HAS THE ROMANIAN ECONOMY REALLY ENTERED IN THE FOURTH CYCLE OF JUGLAR DEVELOPMENT, IN 2020?

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Abstract

This paper's research was generated by a simple question about the real impact of the global economic crisis, generated in 2020, by the pandemic caused by the Covid - 19 virus. This virus, strange enough indeed, had appeared in Wuhan in 2019, in China, and had a major economic impact, inducing a recession at least technically, by its close duration of about six months in Romania, as well as everywhere in European Union. In order to clarify the intensity of the recession's signal, some macroindicators have described the new form of the new inflection's at a particular point on the curve of the cyclicality offering the discontinuity start of the Romanian economy, since 2020, in fact the year of the pandemic crisis generated by the Chinese economy. After 1989, until 2019, during all the three last decades economic growth's trends have revealed the first three major Juglar cycles, which took place in the national market economy. The last year 2020 had delimited in a chronological manner the beginning of the fourth Juglar cycle for Romanian economy. A literature review section describes the major types of cycles, the characteristics of macroeconomic cycles and subcycles, detailing different cycles, and finally, a special section is dedicated to the special period beginning in the fateful year 2020, trying to formulate an answer to the basic question of this article. Some final remarks open new horizons and anticipate possible limitations of the cyclicality of the Romanian economy.

Keywords: economic cyclicality, Clément Juglar cycle, electoral cycle, market economy, economic oscillations, macroaggregates, cyclicality indicators.

1. Introduction

This paper is dedicated to a remarkable physician and, perhaps, one of the most passionate French economist, who have analyzed through and made detailed studies of the cycles in business and commercial activities or trade, in a such specific way, that is comparable to the life's pulsation in general. Clément Juglar qualified as physician in 1846, but he was not recognized as an economist until 1860, or, more precisely, he appeared to be a real doctor in economics only after his submittion of an essay, named "*Des Crises Commerciales*," in the

Journal des Économistes, later expanded and transformed into a famous book, simply entitled "*Business Crises*" (1862). His medical training, does amplified naturally his interest in the human population and implicitly, in demography, and the economic turmoil of 1848 has attracted him definitely to the subject of economic fluctuations and crises. Appreciated for his realistic contribution to the analysis of economic cyclicality, Clément Juglar won the Bordin Prize at the French Academy of Moral and Political Sciences, especially for using his unique statistics or available time series data in anticipating of the turning points in economic developments. The accuracy and the pure logical way of thinking from his calculations were so astonishing and accurate, that another famous business cycle theorist, as Joseph Schumpeter was indeed, described him him as being "*among the greatest economists of all time.*" (Encyclopaedia Britannica, 2021).

The healing of an economic organism is stronger than its cyclical disease, which is why markets fall and rise more frequently than remain stationary. Quoting Thomas Wolfe famous words, after whom „the essence of belief is doubt, just the essence of reality is the questioning" and paraphrasing him, at the end, the essence of economics becomes the very cyclicity of its evolution. And just as "*the essence of time is flow or instability and not fix or stability*" so the fluctuation of prices and the relativity of their equilibrium becomes nothing else but inflation. The essence of belief in economics is also given by the knowledge that the balance is flowing or all flows and the whole economic cycle must be changed, the "philosophy" of macroeconomics must be linked to economic growth. Any economy that is too stable today, tomorrow is destabilizing - and its equilibrium is nothing more than a series of transient states or statistically quantifiable economic biases through quick thinking, bias or systematic errors, and ineffective approaches (Kahneman, 2011).

The economic cycle is the fluctuation of time, which exceeds one year of economic activity as a whole, being the result of a certain approach, based on short, medium, long or very long period, but also of a certain specific economic space (national, regional, international, etc.). Cyclicality can last from only a few years, usually in the short agricultural cycle (minimum 2-3 years or during around 30-40 months), to decades or centuries, in the long and very long cycle, depending on the oscilations (increases or decreases) of some certain values, defining macroeconomic statistical indicators. A cycle is characterized by the existence of at least two opposite periods of expansion and contraction, between which are placed transient periods of relative stability as level or trend. Some theorists of economics such as Joseph Alois Schumpeter or John Maynard Keynes consider the theory of cyclicity as one of the correct

and truthful explanatory solutions to the leaps of economies, while others like Paul Samuelson or Joseph Stiglitz suggest that all of these are more like science fiction theories or insufficiently scientifically substantiated theories.

2. A brief literature review dedicated to the economic cyclicality

As well as any disease, a conflict has a final solution, otherwise the development takes place for the human body in at least two phases, as a reactive system. During the first phase of the active conflict generated by the disease, the whole body is oriented towards dealing with the conflict. While, at the physical level, specific cellular disorders take place, the brain or the mind and the autonomic vegetative nervous system also face unexpected situations. Switched to a phase of stress, the brain or the entire mind becomes fully concerned with the content of the conflict or, more precisely, the disease itself. The sleep disorders and the loss of appetite are the most specific symptoms. Biologically speaking, this is vital, because focusing on the conflict or disease and the extra hours of activity are the right conditions for resolving the conflict or the disease. The active phase of the conflict is also called the "*cold phase*." Because constriction of blood vessels occurs during stress, the specific symptoms of conflicting activity are cold extremities (especially hands), trembling, and cold sweating. The intensity of symptoms naturally depends on the period in which a person stays too long in this state, and the consequences can be fatal sometimes. The cycle of life and creativity, the cycle of activities and products, the geological or demographic cycle, etc. are realities and certainties of the contemporary world, capable of changing the process of human thinking.

Prosperity and decline, wealth and poverty are the obverse of economic reality (meaning the front face for any country) and the reverse of the same reality (meaning the back face of any nation) many times not only of a coin, but also of the relaxation status and the stress behaviuor, representing cyclical fluctuations caused by the gradual accumulation of decisions or solutions, correct and erroneous behaviors, both financial, monetary, investment and managerial, with major consequences in allocating resources at the level a national or global economy. The economic cycle, called business or commercial cycle, is a rising and falling wave of gross domestic product (GDP), especially at the macroeconomic level.

A classic macroeconomic cycle has four main phases:

A) upward recovery (take-off or expansion);

B) rapid ascent (apogee or boom);

C) downward inflection (prolonged crisis or recession);

D) economic depression (prolonged decline and stagnation);

Any medium to very long cycle combines the decline of the economy with alternative growth that changes in pace and intensity with the dynamics of GDP (Fig. no. 1).

The stages of the classic Juglar economic cycle

Fig. no. 1
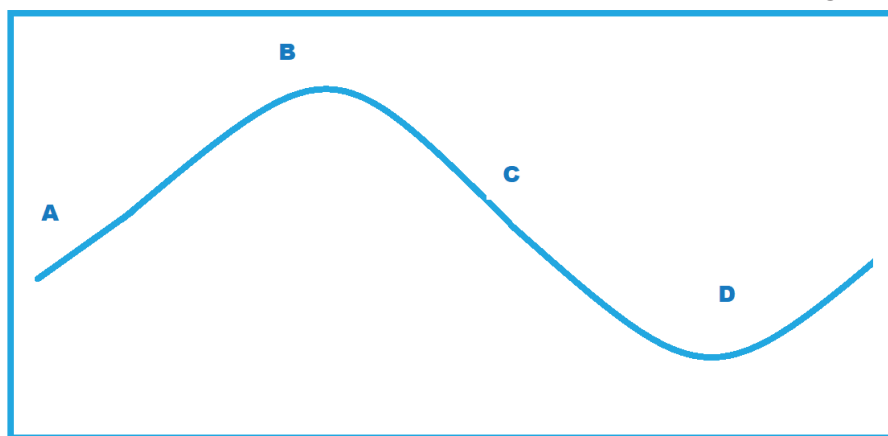
Source: Realized by paper's author

The obsesive boom chasing is the *femme fatale* of all economic activities. Even the relative few theorists who sense the danger that can ambusch here, may not fully understand it. Consider the following truism: Fear of crisis or depression is stronger than greed, which is why economies fall more rapidly than they climb...

A synthesis made by Joseph Alois Schumpeter, who actually gave the name of the classic Juglar cycle, starting from the name of the French physician and great economist Clément Juglar, the economic activity in a macroeconomic system takes place in repeatable cycles between eight and twelve years. A classic Juglar cycle starts from the bottom up (A), respectively from the collapse of the recession or the minimum level of reporting of effects, economy and efficiency, evolving from the minimum area, as a level of the curve, slowly, until the economy begins to recover, as well as the optimism grows and things get better, and security overcomes fear, the economy overheats and heads for the top of the curve or boom already (B), so that later, resources are used incoherently or tensely and, at some point, there are signs of a free fall or of the beginning of a new crisis (C), subsequently all corrections of activity occurring exclusively downwards, diminishing production,

personnel, resources, investments, etc., practically almost everything, until a new minimum level or collapse limit is reached (D) …

As it has been seen in macroeconomic history, four balances become essential in the management of any country, region, continent or even in international economy: i) the equilibrium of the economic results or the economic growth; ii) the balance of classical markets for goods and services or the equilibrium of the prices and tariffs; iii) the balance of the special market of the labour force or the equilibrium on the labour market; iv) the external balance between the uncompensated flows of exports and imports.

All these aspects define a quadrilateral or magic square of the macroeconomic and governmental managerial strategy and become an object of investigation of this paper as a generator of imbalances as opposing states that become signals that should be promptly perceived by the macroeconomic management of any countries, but especially those within the European Union of which Romania has been part for almost a decade and a half, and still is and I hope that will be for the next decades or centuries. The major equilibrium and also the most important indicator is the statistical concept of economic growth involving numerous theoretical and practical investigations, along with an entire literature that includes many points of view. Simon Kuznets, winner of the Nobel Prize in Economics, in 1971, argued perhaps most eloquently a realistic managerial point of view that offers content for economic growth, but also an economic signal strength in the context of a better future, according to which "*a country's economic growth may be defined as a long-term rise in capacity to supply increasingly diverse economic goods to its population, this growing capacity based on advancing technology and the institutional and ideological adjustments that it demands* [*the sustained rise in the supply of goods is the result* of economic growth, by which it is identified]." (Kuznets, 1971).

Starting from the classical economic theory (1750-1850), continuing with the Marxist and neo-Marxist, Keynesian and post-Keynesian theory and reaching even the modern theories such as the theory of the Austrian school of economics or the theory of behavioral or experimental economics of Amos Tversky and Daniel Kahneman there have been constant concerns about deciphering the problems of correct quantification and the role of economic growth. From the initial term meaning "*wealth of nations*" already well-known notion of Adam Smith or Joseph Schumpeter's "*theory of economic development*" to the most recent, such as the "*condition of economic progres*" (Colin Clark), or "*change caused by technology*" (Robert Solow), economic growth followed a path of meanings like a winding path that marked the theoretical evolution of the entire macroeconomic field, amplifying the importance of the economic cycle and of its tipology (Figure no. 2)

A typology or dominant chronological classification of the economic cycles

Fig. no. 2
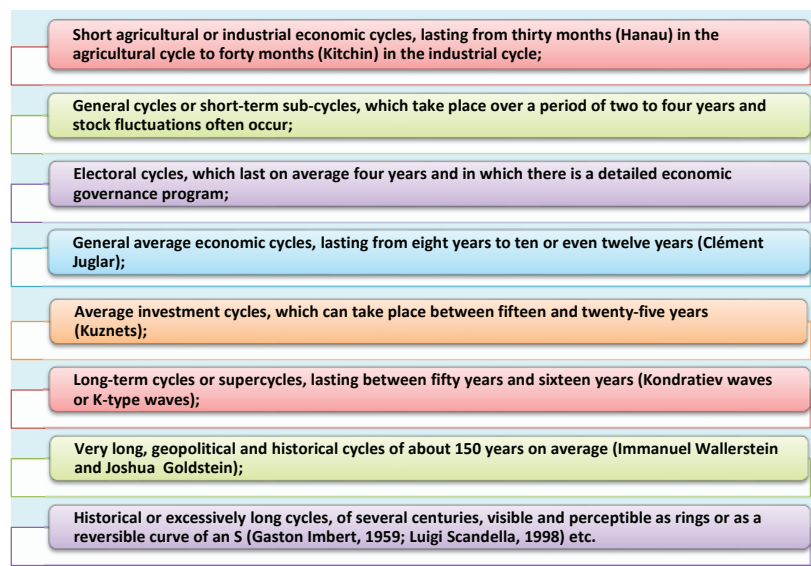
Source: Realized by author, extending own typology from his book published in 2013, and entitled *Situaţii statistice financiar-contabile şi sisteme de indicatori statici derivaţi, Bucureşti: Editura Universitară, pp. 154 -155.*
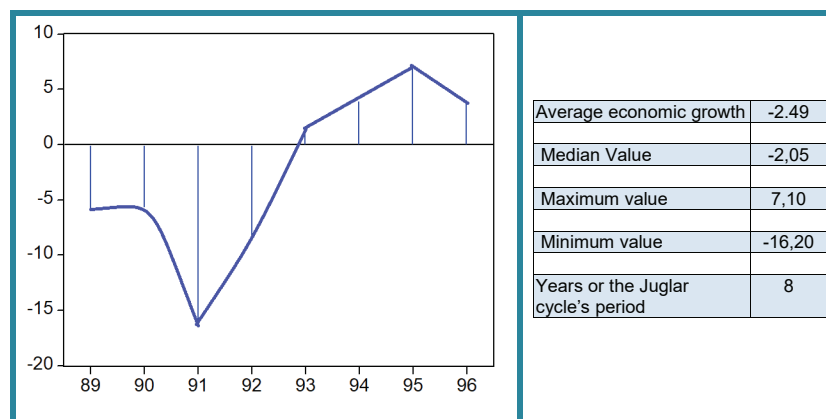
Throughout the Juglar-type economic cycle, any economy as a system, but especially any person needs to reduce the crises' stage or period, through a greater adequation to new technology and reality. Only in the vicinity of an economic crisis one person does change rapidly and implicitly together with the entire economic system, adapting his thinking promptly, realizing that continuing in the same conditions before crisis, becomes synonymous with his own self-destruction.

3. The Juglar cycles of the Romanian economy after 1989

The first average Juglar cycle of the Romanian economy of post-December transition to market economy was between 1989 and 1996, being described with the help of the most important macroeconomic factor, namely economic growth derived from the dynamics of the real national GDP index (Figure no. 3.)

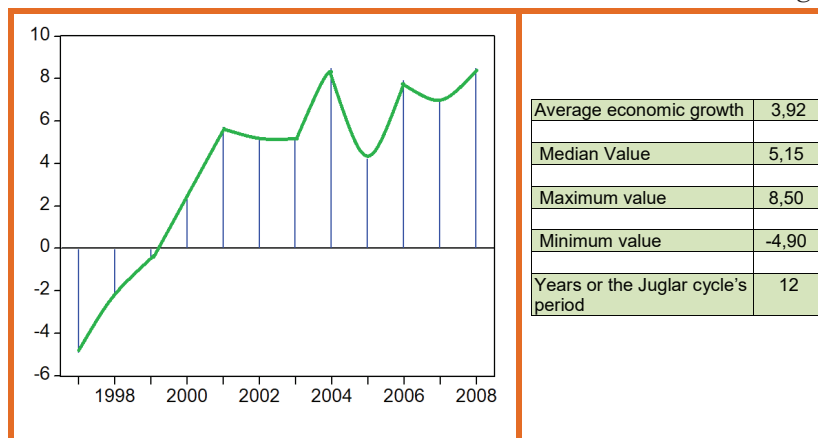**The first Juglar cycle in Romanian economy, between 1989 and 1996**

Fig. no. 3

Average economic growth	-2.49
Median Value	-2,05
Maximum value	7,10
Minimum value	-16,20
Years or the Juglar cycle's period	8

Source: The data were selected and taken over by the author from the series available online at https://insse.ro/cms/

The magnitude of the oscillation seems to be much smaller in the second economic cycle (1997-2008), and such a signal being a positive one, respectively that of a relative stabilization of the limits able to describe the macro-economic processes. The last years of the debut cycle in the transition to the market economy of Romania anticipate the imminent presence of a new recession and, thus, describe the entry into the second Juglar cycle of the Romanian economy. The double visual ways of rendering and graphics and by average, median, minimum and maximum statistical indicators underline the dynamic type variation of the economy, capitalizing as cyclical macroindicator the same rate of economic growth at national level (Figure no. 4.).

The second Juglar cycle in the Romanian economy, between 1997 and 2008
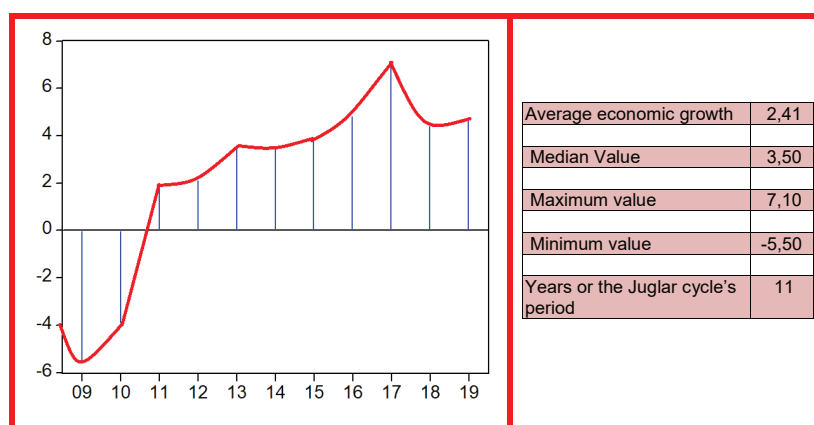
Fig. no. 4

Average economic growth	3,92
Median Value	5,15
Maximum value	8,50
Minimum value	-4,90
Years or the Juglar cycle's period	12

Source: The data were selected and taken over by the author from the series available online at https://insse.ro/cms/

The third average economic cycle of the Juglar type is delimited by the period 2009-2019, this time in the context in which the crisis is installed with the pandemic caused by the Covid virus - 19, in 2020 (Figure no. 5.).

The fthird Juglar cycle in Romanian economy, between 2009 and 2019

Fig. no. 5

Average economic growth	2,41
Median Value	3,50
Maximum value	7,10
Minimum value	-5,50
Years or the Juglar cycle's period	11

Source: The data were selected and taken over by the author from the series available online at https://insse.ro/cms/

Each variable in table no. 1 and 2, as well as in figures no. 3 - 5 has its own evolution and only a statistical cyclical description can clarify the extent to which all of these delimit and outline, but never individually but only together, the cyclical evolutions of the national economy and provide a higher degree of the macroeconomic knowledge. The specificity of each economy, including Romania, must also be combined with the overlapping of electoral cycles in the case of these distinct variables, which can amplify or diminish certain stages, both in terms of temporal impact and final results. In particular, there is a higher degree of visibility in the case of real economic growth. This aspect can also be illustrated by the rate of growth (evolution) or decrease (involution) of Romania's real GDP, which has the capacity to best describe the economy itself and which is under the influence of global and national booms or recessions, affecting the political, economic and social behavior of various countries, more visibly in combined crises and, in particular, in a technical recession caused by pandemic, when post-recession macroeconomic losses are bigger and bigger, forcing governments as macroeconomic managers to select and choose one of the solutions described below in the case of Romania:

a) return to the state of crisis, in accordance with the third Juglar cycle specific to Romania, after the beginning of the transition in 1989 (the Juglar cycle in the national economy begins with downward evolutions of at least one and a half or two years, on average);

b) the deepening of the fall in macroeconomic performance in the first year of any electoral cycle or even extended in the first two years after the new elections, signaled by the GDP growth in the last two years, shows an upward trend between cycles;

c) the contagion of the global and national crisis on the electoral cycle (including the more intense impact of the crisis in the emerging countries that were EU candidates) and the much more upward dynamics of Romania's growing debt after the 2008-2010 recession;

d) excessive or much higher inflation in the first year of the electoral cycle.

Electoral cycles in Romania, during the last three decades, according to the economic growth or based on the rhythm of the real GDP indices

Table no. 1

Electoral cycle	Electoral year within the electoral cycle (from I to IV)			
	Year I	Year II	Year III	Year IV
1989-1992	-5,8	-5,6	-12,9	-8,84
1993-1996	1,5	4,0	7,2	4,0
1997-2000	-6,1	-4,8	-1,2	2,1
2001-2004	5,7	5,1	5,2	8,4
2005-2008	4,2	7,9	6,0	7,9
2009-2012	-6,6	-1,7	3,1	0,7
2012-2016	2.1	3.5	3.4	3.9
2016-2020	4.8	7.1	4.4	4.7
2020-2024*	-3.9	4,3 *	4,7 *	5,0 *

Note * = Data forecasted by NC of SP / January 18, 2021

Source: Realized and updated by the author after Săvoiu, G. 2014. *Kondratiev type cyclicality of the Romanian economy, grounded in three key statistical indicators: GDP, CPI or CLI and debt*, Romanian Statistical Review, 2014 (1), p. 12

Similarly, the analyzed in detail inflation during the nine electoral cycles shows a higher level, on average, in the first election year, compared to the last year of the previous cycle or the other years of the current cycle (as it can be seen in table no. 2):

Electoral cycles in Romania, during the last three decades, according to the variability of inflation (CPI)

Table no. 2

Electoral cycle	Electoral year within the electoral cycle (from I to IV)			
	Year I	Year II	Year III	Year IV
1989-1992	5,3	5,1	170,2	210,4
1993-1996	256,1	136,7	32,3	38,8
1997-2000	154,8	59,1	45,8	45,7
2001-2004	34,5	22,5	15,3	11,9
2005-2008	9,0	6,56	4,84	7,85
2009-2012	5,59	6,09	5,79	3,33
2012-2016	3,33	1,07	-0,59	-1,55
2016-2020	1,34	4,63	3,83	2,63
2020-2024*	2,6	2,6 *	2,5 *	2,4 *

Note * = Data forecasted by NC of SP / January 18, 2021

Source: Realized and updated by the author after Săvoiu, G. 2014. *Kondratiev type cyclicality of the Romanian economy, grounded in three key statistical indicators: GDP, CPI or CLI and debt*, Romanian Statistical Review, 2014 (1), p. 14.

4. Some final remarks

In any macroeconomic approach, some relevant indicators are needed as minimum and maximum benchmarks, but also evolving confrontations or statistical comparisons at the international level. Romanian economy begins its Juglar cycles directly with recessions, which last a little longer, and thus proving a certain specific involutionary inertia. Of all the cyclical balances previously analyzed, the equilibrium of the economic growth through the indicator of the real GDP rate proves to be the most relevant for the Romanian economy, being complemented electorally by the dynamics of inflation.

Like many of the other member economies of the European Union (EU), but also of many others international countries, Romania was forced to adopt an adequate strategy based on medical quarantine's measures in order to avoid a big presure beyond the capacity limits of the domestic health system and, thus, to enter into a severe recession in 2020, starting in a tangible way within the second quarter of the year and registered a sharp economic decline, corrected towards the end of the year to -3.9%. „*The major cause is not related to the global economic cyclicality, although there were some involuntary trends expected more or less globally, towards the end of 2019, more clearly in Italy and Spain, neither financial, as happened in 2008 nor "purely economic in general"* (Săvoiu, 2013, pp. 153-154), *but the pandemic generated by the Covid-19 virus, which appeared in the fourth quarter of 2019, in Wuhan (China)* "(Săvoiu, 2020).

Similar with the pulse or heartbeat, the cyclical macroeconomic indicators remain signals related to the health of an economy, while their invariability or exaggerated stability in time, space and organization or structure would rather mark the death of that economy. The economic tissue of transactions is vital and breathes as long as cyclical macroeconomic indicators show variation and diversity, a continuous path of growth and decline, balance and imbalance, and thus combining the natural meanings of breakdown and routine with those of enthusiasm and creativity of human activity. Romania's economy, as it can be seen from this paper, is already a market economy, with characteristic balances and imbalances and this economy evolves through a real average GDP growth in the last 30 years, in parallel with a decrease in inflation fluctuations, unemployment and relative contraction of the trade deficit in GDP. Unfortunately, a growing negative and with a more serious impact remains the growing of the social exclusion, the policies of income equalization at the limit of the minimum wage in the economy that brought almost 1/3 of employees on a level of delicate or even unbelievable survival, and not correlated with prices and the real needs of a household. More than 1.6 million employees are included in this segment are in Romania, probably the highest percentage of European economies that have minimum wages in their legislation.

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The effects of the COVID-19 pandemic. A stock markets analysis

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Abstract

The COVID-19 pandemic has caused a considerable slowdown in the economies, affected financial markets and growth prospects worldwide.

The study refers to the evolution of stock markets during the COVID-19 pandemic and through an empirical analysis of nine selected stock market indices from European Stock Markets that reflect the performance of the economy, the price evolution of Gold Bullion Securities and also by taking into account the evolution of new COVID-19 cases, in the first stage of the analysis registered in China and in the second one registered in a selected number of countries from Europe (EU and Schengen Area Member countries and United Kingdom) we will examine the effect and correlation of the health crisis with the stock markets indices, and its potential to trigger a crisis.

Key words: crisis, stock exchange markets, COVID-19.

Introduction

When the first COVID-19 case was identified on 31st of December 2019[1] in Wuhan, Hubei Province, China, no one did it expect it to have such a great impact on other countries, nevertheless on the entire world, when on 11th March 2020 "*118,000 cases reported globally in 114 countries*" and "*81 countries have not reported any cases, and 57 countries have reported 10 cases or less*"[2], WHO declared it a pandemic.

Globally the number of reported cases surpassed one million on the 3rd of April 2020, 10 million on the 29th June 2020, 20 million on the 12th of August 2020 and by the end of 2020 it reached a critical number, surpassing 90 million[3], meaning that 1,1546% of the world's population[4] was infected with the COVID-19 virus. Although the percentage does not seem significant, due

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1. According to WHO

2. According to WHO Director-General's opening remarks at the media briefing on COVID-19 on 11 March 2020 (https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020)

3. Timeline of ECDC's response to COVID-19 (https://www.ecdc.europa.eu/en/covid-19/timeline-ecdc-response)

4. According to Worldometer statistics by the end of 2020 the population was 7.794.798.739 (https://www.worldometers.info/world-population/)