

## **THE IMPACT OF THE COVID-19 PANDEMIC ON THE GLOBAL VALUE CHAIN - ESTIMATION AND FORECAST**

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### **Abstract**

*The influenza epidemic caused by the COVID 19 virus is a major shock to the entire world economy and is expected to have important long-term consequences, considered as an economic crisis that will occur in a global economy already unbalanced by the highly fluctuating macroeconomic evolution of many developing countries and regions - for example most states in Africa and South America - as well as trade warfare.*

**Keywords:** COVID 19 virus, pandemic, economic challenges, economic policies, economic crisis.

### **Introduction**

At present, between economic systems, financial markets, commercial structures, etc. of the majority of the states of the world, multiple relations have been established, which define the current stage of globalization.

Significant changes following the COVID 19 crisis are negatively affecting many countries, which requires public authorities as well as specialists in various fields of community life to carry out in-depth analyzes, on the basis of which it will be possible to take appropriate measures to recover the economic and social depression caused by the health crisis. At the same time, the public management, but also the managers from the

private sector will elaborate and implement the policy instruments considered active for stimulating the development and growth of the added value at all levels: micro, mezza, macro and economic world.

The current pandemic has highlighted major vulnerabilities in the global economy that existed even before COVID 19 infection occurred:

- deepening the differences between increasingly poor communities and a very small group of rich people - from many countries and on many meridians of the globe;
- the increasingly frequent implementation of anti-competitive actions by large multinational corporations, which often resort to international tax evasion practices;
- non-compliance with the agreements and conventions between the states of the world regarding the environmental protection, with immediate dramatic consequences at national level, but also at global level on medium and even long term;
- etc.

## **1. THE GLOBAL MACROECONOMIC CONTEXT BEFORE THE COVID-19 PANDEMIC BREAK**

The global macroeconomic context before the outbreak of the COVID 19 epidemic is marked by significant uncertainties about the evolution of exports and, implicitly, by major fluctuations of the income recorded by them, first produced in the Chinese economy affected by the trade war caused by the US administration and later, by the contagion effect amplified by globalization, in many other Asian states, as well as European and African.

However, in 2019 there was a relative stabilization, both as a result of partial agreements between the parties - the leaders of the world's major trading powers met for negotiations on several occasions, so that the negative impact on the national economies they made part of it should be as low as possible - as well as due to the macroeconomic policies implemented in some states to support their development.

For example, the country with the largest volume of exports on the world market, China, considered that, in the context of 2019, the key factor for maintaining a high pace of

economic growth is final consumption and, consequently, has implemented measures to rise household income - mainly increasing income from wages to strengthen their purchasing power.

Economic globalization has been achieved mainly due to multinational private companies, whose expansion has been favored by the unprecedented rapid development of the information industry, which are financial infrastructures of systemic importance.

In this sense, the modern architecture of the economic sector will take into account the cloud services of Google, the Facebook platform which is one of the most frequented information systems on the areas of greatest interest to the population, the Internet of Amazon (the largest online store), Alibaba platform for the sale of personal protective equipment, etc.

The trade war initiated by the United States of America since 2018 focused primarily on China, which in recent years has become the country with the largest volume of exported products in the world, but also the other US trading partners: Canada, Mexico, the European Union and the list goes on.

This war materialized in the increase of customs duties and the imposition of quotas on products imported into the United States from partner trading countries - with the exception of Japan and Australia - targeting amounts totaling several billion US dollars. In the case of products such as steel and aluminum, the most affected exporters are not the Chinese, as they have been facing the prohibitive measures imposed by the WTO<sup>11</sup> on anti-dumping and anti-subsidy duties for many years, but the European Union and Canada.

Another set of US measures was aimed at damaging China's industrial production, seeking to protect US intellectual property rights and prevent the transfer of cutting-edge technologies to it.

The countermeasures were not long in coming from China, which raised customs duty rates on products imported from the United States accordingly. For example, before the spring of 2018, China was importing soybeans from the United States worth about \$ 14

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<sup>11</sup> The WTO - World Trade Organization (WTO), created on January 1, 1995, is the international organization that develops and implements international regulations on foreign trade between states that has taken over the General Agreement on Tariffs and Trade (GATT), operating in the direction of reducing and abolishing barriers to international trade.

Sources: [https://ro.wikipedia.org/wiki/Organiza%C8%9Bia\\_Mondial%C4%83\\_a\\_Comer%C8%9Bului](https://ro.wikipedia.org/wiki/Organiza%C8%9Bia_Mondial%C4%83_a_Comer%C8%9Bului)

billion, with the customs duty imposed at the Chinese border being 1.5%; as a result of the trade war, the rate was raised, as a repression by the Chinese authorities, to 26.5%, which discouraged imports from the US, targeting Brazil, to the detriment of American farmers, who suffered heavy losses.

## **2. ECONOMIC CHALLENGES IMPOSED BY THE PANDEMIC**

The current health crisis is different - causes, manifestations, extent, etc. - from other pandemics that humanity has faced in the past, but there are, at least presumably, common situations, such as the production of several waves of infections. Thus, the COVID 19 pandemic has already registered two waves and the possibility of a third one occurring at the beginning of 2021 is not ruled out. In this undesirable situation, responsible public institutions at national and / or global level, such as the World Health Organization (WHO) must be prepared to reduce the impact of the health crisis.

Even if the pandemic calms down, economic uncertainties and, implicitly, in the labor market remain, and the real sector, made up of manufacturing enterprises, those that achieve added value will also face risk-generating uncertainties.

Economic protectionism, applied in certain situations by public authorities - for example, nowadays, the Trump administration in the United States, which imposed fiscal restrictions on imports from China, the European Union, Canada, Mexico, MERCOSUR states (Argentina, Brazil, Paraguay, Uruguay and Venezuela) etc. - produces an important negative impact on the economies and communities in several geographical areas of the world.

Thus, trade, tourism, investments, the spread of technological progress, etc. are affected. As an example, the slowdown in economic growth in China caused by the trade war has led to a slowdown in economic development in countries where industries have developed horizontally with Chinese manufacturing industries: Indonesia, Thailand, Singapore, Malaysia, Philippines, Vietnam, Myanmar, etc. The real-negative variation of macroeconomic development in many countries due to the measures of economic protectionism applied, in reply will have, in time, the domino effect, generating a crisis that will generalize globally.

The COVID 19 pandemic has affected all states on Earth, which are in the process of globalization at the beginning of 2020. However, even before the onset of this health scourge, the process of globalization had shown opposite movements in many countries and / or regions of the world, due to vulnerabilities caused, in most cases, by attempts to implement insufficiently prepared economic and social liberalization processes in inappropriate national and even international conjunctures.

Those vulnerabilities cover a number of issues, the most important of which are:

- national sovereignty, a very sensitive aspect in relations between states, with a special emphasis on relations with countries rich in natural resources, which have been and continue to be the target of attacks of any kind - first colonial, then through direct foreign investment, bribery of public authorities in those countries to accept trade and / or fraudulent agreements in favor of developed countries or multinational corporations;
- financial management both for resident financial companies and for the public sector, with the stated purpose and inscribed in all macroeconomic development programs to avoid financial and economic crises through judiciously developed and implemented measures, adapted to the specifics of the national economy, as well as to the international conjuncture;
- the role of international institutions, both in terms of regulation and in terms of financial and logistical support of programs / projects in their field of activity - WTO for world trade, IMF for short and medium term financial stability, World Bank for financial support through preferential credits of some development projects, etc. - which must adapt to the new macroeconomic and social situation, which marked profound changes in the second decade of the 21st century;
- repositioning the developed, developing and underdeveloped countries on the chessboard of the world economy. In this sense, must be shown the very large change of the state hierarchy of the world from the point of view of the level of economic development, measured by the GDP / capita indicator in the international currency American Dollar, at the Purchasing Power Parity (PPP) must be presented.

### GDP per capita (International USD Dollar, PPP)

<a href="#">International Monetary Fund</a> (2020 estimates)			<a href="#">World Bank</a> (2019)			<a href="#">Central Intelligence Agency</a> (1993–2017)			
Rank	Country	Int\$	Rank	Country	Int\$	Rank	Country	Int\$	Year
7	USA	63051	8	USA	65281	13	USA	59500	2017 est
15	Germany	53571	15	Germany	56052	19	Germany	50200	2017 est
73	China	17206	78	China	16785	82	China	16600	2017 est

Sources: [https://en.wikipedia.org/wiki/List\\_of\\_countries\\_by\\_GDP\\_\(PPP\)\\_per\\_capita](https://en.wikipedia.org/wiki/List_of_countries_by_GDP_(PPP)_per_capita)

According to statistical information provided by the most knowledgeable international institutions: IMF; The World Bank and the CIA, the ranking of states according to GDP per capita places in the first place countries that can be considered tax havens and have a small population: Luxembourg, Singapore, Qatar, Ireland, etc., while the world's major economic powers, such as the US and China is in lower positions.

This is also the reason why the authorities of these countries have proposed to change the public policies to stimulate economic growth, depending on the specific situation of each one.

Thus, before the pandemic, the US administration opted to stimulate the real economy sector by reducing the fiscal pressure on corporations, as well as to reduce the current account deficit of the foreign trade balance, mainly in relation to its main partner, China, by considerably increasing customs duties.

China, the world's largest exporter, has responded to this trade aggression by imposing retaliatory taxes, the trade war then extending its effects to many other countries.

At the same time, the Chinese public authorities have nuanced their economic policy instruments, the emphasis being now on stimulating final consumption, by increasing revenues and only in the background on increasing production for export.

In this way, China will capitalize on its main asset, namely its large population, which, educated and with high professional skills, will become the engine of economic growth.

### The top three countries in the world in terms of export volume

Rank	Country	Value exported in 2019 (USD thousand)	Trade balance in 2019 (USD thousand)	Share in world exports (%)
-	World	18,754,622,247	-310,645,547	100
1	China	2,498,569,866	429,619,611	13.3
2	United States	1,645,174,335	-923,222,114	8.8
3	Germany	1,486,462,772	250,164,041	7.9

Sources: List of countries by merchandise exports, based on UN COMTRADE and ITC statistics  
[https://en.wikipedia.org/wiki/List\\_of\\_countries\\_by\\_exports](https://en.wikipedia.org/wiki/List_of_countries_by_exports)

China is the world's largest exporter - in June 2020 it accounted for more than 10% of world trade, according to the WTO, being the main supplier of intermediate goods to more than 60 countries.

This explains the importance of relations between states in the context of increasing globalization. In this sense, if mainland China's goods-producing activity is adversely affected by various external or non-economic factors - a conclusive example being the consequences of the trade war with the United States, on the one hand, and the effects of the worsening health environment due to the COVID-19 pandemic, on the other hand - the economies of Southeast Asian countries are facing significant difficulties.

Thus, the states that began to be designated as Asian "tigers" or "dragons" since the 1980s and are now perceived as emerging countries with a high pace of development - according to the GDP / capita indicator expressed in the currency Purchasing Power Parity (PPP) - which has intense economic and financial relations and, historically, traditional, except in some cases the communist period, with the great Asian state China are largely influenced by fluctuations in Chinese economic and trade activity..

Many countries around the world have experienced major budget imbalances, along with a worrying increase in public debt. The financial stability criteria strictly followed before the health crisis - in the European Union, they were defined by the 1992 Maastricht Treaty and stipulate: the annual public budget deficit must be smaller, at most equal to 3% of the Domestic Product Gross GDP (GDP) and actual government debt at the end of the

year (drawn loans - repayments) must be lower, at most equal to 60% of GDP - have been neglected, which means increased pressure on public finances and, implicitly, on the economy a longer period the more important these overruns are.

The indebtedness situation has deteriorated in almost all countries, but developing countries are more vulnerable due to the fragility of public finances and national economies, and this determines the placement of external loans to which those states resort to high-risk classes, which mean higher interest rates and, consequently, higher borrowing costs.

In any case, in order for public debt management to correspond as accurately as possible to the financing needs of the institutional sectors of the national economy, mainly those in the short term and then in the medium and long term, public authorities must have reliable macroeconomic forecasts, based on updated information.

Private sector financing is also a matter of concern for businesses as sovereign debt rises, even as central banks announce an easing of lending, including with the support of public authorities that selectively guarantee some bank loans to corporate corporations.

In the publication in the third quarter of 2020 "FINANCES & DÉVELOPPEMENT" of the International Monetary Fund, Nobel laureate Joseph Stiglitz [Stiglitz Joseph (2020)] notes that the pandemic has highlighted profound differences between the world's states, both in terms of economic relations between them as between the objectives of the policies they want to implement. At the same time, he notes the challenges facing all the world's economies, challenges that will continue, especially for developing countries.

Thus, the automation process is expanding more and more, but for less skilled workers it becomes a threat, which would impose detailed and diversified qualification programs, within the broader framework of publicly funded education and health programs. In addition, certain trades will be required less and less, and this evolution will accelerate existing trends.

Another important challenge is the positioning of the national currency against the strong currencies of the world because the positioning of the national currency in relation to the other currencies in the world gives the authorities and corporations resident in that country the power to influence the economic-financial relations.



For example, the supremacy of the US dollar has been, is and will continue to be unquestionable for a long time to come in the global economic landscape, while the great competing economic powers will gradually gain influence, although at present their importance lies far behind the US currency.

In this sense, the efforts of the main commercial competitor of the United States, China, to impose its national currency - rinminbi - both as an international reserve currency and, especially, in economic and financial contracts, seek to strengthen China's position on the world market. .

### **3. SOCIO-ECONOMIC PERSPECTIVES AND PROPOSED POLICIES IN THE SHORT AND MEDIUM TERM TO OVERCOME THE ECONOMIC CRISIS**

After the end of the pandemic on the whole world, it will be found that both at the level of each nation and at the global level, the economic relations, but also the social, cultural ones, etc. they turned major.

In order for the objectives pursued by the implemented policy measures / instruments to be achieved in the designed efficiency and effectiveness conditions, the communities must have adequate infrastructures from a quantitative and qualitative point of view in all fields: education, health, transport, telecommunications, environment, etc. . In this sense, the public authorities, whose main responsibility is performing and / or providing public services have a crucial role.

The effect produced by the supply crisis induced by the pandemic affects differently the economic agents from most of the productive activity sectors. Thus, because during the recession generated by the health crisis, it will be difficult, if not totally unproductive, to increase their sales prices, this means that it will be difficult for them to invest in modern equipment, given the small profit margin that it is traditionally applied by companies that manufacture intermediate goods.

Estimates for the post-crisis financial sector are also not optimistic. Risk management models will take into account the large gap in market conditions and asset prices compared to the pre-pandemic period, which will influence the size of liquidity reserves and own

funds to cover potential risks financially. Again, the intervention of public authorities will be crucial for starting productive activities, either through regulations or through financial interventions.

The obvious solution is to develop and implement training programs related to the requirements highlighted by a detailed and in-depth analysis of the labor market, both nationally and globally.

It should be noted, in this regard, that the economic principles and laws that characterized the development of world countries in the twentieth century - producers act to obtain the greatest possible benefits; consumers seek to maximize utility; prices are determined by the balance of demand ~ supply - it no longer fully explains the process of macroeconomic growth in most countries of the world, the key role of innovation, but also the increase of inequalities, both social and between the states of the world.

Globalization has spread to all continents, mainly due to multinational corporations, but with the benefits of enhanced trade relations and transport and telecommunications, international tax evasion schemes have increased and diversified, favored by the weakening and even repeal of regulations considered a brake on business development.

In this way, the interest of the communities that have to benefit from public services was neglected, because the public finances of the states hosting the entities of the multinationals receive lower tax revenues due to the legal tax evasion practiced by most multinational companies. The pandemic showed the weaknesses of the globalization system and imposed measures to get out of the health crisis through isolation, a movement opposed to globalization.

In order to prevent international tax evasion, as well as to improve health worldwide, institutions with international status must be created to develop and implement global rules designed to protect the workforce and the natural environment, along with rules that stimulate the activity of the real economy.

At the same time, those institutions will have to regulate and supervise the banking and capital markets, thus eliminating the practice of many banks to impose predatory interest rates on vulnerable borrowers, including some states.

The Covid crisis 19 also showed the need to rethink the role of the state in the economy. In recent years, it has eroded considerably for several reasons:

- increasing the power of influence of multinational companies, both economically and in public management in most countries where their subsidiaries are located;
- continuous degradation of public services in various fields - health, education, social protection, etc. - due to the decrease, in real terms, of the public revenues;
- declining financial involvement in research & development, a key field in the current era, etc.

Several developing countries, especially in South-East Asia, have implemented, before the pandemic, but also after it started, policies to support the social sectors, so as to support the rise in living standards and, consequently, to create one of the main instruments of macroeconomic stimulation, namely final consumption.

## **Conclusions**

In order to analyze the size and perspectives of the globalization process in the early '20s in the 21st century, it is necessary to look at three different periods both as a specific manifestation and as an impact on national and regional economies, the global transformations being profound and definitive. These three periods are:

- the period before the outbreak of the coronavirus plague - which was first recorded in the Chinese region of Wuhan, then spreading to other areas of China, which led public authorities to take drastic measures - physical isolation, the obligation to wear masks, etc. - to restrict the spread of the disease. Until this date, the global economic context was in a situation of significant imbalance, marked mainly by the trade war initiated by the United States of America;
- the second and third periods are marked by major uncertainties, as the first includes the coronavirus pandemic - the expansion of COVID 19 worldwide, starting in March 2020 and it is estimated that it will die out in early autumn, but the second wave of coronavirus wreaks havoc in Europe and the United States, with the end of the pandemic very uncertain.

- This second period is characterized by the efforts of national public authorities and local communities to stop the spread of the disease and protect the population from both the disease and its economic effects, as the slowdown or even cessation of economic activities due to the need for isolation lead to a substantial decrease in the income of the population;
- the third period, the return of the activities to the normal parameters, presents even more unknowns, the first being the long-awaited moment of the beginning, but the following ones being difficult to anticipate.

Thus, the state of the real economy, as well as the financial position of both the public and private sectors are fundamental questions to be able to develop and implement successful programs to restore the economy and achieve a quality of life corresponding to the 21st century for the entire population.

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