MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
SUMY STATE UNIVERSITY
Educational and Scientific Institute of Business, Economics and Management "BiEM"
Department of International Economic Relations

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QUALIFICATION PAPER

on the topic " STUDY OF THE IMPACT OF GLOBAL FINANCIAL CRISES ON THE ECONOMY OF UKRAINE"

Specialty 292 "International Economic Relations"

Student 4 Course _____________ Miroshnychenko Kateryna

group ME-71an

It is submitted for the Bachelor's degree requirements fulfillment.

Qualifying Bachelor's paper contains the results of own research. The use of the ideas, results and texts of other authors has a link to the corresponding source _____________ Miroshnychenko Kateryna

Research advisor Senior Lecturer ________ Shcherbachenko Viktoriia

Sumy, 2021

ABSTRACT
on bachelor's degree qualification paper on the topic
« STUDY OF THE IMPACT OF GLOBAL FINANCIAL CRISES ON THE ECONOMY OF UKRAINE »
student Miroshnychenko Kateryna Sergeevna

The main content of the bachelor's degree qualification paper is presented on 61 pages, including references consisted of 51 used sources, which is placed on 5 pages. The paper contains 4 tables, 7 figures, as well as 7 apps that are presented on 7 pages.

Keywords: ECONOMIC CRISIS, STAGES OF FINANCIAL CRISIS, GLOBALIZATION, WORLD ECONOMY, INTEGRATION, ECONOMIC TRANSFORMATIONS, ANTI-CRISIS MANAGEMENT, CLASSIFICATION OF TYPES OF CRISES, CAUSES OF CRISES, CONSEQUENCES OF CRISIS, GENESIS OF WORLD FINANCIAL CRISES, THEORY OF CRISES, SPREAD OF FINANCIAL CRISES.

The purpose of the qualifying bachelor's thesis is to determine the areas and forms of manifestation, prerequisites for the spread, consequences, and tools to overcome the negative impact of global economic crises on the formation of the Ukrainian economy.

The object of research is financial crises.

The subject of the research is theoretical and methodological principles and scientific and practical aspects of the development of global financial crises and the formation of systems for their prevention in order to minimize the impact of financial shocks on the development of world and national economies.

In the process of research depending on the goals and objectives, we used relevant methods of studying economic processes, including a set of general and special methods of scientific knowledge: descriptive, subject-chronological, systematic approach, collection, systematization, comprehensive analysis of

relevant information, methods of deduction, induction, analysis, synthesis, and analogies, graphic, statistical and others.

The information base of the work is compile monographs, publications in professional periodicals, materials of scientific all-Ukrainian and international conferences on the definition and classification of financial crises; statistics and surveys, including the NBU, the Ministry of Finance, reports of the State Statistics Committee on research and publications, posted on the Internet..

According to the results of the study the following conclusions are formulated:

1. Consists in the theoretical substantiation of criteria, principles, indicators, factors on the basis of which it is possible to carry out modeling and forecasting of financial crises.

2. As a result of model assessment of the impact of factors on the size of the financial crisis and identification of crisis prevention mechanisms, based on the construction of a model for assessing the impact of macroeconomic variables on the size of financial crises and its consequences, forecasting financial crises, and analyzing mechanisms to prevent and counter financial crises.

3. Approaches to crisis prevention in the economy of Ukraine are singled out on the basis of forecast data.

The obtained results are that they are of both scientific and theoretical and practical interest. Theoretical provisions, proposals, recommendations and conclusions formulated in the study can be used: in practical and research activities of the Ministry of Finance, NBU in macroeconomic forecasting and research of scientific topics related to macroeconomic instability, cyclical economic system; - during the preparation of textbooks and manuals, preparation and conduct of lectures, seminars on the course of economic theory and finance, in the research work of teachers, students, associate professors, cadets and students.

Results of approbation of the basic provisions of the qualification Bachelor work was considered at:

1) International scientific-practical online conference "Socio-Economic Challenges", which took place on March 22-23, 2021.

The year of qualifying paper fulfillment is 2021

The year of paper defense is 2021

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«__» ____________2021

TASKS FOR BACHELOR'S DEGREE QUALIFICATION PAPER
(specialty 292 " International Economic Relations ")
student 4 course, group ME-71an

Miroshnychenko Kateryna Serhiivna

1. The theme of the paper is « Study of the impact of global financial crises on the economy of Ukraine » approved by the order of the university from «19 » April 2021 №0193-VI.

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3. The purpose of the qualification paper is of the conducted research is the analysis of financial crises, modern methods of their forecasting and definition of effective mechanisms of prevention of financial crises.

4. The object of the research is financial crises.

5. The subject of research is modern forecasting methods and mechanisms for preventing financial crises.

6. The qualification paper is carried out on materials statistical databases, analytical materials and official reports of the National Bank of Ukraine, Bloomberg agency and Knoema service, data of open reporting of ministries and departments of Ukraine; scientific developments of domestic and foreign scientists; periodicals; materials of international conferences; resources of the global Internet.

7. Approximate qualifying bachelor's paper plan, terms for submitting chapters to the research advisor and the content of tasks for the accomplished purpose are as follows:

Chapter 1 THEORETICAL AND METHODOLOGICAL ASPECTS OF THE STUDY OF THE GLOBAL FINANCIAL CRISIS, to 30.04.2021

Chapter 1 deals with the essence and causes of the emergence of world financial crises, their economic and political factors of occurrence, the theoretical foundations of forecasting economic crises.

Chapter 2 MODEL ASSESSMENT OF THE INFLUENCE OF FACTORS ON THE SIZE OF THE FINANCIAL CRISIS AND PREVENTION MECHANISMS, to 24.05.2021

Chapter 2 deals with model for monitoring the emergence of global financial crises by macroeconomic indicators, financial crises in Ukraine, the main indicators of the early warning system of global financial crises.

Chapter 3 ASSESSMENT OF THE IMPACT OF THE GLOBAL FINANCIAL CRISIS ON THE ECONOMIC SYSTEM OF UKRAINE, to 10.06.2021

Chapter 3 deals with analysis of the causes and consequences of the largest modern crises and their impact on the Ukrainian economy, the practical application of the model for controlling the occurrence of financial crises by macroeconomic indicators, mechanisms for preventing and countering financial crises.

8. Supervision on work:

Chapter	Full name and position of the advisor	Date, signature	
		task issued by	task accepted by
1	Shcherbachenko V.O. Senior Lecturer	1 April	30 April
2	Shcherbachenko V.O. Senior Lecturer	1 May	24 May
3	Shcherbachenko V.O. Senior Lecturer	25 May	10 June

9. Date of issue of the task: 05.03.2021

Research Advisor: _____________ Shcherbachenko Viktoriia

The tasks has been received: ______________ Miroshnychenko Kateryna

CONTENT

INTRODUCTION

The modern world financial system is a complex dynamic mechanism, the stable functioning of which is a necessary condition for ensuring the financial security of both national economies and the world economy as a whole.

Today, in conditions of instability of economic processes and regularity of their repetitions under the influence of various factors, there is a need to consider the instability of world national economies and analyze the main reasons that lead to negative trends in their development. Any disruption of the country's economic mechanism, which can be caused by various internal or external factors, can cause a number of negative trends that affect the economy not only in underdeveloped or developing countries, but also in progressive countries. The constant dynamic development of international economic relations leads to an increase in the speed of spread and increase the difficulty of overcoming the effects of financial crises.

The aim of the work is to analyze financial crises, modern methods of their forecasting and to determine effective mechanisms for preventing financial crises. Analysis of the causes and consequences of the major modern crises and their impact on the Ukrainian economy.

The object of work is financial crises. Assessment of the impact of the global financial crisis on the economic system of Ukraine.

The subject of work is modern forecasting methods and mechanisms prevention of financial crises.

The constant dynamic development of international economic relations leads to an increase in the speed of spread and increase the difficulty of overcoming the effects of financial crises. A market economy is characterized by a state of imbalance. Financial crises cross the borders of national economies and are gaining global scale, occur more often and have more and more devastating consequences. This situation arises for a number of reasons, one of which is the imperfection of the mechanism of regulation of the economic complex, neglect of economic laws of society. This generally leads to an imbalance between supply and demand, a failure in the pricing system and, as a consequence, rising inflation and unemployment. The global financial crises in their manifestations show all the shortcomings of the current regulation of financial markets and the global financial order. During the development of globalization processes, the world economy was transformed into the life of national economies, and this process can cause both positive and negative consequences for the development of national economies. The result of the impact of globalization on economic processes in different countries is due to the degree of ability of the country to accept these global changes, the ability to adapt to them or resist change. The consequences of financial crises, as a rule, are negative, it is extremely important to have sound management of this process. If the economic mechanism of any country is stable, has a reserve fund of savings, action programs in different situations, such countries quickly adapt to change and are able to restore the economy in a relatively short period. After the impact of globalization, the country's economy becomes stronger, more thoughtful and prepared for any change. If countries are weak, do not have a hard currency, use outdated methods of governing the country, then such countries are at risk and the process of globalization can destroy such countries, destroying their infrastructure, economic ties. Globalization processes, the cyclical nature of the economy and its consequences are becoming problems not only at the global level, but also nationally with all the negative manifestations. These include falling GDP and the national currency, social instability, changes in bank discount rates, strikes and other manifestations of public dissatisfaction.

Unfortunately, Ukraine does not have the stability and power of the economy to avoid the effects of global financial crises. The current crisis in Ukraine can be called phenomenal. First, its origins are determined by our history. Prolonged exile of the Ukrainian people and the lack of stable statehood, the time of constant transformations - socio-economic, political and other changes have led to constant crisis. The phenomenon of domestic crisis phenomena has no direct historical analogue, but as an integral part of development - it is not an exception, but only a variety. Mistakes in reform and the need for further transformations of the domestic economic system indicate a constant crisis in Ukraine. In our country, the causes of the financial crisis are the dependence of the stock market on the funds of non-residents, excessive external debts of economic entities, lack of liquidity in the banking system. Constant crisis manifestations indicate mistakes of reform and the need for further transformations of the domestic economic system.

The emergence of financial crises stimulates to find new forms of financial and credit institutions, to reformat these institutions.

Financial crises, as integral parts of human economic development, are evolving and changing in parallel with the development of the world economy. Preventing large-scale financial shocks and quickly overcoming the negative impact of global financial crises in the event of their occurrence is of particular importance for the modern world economy. However, humanity seeks not only to implement an effective policy to overcome the crisis, but also to be able to anticipate and respond in a timely manner to the preconditions for another crisis. Financial forecasting helps to obtain information on the forecast change in financial trends, assess the probable amount of financial resources, identify future financial risks and forecast other financial aspects of economic processes. Due to this, financial forecasting, as an important component of the management system with a balanced application, helps to achieve maximum efficiency of management decisions. Anti-crisis state regulation is mainly implemented through the improvement of legislation in terms of employment, economic policy development, strengthening state intervention in the economy.

1. THEORETICAL AND METHODOLOGICAL ASPECTS OF THE STUDY OF THE GLOBAL FINANCIAL CRISIS

1.1 ESSENCE AND CAUSES OF GLOBAL FINANCIAL CRISES

An economic crisis is a significant imbalance in the economic system, often accompanied by losses and disruption of normal production and market relations. The crisis manifests itself in a drop in the exchange rate of the national currency, in the reduction of production, in the growth of unemployment and inflation, in a sharp decline in the value of financial assets, in the decline in living standards and in the bankruptcy of enterprises. To see the essence and consider the causes of the crisis, you need to know its classification (Fig. 1.1). Thanks to this, it is possible to analyze in more detail the economic, financial and social crisis.

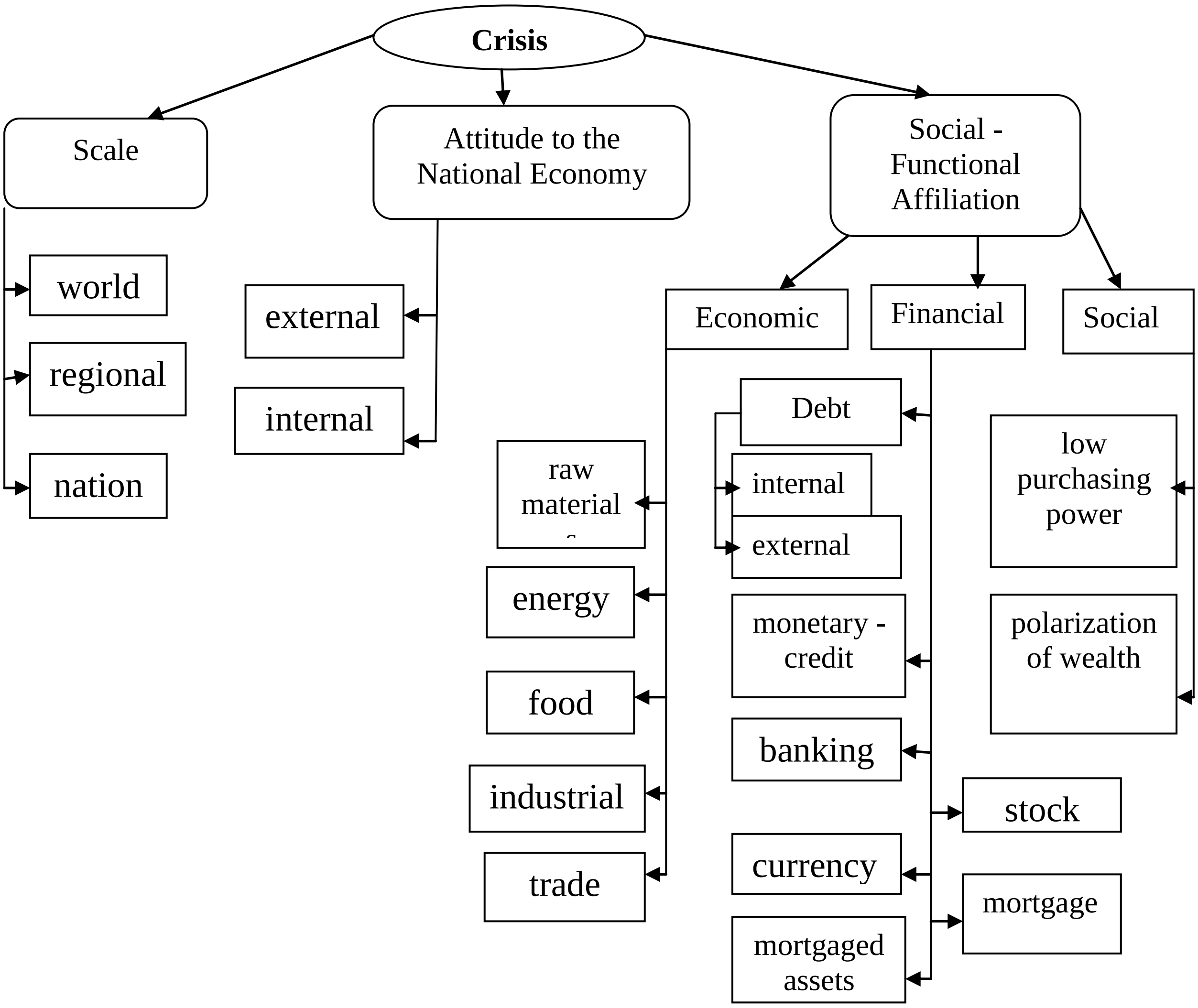

Fig. 1. 1 Classification of crisis phenomena in economics [1]

The crisis repeats with a certain periodicity and, depending on its scale, may concern both a certain state and be of global importance, which is accompanied by a sharp decline in production, and as a consequence, the bankruptcy of enterprises, the fall of the gross national product, large-scale growth of unemployment, depreciation of the national currency (devaluation). In the end, the decline in living standards and welfare of the population. It negatively affects the whole state at the macro level and the firm at the micro level.

Some scholars try to draw a line between economic and financial crises, saying that the economic crisis manifests itself in the deterioration of basic macroeconomic indicators (inflation, production rates, unemployment, etc.), while the financial crisis primarily affects financial assets (currency, securities, bank deposits, etc.). But in practice, it is almost impossible to separate one from the other. The real and financial sectors are so interconnected and interdependent that it is often impossible to say which was the root cause of the crisis problems in the inefficient organization and structure of production, or revaluation of financial assets.

A financial crisis can be part of an economic crisis: it can precede an economic crisis, be an integral part of it, and sometimes a financial crisis can act as an independent phenomenon.

Financial crisis is a profound disruption of the state financial system, accompanied by inflation, volatility of securities prices, manifested in a sharp mismatch between budget revenues and expenditures, instability and falling exchange rate of the national monetary unit, mutual non-payments of economic subjects, mismatch money supply in circulation in accordance with the law of money circulation. Financial crises primarily affect the financial sector of the economy. But due to the fact that the real sector is closely related to the financial sector, such crises are reflected in all spheres of the economy and lead to a decline in production, growth of unemployment, reduction of the welfare of the population, etc.

In the early stages of development, financial crises were not large-scale, local in nature due to the low level of economic ties between countries. Further development of international economic relations leads to the spread of financial crises beyond the borders of national economies. Global financial crises are multifactorial and correlate with other types of crises. Representatives of various scientific schools give their explanations, definitions and justifications for the causes of financial crises.

The variety of causes and the huge scale of losses allow us to classify the crisis as a complex multifactorial phenomenon that requires a systematic approach to its analysis and prevention. Accordingly, analyzing the scientific literature, we can say that the crisis is a multifaceted economic category, the system of views on the economic essence of which is in a state development. Despite the scale of scientific research, economists still differ on many fundamental issues of financial crises, including those relating to the very definition of this phenomenon, its nature, causes and mechanisms of manifestation. Economists have counted 39 international financial crises. The first took place in 1618 and was associated with the counterfeiting of coins.

According to modern monetarists, in particular, A. Schwartz, global financial crises arise as a result of dysfunction of the banking system. The financial crisis is seen as a crisis in the banking system, the main signs of which are the obvious banking panic, the decline in economic confidence in banks, large-scale non-repayment of deposits. To overcome and reduce the effects of the financial crisis, A. Schwartz recommends that central banks support solvent banks with liquidity instruments to stop the depreciation of their assets [2].

K. Kindleberger connects the emergence of financial crises with business cycles and economic crises that arise as a result of external factors (war, the emergence of new technologies and goods, changes in government policy) [3]. Also, in his opinion, co-authored with G. Minsky, "financial crisis" and "currency crisis" are synonymous, the only difference is that the term "currency crisis" means the initial stage of the financial crisis, which then goes into a stage of sharp fall in prices for assets, violations of foreign exchange markets, mass bankruptcy of the financial and non-financial sectors [3]. According to D.D. Sachs, with a large rate of capital outflow, there is panic in financial markets, rapidly rising interest rates, falling national currencies and bankrupt banks [5].

P. Krugman proposed the theory of financial crises, which later became known as the "crisis of the first generation", according to which the main cause of the financial crisis is the lack of balance of payments [4]. A.O. Melnyk singles out the inconsistency of macroeconomic development of states and deviations of macroeconomic indicators from their standards as the main causes of financial crises [7]. In particular, it is the ratio of the money supply of the M2 aggregate to the value of foreign exchange reserves, the change in the real exchange rate, the volume of public sector debt and lending. I. Lyutym and O. Yurchuk analyzed the development of the global market of financial services in crisis conditions and manifestations of the crisis in Ukraine, as well as studied anti-crisis measures in the world [6]. Further studies of financial crises were conducted in the direction of financial market stability and capital flows.

Financial crisis is a complex multidimensional economic phenomenon. It is of great importance for the understanding of the essence of financial crises is their exact classification. In terms of their relationship to the cyclical development of the economy, crises are cyclical and specific (non-cyclical). In terms of the causes of financial crises, we should distinguish between crises caused by objective and subjective reasons. In terms of the significance of financial crises, we distinguish between ordinary and systemic financial crises, which are expressed in the collapse of the model.

As a result of such financial crises there are significant changes in the regulation of the financial system and its elements. In terms of the scale of spread of financial crises, it is necessary to distinguish national, international, and world (global) crises. National financial crises cover the financial sector of a single country. Financial crises that arise on national financial markets acquire international character. The international financial crisis is understood as a profound disruption of credit and financial systems of several countries. Sometimes such crises are called regional crises [8].

In terms of types of financial markets it is customary to distinguish. A currency crisis is a sharp fall in the value of a national monetary unit as a result of a loss of confidence in it and a reduction in foreign exchange reserves. A sharp fall in the exchange rate is the main sign of a crisis. A crisis is defined as a 15-25% drop in the value of a national currency against the U.S. dollar (or another significant currency) [8].

A banking crisis can be caused by a massive withdrawal of deposits as a result of falling confidence in banking institutions or the national currency. This leads to the closure, takeover or nationalization of financial institutions. Or it can be caused by intra-bank financial problems that result in a license revocation or large-scale financial support of an important financial institution. This affects the entire banking system and leads to its restructuring.

A debt crisis arises because of the large accumulation of public debt. Lenders have doubts about the government's ability to service its debts. Loss of confidence in the borrowing government leads to a desire by borrowers to pay back their investments before the due date.

The extreme manifestation of this crisis is state default, which means the government's inability to meet its debt obligations to borrowers. At the same time, a distinction is made between crises caused by an increase in the external and internal debt of the state. An external debt crisis manifests itself in the outflow of capital from the country in anticipation of default and leads to depletion of foreign exchange reserves and devaluation.

The crisis of domestic debt is characterized by the conversion of the national currency into foreign currency as inflationary expectations grow. The population fears financing the budget deficit through additional money emission and, as a consequence inflation.

The crisis may be exacerbated by the freezing of bank deposits and forced conversion of deposits in foreign currency into the national currency. A stock crisis is a significant, socially significant decrease in the overall price level on the stock market, a decrease in the market value of securities, a significant decrease in the capitalization of the stock market. In the stock market, a financial crisis usually takes the form of a financial bubble. A financial bubble in the financial market is a situation where, for a long time, there is a steady growth in financial assets (financial instruments) due to increased demand based on expectations of high prices. The bursting of a financial bubble is a situation where there is a sharp drop in asset prices. It should be noted that this classification of crises is rather conventional. In reality it is hard to separate one type of crisis from another, to draw a clear distinction. One crisis can combine several kinds at once. And it's impossible to separate them from each other, because everything in the economy is interconnected [8].

The financial crisis can bring the economy out of equilibrium, even with high production volumes and efficient markets, and lead to a sharp decline in production.

Thus, the global financial crisis covers financial markets, money circulation and credit, international finance and is manifested through a sharp rise in interest rates, debt, credit cuts, a large fall in securities, massive losses in the derivatives market, uncontrolled fall in national currencies. The implementation of effective and efficient measures for early warning of global financial crises can significantly affect their course and reduce losses from their actions and consequences.

1.2 ECONOMIC AND POLITICAL FACTORS IN THE EMERGENCE OF CRISES

In identifying the causes of crises, the factors that cause them play an important role. They are largely determined by the conditions of functioning of specific countries or their associations.

Economic conditions are determined by the economic strategy of the state, the ratio of forms of ownership, the level of freedom and conditions of entrepreneurial activity, tax, monetary and fiscal policy, regulatory instruments, the level of inflation and the size of the public debt, the stage of economic development of the country. Any violations of the functioning of the economic mechanism of the country, which can be caused by various kinds of internal or external factors, can cause a low level of negative trends that affect the economy not only of the underdeveloped or developing countries, but also of the progressive countries of the world. This situation arises for a variety of reasons, one of which is the insufficiency of the mechanism of regulation of the state complex, the failure to follow the economic laws of the development of society [9]. This generally leads to a violation of the equilibrium between supply and demand, a breakdown in the system of value creation and, as a result, to the growth of inflation and unemployment.

An important economic component is the financial sphere. Factors in this sphere include the presence of a "common investor", direct interstate investments, liberalization of financial markets, direct financial ties, common financial institutions (transnational banks, financial companies), currency dependence (dollarization) [9].

Contradictions arise when the stages of economic development of countries, which closely interact with each other, do not coincide. Thus, economically developed countries move to the stage of stagnation, and some developing countries - to the stage of economic growth and boom. By spreading crises, developed countries try to draw other countries into the crisis in order not to lose their leading positions in the global economy.

Political environment determines the relevant factors that emerge in the process of destruction of existing models of geopolitical structure and the emergence of new forms of political order. Politics is a tool for redistributing property rights in the world and for concentrating power in the hands of world leaders, and it is simply impossible to avoid contradictions. They arise in this area with the interaction of differences in relations between countries, the discrepancy between the ideologies of political parties and social and political organizations to the interests of international organizations and political actors in the international arena, while economic relations between countries become political.

The ambitions of economically developed countries play an important role in stimulating and restraining the economic development of potential competitors, their influence is exercised not only by political but also economic leverage, which causes appropriate resistance from the latter. Subsequently, there are contradictions in political and economic relations between countries with different levels of development and influence on the world economy.

The globalizing conditions of the world's development have transformed governments into actors of the global political system and economy. Inconsistency between domestic and foreign policies is also a source of contradictions in the political sphere with their subsequent spread to the economic sphere.

1.3 THEORETICAL FOUNDATIONS OF FORECASTING ECONOMIC CRISES

There are crisis phenomena in the economy, so their timely detection and forecasting is a very important task.

The timing, depth, duration of economic crises depend on the degree of violations in the basic proportions of the processes of reproduction during economic upswing. In the process of economic crisis there is a decline in purchasing power, which against the background of rising prices complicates the sale of goods and leads to the collapse of production, and, in turn, causes an even greater deterioration in the balance between accumulation and consumption. The main factors leading to currency crises: government debt, negative expectations of economic agents, a fixed exchange rate that does not reflect the real dynamics of cash flows.

In the modern scientific literature the corresponding list of methodical approaches to forecasting of the crisis phenomena in economy is offered (Table 1.1).

Table 1.1 Methodological approaches to forecasting crises in the economy [10]

Approach to forecasting crisis phenomena	Methods of forecasting crisis phenomena
Depending on the method of determining the indicators	-coefficient approach, which is based on the use of a certain list of coefficients of the state - relative indicators, which are determined by comparing certain absolute indicators of economic and financial activities - index approach, which involves the calculation of dynamic indicators of change in the state of the object of study over time - aggregate approach, which is based on the construction of balance model assessment of financial condition
Depending on the method of research of estimated indicators	-dynamic analysis - involves the study of indicators in the dynamics -comparative analysis- involves comparing the factor value of the indicator with the industry average or with the average for a group of analytical objects - stage analysis - comparison of the actual value of the indicator with the reference value, which is defined as within the allowable limit of its change
Depending on the method of forming a generalized conclusion about the crisis	index method, point method, graphic method, matrix method, statistical models of diagnostics

In conducting economic research, each of the models used is based on a certain system of indicators. This system of indicators should be formed on the basis of scientifically sound basic provisions and initial principles. L. Ligonenko proposes the following methodological principles for the formation of a system of indicators of crisis:

1. Adequacy of the system of indicators to the tasks of diagnostic research, i.e. the ability to use them to identify and assess the depth of the crisis and its individual phases, to diagnose the prerequisites for its deepening or weakening.

2. Availability of information support for calculating the values of indicators, conducting dynamic and comparative analysis.

3. Ability to clearly define algorithms for calculating indicators of crisis indicators.

4. The possibility of accumulating a statistical base on the level and dynamics of change of indicators, which over time will become information prerequisite for the development of special criterion models for crisis diagnosis.

5. Coverage of indicators of all major areas and areas of assessment of the financial condition of enterprises, which may reflect the crisis phenomena inherent in their activities or the prerequisites for their emergence.

6. The optimal number of indicators in each area of research, exclusion from the system of indicators that duplicate each other.

7. The ability to clearly and unambiguously define the negative value (criterion limit) or negative dynamics, which can be used as a basis for identifying the crisis or the preconditions for its occurrence in the future [11].

Existing models can be grouped into groups of "three generations", each of which focuses on a particular aspect of modeling and forecasting the likelihood of a crisis.

The "first generation" models were developed by P. Krugman and P. Garber [12]. The main targets of these models were government debt and the government's inability to control the budget, which were seen as the main causes of the crisis. Researchers have argued that speculative attacks on the national currency are the result of an increase in the current account deficit or the expectation of a monetization of the budget deficit. Speculative collapse occurs due to a sudden devaluation, when the central bank's reserves are depleted and the regulator can no longer ensure the stability of the national currency. These models suggested that the government's inability to finance debt led to the collapse of the fixed exchange rate. The main contribution of "first generation" models is the ability to identify the relationship between fiscal policy and a fixed exchange rate and to explain the fundamental links. The main drawback is the lack of any explanation for how the currency crisis is spreading to other countries. Another problem with first-generation models is that they assume that business entities automatically expect devaluation in the event of a budget deficit.

In the "second generation" models, which are represented by the works of M. Obstfeld, B. Eichengrin, E. Rose and C. Vyplosh [12], it is established that there is a correlation between the probabilities of bankruptcy in neighboring countries. They concluded that if the currency crisis occurs in the world, it leads to an increase in the probability of a financial crisis in the selected country by an average of 8%. "Infection" with such a crisis in neighboring countries can occur in different scenarios. First, events such as war or the oil shock directly put pressure on the national currency. The second scenario may be devaluation or default in one country, which increases the likelihood of default in another country. Expectations of a crisis may also increase when countries are trading partners or pursue similar macroeconomic policies. The latest scenario noted by scientists is the devaluation of currencies, which affects financial markets and is transmitted through them to other countries with volatile markets. As we can see, the main contribution of the "second generation" models is to explain the process of exporting crises from one country to another, as well as the nature of the processes and mechanisms of crisis penetration into other countries.

The main disadvantage of the models of the first "two generations" is that on their basis no practical recommendations can be made for the central bank, in addition, P. Krugman in his work in 1979 [12] argued that balance of payments crises are inevitable.

The "third generation" models proposed by P. Krugman, F. Agion and F. Bacheta [13] are based on the assumption that the instability of the banking and financial sectors reduces creditworthiness, complicates the possibility of obtaining loans by firms and increases the likelihood of a crisis. These models assume that the causes of currency crises are significant public debt, low international reserves, declining budget revenues and rising devaluation expectations, as well as restrictions on the possibility of obtaining credit. Therefore, the growth of the interest rate at which the real sector is ready to raise funds does not contribute to the growth of investment and credit market. The "third generation" models pay a lot of attention to the interest rate. A typical situation describing the balance of payments crisis is its growth, when exceeding a certain limit leads to the cessation of the inflow of any investment. The corresponding downturn in the economy due to insufficient credit resources puts pressure on the national currency reduces revenues to the state budget, which exacerbates the crisis.

Thus, the problems of macroeconomic modeling and forecasting are solved in world practice on the basis of different approaches. Most work in this area focuses on the use of leading indicators and a signaling approach to financial, banking and currency crises.

The probabilistic nature of forecasts makes it possible to judge the possible state of economic and social development of the object in the future, alternative ways of its development, to substantiate the choice of the most acceptable option. Thanks to forecasts, it becomes possible at various levels of management to make scientifically substantiated future plans for economic and social development, to determine the needs of domestic and foreign markets. Under market relations, forecasts make it possible not only to assess the prospect of changes in public needs, but also to foresee the conditions and factors of development of the national economy, the consequences of implementing various options of structural, financial and credit, tax and pricing policies. They reveal a picture of the future, positive and negative trends, alternatives, contradictions and measures to resolve them.

2. MODEL ASSESSMENT OF THE INFLUENCE OF FACTORS ON THE SIZE OF THE FINANCIAL CRISIS AND PREVENTION MECHANISMS

2.1 MODEL FOR MONITORING THE EMERGENCE OF GLOBAL FINANCIAL CRISES BY MACROECONOMIC INDICATORS

The modern world financial system is a complex dynamic mechanism, the stable functioning of which is a necessary condition for ensuring the financial security of both national economies and the world economy as a whole. At the same time, the global financial system can be a dangerous source of shocks and shocks. Financial globalization contributes to the spread of periods of global financial instability, which necessitates their constant monitoring, systematic study and analysis.

The functioning of financial systems in the context of globalization determines the need to develop new approaches to preventing crises in the economy. Since 1980, financial crises have affected almost 75% of the world's countries.

After the intensification of financial crises in the early 1990s, most central banks in developed countries began to work actively to develop systems for assessing and monitoring the stability of the financial system. In particular, the stability of the financial system in the central banks of leading countries is monitored. Creating a quality control system for global financial crises will avoid negative economic consequences through the timely detection of their first precursors.

Among the main requirements for such a control system, we can highlight the achievement of the following characteristics: the effectiveness of control, which is determined by the reduction of control costs; determination of failures or deviations in the control system and their elimination; determination of restrictions on control measures determined by the regulatory framework and market environment.

The basic principle of the control system of global financial crises is based on the formation of control points in management processes [14], which accumulate information on the effectiveness of financial processes and determine the compliance of key macroeconomic indicators with optimal values at all stages of control. At the same time, control points track changes in the implementation of financial processes and record deviations for the development and implementation of quality management decisions [14].

Financial Stability Indicators (IFIs) are indicators that are used to monitor the overall condition and stability of financial institutions and markets, as well as, accordingly, their customers and participants - businesses and households. They include both aggregate data on individual institutions and indicators that give an idea of the markets in which financial institutions operate [15].

In fig. 2.1 shows a graphical interpretation of the implementation of the system of control over global financial crises.

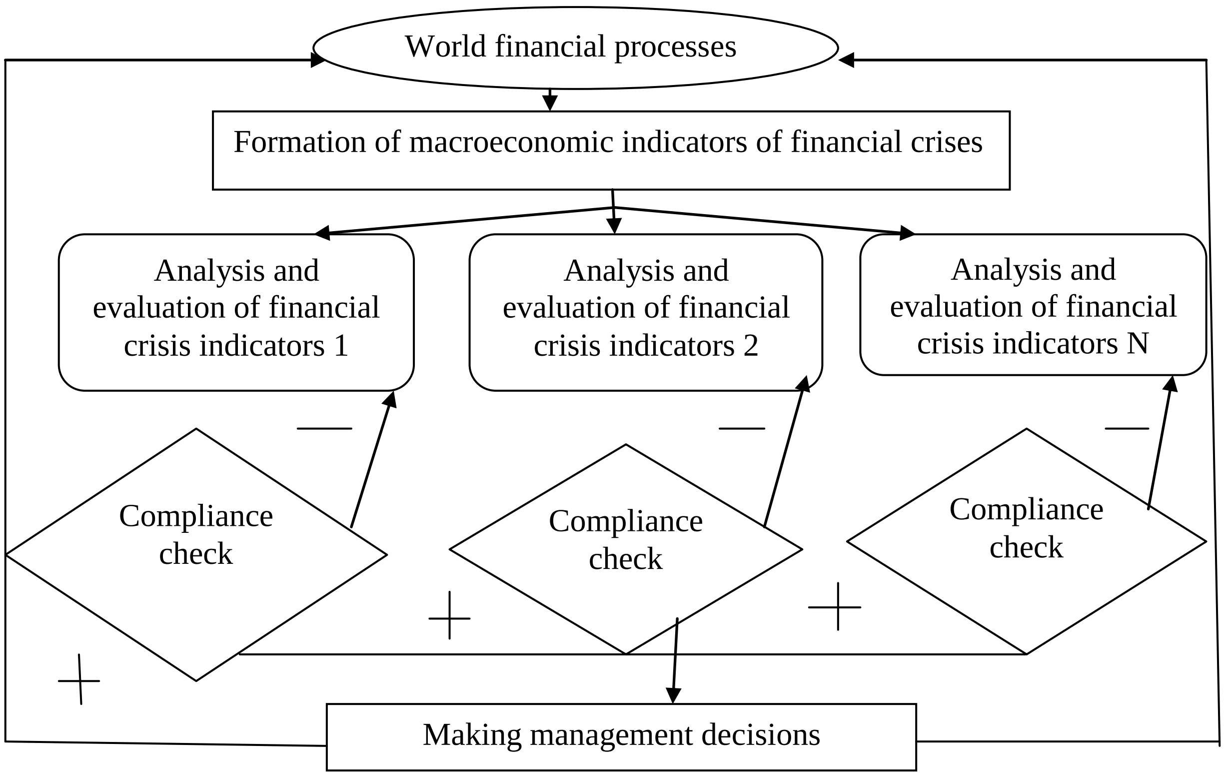

Fig. 2.1. The scheme of realization of control points of occurrence of world financial crises [15].

As can be seen from Fig. 2.1, the first stage of implementation of the control system is the formation of macroeconomic performance indicators. After passing the branching element, the control point is decomposed into several points moving in parallel.

The existing experience in building early warning systems shows the dominance of three methods in the process of finding the best indicators of the financial crisis: qualitative, non-parametric estimates and econometric modeling (Table B.1);(APPENDICES B).

Based on the generalization of theoretical works and empirical research on indicators of financial and currency crises, a list of indicators - precursors of crises (leading and leading indicators) was formed. Most often, leading indicators are grouped as follows [16, p. 40]:

1. External sector: capital account: international reserves, capital flows, foreign direct investment and the relationship between domestic and external interest rates; current account: balance, real exchange rate, exports, imports, trade balance, terms of trade, export price;

2. Financial sector: indicators of financial system liberalization: domestic credit growth rate, real interest rate, money multiplier, the difference between interest rates on loans and deposits; other financial indicators: central bank loans to the banking system, the difference between demand and supply of money, the growth rate of money supply, bond yields, domestic inflation, "shadow" exchange rate, the ratio of money supply M2 to international reserves;

3. Real sector: real GDP growth, unemployment, wages;

4. Fiscal policy: budget deficit, government revenues and expenditures, public sector lending;

5. Institutional factors: openness of the economy, concentration of trade, financial liberalization, trade relations, banking crises, past currency crises, currency crises in other countries, methods of currency regulation;

6. Public finance: the structure of domestic and external debt by type of loan and interest rates;

7. Political situation: fictitious variables corresponding to elections to government, periods of political instability;

8. International variables: real GDP growth and inflation in other countries, interest rates on world markets.

Timely detection of pre-crisis factors and the formation of effective precautionary tools will reduce the negative effects of global financial crises to ensure the financial security of the world economy.

2.2 FINANCIAL CRISES IN UKRAINE

The current crisis in Ukraine its origins are determined by our history. Prolonged exile of the Ukrainian people and the lack of stable statehood have led to a lack of national patriotism, the formation of a complex of "national inferiority" and the habit of living in crisis (a time of constant transformation - socio-economic, political and other changes). The phenomenon of domestic crisis phenomena has no direct historical analogue, but as an integral part of development - it is not an exception, but only a variety. In the current conditions of transformation, the state needs to mobilize all efforts to create conditions for Ukraine's exit from the economic crisis and the formation of effective tools that will reduce the harmful effects of global crises and strengthen the positive aspects of the crisis as an incentive for further evolutionary development.

The paradox of the development of the world economy at this stage is the lack of positive changes in the long-term manifestation of the crisis, which is a direct indication of their deepening.

Since independence, Ukraine's economy has been in crisis for a long time. In 29 years, we can distinguish at least 4 financial crises of the national economy, as well as the crisis of 2020, which are predicted on a global scale, comparable only to the Great Depression (Fig. C. 1); (APPENDICES C).

Consider each of the periods of financial crisis in Ukraine in more detail (table 2.1).

Table 2.1 Crisis manifestations in the economy of Ukraine [compiled by the author based on 19]

Stages of formation of the economy of Ukraine	Types of crises in the economy of Ukraine	World economic crises	Consequences of global economic crises for Ukraine
Revolutionary transformations of the economic system (1991-1995)	Civilizational crisis of the socialist system; structural; political; technological; social; economic	Crisis of the USSR (1990-1991) Mexican and Brazilian crises (1993-1996)	Stopper of the economy, falling production, shortage of goods, inflation, the collapse of the monetary system, falling incomes, unemployment
Reforming the economic system (1996-2000)	Economic; political; demographic; technological; social; internationally	Asian and Russian crises (1997-1999)	Hryvnia devaluation, inflation, market changes
Heterogeneous economic growth (2001-2008)	Economic; political; social; international; technological	The crisis in the United States (2008)	Instability of the banking system, lack of financial resources, outflow of foreign capital, shutdown of the mortgage market, devaluation of the hryvnia, decline in production and sales of export products
Economic downturn (2009- present)	Economic; political; social; international; technological	-	-

The first stage of the revolutionary transformations of the economic system (1991-1995) coincided with the formation of Ukraine's own statehood and the simultaneous transition from an administrative-command economy to a market one.

The economic crisis of 1991-1993 is characterized by the following features: social stratification of the population, impoverishment of the intelligentsia; hyperinflation; decline in production; the policy of "shock therapy" ill-considered trade liberalization; growth of the budget deficit and deterioration of the balance of payments; increase in prices for fuel and energy resources by thousands of times; industrial crisis; imposing a model of transition economy from outside, in particular the IMF; solvency crisis; rising crime; "Collective irresponsibility" of government officials [20].

The main reason for the economic crisis was the sharp transition of Ukraine from the policy of state absolutism to market self-regulation on the principle of "shock therapy".

The consequences for Ukraine were: reduction of social and political activity of the population; spreading the monopoly of producers; limited demand in the domestic market due to reduced purchasing power of the population; stratification of society and lower incomes of the majority of the population, the destruction of monetary and financial relations; decline in production, the depth of which is determined by the scale of accumulated disparities in the structure of the economy; depreciation of the ruble due to demand inflation; unfavorable at high inflation; spread of barter transactions.

The second stage of reforming the economic system occurred in 1996-2000. The situation required immediate changes in state policy. Therefore, at this stage, a number of important reforms of national importance were carried out: privatization, monetary, price liberalization, constitutional, agrarian, institutional. These reforms were complicated by the economic crises in Southeast Asia and Russia, which had global scale [21].

Crisis phenomena had the following spheres and forms of manifestation: currency - the devaluation of the national currency; budget - growing budget deficit; debt - growth of internal and external public debt; banking - falling yields, reduced assets, strict requirements of the NBU.

In particular, the crisis in the currency sector is reflected in the data of the State Statistics Service, which is shown in Fig. 2.2, namely the exchange rate in Ukraine in the period from 1993 to 2019.

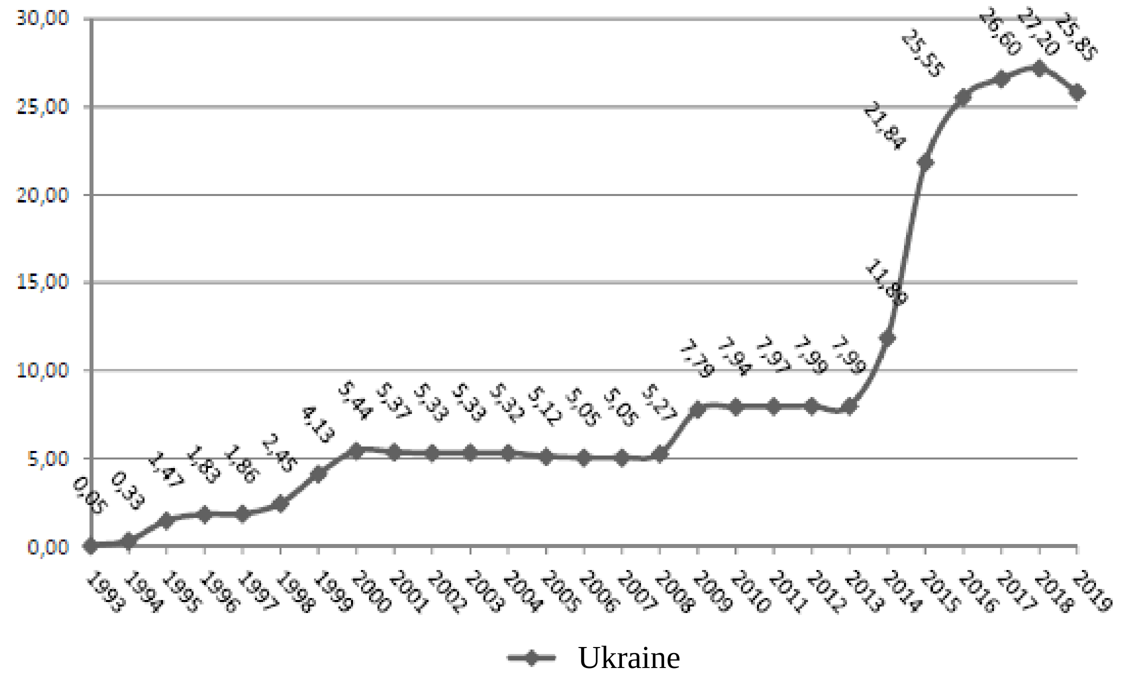

Fig.2.2 The official exchange rate of the hryvnia for the US dollar, the average for the period [22].

The causes of the crisis include: financing the budget deficit through internal and external borrowing (in 1997, 71% of the budget deficit was financed through IGLBs [23]); instability of the banking system as a result of the rapid growth of commercial banks in Ukraine in the 90s, the low level of banking professionals and managers, the gradual application of stricter lending standards, lending to insiders and speculative transactions; low level of budget revenues due to the decline in production and excessive government spending compared to GDP (38% in 1994-1997) and public investment (less than 2% in 1997) [23], which were the impetus for high inflation; accumulation of public debt, growth of debt both domestic (UAH 12.9 billion or USD 6.45 billion at the end of 1997) and external (UAH 17.8 billion or USD 8.9 billion)) [23]; low level of foreign exchange reserves.

The consequences of the crisis for Ukraine were: devaluation of the national currency; further economic downturn (1.5% reduction in real GDP); outflow of foreign capital invested in government bonds; rising inflation to 20%; tough measures of the NBU aimed at maintaining stability in the financial market, provoked a complete paralysis of the banking system; the number of Ukrainian banks decreased (at the beginning of 1999, out of 214 registered banks, only 176 actually functioned) (82.2%), and 54 of them were classified as problematic, reducing real incomes by 2.5% [21].

The third stage of heterogeneous economic growth in 2001-2008 included the crisis of 2008-2009. The positive situation on world markets for the development of Ukraine's economy in the second half of 2008 was offset by the global economic crisis that unfolded in the United States.

In Ukraine, the crisis began as a liquidity crisis, then turned into a currency crisis, and later, due to falling output and rising debt on loans, almost turned into an economic one. The aggravation of the global financial crisis in September 2008 and the cessation of foreign capital inflows into Ukraine's economy immediately raised the issue of the lack of reliable liquidity amortization to balance the country's currency and financial flows.

During 2006–2008, the banking market of Ukraine experienced a rapid growth due to a sharp increase in household demand for consumer loans and enterprises - for loans to invest in expansion, modernization, purchase of business. Lack of significant experience in financial planning, as well as a number of institutional factors have led to uncontrolled and very intensive lending to residents of the Ukrainian economy [24].

As a result of the crisis of 2008-2009, Ukraine received a reduction in foreign direct investment; reduction of business activity of society; reduction of production by credit-dependent enterprises; decline in industrial production in mechanical engineering - minus 52.2%, metallurgy - minus 39%, in other non-metallurgical products - minus 44.7%, chemical and petrochemical industry - minus 31.9%, transport - minus 30%, construction - minus 53 , 6% to the volume of 2008; reducing the level of consumption by the Ukrainian population; reducing the rate of increase in financial transactions; reducing the competitiveness of domestic industry; reduction of mortgage lending and construction freezing

The deep crisis that befell Ukraine in 2013-2015 can be described as a systemic crisis - a crisis of basic relations in the political, legal and socio-economic spheres, on which the current model of the country's development was built. Prolonged neglect of the need for social change, demanded by modern challenges, turbulent post-crisis world, led to the degradation of most important social institutions in Ukraine, worsened the situation to ensure basic human and civil rights and freedoms, threatened the sovereignty of our state. Society has made an attempt at radical renewal - through a systemic break, in the hope of becoming different - fair, modern, holistic, competitive [25].

The reasons that caused the crisis in Ukraine in 2013-2015 are given in table D.1 ;(APPENDICES D)..

Today another global financial crisis is approaching. It is caused by the introduction of quarantine measures as a result of the pandemic corona virus COVID-19, which spread to the whole world. It is still unknown whether Ukraine will be able to withstand the new global crisis. Perhaps the opposite is a chance to rebuild their capacity.

Thus, Ukraine is in a state of crisis or post-crisis period for almost the entire period of independence,

2.3 THE MAIN INDICATORS OF THE SYSTEM OF EARLY WARNING OF GLOBAL FINANCIAL CRISES.

Numerous global financial crises are of interest in identifying key macroeconomic indicators on the basis of which it will be appropriate to develop a control system for early warning of crises in the financial sector.

Today, a broad approach to crisis prevention is used, in which the system not only performs an information function, but also offers measures to reduce the likelihood of crises and reduce their socio-economic consequences.

In this form, the warning system performs the function of not only reducing risks, but also preventing crises, reducing the consequences at each stage of their development.

The International Monetary Fund has developed many databases, based on the analysis of which it is possible to determine financial instability, including:

- external debt statistics;
- special data dissemination standard (SDDS);
- financial stability indicators (FSI).

SDDS contains indicators for assessing the development of the financial, external, real, budgetary and tax sectors of the economy and demography of the population [27].

The FSI contains a set of the following indicators [27]:

- indicators for assessing the performance of deposit-taking corporations, quality and structure of assets and liabilities, liquidity, profitability, credit and market risks;
- the level of development of other financial corporation's (insurance companies, pension, investment funds, securities dealers and other financial intermediaries) as the ratio of their assets to total assets of the financial system and GDP;
- stability indicators of non-financial corporation's (corporate clients of banking institutions);
- indicators of stability of households as private clients of financial institutions; market liquidity indicators.

Global financial crises develop as a result of debt, banking, currency, stock crises and others that first arise at the national level, and then spread and acquire signs of global Based on the analysis of scientific sources [28-33] summarizes the main macroeconomic indicators that signal the onset of these types of crises on common and individual grounds (Table 2.2)

Table 2.2 The main macroeconomic indicators of financial crises [34, p. 18]

Type of crisis	**Basic macroeconomic indicators**	
	Individual	**Common**
Debt crises	Share of government social spending in% of GDP	Balance of payments. Exchange rate (significant fluctuations). Inflation index (growth rate). Dynamics of real GDP (slowdown). External debt to GDP (growth). The level of budget deficit (growth). International reserves of the country (fall)
Debt crises	Currency valuation of the banking system. Consumer price index (growth). Increase or high level of capital outflow from the national economy. High or rising real interest rates. High share of short-term liabilities. High level of risks in the banking system. The ratio of loans to GDP	
Currency crises	The level of external debt. Availability of additional sources of funding for liabilities. The level of lending to the economy	
Stock crises	Inversion of profitability of operations. Correlation of stock market asset prices. Anomalous fluctuations of stock indices	

The most significant is the mechanism of action of common macroeconomic indicators as a harbinger of the financial crisis.

The balance of payments is the sum of the current account balance and the balance of the capital movement. Excess balance of payments means the country's debt and leads to an increase in the national currency the deficit affects foreign exchange reserves and increases inflation.

Therefore, the optimal value of the balance of payments is zero. Regarding the external debt indicator, according to the World Bank methodology, there are low indicators that determine the country's external debt.

The most comprehensive indicator is the ratio of total external debt to GDP, which assesses a country's ability to service its external debt. The value of this indicator above 50% is considered critical [35].

The exchange rate reflects the dynamics of the main macroeconomic indicators of the national economy and itself influences their change [35]. The exchange rate affects the redistribution of national product between countries it is used to compare prices of individual countries, trade and balance of payments and is a means of internationalization of monetary relations. Exchange rate stability is assessed on the basis of the exchange rate volatility indicator, which is calculated as the ratio of the standard deviation of the exchange rate to the square root of the time period in years [36].

The financial security reserve is considered to be international (gold and foreign exchange) reserves in the form of foreign exchange reserves and gold, which are managed by the central bank. They can be used to support the national currency in the event of a crisis in order to maintain the competitiveness of the national economy. International reserves must cover the value of imports for at least three months to ensure an adequate level of competitiveness of the national economy, at which foreign capital does not leave the country. International capital leaves the country in the face of low competitiveness, strong corruption, a weak banking system and a low level of confidence in government policy.

It should be noted that the considered macroeconomic indicators lose their information value in the presence of a significant time lag of their publication due to the rapid development of crisis phenomena [33].

According to the needs of the specific situation, other indicators can be included in the list of indicators of early warning of financial crises. Monitoring the dynamics of these indicators will make it possible to determine in a timely manner the probability of a systemic financial crisis or its specific variety and to develop effective management solutions to prevent the transition of the crisis to the global sector.

3. ASSESSMENT OF THE IMPACT OF THE GLOBAL FINANCIAL CRISIS ON THE ECONOMIC SYSTEM OF UKRAINE

3.1 ANALYSIS OF THE CAUSES AND CONSEQUENCES OF MAJOR MODERN CRISES AND THEIR IMPACT ON THE UKRAINIAN ECONOMY

The economies of individual countries and the world economy in general are becoming more vulnerable and more sensitive to fluctuations in financial markets. Today's "financial ills" are spreading to the economies of the world, which are closely intertwined with economic ties, at lightning speed.

National economies of individual countries and international financial and economic institutions demonstrate the inability to prevent and effectively withstand financial shocks. Therefore, it is important to study the nature, causes and consequences of global financial crises, to find ways to curb them, as well as to assess and predict their impact on the national economy.

As economic history shows, financial crises are always the initiators of economic crises of overproduction and overproduction. In the distant past, financial crises were caused by long wars (Fig. E.1); (APPENDICES E). The method of overcoming them was very primitive: the costs were covered by excessive issuance of paper money. In the more modern world, the lowest stage of capitalism, financial crises caused by crises of overproduction were also short-lived and shallow. With the development of capitalist relations and the processes of globalization, financial crises have become deeper, sharper and longer. They have become an integral part of general economic crises [37]. The crisis spread to England, and then to the whole of Europe [38, p.79].

2020 brought a new global crisis to the world economy. The global financial crisis of 2020 is a deep financial crisis, the worst crisis since the Great Depression and 2008. It is in the active phase as of May 2020. The crisis manifested itself in February and March 2020 during the fall of the global stock market. The shock was the corona virus COVID-19, which initially affected only China, and as a result became global, affecting more than 4 million people and all countries [40; 41]. Quarantine measures implemented in many countries around the world reduce business activity and increase panic in world markets. The situation is complicated by the impossibility of predicting the development of events with the spread of a pandemic.

According to JPMorgan (as of March 15, 2020), the US economy may shrink by 2% in the first quarter and by 3% in the second, and the euro zone economy may shrink by 1.8% and 3.3% over the same periods[44]. According to Bloomberg forecasts (as of April 9, 2020), the losses of the world economy could reach $ 5 trillion. It is worth noting that on March 7, 2020, losses were projected at $ 2 trillion. [42; 43] As early as April 23, 2020, 80 countries applied to the IMF for economic assistance to avoid default. On 6 May, the European Commission announced that it expected a 7.75% decline in euro area GDP in 2020 [45]. The largest decreases will be in Greece (9.7%), Italy (9.5%) and Spain (9.4%).

Unfortunately, Ukraine does not have the stability and power of the economy to avoid the effects of global financial crises. In our country, the causes of the financial crisis, in our opinion, are the dependence of the stock market on the funds of non-residents, excessive external debt of economic entities lack of liquidity in the banking system.

3.2 PRACTICAL APPLICATION OF THE MODEL OF CONTROL OF FINANCIAL CRISES ON MACROECONOMIC INDICATORS

The main risk for the implementation of this macroeconomic study is the traditional increase in uncertainty in the first year of the new President, the difficult political situation in eastern Ukraine, social protests related to land reform, and this will cause crisis in Ukraine. Therefore, econometric analysis in this paper is relevant. However, we cannot predict the occurrence of COVID-19-related crises, because in EViews software, forecasting is based on mathematical modeling of previous data that forms the basis of the model.

The model cannot take into account non-economic or behavioral factors, as well as changes in the economy caused by Government decisions. Based on the constructed regression, we find the level of Ukraine's GDP for 2020. In order to make a forecast for 2020, it is necessary to expand the range of values (Range) by 4 quarters.

We describe the method of calculating the forecast of Ukraine's GDP based on the constructed model. To do this, define the forecast period and name the new variables, which will display the predicted values. This is displayed in the working window of the Forecast option (Fig. 3.1).

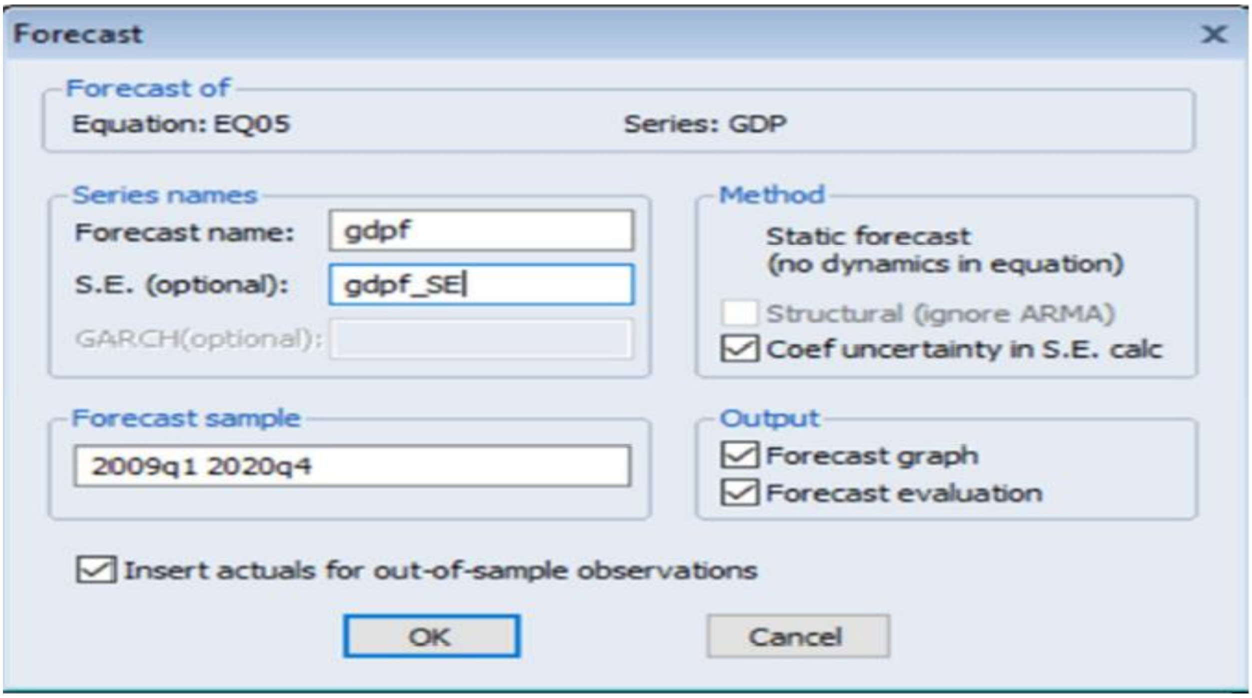

Fig. 3.1 Working forecast window of model №2 [Built by the author with the help of PE "Eviews 7"; 46].

Estimated GDP values are in the new variable gdpf and gdpf_se of the EViews software (file attached). The obtained results of the forecast are presented in Fig.3.2. The approximation error (Mean Abs. Percent Error) is 10.2%. The error is slightly greater than 10%, and therefore the forecast can be considered adequate.

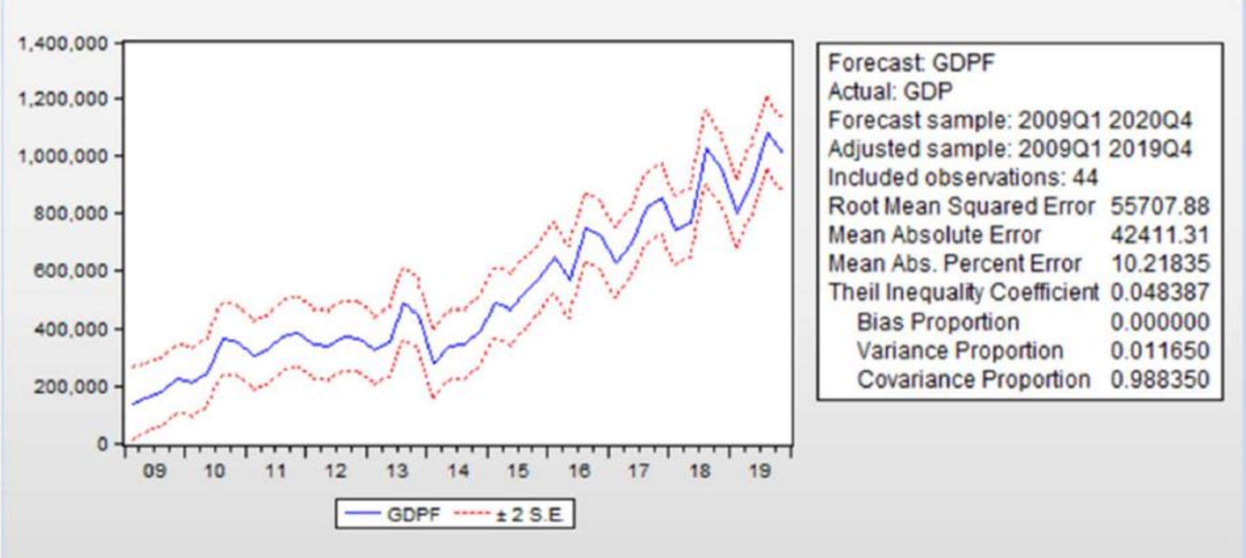

Fig. 3.2 Estimation of the forecast of the model №2 [Built by the author with the help of PE "Eviews 7"; 46].

The variables gdpf and gdpf_se reflect possible options for economic development. According to the multiple linear regressions, there are two options for the forecast, according to which GDP has an upward and downward trend (Fig. 3.3).

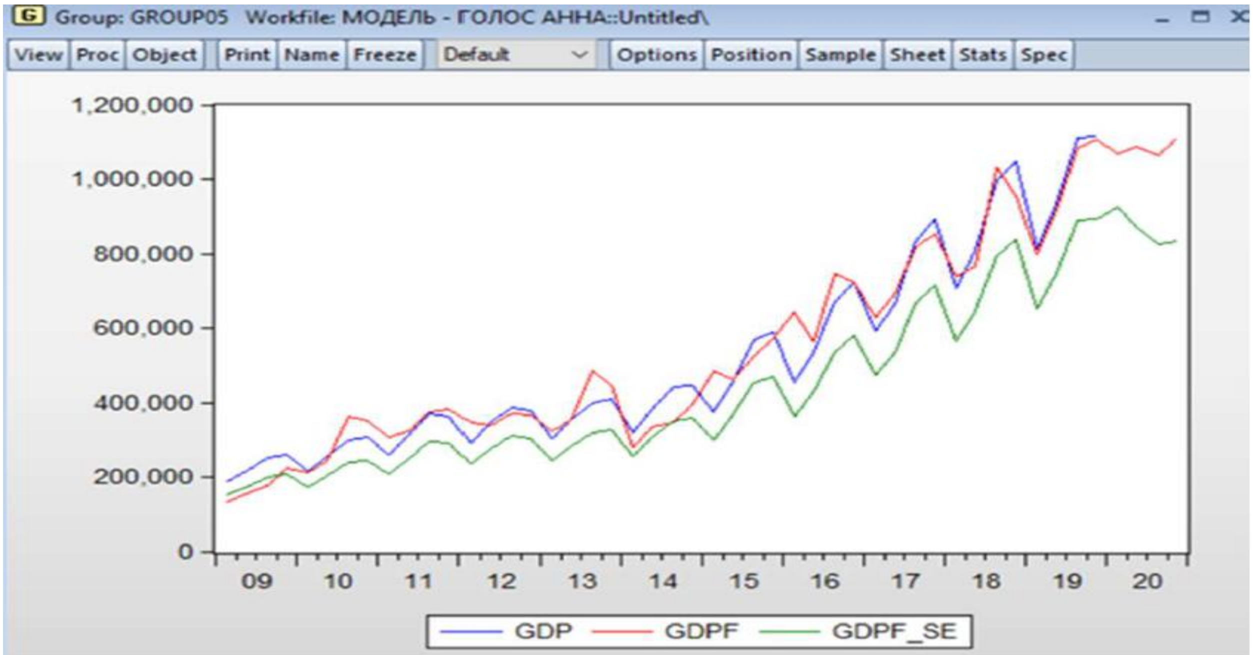

Fig. 3.3 Dynamics of forecast and real data [Built by the author with the help of PE "Eviews 7" ; 46].

According to the forecast, the value of GDP in 2020 will either increase by 9% and will amount to UAH 4,328,266 million or will decrease by 13% and will amount to UAH 3,454,274 million. The results of the forecast show that based on mathematical modeling and taking into account the limitations, we can generate such potential data on Ukraine's GDP. If we consider the probability of a crisis, then with a decrease in GDP by 13%, we can talk about the possible beginning of the crisis, but we do not say this, because there is a potential development of GDP by 9%.

In this case, since we have real data for 2020, we calculate the forecast error, because PE "Eviews 7" in the new variable gdpf generates forecast values for all years. Let's estimate differences of forecast and real data (tab.3.1).

Table 3. 1 Comparative table of forecast and statistical value of Ukraine's GDP for 2020 [author's calculations 46]

Period	Predicted value (gdpf)	Predicted value (gdpf_se)	Statistics(gdpf_se)
2020:1	798825	652098	815123
2020:2	915991	746142	932677
2020:3	1083864	889490	1111862
2020:4	1107551	891922	1114902

In 2020, the forecast value of gdpf deviates from the statistics by 1.7%; the value of gdpf_se deviates from the statistics by 12%.

The forecast error does not completely determine the quality of the forecast, because it largely depends on the decisions made on the basis of the forecast. However, in general, the model and forecast estimate give us qualitative research results.

It should be noted that according to experts of the Ukrainian Institute of the Future of the country in the economic and financial spheres in 2021 expect two scenarios:

- basic, in which there is no factor of the global financial crisis and therefore the economy will grow at 4.4%;

- the scenario "Global Crisis", which will begin in the fall of 2021 and will lead to a fall in Ukraine's GDP by 0.7% by the end of the year.

According to experts of the Institute of Economic Growth by 4.4% in 2021, Ukraine should provide:

- growth of domestic consumption due to low inflation and growth of real incomes;

- growth of investments, including foreign ones (up to $ 3.5 billion) due to the launch of the land market from the 4th quarter of 2021;

- inflation rate not exceeding 7%;

- weakening of the national currency and the dollar exchange rate at the level of UAH 25.8 by autumn and UAH 27 starting from the 4th quarter.

According to experts, these forecasts may be hindered by the continued strengthening of the hryvnia exchange rate, which may lead to a lower forecast for economic growth and increase the budget deficit from the expected 1.8% of GDP to 3%. However, the main risks are external factors such as the fall in China's economic growth, the latter's "trade war" with the United States, falling prices for raw materials exported by Ukraine to the world market, and most importantly - the possibility of a global crisis. The probability of the crisis in 2021 is very high and its price for Ukraine is estimated by experts as: a fall in GDP by 0.7%, or 8-9% in real GDP in hryvnia or 20-30 billion in dollar terms; inflation rising to 10%, the dollar against the hryvnia rising to 35-37 hryvnias and, as a result, real incomes of Ukrainians falling by 15-20%; about 0.5 million Ukrainians will lose their jobs, the number of unemployed may increase even more due to 300 thousand "workers" who may also return to Ukraine due to job cuts in Europe; growth of the budget deficit to 2.7% of GDP [47].

Thus, financial forecasting helps to obtain information about the projected change in financial trends, estimate the probable amount of financial resources, identify future financial risks and forecast other financial aspects of economic processes. Due to this, financial forecasting as an important component of the management system with a balanced application helps to achieve maximum efficiency of management decisions. According to the results of forecasting the value of GDP in 2021, the following results were obtained: GDP in 2020 will either increase by 9% and will amount to UAH 4,328,266 million or decrease by 13% and will amount to UAH 3,454,274 million. The results of the forecast show that based on mathematical modeling and taking into account the limitations, we can generate such potential data on Ukraine's GDP.

If we consider the probability of a crisis, then with a decrease in GDP by 13%, we can talk about the possible beginning of the crisis, but we do not say this, because there is a potential development of GDP by 9%. However, it should be noted that the model generates data based on general trends. The model cannot take into account the factor of the onset of the crisis caused by the crown virus, as well as other non-economic factors.

3.3 MECHANISMS FOR PREVENTING AND COUNTERACTING FINANCIAL CRISES

The purpose of crisis management is the development and priority implementation of measures aimed at neutralizing the most dangerous factors that intensively affect the final phenomenon that leads to a crisis. The complexity of the problem of strategy and tactics of crisis management is that, on the one hand, strategic decisions aimed at preventing the crisis must be made and implemented in the early stages of management, when the process of moving to the crisis has not yet become cumulative and therefore has not yet irreversible. On the other hand, decisions made in the early stages are based on very weak and therefore not always reliable signals of adverse trends [48, p. 110].

Anti-crisis regulation is considered in two aspects:

-as a component of state regulation of the economy, which is a set of methods, forms and means of state influence on the socio-economic system in order to achieve macroeconomic goals;

- as a function of public administration, which is implemented through anti-crisis policy aimed at solving problems of economic development.

The conceptual scheme of developing the mechanism of anti-crisis regulation of the national economy involves a step-by-step analytical study of the world and national economies, crisis forecasting, development of anti-crisis strategy and implementation of its provisions in anti-crisis programs (plans) and economic development strategies (Fig. F.1.);(APPENDICES F).

In areas that are of particular importance for economic and social life, the state applies special measures to prevent crises (Fig. 3. 4).

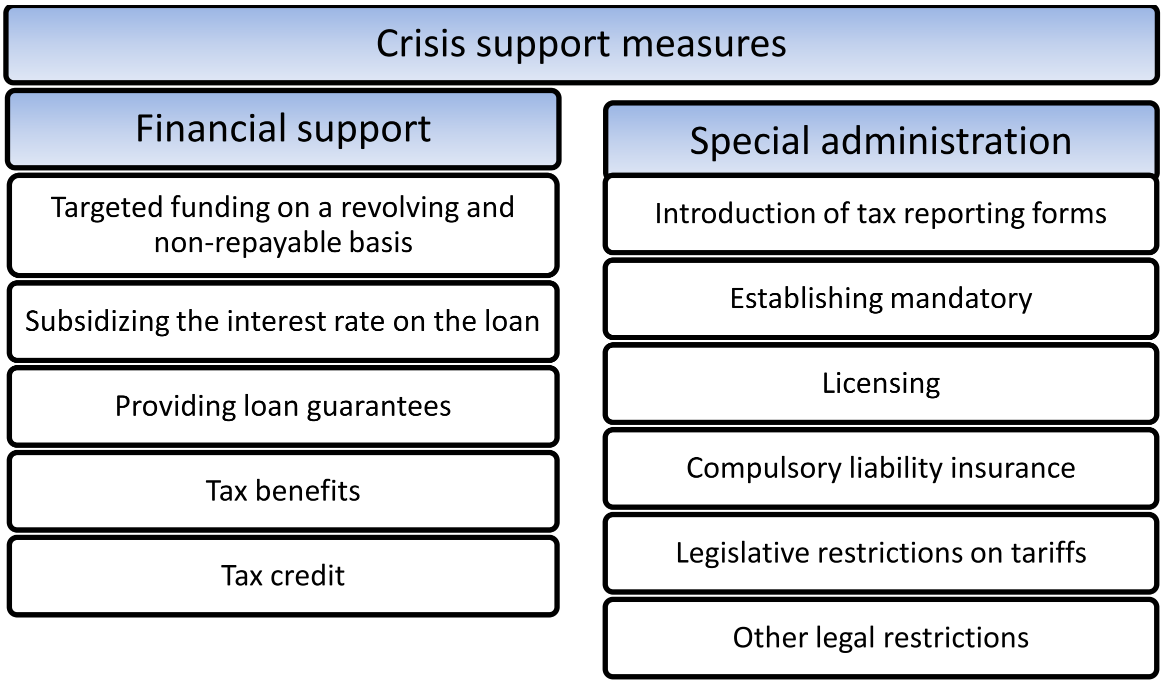

Fig. 3. 4. Measures to prevent crisis situations [50, p. 24]

The mechanism of anti-crisis regulation of the national economy includes a set of elements that have established links (Table J. 1); (APPENDICES J), and is formed in accordance with the chosen model of state regulation of the economy.

The main directions of state anti-crisis regulation include:

- improvement of the legal framework on bankruptcy of enterprises;

- improvement of measures to improve the solvency of enterprises, which include the provision of state support to insolvent enterprises and attracting investors involved in the rehabilitation of these enterprises;

- adoption by the Government of Ukraine of actions aimed at eliminating the payment crisis;

- privatization and voluntary liquidation of debtor enterprises;

- creation of the institute of arbitration and bankruptcy trustees [51].

Formulation of development goals of any economic object (process, phenomenon) is based on the criteria of economic efficiency. For anti-crisis regulation, such a criterion is a reduction in the depth of the fall, the duration, scale and negative consequences of the crisis and post-crisis depression. At the same time, it is impossible to establish more specific efficiency parameters, as the depth of the fall in GDP and other macroeconomic indicators, the set of negative consequences are determined by the specifics, type and type of crisis, as well as the strength of external influences. The goals of anti-crisis regulation of the national economy are divided into strategic and tactical

The implementation of mechanisms and methods of crisis management of socio-economic processes is greatly complicated by:

- increasing the number and tightness of internal relations of the socio-economic system, which necessitates taking into account the consequences of the impact of management methods on the whole set of elements of the system;

- increasing dependence of the socio-economic system on environmental factors, which increases the likelihood of external risks and reduces the effectiveness of management;

- the complexity of problems and contradictions, which requires their solution in a combination of technical, economic, social and managerial aspects, etc .;

-dynamics and low predictability of changes in both external and internal environment of the socio-economic system, which requires a rapid response to change, and therefore necessitates the development of alternative management strategies, depending on the state of the system and the external environment.

Anti-crisis public administration within the last crisis in developed economies was expressed in various forms.

Thus, anti-crisis regulation of the national economy is a process of purposeful influence of public administration bodies on the prevention, prevention and minimization of the negative consequences of crisis phenomena in order to ensure sustainable economic development. When developing mechanisms for anti-crisis regulation, the main goals, functions and tools of state regulation should be taken into account. In countries with developed economies, there is a wealth of experience in both preventing and overcoming crises at the macro and micro levels. Anti-crisis state regulation in different countries manifests itself in various forms. It is mainly implemented through the improvement of legislation in the field of employment, economic policy development, strengthening state intervention in the economy.

Anti-crisis regulation in countries is aimed at stimulating the activities of specific companies. The EU's anti-crisis regulation program focuses on supporting the development of mechanical engineering, attracting investment in the economy, and providing employment. The European Union has been most successful in stabilizing the banking sector. The US reforms were aimed at creating national development programs that included employment, business development, and automotive corporations. The experience of Japan shows that in the conditions of anti-crisis state regulation the industrial policy of the leading branches of economy acquires great value. The priorities of the Scandinavian economy are the labor market, education, health care, pensions

An important factor in stabilizing the economic and financial situation of Ukraine is the fundamental reorientation to domestic sources of development, in particular to the full implementation of programs for the development of the domestic market. The need for a systematic strategic government approach to restructuring the domestic market by increasing domestic production (based on increasing the volume of import-substitutable products) is due to the need to reduce import dependence and the need to increase high-tech exports to balance macroeconomic and macro financial imbalances. The redistribution of funds for the development of national production should be facilitated by the redistribution of financial flows from services and intermediation to the national industry sector.

CONCLUSIONS

A financial crisis is a deep disorder of the state financial system, accompanied by inflation, volatility of securities prices, manifested in a sharp discrepancy between budget revenues and expenditures, instability and fall in the exchange rate of the national currency, mutual non-payments of economic entities, inconsistency of the money supply in circulation with the requirements of the law of monetary circulation. Financial crises primarily affect the financial sector of the economy. But due to the fact that the real sector is closely connected with the financial one, such crises are reflected in all spheres of the economy and lead to a decline in production, an increase in unemployment, a decrease in the well-being of the population, etc. The crisis of 1825 is defined as the first manifestation of imperfection of the modern financial system. It is seen as the first-ever international financial crisis. In total, there are at least sixteen global financial crises. The International Monetary Fund has developed many databases that can be analyzed to determine financial instability, including: external debt statistics; Data Dissemination Special Standard (SDDS); indicators of financial stability (IFI).

World financial crises cover financial markets, money circulation and credit, international finance, manifested due to the rapid growth of interest, debts, reduction of loans, a large-scale fall in securities prices, massive losses in the derivatives market, uncontrolled depreciation of exchange rates, and the like. To clarify the essence of financial crises, their classification is of great importance. It takes into account the relationship between the causes and consequences of crises on the following grounds: coverage of the monetary and financial system, the level of international economic relations and disturbing factors. A financial crisis is characterized by its origins, the type of crisis and the stage of its development. Factors that determine their formation play an important role in identifying the causes of crises. Economic conditions are determined by the economic strategy of the state, the ratio of forms of ownership, the level of freedom and the conditions of entrepreneurial activity, tax, monetary and budgetary policies, regulatory instruments, the level of inflation and the size of public debt, the stage of the country's economic development. There are basic macroeconomic indicators that can signal the development of the financial crisis: the balance, exchange rate volatility, the ratio of the growth rate of the country's international reserves and imports.

An important task is the timely detection and forecasting of crisis phenomena. Thanks to forecasts, it becomes possible at various levels of management to draw up scientifically based long-term plans for economic and social development, to determine the needs of the domestic and foreign markets.

An economic and mathematical model for controlling the occurrence of global financial crises based on the implementation of control points macroeconomic indicators of financial crises, which can become the basis for the formation of early warning systems for global financial crises. The model allows monitoring and calculating the main assessment indicators and forming an information basis for developing management decisions in order to avoid the onset of financial crises or reduce negative consequences due to their early detection. The creation of a quality control system during global financial crises will allow avoiding negative economic consequences due to the timely identification of their first precursors.

Since gaining independence, the Ukrainian economy has been in crisis for a long time. Over 29 years, at least 4 financial crises of the national economy can be distinguished, as well as the 2020 crisis caused by the COVID-19 viral infection. In the current conditions of transformation, the state needs to mobilize all efforts to create conditions for Ukraine to overcome the economic crisis and form effective instruments that will reduce the harmful effects of global crises and strengthen the positive aspects of the crisis as an incentive. for further evolutionary development.

To date, four areas have emerged in which the global crisis is affecting Ukraine's economy: cyclical slowdown of the world economy, which in general may reduce the demand for export products, and hence export earnings continue to lead to a decrease in the state budget revenues, the devaluation of the hryvnia and lower wages; high price volatility in world commodity markets, when there are sharp jumps in prices for exchange goods, in particular, depending from the situation in the financial and foreign exchange markets. There may also be a problem of reducing the trade balance, which, in turn, can negatively affect the current account, i.e. weaken Ukraine’s international position; the collapse of quotations on world stock markets, which led to a sharp drop in the value of shares of Ukrainian companies. Panic in financial markets, bankruptcy of large investments banks, a sharp rise in rates.

Ukrainian banks have sufficient funds to repay external borrowing, but some of them may have problems with debt refinancing in global financial markets. The functioning of financial systems in the context of globalization determines the need to develop new approaches to preventing crises in the economy. Thus, financial crises as integral parts of human economic development are evolving and changing in parallel with the development of the world economy. Preventing large-scale financial shocks and quickly overcoming the negative impact of global financial crises in the event of their occurrence is of particular importance for the modern world economy.

Ukraine cannot withstand the impact of global financial crises. The current state of Ukraine's economy is accompanied by an acute general economic crisis. The causes of the financial crisis are the dependence of the stock market on the funds of non-residents, excessive external debt of economic entities, lack of liquidity in the banking system. Under such socio-economic conditions, it is impossible to achieve the appropriate level of production efficiency, get the maximum profit, be a leader in fierce competition. I believe that the only way for Ukraine to enter the trajectory of sustainable development is through decisive and comprehensive reforms aimed at increasing the competitiveness of the economy. Achieving a stable state of the economy requires the development of effective mechanisms and approaches that would increase production efficiency, create favorable investment conditions, ensure the competitiveness of products on world markets.

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APPENDICES A

SUMMARY

Мірошниченко К.С. Дослідження впливу світових фінансових криз на економіку України. - кваліфікаційний документ бакалавра. Сумський державний університет, Суми, 2021.

Дисертація кваліфікаційного бакалавра присвячена вивченню наслідків фінансової кризи на економіку України. Аналіз, оцінка світової фінансової кризи та кризи в Україні. Визначені проблеми та перспективи їх запобігання. Визначено основні напрями вдосконалення державного регулювання у сфері фінансової кризи України.

Ключові слова: економічна криза, етапи фінансової кризи, глобалізація, світова економіка, інтеграція, економічні перетворення, антикризове управління, класифікація типів криз, причини криз, наслідки кризи, генезис світових фінансових криз, теорія криз, поширення фінансових криз.

Miroshnychenko K.S. Study of the impact of global financial crises on the economy of Ukraine. - Bachelor's qualification paper. Sumy State University, Sumy, 2021.

Qualifying bachelor's thesis is devoted to the study of the effects of the financial crisis on the economy of Ukraine. An analysis, assessment of the global financial crisis and the crisis in Ukraine. Identified problems and prospects for their prevention. The main directions of improvement of state regulation in the sphere of financial crisis of Ukraine are determined.

Keywords: economic crisis, stages of financial crisis, globalization, world economy, integration, economic transformations, anti-crisis management, classification of types of crises, causes of crises, consequences of crisis, genesis of world financial crises, theory of crises, spread of financial crises.

APPENDICES B

Table B.1 Methods of searching for indicators-harbingers of the financial crisis [16, p. 38-39; 17, p. 154–155]

Qualitative analysis	Provides an opportunity to follow the basics of financial market trends and identify factors of financial destabilization in advance. However, qualitative analysis is associated with significant risks in terms of subjective interpretations of the dynamics of signal indicators, which forces to more actively develop quantitative characteristics of the analysis, able to provide monitoring with greater objectivity. econometric and nonparametric modeling are designed to solve this problem
Econometric modeling	Is to evaluate binary choice models with various indicators of financial stability as exogenous variables. these models cover the influence of all explanatory variables simultaneously and have sufficient flexibility in choosing different functional forms of communication of dependent and explanatory variables, which contain, among other things, fictitious variables. the sample is usually very small compared to the number of quiet periods. as a result, the statistical properties of regression are often not indicative, which in fact offsets the advantages of such an approach
Nonparametric modeling	The main feature of the non-parametric method, in particular the method of signal estimates, is the formation of a system of "threshold" values, exceeding which the indicator indicates the operation of the signal and increase the probability of financial crisis. The main advantage of the signaling approach is the assessment of the predictive power of each indicator individually, which allows rank the variables. Moreover, this technique can be used to shape current economic policy, because the variable that gave the signal can be directly identified. Between indicators is not taken into account. at the same time, this technique allows to build an integrated indicator of the financial crisis. A certain problem of this approach is the assumption of a very specific functional relationship between the dependent and explanatory variables. the probability of a crisis by this method is actually modeled as a binary function of a significant indicator, which acquires a value of 0, when the indicator is constant below the limit value and a value of 1 otherwise

APPENDICES C

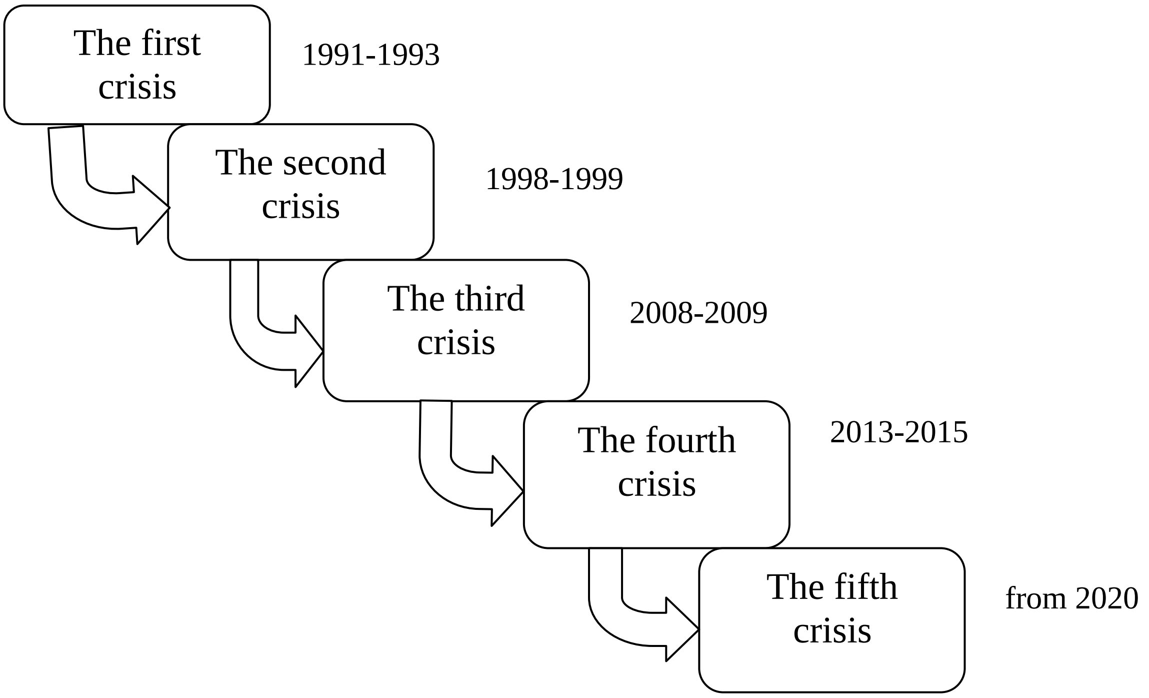

Fig. C. 1 The main financial crises in Ukraine since independence [compiled by the author based on 18]

APPENDICES D

Table D.1 Causes of the crisis of 2013-2015 [compiled by the author based on 26]

Political	1. Inconsistencies and inconsistencies between political schemes occupied by different branches of government in the development of important national legislation and economic documents 2. Formation of the leadership of executive bodies, state institutions and organizations at all levels, including with the participation of the ruling political forces 3. Annexation of the ARC and the deployment of hostilities in the east 4. Excessive centralization of financial resources and power 5. Uncertainty in the international vector 6. Unprotected legal framework from interference and changes in order to adapt its rules to certain situations beneficial to the pro-government majority
Economic	1. Capital outflow in the form of growth of balances from foreign trade operations on foreign correspondent accounts of banks 2. Reduction of foreign direct investment inflow and fall of Ukraine's investment ratings 3. Instability in the foreign exchange market and its speculative nature 4. Growing budget deficit and public debt 5. Devaluation of the hryvnia 6. Continuous tendency to reduce the international reserves of the NBU 7. Chronically negative trade balance 8. Accelerated growth of monetary aggregates
Social	1. Social injustice of the decline of the middle class in society, significant stratification of the population (division into rich people and people living below the poverty line) 2. Excessive merging of business and government, whose joint activities are aimed primarily at satisfying their interests 3. Loss of the population of the old landmarks and the lack of new, resulting in an increase in the level of psycho-emotional stress in society

APPENDICES E

World financial crises

- 1825 - Latin America. falling stock market, due to the Bank of England raising the discount rate
- 1936 -1838 -England, France, USA. the fall of the stock market, the Bank of England raised the discount rate in response to the outflow of capital to the United States
- 1857- 1858 -USA, Latin America, Europe .the fall of the stock market and the crisis of the US banking system, due to speculation in the stock market
- 1873 -1878- Austria, Germany, Latin America, USA. the fall of the stock market, due to the credit boom and speculation in the real estate market
- 1893 - USA, Australia. the fall of the stock market due to the banking crisis after the adoption of the small Sherman Pact
- 1907 -England, USA, France, Italy. the crisis of the US payment system, liquidity crisis, stock market crash, due to rising discount rates of the Bank
- 1914- USA, France, Great Britain, Germany. as a result of the total sale of securities to finance hostilities
- 1921-1922 -Denmark, Italy, Finland, Germany, Norway, England, USA, banking and exchange rates in conditions of complete deflation and
- 1929-1933- USA, Europe. Great depression. the fall of the New York Stock Exchange, the abolition of the gold standard for major world currencies
- 1957 - USA, Great Britain, Canada, Belgium, the Netherlands and some other capitalist countries. the first postwar financial and economic crisis
- 1973 - USA, Europe. energy, financial and monetary, economic crisis. OPEC countries have lowered oil production, triggering rising world prices
- 1987 -USA, Australia, Canada, Hong Kong .The collapse of stock markets after the fall of the DJ index, due to declining capitalization of large
- 1994-1995- Mexico, USA .crisis of the banking system of Mexico, after the withdrawal of capital of 10 billion US dollars
- 1997- 1996-NIC and other Emirati countries. Currency, stock market crisis, due to the liberalization of capital movements
- 1998 - CIS. Banking currency, debt crisis. The collapse of the banking system, the fall of the ruble, due to public debt, low world prices for raw
- 2007-global. the fall of the stock market, due to the crisis of the banking system, due to the collapse of mortgage lending

Fig. E.1 Essential and temporal characteristics of the genesis of global financial crises [39]

APPENDICES F

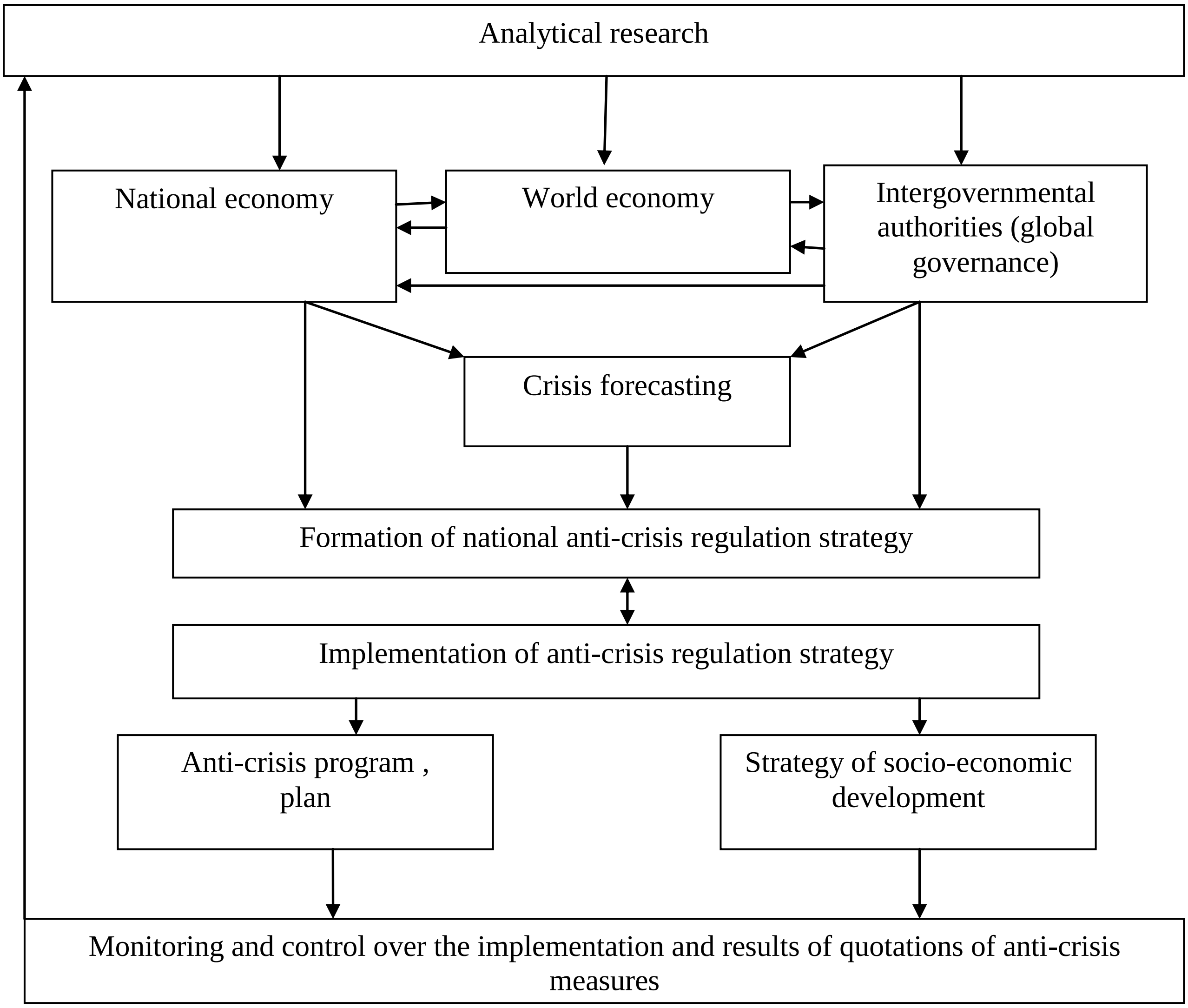

Fig. F.1. Conceptual scheme of development of the mechanism of anti-crisis regulation of the national economy [49. p. 4]

APPENDICES J

Table J.1 The mechanism of anti-crisis regulation of the national economy [49, p. 5].

<table>
<tr><td colspan="4">Anti-crisis regulation of the national economy</td></tr>
<tr><td colspan="2">Objectives</td><td rowspan="2">Subject :
public administration bodies in accordance with the functional distribution of objects</td><td rowspan="3">Object:
economic crisis and factors of cyclical economic development (aggregate),savings and investments, employment human capital inflation , innovation potential , taxes, etc.</td></tr>
<tr><td rowspan="2">Strategic:
formation of anti-crisis potential to counter external and internal disturbances and stimulate economic development factors aimed at building a post-industrial economic information system</td><td rowspan="2">Tactical:
formed depending on the type of type of cause and the specifics of the crisis</td></tr>
<tr><td>Factors influencing:
-the external (supranational)
- internal</td></tr>
<tr><td colspan="2" rowspan="2">Methods
Tools:
monetary policy ,fiscal policy, social policy, investment and innovation policy, structural policy, forecasting, programming ,crisis recovery planning</td><td colspan="2">Criteria for the effectiveness :
of reducing the depth of the fall, in the duration, of the scale. and the negative effects of the crisis and crisis depression</td></tr>
<tr><td colspan="2">Models(on the scale of state intervention) : neoliberal(monetarist), Keynesian</td></tr>
<tr><td colspan="4">Principles</td></tr>
<tr><td colspan="2">General:
adequacy and efficiency, justice, stability, systematic state influence, optimal combination of administrative and economic levers, gradual and phased, observance of material financial balance, scientific validity, ensuring the unity of strategic and tactical regulation</td><td colspan="2">Specific:
focus on achieving strategic goals of cyclical development ,subordinated to the strategic goals of social development ,transparency and openness of adoption and implementation of anti-crisis measures, timeliness of anti-crisis measures ,coordination and coordination with international anti-crisis programs</td></tr>
</table>