

# RECESSION OR RECOVERY: THE FIFTH STAGE OF THE KONDRATIEV WAVE

Ellana Molchanova <sup>1</sup>, Kateryna Kovtoniuk <sup>2</sup>

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<sup>1</sup>State University of Trade and Economics, Ukraine,

<sup>2</sup> Kyiv National Economic University named after V. Hetman, Ukraine

## Corresponding Author:

Ellana Molchanova

Email: [ellana.molchanova@gmail.com](mailto:ellana.molchanova@gmail.com)

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## ABSTRACT

The research is based on the analysis of the main theories that determine the characteristics of economic scientific schools, the basis of their factor analysis of the impact on crises and tools for their levelling. The main mathematical models are analysed, which aim to determine the main cycles of crisis phenomena in the world economy. With the help of historical and logical analysis, the article provides the genesis of the main crisis manifestations in the world economy. The method of systematization and comparison made it possible to identify the main stages of crises and systematize their influencing factors. The mathematical basis of the research was the construction of the last cycles of the Kondratiev waves and the confirmation of one of the two “positioning” forecasts of the modern stage of the global economy’s collapse in accordance with the Kondratiev waves. The predictive assessment of the further scenario of the development of the crisis is supplemented by analytical reports of international organizations such as UN, the IMF and the World Bank Group. The used methods and methodology made it possible to achieve the goal of the research, which is aimed at identifying the fifth Kondratiev wave and forming a forecast scenario of the economic development of the world economy

**Keywords:** *crisis, economic waves, economic crisis, factors influencing, crisis phenomena*

## 1. INTRODUCTION

The crisis is one of the most popular terms in economics. It is difficult to imagine a modern article on economics that does not mention the crisis of the financial market, the banking system, the crisis of the industry or the collapse of the company’s market value. The economic crisis is considered inevitable and sometimes even a boon for the country. Is it possible to avoid it and how do deal with it? How we determine that a crisis has appeared - we “feel” a significant drop in business activity in a country or several countries. However, the question arises: how to define a “significant decline in the economy”? It is considered a categorical fact that the crisis is part of the economic cycle. Despite the differences in approaches and assessments of different economic schools to the definition of a crisis, their general conclusion is that crises manifest themselves cyclically. The economic cycle model includes the main phases - bottom, growth, recession and peak. An economic crisis can also manifest itself in stagnation and depression - a severe recession when the economy is at the bottom for an extended period. The scale of an economic crisis is measured by three factors: depth, spread and duration. The causes of the economic crisis are grouped in scientific theory. Economic science has developed several theories that explain the causes of economic cycles and, accordingly, the crises that arise. It is not possible to cover all types of scientific schools. The methodology examined

the main directions and sources of scientific research on crises. However, the nature of the crisis phenomenon itself is largely beyond the scope of scientific discourse. As a result, this extremely frequently used term is interpreted ambiguously, and sometimes it refers to completely different phenomena, which, does not contribute to scientific discussion. In this publication, we accept as a basis the existence of the crisis as a fact. It remains to analyze the two main forecasts/scenarios of the fifth wave of Kondratiev, which became the object of our research. So we can say, which aimed at identifying the fifth Kondratiev wave and forming a forecast scenario of the economic development of the world economy (Gillpatrick, Tom, Boğa, Semra and Aldanmaz, Oncel, 2022).

## 2.METHODS

The development of ideas about macroeconomic crises originates in the works of the classics of political economy David Ricardo, J.-B. Say and Thomas Robert Malthus. David Ricardo and J.-B. Say viewed the crisis as an accidental phenomenon for economic development. In the works of Malthus, for the first time, the thesis formulated that private crises of overproduction of individual goods or commodity groups are possible and general crises of overproduction in the economy. (Jacob H. Hollander, 1904, Dorfman Robert, 1989, Sergio Cremaschi & Marcelo Dascal, 1996, Sergio Cremaschi & Marcelo Dascal, 1998, Stefan Hopp, 2004, Markus K. Brunnermeier & Ricardo Reis, 2022). From the second half of the XIX century. Works appear in which the crisis is perceived as characteristic of the economy, an inevitable and regularly recurring phenomenon. It can be said that starting with the works of K. Juglar and K. Marx (Marx K., 1960, Besomi D., 2009), there is a transition from the theory of crisis to the theory of the cycle in economic science.

There are many different types of cycles, each of which exhibits different characteristics, the most obvious being the differences in periodicity. The most important are the Kitchin cycle (3-4 years), the Juglar cycle (7-11 years), the Kuznets cycle (16-22 years), and the Kondratieff cycle (Aldcroft, D.H., Richardson, H.W., 1969).

The provisions of the theory of economic cycles are being developed in the works of representatives of Keynesianism, neoclassical, the neo-Austrian school: the crisis appears as an expected pattern and scientific controversy flare up on the causes of cyclicity and anti-crisis measures. Let us illustrate it with examples from the works of scientists representing leading scientific areas.

According to K. Marx, the source of crises in society is an economy based on private property, which causes a clash of conflicting interests: crisis" (Marx K., 1960). Crisis in this sense acts as a phase of the economic cycle and a form of resolving contradictions that have accumulated in the previous period. The immediate cause of the crisis is the contradiction between the tendency of capitalist production towards the unlimited expansion of production and the limited effective demand.

J.M. Keynes's research defines a crisis as a sudden and abrupt, as a rule, change from an upward trend to a downward trend (John Maynard Keynes, 1936). Exploring the causes of the crisis, J.M. Keynes comes to the conclusion that the more typical, and often the main explanation of the crisis should be sought not in the growth of interest, but in a sudden drop in the marginal efficiency of capital. In Keynes theory, the factor of the uncertainty of future expectations plays a significant role, which has a significant impact on investment activity. In studies of neoclassical synthesis, monetarism, and the theory of the real business cycle, the uncertainty of the future is reduced to the level of ambiguity, explained by the limitations of human cognitive abilities. In the future, in the works of the post-Keynesian direction, the study of uncertainty is revived. The theory of J.M. Keynes defines it as a fundamental uncertainty. The Keynesian crisis policy involves an increase in government spending, reducing the tax burden, if possible, and monetary expansion. In his research, J.M. Keynes favours short-term analysis without taking into account the catastrophic effects of inflation and excessive public debt. (John Maynard Keynes, 1936).

J. R. Hicks and Roy J. D. Allen (1906-1983) played an important role in the fact that mathematical tools began to increasingly cover not only macro but also microeconomic analysis. In a joint article with Allen "Revisiting the theory of Utility" (1934) and then in the book "Value and Capital" (1939), Hicks brought to the fore the theory of consumer demand and market equilibrium the approach not of the Cambridge, but of the Lausanne school. In the theory of neoclassical synthesis, P. Samuelson

and J.R. Hicks consider fluctuations in the production of durable goods to be the main cause of cyclicity. The main problem was not demand, but the accumulation of resources. In addition, since the recovery was accompanied by inflation and was unstable, there was a need for a more general concept of regulation, suitable not only for recession but also for growth ([Đukić, Aleksandar, Štaka, Mirjana and Drašković, Dajana, 2021](#)). The first logical step was the substantiation of the principle of determining national income. Then, monetary parameters were introduced into the model: the volume of investment is considered to be given, and the consumption function is made dependent not on the rate of interest, as in the case of neoclassical, but on the level of national income. In the monograph "Contribution to the Theory of the trading cycle" (1950), J.R. Hicks proceeds from the very beginning from the premise that the development of the capitalist economy over the past century and a half has been - and will be - characterized by cyclical fluctuations. ([Hicks J.R., 1978](#)). As an anti-crisis policy, a combination of monetary expansion, which stimulates investment processes, and a tight fiscal policy, which helps to neutralize the inflationary gap as a result of increased investment, is recommended.

Monetarists condemned the stimulating fiscal policy, since, according to M. Friedman, an increase in government spending relative to income in no way leads to economic recovery, since it can increase income in monetary terms, but all this increase will be absorbed by government spending ([Friedman M., 1962](#)). To implement this policy, fluctuations in activity must be predicted in advance. Knowledge of fiscal and monetary policy is also required.

The anti-crisis recommendations of the monetarists concerned exclusively the monetary sphere. It is curious that the term "crisis" was not used by them about short-term fluctuations in the economic environment, which were perceived as a simple accumulation of random shocks ([Dorfman Robert, 1989](#)).

Irreconcilable opponents of both monetarists and Keynesians were representatives of a new neoclassical direction - the theory of the real business cycle, the basic provisions of which were published in 1982 in the work of F. Kydland and E. Prescott's "Time to build and aggregated fluctuations" ([Kydland F. & Prescott E., 1982](#)). At present, the theory of the real business cycle is represented by a vast number of works based on the concept of dynamic stochastic general equilibrium, dating back to the studies of J. Muth and R. Lucas. This direction gained recognition at the beginning of the 21st century since it did not limit the analysis of cyclical fluctuations to economic factors. The crisis phenomenon is excluded from the object of study, since the crisis phase only affects the change in the variances analyzed over a long time horizon of the series, and the crisis years are "hidden" – the effect of short crises on the analyzed variances is relatively small ([Grigor'ev L., Ivashchenko A., 2010](#)). In other words, it is rather a series of random shocks.

The evolution of scientific ideas about macroeconomic cycles and crises largely reflects the fundamental changes in the world economy, including accelerating globalization, modernization, and the financialization of the economic sphere. At the end of the XX century. the focus of scientific discussion about the nature of macroeconomic cycles and crises is increasingly shifting to the ambiguous impact of these processes on economic growth.

The problem of cyclicity, which attracted the attention of scientists from the middle of the 18th century, remains one of the central problems of economic theory today. Cyclical development of the economic system as an aspiration to achieve macroeconomic balance is a manifestation of the very essence of economic development. Modern economic and mathematical methods have made it possible to identify 1,380 types of cycles that relate to the economy. But only some of them have theoretical and practical significance, and one of the most significant cycles is M. Kondratiev's big waves. ([Bosserelle Éric, 2020](#)). Kondratiev empirically identified three long waves of the economic situation with a duration of 48 - 55 years ([Blyzniuk T.P., 2005](#)):

- 1 cycle: rising wave from the late 80s - early 90s of the 18th century. until 1810-1817; the downward wave of 1810-1817 - 1844-1851;
- 2nd cycle: rising wave 1844-1851 - 1870-1875; the downward wave of 1870-1875 - 1890-1896;
- 3rd cycle: rising wave 1891-1896 - 1914-1920; the possible downward wave of 1914-1920

He managed to predict the Great Depression of 1929-1939 as early as 1922, that is, 7 years before it began, ahead of the forecasts of the prominent Austrian economists Ludwig von Mises and Friedrich von Hayek, who warned of the next great crisis during 1925-1929.

Today, scientists distinguish five long waves of M. Kondratiev. Based on the study of the works of nineteen scientists T.P. Blyzniuk systematized and calculated the periodization of waves (Table 1).

Table 1. Chronology and duration of long waves by different authors

	Scientist	Year	The Kondratiev wave									
			1st		2nd		3d		4th		5th	
			Be- gin- ning	Peak	Be- gin- ning	Peak	Begin- ning	Peak	Begin- ning	Peak	Begin- ning	End of t he wave
1	M. Kondratiev	1925	1790	1817	1851	1875	1896	1920				
2	A. Spithof	1925		1822	1874	1895	1912					
3	De Wolf	1929		1825	1849	1873	1896	1913				
4	J. Schumpeter	1939	1787	1813	1842	1869	1897	1924				
5	J. M. Clark	1944		1850	1875	1900	1929					
6	Dupre	1978	1789	1808	1846	1872	1895	1920	1939/46		1974	
7	W. Rostow	1980	1790	1815	1848	1873	1896	1920	1935	1951	1972	
8	Mandel	1980		1826	1847	1873	1893	1913	1939/48		1967	
9	Van Dyne	1983			1845	1872	1892	1929	1948		1973	
10	M. Riccione	1985	1769	1799	1816	1849	1873	1897	1921	1946	1973	
11	S. Glazyev	1993	1770		1830		1880		1930		1985	
12	I. Lipsits, A. Neschadyn	1997	1785	1835	1830	1890	1880	1940	1930	1990	1985	2035
13	Y. Yakovets	1999									1974	1998
14	V. Efremov	1999	1785	1845	1846	1900	1901	1950	1951	1990	1991	2020
15	N. Mironenko	2001	1785	1813	1847	1872	1893	1917	1945	1969	1985	
16	O. Gritsay, G. Jof- fe, A. Trevisch		1770		1830		1880		1930		1970	
The results of the calculations												
	Average		1782	1822	1845	1878	1894	1922	1937	1969	1977	2016
	Duration (Du- ration between the Beginnings)			(63)		(49)		(43)		(40)		(39)*
	Duration (Du- ration be- tween the Peaks)				(56)		(44)		(47)		(40)*	

Source: Blyzniuk T.P., 2005

However, in research conducted by T.P. Blisniuk, we see significant differences in the defined beginning and peak of the wave.

## 2.1. CYCLICAL PHASE MODELS

The model describes the dynamics of output (Y, GDP) of the economic system. Output (Y) is determined by the production function, which describes the dynamics of the number of goods and services produced depending on the costs of labour (L) and capital (K). Produced goods are spent on consumption (C) and investment (I). Investments are used: a) to compensate for the wear and tear of fixed capital, b) to increase the amount of fixed capital (and therefore to increase output). Positive feedback between investments and changes in demand and changes in prices, since prices directly depend on demand; high unsatisfied demand leads to a rise in prices, i.e. to a disruption of equilibrium. Since the economic system in the process of its evolution strives for equilibrium, and if this system is brought out of equilibrium, then damping oscillations will be observed in it. Reduction of time lags, on the contrary, contributes to a faster reaction of the economic system to destabilizing



influences and its return to a state of equilibrium. In this light, the most natural for the economy is the phase of depression, that is, a state of equilibrium and zero economic growth. However, this state does not satisfy economic agents, because with zero economic growth, the profit level is low, and accumulated capitals are not effectively used. Entrepreneurs a priori do not know where to invest money (investments are both expensive and risky, since the products obtained may not find demand, and instead of profit there will be losses), so they wait for signals from the market. As soon as these signals appear, recovery begins. The main signal is an increase in demand for certain types of products (for example, infrastructure, real estate or goods with new qualities as a result of the use of new technologies). This demand is first satisfied by funds accumulated in the economy (recovery phase), and then it begins to be replenished with loans. Autonomous demand, reinforced by the credit system, stimulates investment in those sectors of the economy that has become profitable and leads to general economic growth (boom phase). Since the investment process and the creation of new production units lag behind changes in autonomous demand, after a certain period a situation arises when demand is saturated and begins to decrease, and production capacity continues to expand, which is a consequence of the actions of speculators. An acute crisis arises because business expectations of growth do not correspond to real market trends, which are now on a downward trend, prices of assets and essential resources are falling, credit supply is sharply reduced, bankruptcies occur, debts are not paid, production begins to decline, etc. (decline phase). After that, the economy enters a phase of depression and does not grow in volume until a new “shock” of demand. However, this state differs from the pre-crisis state, as the economy has acquired a qualitatively new form: new industries have appeared, new technologies have been introduced, and new needs have been formed (Korotayev A., 2014, Grinin L., Korotayev A., Malkov S., 2020, Grinin L.).

And the last model - Rate of growth (g) (rate of economic growth) is an indicator indicating the rate of economic development. Consider the following formula for its calculation:

$$g = [(Y_t - Y_{t-1}) / Y_{t-1}] * 100\% \quad (17)$$

$Y_t$  - an indicator of real GDP of the current year;

$Y_{t-1}$  - an indicator of real GDP in the previous year.

This model characterizes the phase of economic development.

### 3.RESULTS

The first mention of the crisis dates back to 33 p. Not. and is characterized as The Financial Panic of AD 33. 3rd century. Crisis of the Third Century (Military Anarchy / the Imperial Crisis) in the Roman Empire, Twenty Years' Anarchy in the Byzantine Empire (political crisis) and Banking crisis (the crash of the Peruzzi and the Bardi family => crash of the European Financial system)

Let's imagine other periods in a tabular view Table 2. A retrospective analysis of crises characterizes their local, regional and global character. It is almost impossible to determine what will become the main factor in the global crisis, especially at the present stage. However, all crises have common features. The analysis of crises and the analyzed theories allow us to identify the main causes: political events, war, scientific and technical discoveries and the development of scientific and technological progress, demographic situation, migration, the discovery of new deposits, high-interest rates that directly determine the price of debt, affect the reduction in consumer spending and economic activity, the crisis of overproduction. Some of these reasons can be attributed to “behavioural” theories, which interpret the cycle as a consequence of waves of pessimistic and optimistic moods covering the population. The crisis occurs at the stage of investor pessimism and leads to a change in demand, a reduction in investment costs and a decrease in income. The theory of overinvestment claims that the cause of the recession is the lack of correct proportions between industries, and the spontaneous actions of entrepreneurs, which is a consequence of inefficient management and investment in production - the influx of investments accelerates expansion, causing disproportions in the system of the financial and economic mechanism of the system. The period from 2020 is more suitable for real business cycle theories. At the heart of the crisis is an economic shock - a random, unpredictable event that has a wide impact on the economy and is caused by things that go beyond economic mod-

els. Among the types of economic shocks are supply shock, demand shock, financial shock, political shock, and technological shock.

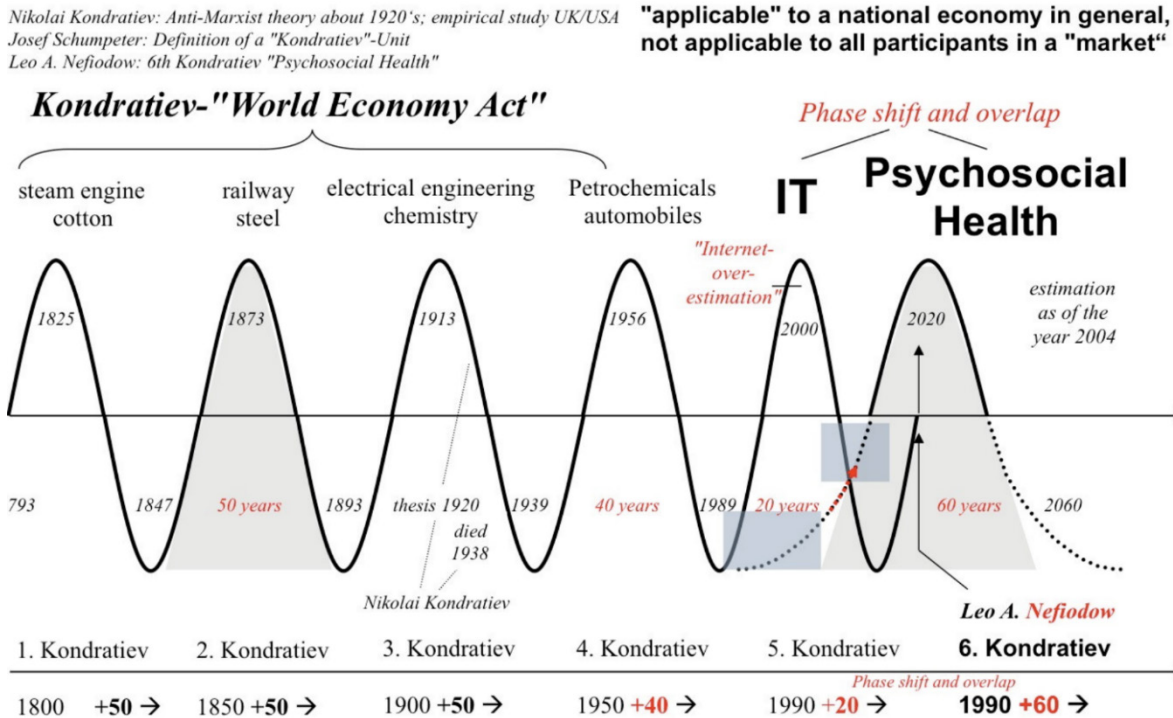
Table 2. List of economic crises

XVIII century	XIX century	XX century	
<ul style="list-style-type: none"> <li>• Great Tobacco Depression (1703);</li> <li>• South Sea Bubble (1720) (UK);</li> <li>• Mississippi Company (1720) (France);</li> <li>• Great East Indian Bengal Bubble Crash (1769) (India)</li> <li>• Crisis of 1772 – started in London and Amsterdam;</li> <li>• War of American Independence Financing Crisis (1776)</li> <li>• Panic of 1785 – United States;</li> <li>• Panic of 1792 – United States</li> <li>• Panic of 1796–1797 – Britain and the United States</li> </ul>	<ul style="list-style-type: none"> <li>• Danish state bankruptcy of 1813</li> <li>• Post-Napoleonic depression (post-1815) (England);</li> <li>• Panic of 1819, U.S. recession with bank failures;</li> <li>• Panic of 1825, England;</li> <li>• Panic of 1837, U.S.</li> <li>• Panic of 1847, England;</li> <li>• Panic of 1857, U.S</li> <li>• Panic of 1866</li> <li>• Great Depression of British Agriculture</li> <li>• Long Depression: Panic of 1873, Panic of 1884, Panic of 1890, Panic of 1893</li> <li>• Australian banking crisis of 1893</li> <li>• Panic of 1896</li> </ul>	<b>1900's</b> <ul style="list-style-type: none"> <li>• Panic of 1901, U.S.;</li> <li>• Panic of 1907</li> </ul> <b>1920's</b> <ul style="list-style-type: none"> <li>• Wall Street Crash of 1929 and the Great Depression</li> </ul> <b>1970's</b> <ul style="list-style-type: none"> <li>• 1970s energy crisis</li> <li>• Secondary banking crisis of 1973–1975 in the UK</li> <li>• Latin American debt crisis</li> </ul>	<b>1980's</b> <ul style="list-style-type: none"> <li>• Early 1980s Recession</li> <li>• Chilean crisis of 1982</li> <li>• Bank stock crisis (Israel 1983)</li> <li>• Japanese asset price bubble</li> <li>• Black Monday (1987)</li> <li>• Savings and loan crisis failure</li> </ul>
XX century	XXI century		
<b>1990's</b> <ul style="list-style-type: none"> <li>• Special Period in Cuba (1990–1994)</li> <li>• Early 1990s Recession</li> <li>• 1991 India economic crisis</li> <li>• Finnish banking crisis )</li> <li>• Swedish banking crisis (the 1990s)</li> <li>• 1994 economic crisis in Mexico</li> <li>• 1997 Asian financial crisis</li> <li>• 1998 Russian financial crisis</li> <li>• Ecuador's financial crisis</li> <li>• Argentine economic crisis</li> <li>• Samba effect</li> </ul>	<b>2000's</b> <ul style="list-style-type: none"> <li>• Early 2000s recession</li> <li>• Dot-com bubble</li> <li>• Turkish economic crisis</li> <li>• 2001 September 11<sup>th</sup></li> <li>• Uruguay banking crisis</li> <li>• Venezuelan general strike</li> <li>• Financial Crisis 2007-2009</li> </ul> Late-2000s recession. <ul style="list-style-type: none"> <li>• 2000s energy crisis oil price bubble</li> <li>a) Subprime mortgage crisis (US)</li> <li>b) United States housing bubble and United States housing market correction (US)</li> <li>c) Automotive industry crisis of 2008–2010</li> <li>d) 2008–2012 Icelandic financial crisis</li> <li>e) 2008–2010 Irish banking crisis</li> <li>f) Russian financial crisis of 2008–2009</li> <li>g) 2008 Latvian financial crisis</li> <li>h) Venezuelan banking crisis of 2009–10</li> <li>2008-16 Spanish financial crisis</li> </ul>	<b>2010's</b> <ul style="list-style-type: none"> <li>• European sovereign debt crisis</li> <li>a) Greek government-debt crisis (2009-2019)</li> <li>• 2010–2014 Portuguese financial crisis</li> <li>• Crisis in Venezuela</li> <li>• Ukrainian crisis</li> <li>• 2014 Russian financial crisis</li> <li>• 2014-2017 Brazilian economic crisis</li> <li>• 2015 Chinese stock market crash</li> <li>• Turkish currency and debt crisis</li> </ul>	<b>2020's</b> <ul style="list-style-type: none"> <li>• 2020 stock market crash</li> <li>• Lebanon liquidity crisis of 2020</li> <li>• The recession of the coronavirus</li> <li>• Black Monday (March 9)</li> <li>• Black Thursday (March 12)</li> <li>• Lebanon's 2020 liquidity crisis</li> <li>• Texas Energy Crisis (2021)</li> <li>• Crisis in the real estate market in China in 2021</li> <li>• Israeli-Palestinian crisis (2021)</li> <li>• Azerbaijan-Armenian border crisis 2021 – 2022</li> <li>• World energy crisis 2021-2022</li> <li>• Ukrainian-Russian war 2022 - ...</li> <li>• The American Stock Market Crash (2023)</li> </ul>

Created from data: Jon Moen, 2001, Patrick van der Geest, 2021, Martin J., 2000, Thomas Klitgaard and James Narron, 2016, Michael Corbett, 2016, Maria A. Arias, Paulina Restrepo Echavarria, 2015, Shigenori Shiratsuka, 2003, Federal Reserve History, 2023, Stijn Claessens and M. Ayhan Kose, 2009, Gita Gopinath, 2020

The most accurate Kondratiev waves are displayed in the work of Goldschmidt Andreas and Hilbert Josef (Bergheim S., 2020).

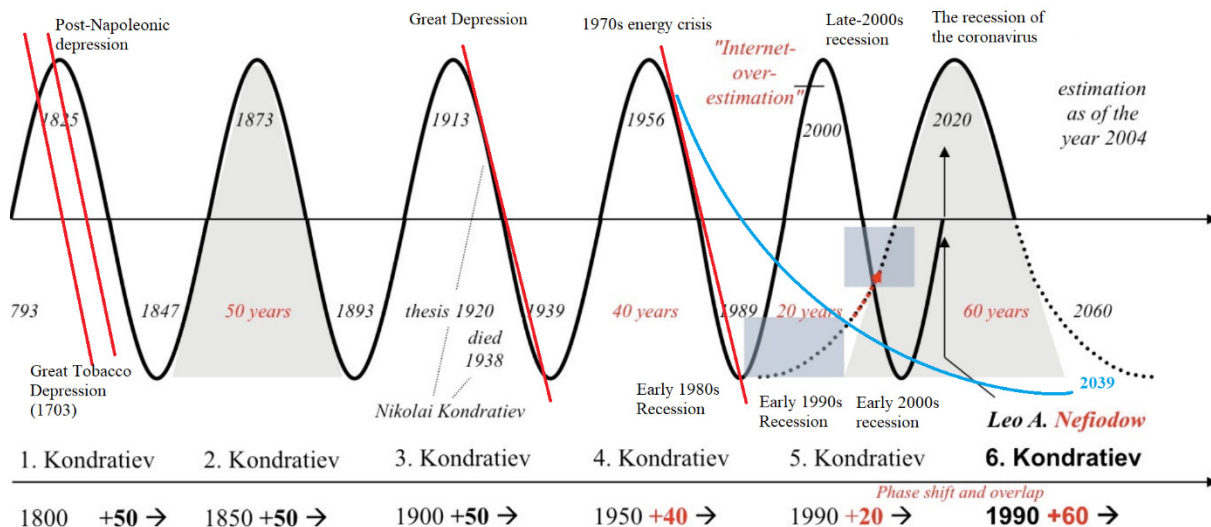
Figure 1. Kondratiev waves



Source: Goldschmidt Andreas JW, Hilbert Josef, 2009

As can be seen from Figure 1, all calculations made by Kondratiev are practically impossible to recalculate due to the lack of statistical data. The second aspect - the analysis of each cycle was based on different industrial sectors. It is undeniable that each of these industries has been a stimulating factor for the entire global economy. However, today, except for the advent of the Internet, it is not possible to equate the same economic effect.

Figure 2. Adapted Kondratiev model



Source: Goldschmidt Andreas JW, Hilbert Josef, 2009

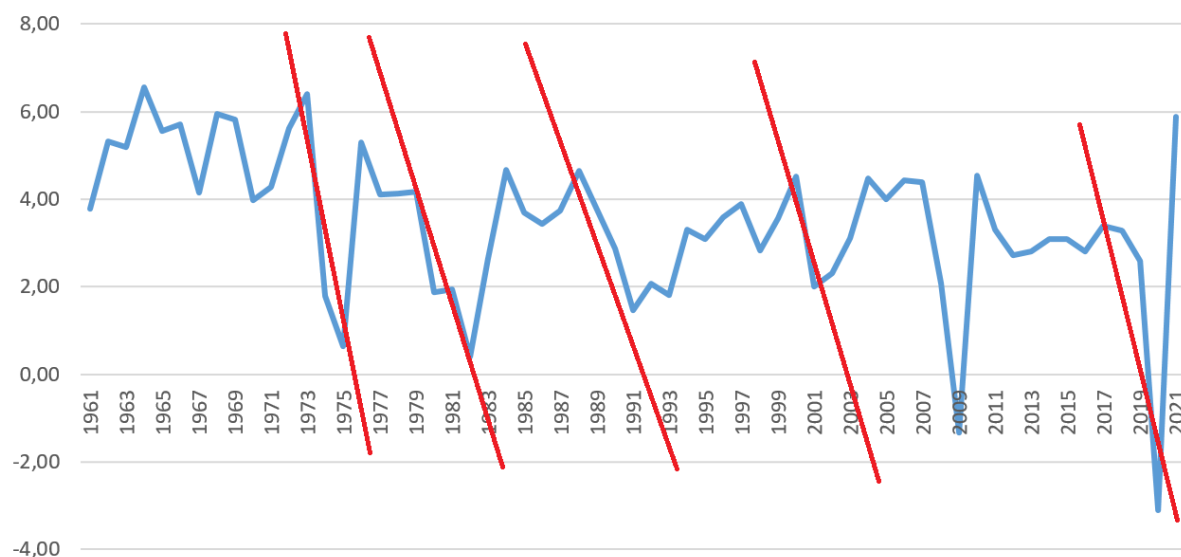
The main aspect is to determine the state of the economic state at the present stage. Goldschmidt Andreas and Hilbert Josef also failed to make an accurate forecast of the economic development of the economy. The first thing we can notice is the duration of the cycles. Comparable with our historical research (Fig. 2).

We have plotted the main recessions (red lines) on the existing model, which we will highlight based on historical and logical analysis. Most recessions follow the basic pattern. However, the energy

crisis of the 70s, the early and late recessions of the 80s, the early recession of the 90s and 2000s, and the coronavirus recession (2020) show 10-year cycles. Moreover, it is almost impossible to single out peaks and troughs. If we take the model with a 50-year cycle as a basis, then after 1956, the next peak should have been 2006. However, during this period, an economic recession began in the United States, which later spread to Europe. If we take the lower point - 1989 - as a basis, the next logical should be 2039 (blue curve) in the figure. Of course, this is a pessimistic scenario.

If we take World Bank national accounts data, and OECD National Accounts data files (2022) for analysis, we have a steady upward trend. If we take GDP growth, and annual % and superimpose the above-mentioned recessions, we have more coincidences (Fig. 3).

Figure 3. GDP growth, annual %

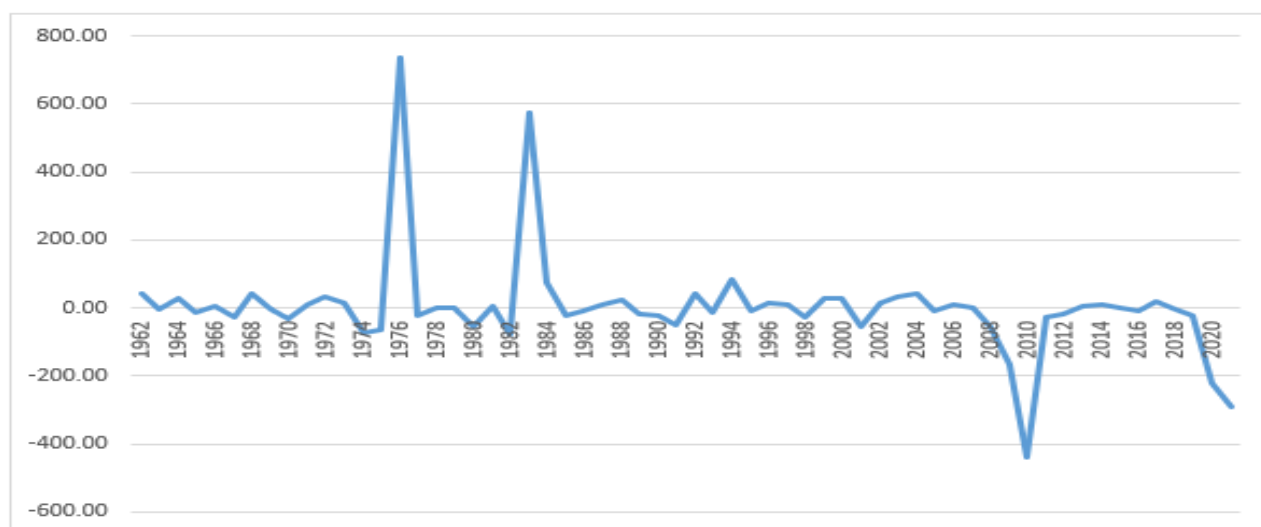


Source: OECD

According to the World Bank, already in 2021, the world economy began to emerge from the downward trend. In the first post-pandemic 2021, the economy grew by a healthy 6% after a 3% Covid recession, but growth slowed to about 3% in 2022, and economists expect only 2.2% in 2022.

However, to confirm the forecast, we will use formula (17) to calculate the Rate of growth (g), which should reflect the phases of the economic cycle (Fig. 4).

Figure 4. Rate of growth (g)



Source: author's analysis

Thus, the Rate of growth (g) model reflects our assumptions. However, all our assumptions are purely logical factors and are debatable.



#### **4. DISCUSSION**

To confirm our assumptions, we will take short-term IMF forecasts: World Economic Outlook database (2022), UN: World Economic Situation and Prospects 2023 and the World Bank Group: Justin Damien Guénette, M. Ayhan Kose, and Naotaka Sugawara. Is a Global Recession Imminent? (2023)

In 2022, the global economy was hit by a series of major and mutually reinforcing shocks – the COVID-19 pandemic, the war in Ukraine and its resulting food and energy crises, soaring inflation, a deepening debt burden, and the climate emergency.

In most developing countries, the recovery in employment has been slower in 2022, and these countries continue to face a significant backlog of the labour force. The disproportionate loss of jobs by women during the initial phase of the pandemic cannot be fully offset, with improvements occurring mainly through a resurgence in informal employment.

According to the report, a slowdown in growth, coupled with elevated inflation and growing debt vulnerabilities, threatens to further reverse hard-won gains in sustainable development, exacerbating the negative effects of the current crises already being felt. Already in 2022, the number of people facing acute food insecurity more than doubled compared to 2019, reaching almost 350 million people. A prolonged period of economic weakness and slow income growth will not only hinder poverty eradication but will also limit countries' ability to invest in Sustainable Development Goals on a larger scale.

Another factor of influence was inflation. After a year and a half of lockdowns, the population and businesses rushed to catch up. Demand grew at a record pace, and the supply of goods and services did not keep up, primarily because China never got out of quarantine. Russian aggression has only added to the problems, as it further undermined globalization and world trade. There was a shortage of everything: chips, cars, cheap labour, and transport services. To combat it, central banks have been raising rates at a record pace over the past two decades. Rising prices for loans slowed down consumption, construction, investment, and the housing market.

Against this backdrop, global output growth is projected to slow from 3.0 per cent in 2022 to 1.9 per cent in 2023, one of the slowest growth rates in decades.

The United States and Europe will reduce the pace of economic growth and three-quarters of economic growth in 2023 will be provided by the emerging economies of Asia. For the past half-century, developed economies have only fallen into recession when spending on their main import, energy, has risen sharply. The only exception was the 2020 recession caused by the pandemic. The decline occurred after the cost of electricity, fuel and heat reached 13% of GDP. In 2022, they exceeded 17%.

With high inflation, aggressive monetary tightening and heightened uncertainty, the current downturn has slowed the pace of economic recovery from the COVID-19 crisis, putting several countries (both developed and developing) at risk of recession in 2023. Following the IMF tribute, the GDP will shrink to the mark of 3.2, and in 2023 - to 2.7.

In 2022, growth in the United States of America, the European Union and other developed countries slowed down significantly, which hurt the rest of the world economy in several ways. Tightening global financial conditions, coupled with a strong dollar, have exacerbated the financial and debt vulnerabilities of developing countries. More than 85% of the world's central banks have tightened monetary policy and raised interest rates one after another since the end of 2021 to contain inflationary pressures and avoid a recession. Global inflation, which peaked in decades at about 9% in 2022, is projected to decline in 2023 but remain at a high level of 6.5%.

Global growth will pick up moderately to 2.7 per cent in 2024, according to UN projections, as some of the growth impediments begin to ease. However, this will be largely influenced by the pace and sequence of further tightening of monetary policy, the course and consequences of the war in Ukraine, and possible further disruptions in supply chains.

#### **5. CONCLUSION**

The crisis is one of the most popular terms in economics. It is difficult to imagine a modern article on economics that does not mention the crisis of the financial market, the banking system, the crisis

of the industry or the collapse of the company's market value ([Bošnjak, Antonija, Hassan, Abeer and James, Kieran, 2017](#)). It is considered a categorical fact that the crisis is part of the economic cycle. The economic cycle model includes the main phases - bottom, growth, recession and peak. Economic science has developed a number of different theories that explain the causes of economic cycles and, accordingly, the crises that arise in them. In the article, we take as a basis the existence of the crisis as a fact.

We based our research on a historical analysis of existing crises and singled out periods of recession recognized by historians. We compared the periods we have identified with the Kondaryev forecast model, which was published by Goldschmidt Andreas and Hilbert Josef. The overlap of historically recognized recessions coincided with the main waves of Kondratieff. However, the 5th cycle remained controversial ([Morgan M. 2021](#)).

To do this, we took the statistical data of world organizations and built the dynamics of the Rate of growth (g) (1961-2021). This model showed that the 5th Kondratiev cycle has not yet formed and shows a downward trend. It was not possible to build a reliable forecast based on official data, because data is published only for 2021 and the latest 2021 shows global GDP growth. Also, the predictive model cannot take into account such factors as the war in Ukraine and the consequences of imposing sanctions on Russia and other economies. Therefore, in confirming our forecasts, we were able to use only short-term forecasts of the IMF, the World Bank and the UN. Based on their forecasts, the global recession will continue until 2024 inclusive.

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