

# **COVID-19 impact on economic regulations and foreign trade between China, Europe and North America.**

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## **Abstract:**

We employ the standard trade analysis framework to simplify the COVID-19 impact on economic regulations and international trade between China, Europe and North America. We conclude that the pandemic is expected to create new patterns of world trade, particularly in the manufacturing industry, making room for Mexico and Eastern Europe economies to take advantage of a new trade order. Moreover, China and the United States should take into account a new globalization rhythm in the upcoming years, so their foreign investments plans should be adjusted accordingly. Given the scarcity of academic research on COVID-19 trade impact, this paper contributes to elucidate preliminary trends and provide basis for further investigations.

## **I. Overview**

The pandemic originated by the novel coronavirus SARS-CoV-2, that causes a disease named COVID-19, has caused an unprecedented downfall in the global economy and international trade. As a matter of fact, the 14.3% reduction of international merchandise trade in the second quarter of 2020 is the largest decline that the World Trade Organization (WTO) has ever recorded. We are witnessing the more abrupt collapse of both production and consumption in recent economic history. This shall carry costs and changes that are still unknown but should be understood and addressed on a timely basis to be able to take the better decisions possible.

When the COVID-19 pandemic started, China and the United States (the two largest economies in the world<sup>1</sup>) were already involved in trade tensions for a couple of years. These tensions and the subsequent health crisis have caused major disruptions in the establishment of international trade<sup>2</sup>. As we will argue, this situation brings an opportunity for Eastern Europe and Mexico to diversify their foreign trade. In a post-pandemic world, manufacturing investment opportunities for both, Chinese and American capitals, should consider Eastern Europe and Mexico as a profitable strategy.

Accounting only for trade tensions before COVID-19, Chinese exports to the United States declined \$87 billion US dollars, roughly a 15% decrease. On the flip side, China imports from the United States

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<sup>1</sup> Rankings are based on World Bank's data for nominal Gross Domestic Product for year 2019. Source: <https://databank.worldbank.org/data/download/GDP.pdf>

<sup>2</sup> CCSA (2020). *How COVID-19 is changing the world: a statistical perspective Volume II*. Committee for the Coordination of Statistical Activities. UNCTAD. Available in: [https://www.wto.org/english/tratop\\_e/covid19\\_e/ccsa\\_publication\\_vol2\\_e.pdf](https://www.wto.org/english/tratop_e/covid19_e/ccsa_publication_vol2_e.pdf)

fell by \$13 billion US dollars, a 10% decrease<sup>3</sup>. COVID-19 trade restrictions and consequent new commercial patterns should have a greater impact on those numbers. As of mid-2020, eighty-five countries had imposed some sort of export restrictions and prohibitions, affecting 21.5% of world trade<sup>4</sup>. A rearrangement of commercial partnerships and a new international trade order seems imminent.

Academic research on this area is still embryonic. Scholars all over the world have portrayed early signals and estimates on most likely economic implications of COVID-19 outbreak. They have addressed isolated dimensions like macroeconomic repercussions on production and policy response<sup>5</sup>, economic growth<sup>6</sup> and financial stability<sup>7</sup>. Nonetheless, academic discussion on trade implications of COVID-19 is still precarious. From pandemic's impact on China as the manufacturing hub of the world, to repercussions in North America as the world's biggest market. In this order of ideas, we should take into account the European Union as an alternative market for both production and consumption.

Empirical research and available information from WTO shows that when China sneezes the rest of the world catches cold. This happened when the 2008 global financial crisis affected international trade. China is not only the epicenter of global trade, but also a fundamental link of the international supply chain. It accounts for 19% of total trade of intermediate products<sup>8</sup> and 41% of global manufacturing exports<sup>9</sup>. If China's production is compromised, then a great part of the international supply chain gets stuck.

## **II. Theoretical model approach to assess COVID-19 impact**

Using the standard trade analysis framework proposed by Suborna Barua (2020), we can imply the short-term consequences for international exporting and importing markets. In this paper we assume that the world's total trade results from adding trade of essential and non-essential goods. We will also assume a free trade environment in the world to simplify our theoretical analysis. This

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<sup>3</sup> World Trade Organization. Trade Profiles 2020. Data from 2019. Source: [https://www.wto.org/english/res\\_e/booksp\\_e/trade\\_profiles20\\_e.pdf](https://www.wto.org/english/res_e/booksp_e/trade_profiles20_e.pdf)

<sup>4</sup> WTO Report on Trade Measures. July 2020. Available at: [https://www.wto.org/english/news\\_e/news20\\_e/report\\_trdev\\_jun20\\_e.pdf](https://www.wto.org/english/news_e/news20_e/report_trdev_jun20_e.pdf)

<sup>5</sup> Fornaro, L. & Wolf, M. (2020). Covid-19 Coronavirus and Macroeconomic Policy. Working Paper, Centre de Recerca en Economia Internacional (CREI).

Available at: <http://www.crei.cat/wp-content/uploads/2020/03/C19-1.pdf>

Mann, L. (2020). Real and financial lenses to assess the economic consequences of COVID-19. In *Economics in the Time of COVID-19*. Ed. Richard Baldwin and Beatrice Weder, London: CEPR Press.

Barua, S. (2020). Understanding Coronanomics: The Economic Implications of the Coronavirus (COVID-19) Pandemic. Manuscript. Available at SSRN: <http://dx.doi.org/10.2139/ssrn.3566477>

<sup>6</sup> Fernandes, N. (2020). Economic effects of coronavirus outbreak on the world economy. Available at SSRN: <http://dx.doi.org/10.2139/ssrn.3557504>

<sup>7</sup> Beck, T. (2020). Finance in the times of coronavirus. In *Economics in the Time of COVID-19*. Ed. Richard Baldwin and Beatrice Weder. CEPR Press: London, UK.

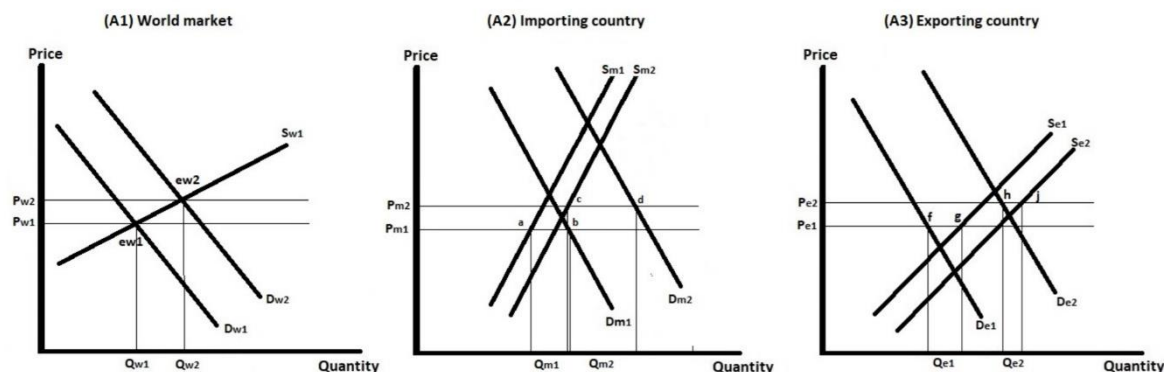
<sup>8</sup> This category includes electronic equipment, machinery, plastic items, vehicles, clothing, accessories, medical appliances and organic chemicals.

<sup>9</sup> Baldwin, R. & di Mauro, B. (2020). *Economics in the Time Of COVID-19*. 1st ed. London: CEPR Press. 2020

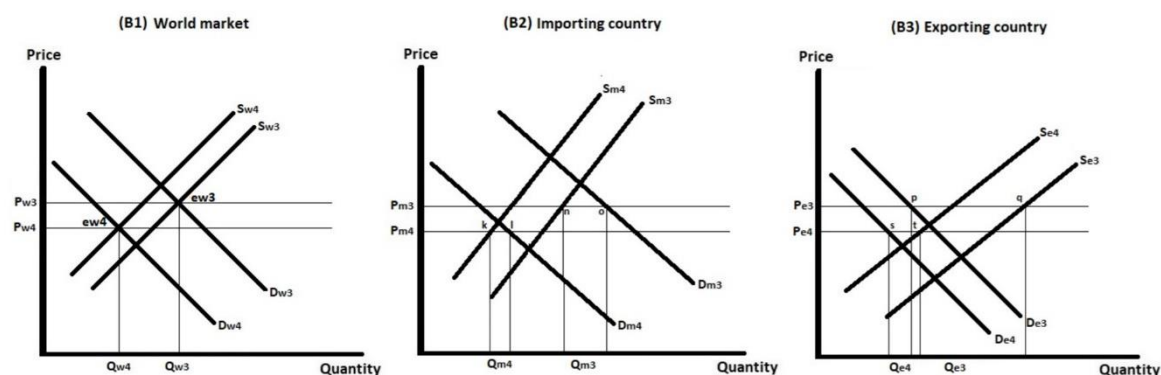
model may help the reader understand how international trade market react to supply and demand shocks like those generated by COVID-19 pandemic, as shown in figure 1.

**Figure 1.** A theoretical illustration of short-term trade implications of COVID-19

Panel A: Essential goods



Panel B: Non-essential goods



Source: University of Dhaka. Department of International Business. COVID-19 Pandemic and World Trade: Some Analytical Notes. Working paper Barua, S. (2020) SSRN: 3577627.

Panel A from figure 1 illustrates theoretical trade effects of supply and demand shocks for essential goods. In chart (A1) the world market equilibrium before COVID-19 is at  $ew1$ , price  $P_{w1}$  and quantity traded  $Q_{w1}$ . After the pandemic outbreak, demand for essential goods such as food and medical stock suddenly increased, moving the international demand curve from  $D_{w1}$  to  $D_{w2}$ . The world now reaches a new equilibrium  $ew2$ , where a greater quantity  $Q_{w2}$  of essential goods is traded at a higher price  $P_{w2}$ .

Even when demand increases, supply stays still since in the short term the world market is not likely to adapt quickly because supply chains are being affected by the pandemic. Moreover, export limitations and excess demand for essential goods within every country leads to local consumption of any increase in supply rather than exporting. In the short term, manufacturers are unable to bring in new technology or investment intensively to increase supply to the world market. However, in the long term, the increased price  $P_{w2}$  would encourage more investments and production to supply international markets.

Charts (A2) and (A3) are desegregations of chart (A1). Particularly, chart (A2) displays the case of an importing nation. Before COVID-19 outbreak, the country imports quantity  $Qm1$  (represented by the distance between points a-b) at international price  $Pm1$ . Soon after the pandemic outbreak, demand for essential goods rises within the country, causing demand curve to move from  $Dm1$  to  $Dm2$ . Due to this domestic demand growth, local production increases to satisfy the scarcity of essential goods, moving the supply curve slightly from  $Sm1$  to  $Sm2$ . This curve swing captures how producers may switch productions from non-essential to essential goods trying to support the national supply during the crisis.

Chart (A3) shows the situation of an exporting country that specializes on essential goods, exporting quantity  $Qe1$  (measured by distance from point f-g) before COVID-19. As the pandemic erupts, the exporting country faces sudden increases in domestic demand for essential goods, moving the demand curve from  $De1$  to  $De2$ . As international demand increases, some producers manage to produce more, moving supply curve from  $Se1$  to  $Se2$ . The domestic market's new equilibrium consumes more essential goods locally and exports a lower quantity  $Qe2$  (measured by distance from point h-j). The country now exports at higher price  $Pe2$  compared to previous price  $Pe1$ .

We can conclude from panel A that COVID-19 pandemic delivers lower export records since countries use more of their locally produced essential goods to satisfy the local demand. Moreover, production increases may not enter the international market as governments impose export bans or restrictions in an effort to guarantee local supply for their citizens, moving prices up even further. As a matter of fact, academic estimates suggest that prices for medical provisions may increase up to 23% on average, even when tariffs and other restrictions to international trade are not taken into account<sup>10</sup>.

Panel B from figure 1 displays the case for non-essential goods. Chart (B1) shows the international market equilibrium before COVID-19 is at  $ew3$  with price  $Pw3$  and quantity  $Qw3$ . After pandemic outbreak, both production and demand for non-essential goods such as luxury products collapse worldwide, moving global demand curve from  $Dw3$  to  $Dw4$  and supply curve from  $Se3$  to  $Se4$ . At the new equilibrium, international markets trade fewer quantity of non-essential goods at a lower price. The international demand and supply decrease for non-essential goods reaches both the importing (B2) and exporting countries (B3).

Results of this theoretical analysis are in accordance with the most recent empirical data presented by WTO<sup>11</sup>. The outcome of COVID-19 pandemic is an increased amount of trade of essential goods at a higher price. Nevertheless, there is a decrease in non-essential goods trade even when there are lower prices for those products. It is important to highlight that overall trade volume falls sharply in international markets since trade of essential goods is significantly smaller compared to non-essential goods. This implies that in the short term<sup>12</sup> overall quantities traded shall keep low<sup>13</sup>, prices for essential goods will keep increasing while non-essential goods prices will keep down.

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<sup>10</sup> Espitia, A., Rocha, N & Ruta, M. (2020). Trade and the COVID19 crisis in developing countries. CEPR Policy Portal.

<sup>11</sup> World Trade Organization. Trade in medical goods in the context of tackling COVID-19. Information Note. Available at: [https://www.wto.org/english/news\\_e/news20\\_e/rese\\_03apr20\\_e.pdf](https://www.wto.org/english/news_e/news20_e/rese_03apr20_e.pdf)

<sup>12</sup> Defining short term as less than one-year period.

<sup>13</sup> Compared to statistics before COVID-19 pandemic outbreak.

### III. China, Europe and North America: Our focus

This paper analyzes China, European Union, United States and Mexico as custom unities. A special emphasis on Eastern Europe will follow due to its particular characteristics. Canada was left out of the scope of this document as a North American country since its trade patterns are not significantly correlated ( $-0.1 < \text{correlation\_coefficient} < 0.1$ ) to the rest of the countries and regions focused in this document, except to the United States correlation. In this sense, in the following paragraphs let's breakdown the trade profiles for countries and regions relevant to this document<sup>14</sup>.

China is the world's dominant exporter of merchandise. It accounts for 13% of all exports in the world. The main destination of its exports is the United States (19%), followed by the European Union (14%). But the main origin of Chinese imports is the European Union (12%), followed by Republic of Korea (10%). Therefore, China's most important trade partners are United States and European Union respectively.

The United States ranks number two in world trade exports of merchandise by country, after China. It accounts for 9% of the world's total exports. The main destinations of American exports are Canada (18%), European Union (16%), Mexico (15%) and China (6.5%). The main origin of American imports is China (18%), followed by European Union (18%) and Mexico (14%). Therefore, United States most important trade partners are in North America, followed by Europe and China.

The European Union as a region accounts for 13% of global exports. The main destinations of its exports are the United States (18%), United Kingdom (15%) and China (9%). The main origin of European imports came from China (19%), United States (12%) and United Kingdom (10%). Europe mostly export to the United States but generally import merchandise from China. This information is summarized in table 1 with information from balance of payments and customs statistics gathered by WTO.

Mexico is the smaller economic unity examined, as it ranks 11th in world trade of merchandise (2.44% share). But it is relevant to this analysis since it's a major trade partner to the United States and a natural substitute market for Chinese manufacturing along with Eastern Europe countries. Mexico has a trade diversification serious problem as 76% of its exports go to the United States, being the European Union second place with only a 3.5% share. When it comes to imports, 44% came from United States, 18% from China and 10% from European Union.

**Table 1.** International trade patterns by relevant country and region.

COUNTRY/REGION	Share in world total exports (%)	Exports main destination	Exports 2 <sup>nd</sup> destination	Imports main origin	Imports 2 <sup>nd</sup> origin
CHINA	13.21	U.S.A. (19.3)	E.U. (14.2)	E.U. (11.7)	Korea (9.6)
EUROPEAN UNION	12.62	U.S.A. (18.0)	U.K. (15.0)	China (18.7)	U.S.A. (12.0)
UNITED STATES	8.69	Canada (17.8)	E.U. (16.4)	China (18.4)	E.U. (18.0)
MEXICO	2.44	U.S.A. (76.1)	E.U. (3.5)	U.S.A. (44.1)	China (17.8)

<sup>14</sup> World Trade Organization data for 2019. Source: [https://www.wto.org/english/res\\_e/statis\\_e/wts2020\\_e/wts20\\_toc\\_e.htm](https://www.wto.org/english/res_e/statis_e/wts2020_e/wts20_toc_e.htm)

*Source: Authors, based on data from World Trade Organization available on October 2020. Numbers in parentheses refer to percent from total. Annual data from 2019.*

Trade tensions between China and United States in 2018 and 2019 contributed to a slowdown in global trading activity with a significant impact on economic growth indicators all over this economically interdependent world<sup>15</sup>. A clear example of the negative impact was made on European Union. Iron and steel trading activity is a commonly accepted indicator of general health in the global economy, just as oil prices. In 2019, exports of iron and steel declined 12%. The European Union is the largest exporter of iron and steel. The value of its exports was almost three times higher than the second-largest exporter, China<sup>16</sup>. Therefore, the European Union received a big hit because of 2019 trade slowdown motivated by tensions between China and United States.

Moreover, in 2019 for the first time since the global financial crisis of 2008, the world's trade volume of merchandise dropped by 0.1%. This led to a weaker global GDP growth, which slowed down to 2.3%. WTO forecasts that COVID-19 pandemic will contract world trade even further in 2020 as new export orders for manufacturing and services reported in purchasing indices fell abruptly in the first and second quarters of 2020<sup>17</sup>. As a matter of fact, official GDP growth reports indicate that on the first quarter of 2020 the United States GDP growth fell 1.2%, the European Union -3.8% and China -9.8%.

During first and second quarter of 2020 the majority of countries in the world applied severe economic lockdown measures to prevent the spread of COVID-19. Most countries' lockdown began on March 2020 and its effects are still developing on the supply chain with repercussions on global demand for goods and services. The most recent data available indicates that the world's merchandise trade volume decreased almost 15% in the second quarter of 2020<sup>18</sup>. Chart 1 illustrates this global trade crisis.

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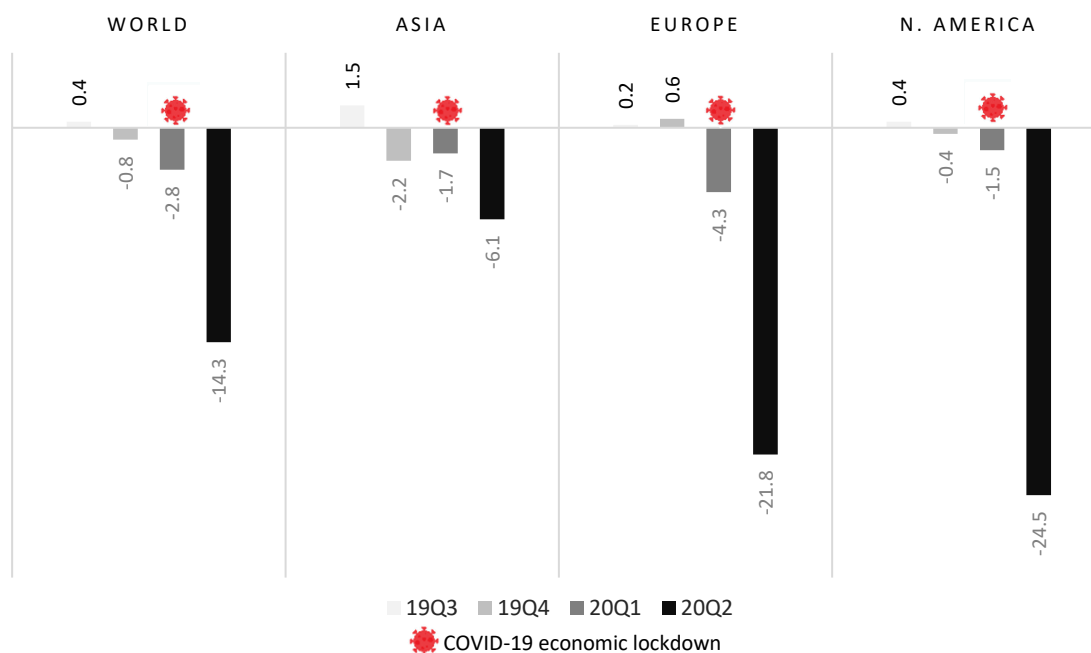
<sup>15</sup> WTO. World Trade Organization. Highlights of world trade in 2019. Source: [www.wto.org/english/res\\_e/statis\\_e/wts2020\\_e/wts2020chapter02\\_e.pdf](http://www.wto.org/english/res_e/statis_e/wts2020_e/wts2020chapter02_e.pdf)

<sup>16</sup> World Trade Organization. Shifting patterns in trade. Source: [https://www.wto.org/english/res\\_e/statis\\_e/wts2020\\_e/wts2020chapter04\\_e.pdf](https://www.wto.org/english/res_e/statis_e/wts2020_e/wts2020chapter04_e.pdf)

<sup>17</sup> WTO. World trade and GDP, 2019-20. Source: [wto.org/english/res\\_e/statis\\_e/wts2020\\_e/wts2020chapter03\\_e.pdf](http://wto.org/english/res_e/statis_e/wts2020_e/wts2020chapter03_e.pdf)

<sup>18</sup> 2020Q3 data is expected to be released around December 20, 2020. Source: [https://www.wto.org/english/res\\_e/statis\\_e/daily\\_update\\_e/merch\\_latest.pdf](https://www.wto.org/english/res_e/statis_e/daily_update_e/merch_latest.pdf)

**Chart 1.** Merchandise exports quarter growth (%)



Source: Authors, based on WTO-UNCTAD data. Available at: <https://data.wto.org/>

New patterns on international trade between China, European Union and North America after COVID-19 outbreak must be spotted from official data presented in the next couple of years. But we must anticipate the facts in order to attain the most likely trade scenarios for policy makers in every country involved in this major reconfiguration in trade. This paper aims not to precise every possible future trade scenario, but rather to generate a basic theoretical and empirical base for future research on this topic.

However, the most likely scenario given the previously stated circumstances is a reconfiguration on merchandise manufacturing between China and the United States. This manufacturing reconfiguration will drastically affect international trade flows in the upcoming years. This makes room for investment in economies whose vocation leans towards manufacturing. Relevant factors that may play a role in where-to-invest decisions in this reconfiguration are strategic geographical location, cost-competitive labor market and skilled work force. Relevant countries in this study with these characteristics are those located in Eastern Europe and Mexico.

#### IV. COVID-19 impact on economic regulations and international trade

The COVID-19 pandemic has motivated many countries to close their borders (partially or totally), shut down non-essential businesses and production, and prevent ordinary flow of goods and persons. The full impact of these health-motivated measures on the global economy is not yet clear, but we shall analyze investment appetite, increased costs, disruptions in global supply chain and

international trade patterns. Furthermore, we must analyze if these circumstances reverts or slowdown the globalization process<sup>19</sup>.

Just one year ago, Kimball (2019) examined the state of trade-related management, and how it is impacted by outbreaks of infectious diseases in the world. He concluded that as the global trading system entered a period of unprecedented trade growth, the potential costs of pandemic outbreaks require careful consideration to assure population health into the future<sup>20</sup>. The same author also found in 2005 that efficiency incentives for global trade has serious health security risks for local communities, as evidenced by the outbreak of A-H1N1 virus<sup>21</sup>.

Essentially, COVID-19 is both a supply shock and a demand shock. As companies face problems in their supply chain and are forced to lay off workers in order to survive, at the same time consumers are less likely to consume and invest. This has had a direct impact on international trade even further than direct restrictive measures against merchandise traffic between countries. Actually, there is an amplification effect when it comes to international trade. Past recessions have shown that global trade slows faster than GDP growth<sup>22</sup>.

The amplification effect occurs when a central supplier of inputs to other countries fail or slows down its production. The most straight-forward example during this COVID-19 crisis is China. This country produces parts and components necessary to the manufacturing processes in a lot of other countries. This way, when a supply shock occurs in a big and interconnected country, then a contagion (economic contagion not medical contagion) spreads thru the supply chain<sup>23</sup>. Therefore, all countries will eventually suffer a supply and demand shock, amplifying the economic consequences<sup>24</sup>.

The gravity equation<sup>25</sup> is a product of economic science and has been largely tested empirically. It shows a positive correlation between the total value of exports from one country to another with importer country's aggregate demand and exporter country's aggregate supply<sup>26</sup>. Therefore, COVID-19 is affecting export via a supply shock, and is affecting imports via a demand shock. This aggregate

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<sup>19</sup> Barua, S. (2020). COVID-19 pandemic and world trade: Some analytical notes. Available at SSRN: <https://ssrn.com/abstract=3577627>

<sup>20</sup> Kimball, A. (2019) An epidemic of tariffs? infectious disease and global trade in an era of change. *International Journal of Infectious Diseases* 79, 24.

<sup>21</sup> Kimball, A., Wong, K. & Taneda, K. (2005). An evidence base for international health regulations: quantitative measurement of the impacts of epidemic disease on international trade. *Revue scientifique et technique-Office international des epizooties*, 24(3), 825.

<sup>22</sup> Baldwin, R. & Tomiura, E. (2020). Thinking ahead about the trade impact of COVID-19. In *Economics in the Time of COVID-19*. Centre for Economic Policy Research. London, UK. ISBN: 978-1-912179-28-2.

<sup>23</sup> Bems, R., Johnson, C. & Yi, K. (2010). Demand spillovers and the collapse of trade in the global recession. *IMF Economic Review* 58 (2), 295-326.

<sup>24</sup> Coveri, A., Cozza, C., Nascia, L. et al. (2020). Supply chain contagion and the role of industrial policy. *J. Ind. Bus. Econ.* 47, 467-482.

<sup>25</sup> Anderson, J. (1979). A Theoretical Foundation for the Gravity Equation. *The American Economic Review*, 69(1), 106-116.

<sup>26</sup> Aggregate demand and aggregate supply both are measured by GDP.



effect would cause further drops in international trade, with little expectation of recovery in the short term<sup>27</sup>. This is in line with theoretical propositions made in section II of this paper.

International demand for medical commodities soared in 2020. Most countries depend on foreign trade or global supply chains to produce these goods. Nevertheless, WTO have reported a growing number of export bans and restrictions, in a desperate attempt to mitigate domestic scarcity of these products. These export bans and restrictions have lost focus of the big picture because an aggressive growth in global production of medical supplies require that the supply chains are functioning internationally. Border closures make the problem worse.

There is evidence of a lack of international cooperation during COVID-19 crisis<sup>28</sup>. Instead of cooperation we have seen isolation. Most export prohibitions and restrictions focus on medical provisions and equipment. Even when Article XI of the General Agreement on Tariffs and Trade (GATT) 1994 forbids quantitative bans and restrictions, it consents countries to apply them provisionally to avoid dangerous shortages of foodstuffs or other critical commodities. Here is a transcript of the referred article.

*Article XI. General Elimination of Quantitative Restrictions*

*1. No prohibitions or restrictions other than duties, taxes or other charges, whether made effective through quotas, import or export licences or other measures, shall be instituted or maintained by any contracting party on the importation of any product of the territory of any other contracting party or on the exportation or sale for export of any product destined for the territory of any other contracting party.*

*2. The provisions of paragraph 1 of this Article shall not extend to the following:*  
*(a) Export prohibitions or restrictions temporarily applied to prevent or relieve critical shortages of foodstuffs or other products essential to the exporting contracting party;*

*(...)*<sup>29</sup>

However, countries applying these quantitative restrictions to international trade since March 2020 should still demonstrate that restrictions do not constitute an arbitrary or unjustifiable discrimination against any other country, nor a disguised illegal constraint on international trade. Therefore, even specific exceptions like clause (a) paragraph 2 Article XI, should still comply with general rules of GATT 1994 and WTO. The burden to prove otherwise is on the eighty-five countries that putted in place trade restrictions.

Export bans and limitations may contain domestic prices and prevent shortages if the country is a net exporter, but this is only effective for the short term. In the long term, restrictions started by

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<sup>27</sup> Engel, C. & Wang, J. (2011). International trade in durable goods: Understanding volatility, cyclicity, and elasticities. *Journal of International Economics* 83(1), 37-52.

<sup>28</sup> WTO. Export prohibitions and restrictions. Available at:  
[https://www.wto.org/english/tratop\\_e/covid19\\_e/export\\_prohibitions\\_report\\_e.pdf](https://www.wto.org/english/tratop_e/covid19_e/export_prohibitions_report_e.pdf)

<sup>29</sup> GATT 1994. General Agreement on Tariffs and Trade 1994. Available at:  
[https://www.wto.org/english/docs\\_e/legal\\_e/06-gatt\\_e.htm](https://www.wto.org/english/docs_e/legal_e/06-gatt_e.htm)  
Article XI available at:  
[https://www.wto.org/english/res\\_e/publications\\_e/ai17\\_e/gatt1994\\_art11\\_gatt47.pdf](https://www.wto.org/english/res_e/publications_e/ai17_e/gatt1994_art11_gatt47.pdf)

one country may trigger the same response from other countries. When importing countries cannot source critical products from international trade, they must substitute those previous imports with domestic production, no matter the higher prices. Therefore, in the long term the exporter country that applied bans and restrictions will cut its access to foreign markets.

Moreover, transport limitations and border closures arising from COVID-19 pandemic have had a direct impact on trade costs. Transport costs constitute a relevant share of trade costs, accounting for 15% to 31% of total cost<sup>30</sup>. Some manufactured products may reach prohibitive increases in trade costs, affecting even more the actual scenario. Estimates from WTO suggest that new trade barriers established in 2020 reach at least 10% of trade costs in average for all economic sectors.

Most WTO members had submitted notification regarding economic regulations in response to COVID-19. As of October 2020, 258 new economic regulations had been submitted, which has had an impact on global trade trends. In particular, China has been a very active member when it comes to this kind of notifications, both as the imposing country and as country affected by the notification. Tables 2, 3, and 4 shows notifications of new economic regulations presented by China, European Union and North American countries.

**Table 2.** Economic regulations imposed by China regarding COVID-19.

Date	Economic regulation
29/04/2020	The attached revised notification from China under the TFA contains updates of temporary measures China has adopted in response to the COVID-19 pandemic. (G/TFA/N/CHN/2/Rev.3)
09/07/2020	Information on COVID-19 testing of imported cold chain foods. (G/SPS/GEN/1812)
12/07/2020	The national standard GB 2626-2019 "Respiratory protection - Non-powered air-purifying particle respirator" was published on 31 December 2019, and was scheduled to be implemented from 1 July 2020. Due to the impact of the global COVID-19, the date of implementation for this national standard is now extended to 1 July 2021 to ensure the stable supply of respirator products. The enterprises may implement either the new version or the current one during the transitional period. (G/TBT/N/CHN/1358/Add.1)
20/09/2020	GACC Announcement No.103 of 2020 (Announcement on the Implementation of Emergency Preventive Measures for Foreign Manufacturers of Imported Cold-chain Foods with Novel Coronavirus Nucleic Acid Positive Results). (G/SPS/N/CHN/1173)

*Source: Authors, data from WTO.*

The above-mentioned economic regulations were notified by China to WTO as extraordinary measures to contain COVID-19 pandemic. But also, other countries imposed economic unilateral measures that were notified to World Trade Organization that affects Chinese trade. These

<sup>30</sup> WTO. Trade costs in the time of global pandemic. August 2020. Available at: [https://www.wto.org/english/tratop\\_e/covid19\\_e/trade\\_costs\\_report\\_e.pdf](https://www.wto.org/english/tratop_e/covid19_e/trade_costs_report_e.pdf)

notifications are synthetized on Table 3. Adding table 2 and table 3 we can infer how Chinese international trade was affected on a multilateral manner.

**Table 3.** International economic regulations affecting China in regard to COVID-19.

<b>Date</b>	<b>Notifier country</b>	<b>Economic regulation</b>
19/03/2020	Indonesia	Requiring any importation and/or movement of mammals and pets from China be accompanied with Laboratory test result for COVID-19. (G/SPS/N/IDN/132)
22/03/2020	Mauritius	Temporarily restricts imports of live animals, including fish from People's Republic of China, Italy, Iran, South Korea, Switzerland, Reunion Island and European Union Countries. (G/SPS/N/MUS/18)
30/03/2020	Russian Federation	The temporary restriction on imports of exotic and decorative animals, including insects, arthropods, amphibians, reptiles and other, live fish and hydrobionts from China imposed by Federal Service for the Veterinary and Phytosanitary Surveillance is extended until further notice. (G/SPS/N/RUS/178/Corr.1)
19/04/2020	Russian Federation	Provisional restriction on imports to the Russian Federation and transit through its territory of live hydrobionts due to changes in assessment of the epizootic situation with Covid-19 in China. (G/SPS/N/RUS/178/Add.1)
19/05/2020	Russian Federation	Provisional restriction on imports of exotic and decorative animals, including insects, arthropods, amphibians, reptiles and live fish from China reflecting the risk assessment of the epizootic situation with Covid-19 in China. (G/SPS/N/RUS/178/Add.2)
03/06/2020	Mauritius	Lifting of temporary ban on importation of live animals and fish from China, Italy, Iran, South Korea, Switzerland, Reunion Island and all European Union countries. (G/SPS/N/MUS/18/Add.1)

*Source: Authors, data from WTO.*

These new economic regulations relate explicitly to COVID-19, however, general restrictions applicable for a broad number of goods and services internationally traded are not accounted for. General restrictions and bans apply not only for trade of a limited number of countries, but for every country in international markets. As we have stated before, eighty-five countries have presented some kind of restriction or ban to international trade since March 2020. Most of them apply to medical supplies and equipment.

**Table 4.** Economic regulations imposed by European Union regarding COVID-19.

<b>Date</b>	<b>Economic regulation</b>
31/03/2020	Temporary control authorities to use inter alia remote communication and electronically submitted documents for checks, in view of the situation linked to COVID-19. (G/SPS/N/EU/380)

07/04/2020	Notification of an urgency measure of temporary application making the exportation of certain products subject to the production of an export authorization. (G/MA/QR/N/EU/4/Add.1)
08/04/2020	The attached revised notification from the EU contains updates of a number of temporary measures that the EU has adopted in response to the COVID 19 pandemic (G/TFA/N/EU/1/Rev.2)
06/05/2020	Urgency measure of temporary application in relation to the COVID-19 pandemic, which follows the previously notified measure that expired on 25 April 2020 and reduces the list of products that require export authorization to masks, spectacles and protective garments (G/MA/QR/N/EU/4/Add.2)
03/06/2020	Ad hoc report on COVID-19 measures taken by the EU (including by its member states) in the agricultural sector prepared for the special meeting of the regular committee on agriculture (G/AG/GEN/159)
15/06/2020	Temporary measures taken by some European Union Member States in order to protect human health, in relation to the Covid-19 pandemic (G/MA/QR/N/EU/4/Add.3)
30/06/2020	EU statement at the SPS Committee information sharing session on COVID-19 (G/SPS/GEN/1799)
09/07/2020	Request to suspend the process and entry into force of reductions of maximum residue limits for plant protection products due to the COVID-19 pandemic (G/SPS/GEN/1814)
22/07/2020	Updated Ad hoc report on Covid-19 measures taken by the EU (including by its member States) in the agricultural sector (G/AG/GEN/159/Add.1)
07/09/2020	Due to the COVID-19 pandemic, the present proposal for a Regulation of the European Parliament and of the Council amending Regulation (EU) 2018/848 on organic production defers by one year the date of entry into application of Regulation (EU) 2018/848 on organic production (G/TBT/N/EU/738)
16/09/2020	Ad hoc report on COVID-19 measures taken by the EU (including by its Member States) in the agricultural sector - Addendum (G/AG/GEN/159/Add.2)

*Source: Authors, data from WTO.*

North America managed to keep open to trade. United States focused its notifications on agricultural issues and those related to the Department of Health and Human Services. Trade distortions were reduced to a minimum. Mexico only presented one notification on April 29, 2020 concerning implemented measures about phytosanitary certificates aimed at the facilitation of trade in view of issues arising from the COVID-19 pandemic. Meaning that Mexico did not prevented but instead facilitated trade during this health crisis.

We shall emphasis that supply chains were internationalized in the first place to improve productivity and lower costs of production. It would be a mistake from an efficiency perspective to repatriate foreign investments in order to reduce supply chain risks of contagion. It would have more costs than benefits to society as a whole. The COVID-19 pandemic should not be a validation for nationalisms or anti-globalization economic policies. This is a time for diversification and smart globalization that may benefit all parties in this study: China, Europe and North America.

## **V. What's next?**

In the international trade market, we expect that demand and prices for essential goods are likely to keep higher than its previous equilibrium. As for non-essentials goods, demand and prices are likely to keep low in the near future. Adding up both markets, the global aggregate trade flows between China, Europe and North America should decline overall since non-essential goods surpasses by far the essential goods in quantity.

International investment plans for manufacturing are likely to be modified from 2020 and on to account for (i) trade tensions between China and the United States since 2018, (ii) perceived supply chain risk of contagion associated to economic shocks and (iii) less appetite for supply-dependence on China after COVID-19 outbreak. In this new trend, WTO should keep an eye on potential new forms of trade barriers that may affect global efficiency on production that allows consumers all over the world to buy better and cheaper goods and services.

In this post-pandemic scenario, Mexico and Eastern Europe have a unique opportunity to capture foreign direct investments from both, China and the United States. Investment strategies from these leading economies should be redesign to avoid actual geopolitical disputes between those powerful nations. Moreover, multinational supply chains are seeking for diversification to avoid dependence on other countries as the pandemic shutdown caused a lot of harm to multinational companies.

The instability of the trade relationship between China and the United States, plus the appetite derived from COVID-19 pandemic to diversify global supply chain, is making Mexico and Eastern Europe more attractive to direct foreign investments. Both Mexico and Eastern Europe countries have a strategic geographic location. Mexico is next to the world's largest market while Eastern Europe play a central spot between production hubs in Asia and consumers in Western Europe.

Mexico has access to both oceans while Eastern Europe is a tactical link between two major world markets. Both have a developed logistics infrastructure that is rather idle but ready to be exploited to its full potential. Both have a cost-competitive labor market compared to the United States or Western Europe. Actually, not only cost-competitive, but these countries also have skilled labor, like world-class engineers. As wages in China increase, manufacturing companies find it simpler to move away.

Eastern Europe countries and Mexico have the potential to shift from low-value to high-value manufacturing clusters if they can implement research and development plans. There is a relative greater stability in the investment climate in Eastern Europe countries compared to Mexico. This factor should also be considered in further research. Include technology into the equation should also be considered for future investigations on this topic.

In recent years, Chinese enterprises have showed significantly increased interest in manufacturing in Eastern Europe in order to export to Western Europe. In the same way, in the past few months American companies have increased their stakes in Mexico in order to manufacture electronic goods (especially since the USMCA<sup>31</sup> entered into force on July 1, 2020). It's time for Mexico and Eastern Europe countries to take advantage of the opportunity that trade tensions and COVID-19 have

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<sup>31</sup> Office of the United States Trade Representative. United States-Mexico-Canada Agreement. Source: <https://ustr.gov/trade-agreements/free-trade-agreements/united-states-mexico-canada-agreement>

brought. China and the United States would also benefit from finding lucrative investment opportunities overseas.