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Instruments to Improve International Legal and Institutional Systems to Combat the COVID-19 Pandemic

Zhibo Yu[1*], Yuanxuan Wang[2*]

[1]*No. 2 High School of East China Normal University, Shanghai 201203, China*
[2]*Weiyu High school, Shanghai, 200031, China*
**Corresponding author. Email: 1544396556@qq.com, connie2973574359@gmail.com*

ABSTRACT
Covid-19 ravages the entire world. Countries have taken different measures to combat this unpredictable virus, leading to a more complex pattern of international relations. This paper addresses the chain reaction of global shortage on medicine goods and personal protective equipment, and explains the reasons behind the increased national protectionism. It also examines the legality of tariff or non-tariff measures under the international laws of WTO. Beyond that, this paper leads to the discussion of a new global initiative-COVAX, and evaluates its significance and challenges. The paper comes to the conclusion that speed, transparency, and interconnected coordination are crucial to end this pandemic, and offers suggestions for countries to collaborate and contribute to a more inclusive world.

Keywords*: Covid-19, global trade, economic barriers, COVAX, nationalism*

1. INTRODUCTION

COVID-19 has been creating unprecedented challenges on humankind with millions of lives passed away. In 2020, as the world is busy dealing the chaos, COVID-19 reveals defects of the global health system (WHO) and trade system (WTO), and makes detrimental effect on the global economy at the same time.

Countries fell into a dilemma: on one hand they need to secure ample medical equipment and products for the largest possible number of their own citizens, which contributes to their unilateral actions to impose trade barriers on others; on the other hand, since the pandemic is a global phenomenon, national governments must take the health of other countries' population into consideration in order to combat the disease and maintain the solidarity between countries.

At this stage of virus, we are witnessing two different approaches by counties to fight against the virus. One is to impose trade barriers, while the other calls for international cooperation and multilateral effort.

The first part of this paper centers on countries' unilateral approach and trade barriers. The logic behind global shortage and analysis on the intensified trade protectionism would be addressed, along with the forecasting on the future of the global trade framework and comparison with 2008 economic crisis.

The second part highlights the COVAX, a global initiative which represents the multilateral connections between states. It also explains the challenges of its system and provides potential solutions.

2. GLOBAL TRADE

2.1 Causes: Formation of shortage

Global trade has faced unprecedented challenges and unsolved questions during the pandemic. The lockdown of Wuhan and the closure of Chinese ports worked as leverage in terms of global supply shortage [1]. The uncertainties and risks of infection have caused the stagnation of transportation, factories' closure worldwide, as well as the labor immobility. Also, the ignorance of the warning from WTO (though it's arguable that it is already too late for WTO to announce a global crisis) contributes to the irreversible situation. Furthermore, the rising competition between nations and even between provincial governments foster the inconvenience and incapability of the supply chain. All the above elements lead to a shortage in medical and

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pharmacy products, personal protective equipment (PPE), and other necessities in ensuring health.

1.1 Demand and supply sides' challenges

Due to sanitary concerns, some ports, which acted as the vital transfer stations in the global trade, have been temporarily closed, and this contributes to the "Carrier crisis" [1]. The expensive prices and wasted time on retention have greatly added up to the cost of production, leaving pressure on exporters or importer's producers. On the other hand, the demand for medical necessities rises rapidly; for instance, the imports of sterilizers in China have tripled during 2020-the same on ventilators, PPE, and medicinal products for the ROW (Rest of the world) as well. What's more severe is the Bullwhip effect [2], which describes the gradually intensive negative impact on industries from primary to tertiary production. The impact of COVID had also prohibited the mobility of primary goods exported from several developing countries such as India and Africa, leading to a bigger disturbance on global supply. As a result, the overall prices for commodities are expected to rise by 23% on average [3].

2. TRADE BARRIERS (PROTECTIONISM)

2.1 Protectionism

During the first wave of the epidemic, hundreds of countries have introduced export restrictions through either tariff or non-tariff measures. However, not every country has promoted trade barriers, especially on sanitary and phytosanitary products. According to quantitative measures, the average tariff on medical products reaches 4.8%, while for the protective supplies, that is from 11.5% to 27%.

2.2 Incentives behind trade barriers

Countries impose barriers under various incentives. The most common one is to reduce government deficits by raising tariffs. Tourism has been hit the most heavily during the pandemic, and the rate of growth of foreign revenue for those countries that relies on tourist trade has turned towards a negative figure. Another affecting change is the returning trends of investment. Influential multinational companies are reshoring back to their mother countries and withdrawing the investment, which harms the host countries' economies by losing capital and reducing productivity. Third, government has run up an overdraft purchasing sanitary products and sending allowance to sustain unemployed citizens. Therefore, several nations are in urgent need of balancing their accounts.

2.3 Legality under WTO

Large-scale trade barriers are obviously challenging the fundamental purpose of WTO-to promote free trade worldwide and maximize efficiency. Some countries, however, found their way to justify themselves under international law. One of the mutual terms that was brought up is from the GATT (The General Agreement on Tariffs and Trade), quoting 'allow to prevent or relieve critical shortages of food stuff or other products essential.' Another term-the Safeguard argument-is used less frequently before, but is suitable under this special circumstance, It states 'if its domestic industry is injured or threatened with injury caused by a surge in serious imports' under GATT (Article 19), the country will not be penalized, and is able to justify its "arbitrary or unjustifiable discrimination". Therefore, as long as it is temporary, targeted, and transparent, most barriers can be validated under WTO's framework, despite their detrimental effects on the global economy.

2.4 Opposing Views

Not all nations are in favor of the extreme protectionism approaches. For instance, Canada and Australia have signed an anti-protectionist trade agreement, aiming to remove barriers for medical products. The three bilateral trade partners-Germany, China, and the US-have become so powerful that the ROW is compelled to accept the high purchasing prices to protect their citizens, which is a disadvantaged position for them.

Also, for those under-developed countries that highly rely on international trade tax revenues on raw materials (around 20% of their total outputs), the consequences of blocking them out of the exporting framework are disastrous.

3. IMPACTS ON GLOBAL ECONOMY

3.1 De-globalization

According to the statistics published by the WTO official, the amount of global trade of the second quarter of 2020 fell by 14.3% compared with the previous period. At this stage, the economic recovery process is still far from normal level before the epidemic, and it's likely to remain the separating tendency for the following reasons.

Due to the damage of this crisis, countries have realized the detrimental consequence of over-dependence of other countries; therefore, nations would emphasize more on accomplishing diversification, and gradually become independent in more areas. This can be discovered by the increasing number of transitions of investments (back to domestic territories), shifting sources, and more limited procurement locations; they are all forecasting a brand-new global setting where

countries are more self-sufficient.

Although all trade barriers that are justified with the name of coping with COVID-19 emergency should be removed once the impacts of the epidemic are less severe, the barriers are more likely to stay longer. More large-scale trade blocs will emerge, leading to discrimination towards non-member states.

4. COMPARISON WITH 2008 ECONOMIC CRISIS

COVID-19 has been compared with the economic crisis in 2008 from different dimensions due to their similarities in financial collapses and worldwide impacts. From 2007 to 2008, protectionism became the main stream. Statistically, the global trade index was expected to plunge 13%~32% under COVID-19, which reaches the lowest point ever since the economic crisis.

Besides the resemblance in figures, it is also useful and meaningful to look at the organization which was established after the global food price hiked during the 2008 economic crisis—the Agricultural Market Information System by the G-20. It aims to 'enhance food market transparency and policy response for food security' to prevent the global food crisis from happening again.

Considering the similarities between the two crises, the world leading economic entity could create such an organization to alleviate the current problems on medicine products, which shares the same features of expensive prices and extreme shortages. It doesn't mean it would take any power from WTO in terms of regulating international trade on medical goods; instead, it only functions as an information sharing platform about the process of pharmacy or the significant breakthrough in medicine. However, such sensitive information can normally be regarded as state secrets. Therefore, one reasonable and feasible way of accomplishing the mission and eliminating the concerns of nations at the same time would be a list of significant national diseases that have threated global citizens, and only the breakthroughs and formula of medicine on the goods listed would be required to open to the general public. In this case, countries are still allowed to innovate high-tech products without the obligation of exposing it to the ROW.

5. POSSIBLE SOLUTIONS PREPARING FOR THE 2ND WAVE AND RECOVERY

5.1 Speed and transparency

The biggest lesson that all countries have learnt from the epidemic should be the importance of speed. China's success of economy recovery in late 2020 was mainly the result of immediate discernment of further spreading and strict domestical control. Since virus spreads and mutates rapidly, it's difficult to prepare suitable medicines. Consequently, all nations should have emergency plans for the lock-down, and have emergency hospitals as well as provisional transportation prepared prior to the second wave of COVID. This could effectively reduce the number of casualties.

On the other hand, as promoted and mentioned all the time by WTO, transparency is another determining factor that should be improved. A great level of transparency between private sectors and governments reduces information asymmetries, enabling both the governments and international organizations to get prepared and respond to the changes.

5.2 Coordination

As stated above, countries with sufficient medicine resources are prohibiting it from flowing out of their national border, while some other nations are in severe shortage and increasing health threats of the population. This leads to an unstoppable increasing number of infections and furious mutations of the virus. Therefore, coordination between countries and regions has become ever more important. One way is to remove the additional trade barriers aimed toward COVID. This, however, requires a high standard of health regulation, which could be ensured by national governments and NGOs.

Such coordination has been conducted, for instance, by the European Commission, the clearing house for medical equipment, and the special case, COVAX, which is discussed in the second part of this paper.

6. INTRODUCTION TO COVAX

6.1 Institutional Setup

COVAX is co-led by Gavi, the Vaccine Alliance, the Coalition for Epidemic Preparedness Innovations (CEPI), and WHO. COVAX is neither an organization nor an agreement. It represents a joint forces and activities to provide vaccines to immunize the world population against COVID-19. COVAX stems from the Access to COVID-19 Tools (ACT) Accelerator and serves as the vaccine pillar.

There are several participants within the initiative, including international organizations (particularly WHO and UNICEF), non-state actors (CEPI and Gavi), representatives of the pharmaceutical sector, and states.

Among these participants, CEPI and Gavi are chairs of COVAX Coordination Meeting (CCM), its own main decision-making body [8]. Gavi is founded under Swiss law but received privileges and immunities similar to those granted to an intergovernmental organization through a "host agreement" with the Swiss government [9]. As the legal administrator of COVAX, it is the main

actor signing most of the agreements with both the suppliers and the purchasers.

Within the initiative, states are divided into two categories, the first of which are self-financing states who pay for the doses they receive thought the Initiative. They are part of the COVAX Shareholders Council [10]. For these high-income countries (HICs), COVAX provides an insurance plan for them. Since it is not known which vaccine candidates will succeed, these countries increase their chances of acquiring vaccines by participating in COVAX.

The second category is funded states, countries that receive doses paid by other institutions or states. They are part of the COVAX Advance Market Commitments Engagement Group [11]. To fall into this category, countries must have a per capita Gross National Income of under U.S. $4,000 per year [12], according to the criteria for official development assistance (ODA), as formulated by the World Bank's International Development Association (IDA).

6.2 Operation of COVAX

The operation of COVAX is a two-branch system. The first branch is COVAX Facility, which is the heart of the COVAX Initiative. It consists of a network of legal agreements under English law, and is the procurement platform of COVAX. The Facility pools participants' buying power by getting vaccine manufacturers to produce the vaccines at scale and make risky early investment. Since it makes upfront payments, the manufacturing will ramp up even before vaccines have been approved, which is highly efficient. More than 180 countries and economies has involved in COVAX Facility by the end of 2020. The partnership aims to secure and equitably allocate 2 billion doses of COVID-19 vaccines by the end of 2021 [13].

The second branch is COVAX Advance Market Commitment (AMC), which delivers vaccine doses to funded countries. The participants will receive doses up to 20% of their total population under official development assistance, which means that there is no cost for them to join the initiative, and they are not required to pay upfront for these doses. 92 countries have been eligible for COVAX AMC. The goal of this innovative financial mechanism is that the world's poorest countries will get access to COVID-19 vaccines.

6.3 Goals and Importance

COVAX Initiative guarantees fair and equitable access to every country in the world. It aims to have 2 billion doses to distribute by the end of 2021, which is enough to vaccinate 20% of world populations.

As of Jan 2021, 190 countries are engaged with COVAX. It is the biggest multilateral effort since the Paris climate agreement and the world's best hope of ending the pandemic, because it is the only way to protect people in all corners of the world from COVID-19, and ensure that we achieve one world, protected.

7. CHALLENGES OF COVAX

7.1 Vaccine Nationalism

7.1.1 APA

Every state might disregard the health other countries' population in order to secure enough vaccines for its own citizens as its priority. One way to achieve this is by Advance Purchase Agreements (APAs). APAs are contracts signed by two parties in which one of them-the pharmaceutical companies in our case-guaranteed to provide certain amounts of medical products at a specific point in the future. In exchange, the other party-the states-will pay upfront at a higher price for doses, or financially support the R&D (research and development) of the vaccine. In this way the supplier gives a time-based preference to those with whom it had entered into these contracts. Through this instrument the HICs would leave these low-to-middle-income countries (LMICs) very behind in the supply chain.

One example is the contracts between UK, COVAX and AstraZeneca, a British-Swedish multinational pharmaceutical company. Both UK and COVAX Facility reached agreements with the company, but the UK has already received its allocation while COVAX hasn't. As a result, rich countries unlikely to engage fully with COVAX if doing so will result in delays in receiving doses.

Another example is EU (European Union) which refused to join COVAX, criticizing that the initiative leads to higher prices and later supplies. Although it has been clearly suggested that COVAX Facility provides an "insurance policy" for these HICs, it is difficult to see what more the facility is capable of offering countries such as Canada and the United Kingdom that already have advance purchase agreements in place with all of the leading candidates. The EU officials believed COVAX Facility would not be feasible to meet EU's schedule to receive doses in early 2021.

7.1.2 Trade Restrictions

Besides APAs, many states have imposed restrictions on exports on medical supplies. The European Union, for example, have either conducted or hinting at deploying export restrictions to keep most of their medical products, especially the vaccines, within their territories [14]. Although such instrument is prohibited by paragraph 1 of GATT Art. XI (General Elimination of Quantitative Restrictions), GATT Art XI:2(a) points out that it can be accepted if such prohibitions are for the purpose of

"preventing or relieving critical shortages of foodstuffs or other products essential to the exporting contracting party". It now sounds hopeless since vaccines can inarguably fall into the category of "essential products". However, to apply this article to justify their restrictions, countries must prove why they are in a "shortage" comparing with many other countries that are also in urgent needs of vaccine. Thus, the HICs cannot justify themselves if they stockpiled vaccines against the pandemic.

COVAX can utilized such interpretation of international law to help contribute to the equal access for states to procure vaccines, but more information, particularly the exact quantities of doses that each country acquires, needs to be transparent for this instrument to really work.

7.2 Distribution

Since the outbreak of the virus, WHO and COVAX has been using Proportional allocation scheme (PAS) to distribute vaccine. The scheme has its foundation in WHO's fair allocation mechanism, which sets the principle of equal proportional share per country.

The PAS scheme includes two phases. The first phase is to immunize health fare and social workers, which are estimated to be 3% of the population. Then, high-rick adults, including the elderly and adults with comorbidities, will be immunized, which makes it 20%. In Phase 2 which centers on coverage beyond 20%, doses are allocated based on country (health) need, vulnerability and the relative threat of Covid within the area [15].

7.2.1 Problem with PAS

The biggest problem with PAS scheme is that it only treats global fairness in terms of fairness among countries, but not individuals. It would not be defensible if countries of similar size of population but different death rates receive similar amounts of doses.

By mid-January 2020, Peru, which has a population around 33 million, had 1 million cases and 38399 deaths, whereas Malaysia (population 32 million) had 147855 cases and 578 deaths. The PAS allocates Malaysia about the same number of doses as Peru even though Peru has 7 times more cases and more than 66 times more deaths. Another comparison is between South Africa (population 60 million, 1.3 million cases, 35852 deaths) and South Korea (population 51 million, 71241 cases, 1217 deaths). They also received similar amounts of doses [16].

Providing a country that has very low community transmission the same proportion of vaccine fails to fulfill the ethical principles of human well-being and global equity.

7.2.2 Potential Scheme

Based on Goal 3 of UN Sustainable Development Goals (SDGs) aiming for good health and well-being, our group suggests a Fair and Priority Model (FPM) which allocates vaccines to countries only based on the relative needs of the individuals in those countries, promoting more equitable allocation to populations that are in more dire straits

7.2.3 Priority of Distribution

Even with a distribution model based on the actual needs, another controversial problem is how to prioritize the distribution in the initial phase of vaccine development.

The mechanism used during the 2009 H1N1 pandemic is VDI (Vaccine Deployment Initiative), which sought to prioritize countries that were able to satisfy the application criteria quickly. However, only the advanced countries with sophisticated vaccine utilization infrastructure could quickly respond and meet the criteria [17]. Such mechanism risks penalizing the poorest countries and frustrates the principle of the *Global Allocation Framework* that countries should receive doses at the same rate.

Scholars in favor of this mechanism argued that countries that have fallen behind in terms of allocation will be caught up in subsequent delivery cycles. Nevertheless, these countries still receive later, and we cannot confirm that COVAX Facility have a sufficient number in the "subsequent delivery cycles".

A fair distribution must evaluate the effective minimization of health, economic, and other harms, not past performance

The only solution may be to invest in at-risk development in vaccine delivery infrastructure in LMICs, which contributes to the goal that all countries have equal access to the vaccine.

8. GENERAL SOLUTIONS

8.1 The No Harm Principle

This principle was first used in the landmark Trail Smelter dispute, which claimed that states should not allow activities within their territories which cause harm to another state. This principle later became the cornerstone of international environmental law. According to Article 12 of the ICESCR, states should not harm the health of individuals in other countries. Such principle can also be applied to argue against national stockpiling of vaccines beyond what is immediately necessary for their own population. Considering the extreme scarcity of the doses and the time pressure to have access to the vaccine, stockpiling would damage

other countries' chances of access, and further harm the health of their citizens. On the other hand, COVAX should also set a limit, a legal threshold of the number of vaccines that a country can purchase.

8.2 Transparency

To effectively fight against vaccine nationalism, COVAX requires much information that is hard to obtain. In order to prove that countries stockpiled doses, one obvious instrument is by checking the number of APAs the countries have signed so far. However, these contracts are generally not disclosed to public and currently there are no international legal tools to require transparency. In this case, COVAX can apply the international human rights law to criticize such deeds. For example, General Comment 14 indicates states' obligations to respect, protect and fulfill "the enjoyment of the right to health in other countries" [18]. What's more, there is a general rule of customary international law of good faith. Good faith requires that stages behave fairly and without subterfuge or fraud.

8.3 Other Suggestions

(1) The threshold for being categorized as funded states should be more flexible. Now countries of GNI per capita slightly higher than $4000 are considered as self-financing countries, which is apparently unfair. The current threshold hinders a lot of countries from joining the COVAX AMC, which is further not align to the ultimate goal of COVAX.

(2) To ensure the operation of COVAX, more HICs need to join the initiative. Their national governments should realize not only that COVAX provides them with a promising insurance plan, but also that they cannot stay immunized when their surrounding countries have a great number of cases. Joining the COVAX also strengthens the international solidarity and boosts cooperation.

(3) The patent system should be changed. Now we are working within the traditional patent system, in which the patent-holding companies can charge whatever the market will bear. This would only impede the global immunization. Several countries have called for the TRIPS waiver on certain medical products, especially vaccine. According to the Doha Declaration, "The TRIPS Agreement does not and should not prevent members from taking measures to protect public health… [but rather] to protect public health and, in particular, to promote access to medicines for all." I propose that an IP waiver should continue until widespread vaccination is in place globally.

9. CONCLUSION

It cannot be judged whether it is completely wrong to impose trade barriers, or whether multilateral approach is absolutely better than the unilateral one-both approaches are taken by national governments to increase the well beings of their own countries. However, considering the decrease in global trade, the higher tariff resulting from protectionism and the negative consequences of de-globalization, national governments should really take the long view to appraise the two approaches. The COVAX initiative offers a practical solution to provide principles as well as operational tools for the distribution of vaccines against COVID-19, utilizing both public international law and private law. It contributes to the equitable access to a life-saving medication for people in all nations. Yet, vaccine nationalism and the challenges in distribution process still pose great problems to the system itself. The solutions proposed in this paper provide a basic framework, while the real cooperation between nations is the key to fight against our common enemy. Countries need to realize that no one is safe until everyone is, and no country can remain a safe and isolated island in a sea of dire threats.

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