pandemic would no doubt have been helpful. It is disappointing, therefore, that the G20 virtual summit held during the Saudi presidency at the end of March 2020 was unable to reach such agreement.

At the same time, it must be recognized that an agreement to abstain from export restrictions, would probably not have been sufficient to fully address the global shortages linked to a the Covid-19 pandemic.

What the world community needs is an international framework to improve preparedness and crisis response to global pandemics like Covid-19. Without such framework, it will be difficult to prevent a new wave of non-cooperative trade measures, like export restrictions, in the event of another pandemic.

This paper has proposed the outlines of an international framework that would involve both the World Health and World Trade Organizations and would address both crisis preparedness and response in a cooperative manner. Our proposal is based on the strong belief that the response to a global pandemic like Covid-19 can only be successful, especially during the early stages of the crisis, when global shortages are likely to be the most acute, if the global community has adequately prepared its response before the crisis.

The proposed arrangement is inspired by the Agreement on an International Energy Program, which ensures a collective response to situations of energy supply shortages. Similarly, the proposed framework would involve both the constitution of emergency stocks of essential medical products and the definition of production expansion plans, aimed at meeting as rapidly as possible a sustained demand upsurge for such products during a pandemic. These measures would be coordinated by the WHO. A WTO agreement would complement the WHO framework. The WTO agreement would seek to temporary ban export restrictions on essential medical products and encourage countries to liberalise imports on such products so as to complement global production expansion efforts and maximize the global availability of essential medical products.

Without adequate rules on global preparedness, responses to future global health crises are likely to remain sub-optimal and involve again export restrictions and their associated negative consequences as was the case during the Covid-19 crisis.

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