

**THEORETICAL GROUNDS OF ASSESSING THE
PROBABILITY OF AN ENTERPRISE BANKRUPTCY UNDER
THE CONDITIONS OF THE PANDEMIC AND ITS IMPACT
ON EXPORT-IMPORT OPERATIONS IN UKRAINE**

Lyudmila Volontyr¹

DOI: <https://doi.org/10.30525/978-9934-26-193-0-3>

Abstract. *The purpose* of the work is to study the transformation of the concept of bankruptcy in Ukraine and the world in pandemic conditions, carrying out econometric modeling of exports and imports and taking into account seasonal fluctuations and their forecasting. *Methodology.* The paper considers the legal settlement of the grounds, procedures and consequences of the debtor's insolvency. The concept of "bankruptcy" is used in many socio-political and natural sciences where it is given its own interpretation. The most typical definitions of the concept of "bankruptcy" that occur in foreign and domestic scientific publications are considered. Studying the chronology of the "bankruptcy" concept interpretation allows us to assess the change of positions and approaches to understanding its essence. It is emphasized that bankruptcy should be investigated as a method of anti-crisis management. The classification of bankruptcy on various grounds is considered. Introductions in the regulatory framework concerning bankruptcy are considered. Econometric modeling has shown that the exports and imports of goods, works and services of Ukraine has a general tendency to decrease and seasonal fluctuations have a significant impact on them. *Practical implications.* Introductions into the regulatory framework concerning bankruptcy, namely the procedure for the out-of-court recovery and the procedure for initiating a simplified bankruptcy procedure of the debtor, are liquidated by the owner. These provisions make it possible to make national insolvency and bankruptcy legislation more flexible and adapt it to European legislation. Particular attention is paid to legal relations associated with bankruptcy, which are governed by a number of regulations of different legal force that together constitute a separate institution in

¹ Candidate of Technical Sciences, Associate Professor,
Vinnytsia National Agrarian University, Ukraine

the system of economic legislation. The analysis of bankrupt enterprises in Ukraine in 2016–2019 revealed that most enterprises in Ukraine went bankrupt in 2016, the least – in 2019, i.e., there is a downward trend in this indicator, which indicated a gradual improvement in Ukraine’s economic situation. Most companies went bankrupt in February 2017, the least – in November 2019. Based on econometric modeling, the forecast of exports and imports is determined and, taking into account seasonal fluctuations, we determine their values for each quarter of 2021–2023. The largest volume of exports falls on the third quarter, while the largest volume of imports – on the fourth. As a result of the study, based on the analysis of the dynamics of exports, imports and gross domestic product of Ukraine during 2010–2020, it was found that exports and imports of goods and services had a general tendency to decrease. *Value/originality*. Effective management of export-import operations is impossible without a science-based approach to solving a set of problems of their information support. In a pandemic, businesses need to respond quickly to environmental conditions. Risks arising from quarantine measures need to be minimized immediately. The analysis of the dynamics of exports, imports, gross domestic product of Ukraine during 2010–2020 revealed that the balance of foreign economic transactions, in particular the value of exports of goods and services, has a significant impact on Ukraine’s gross domestic product. The constructed econometric model of dependence of GDP upon exports and imports of Ukraine is adequate (determination coefficient is 0.963). It is substantiated that with the increase in exports by UAH 1 million, gross domestic product will decrease by UAH 11.89 million provided that the remaining factors remain unchanged. If the volume of imports is increased by UAH 1 million, the gross domestic product will increase by UAH 4.51 million. provided that the remaining factors stay unchanged. The values of the coefficients of import dependence and export coverage of imports were analyzed and it was noted that these indicators significantly exceed the allowable level during almost the entire study period. The negative balance of export-import operations in 2010–2020 also indicates some imbalances in Ukraine’s foreign trade relations. During 2014–2020, there was a reverse, unfavorable for Ukraine trend of lower value of exports of goods and services compared to their imports. Note that the best values do not always match.

1. Introduction

The prevailing opinion in society is that the bankruptcy of an enterprise is bad, it has no positive consequences for the enterprise and will inevitably result in its liquidation. In fact, this is not the case. Bankruptcy proceedings in the case of the right approach gives a chance to business for a “second life”.

Bankruptcy is a natural phenomenon of a market economy – unprofitable, inefficient and insolvent enterprises cease to operate. However, under the current unstable economic conditions, a significant number of enterprises have found themselves in a difficult financial situation. Quite often, companies fail financially due to unpreparedness for sudden crises or any other changes in the economy.

Under the conditions of the economic crisis, the issue of determining the probability of bankruptcy of enterprises is particularly acute, as the number of bankrupt enterprises is growing [35, p. 683].

The Bankruptcy Institute in Ukraine has come a long way. In Soviet times, the insolvency procedure was regulated, but practically not applied. Only the proclamation of Ukraine as an independent state and the determination of the economic vector for the development of market relations contributed to the revival of the institution of bankruptcy. In this regard, there is a need for legal regulation of the grounds, procedures and consequences of insolvency of the debtor.

Foreign economic activity is the activity of economic entities of Ukraine and foreign economic entities, built on the relationship between them, which takes place both in Ukraine and abroad.

Export-import transactions remain the main source of foreign exchange earnings of resident enterprises. The creation of favorable legislative and tax conditions for Ukrainian enterprises in the field of export-import operations will stimulate an increase in foreign currency inflows into the country.

The formation and development of the domestic economy depends on solving the problem of foreign economic relations, because they play a significant role in the national economy, significantly affect the pace of economic growth in Ukraine. Effective management of export-import operations is impossible without a science-based approach to solving a set of problems of their information support, which are solved in the system of accounting and analysis.

Thus, the issue of assessing the changes of export-import transactions of Ukraine in a global pandemic and forecasting this changes taking into account seasonal fluctuations is relevant.

**2. Bankruptcy of the enterprise:
the essence and content characteristics**

There are many interpretations of the term “bankruptcy” in the scientific, economic and legal literature. This concept is used in many socio-political and natural sciences, each of which gives it its own interpretation. The reason for the existence of a large number of definitions is the many-sidedness of this concept, ambiguity in its manifestations and rather often, unexpected consequences. The theoretical substantiation of this phenomenon continues to this day. In this regard, it is advisable to consider the most common definitions of “bankruptcy” that occur in foreign and domestic scientific publications (Table 1).

Table 1

Interpretation of the concept of “bankruptcy”

Author, source	Definition
1	2
E. M. Andrushchak [1]	Bankruptcy is an unsatisfactory economic situation of a natural or legal person recognized by the judicial agencies, which is a sign of termination of payments on liabilities due to lack of assets in realizable form.
O. Ya. Bazylynska [3]	Bankruptcy is the inability of an enterprise to pay its debts and meet its budget obligations.
I. A. Blank [4, p. 406]	Bankruptcy of enterprises is a financial insolvency of an enterprise established in court, i.e. the inability of an enterprise to meet the requirements set for it by creditors within the time limits set and to fulfill obligations to the budget.
R. Breli and S. Myers [6]	Bankruptcy is a market way of punishing a company for large-scale management mistakes. Bankruptcy is associated with the realization of catastrophic risks that have arisen in the course of its failed financial and economic activities.
I. M. Boichyk [5]	It is the incapability for some entities to meet their obligations to creditors after the deadline, especially it concerns the accounts payable.
T. E. Voronkova, N. P. Rybalchenko [41]	Bankruptcy – “is a fundamental, legal category of the economy of Ukraine”, “financial insolvency of the debtor and non-payment of obligations.”
V. I. Hrynychtskyi [12]	The inability of the debtor to restore its financial solvency and satisfy the creditors’ claims recognized by the arbitration court only through the application of the liquidation procedure.

(Continuation of Table 1)

1	2
O. D. Danilov, T. V. Paientko [7]	The inability of the enterprise to satisfy creditors' claims for payment for goods (works, services) including the inability to ensure mandatory payments to the budget and extrabudgetary funds, due to excess liabilities of the debtor over its property or due to unsatisfactory structure of the debtor's balance sheet.
I. V. Oleksandrenko, L. I. Ishchuk [23]	Regulatory authority of a market economy, whose task is to exclude inefficient and insolvent, unprofitable economic entities.
T. V. Pepa [25, p. 10]	Bankruptcy means the refusal of a citizen or company to pay on its own debt due to lack of funds.
O. L. Plastun [26]	This is the inability of a legal entity – a business entity – to meet the requirements of its creditors within the time limits set due to the lack of assets in realizable form.
S. M. Skochylias [34]	Bankruptcy characterizes the inability of the company to meet creditors' claims for payment for goods, works and services, as well as to ensure mandatory payments to the budget and extra-budgetary funds.
H. O. Sukrusheva, B. M. Paputsyn [35, p. 684]	Bankruptcy of the enterprise is a consequence of the deep financial crisis of the enterprise, which leads to the refusal to finance the main current activities due to lack of funds, and the refusal to pay on its own debt, which is the basis for liquidation
O. O. Tereshchenko [37, p. 13]	Bankruptcy of enterprises is a consequence of a deep financial crisis, the system of management measures of which has not had positive effect.
O. Tretiak [38]	Gives consideration to bankruptcy as the result of an entity's insolvency. According to him, bankruptcy is a lack of assets in realizable form, the inability of a legal entity – a business entity to meet the requirements of its creditors within the time limits set.
N. P. Shmorhun [33, p. 86]	Bankruptcy (financial collapse) is the documented inability of an entity to pay its liabilities and finance its current activities due to lack of funds. This state of the enterprise, according to the author, indicates the performance degradation that determine its financial stability.
A. S. Yablonska [14]	Bankruptcy is one of the legal grounds for liquidation of the enterprise, which is manifested in the incapacity of the business entity to meet the creditors' claims and obligations to the budget within the prescribed period.

(End of Table 1)

1	2
T. M. Yankovets, Yu. V. Cherniuk [15]	Bankruptcy is considered as: 1) financial insolvency and collapse, which cause the inability of the company to pay its liabilities; 2) inability to restore the solvency of the debtor through reorganization, amicable agreements in accordance with the law, the use of liquidation proceedings) recognized through the courts.
Explanatory dictionary [46]	It is a financial failure, a collapse that leads to the suspension of debt payments.

Source: summarized by the author according to sources

Studying the chronology of the interpretation of the concept of “bankruptcy” allows us to assess the change of positions and approaches to understanding its essence. Thus, the market approach proposed by Oleksandrenko I. V. and Ishchuk L. I. [23] proves that bankruptcy is a natural mechanism for cleaning the economy of unprofitable, inefficient enterprises. Sukrusheva G. O., Paputsyn V. M. [35] also hold the following opinion: in fact, it is a natural mechanism for selecting the most efficient enterprises that have the resources to operate in a crisis. Voronkova T.E. and Rybalchenko N. P. hold a similar opinion [44]: “The concept of bankruptcy is based on a simple rule of the free market: in a competitive environment, those companies shall survive whose activities are more efficient and whose products are in demand.”

Yankovets T. M., Cherniuk Yu. V. [15] consider bankruptcy from the point of view of internal financial insolvency of settlement on debt obligations – conditions under which the enterprise is declared bankrupt (court decision, impossibility of reorganization, conclusion of amicable agreements, need for liquidation procedure). This approach clearly defines the tools for overcoming bankruptcy, but does not take into account the root causes of bankruptcy. For example, such reasons may be the ineffectiveness of crisis management: lack of receivables management, monitoring the financial condition of debtors, risk forecasting, forecasting income and expenses, cash flows, understanding macroeconomic trends and more.

Sukrusheva G. O., Paputsyn V. M. [35] systematized the concept of “bankruptcy”, which allows to form the main conditions for declaring an enterprise a bankrupt:

1. Legal grounds, in particular the court's recognition of the inability to pay on debt obligations, which is documented.
2. Inability to settle with creditors in a timely manner.
3. Impossibility of reorganization or amicable settlements.
4. The need for liquidation.
5. Impossibility of anti-crisis measures to overcome financial insolvency and recognition of the company's own financial insolvency.

Bankruptcy is often seen as a phenomenon caused by a crisis that could not be overcome in time. Most authors agree that bankruptcy should be prevented in any case and new and more effective methods of enterprise management should be sought to prevent this phenomenon.

Bankruptcy is considered more deeply among foreign scholars from a legal point of view, given the improvement of laws governing the bankruptcy of enterprises (R. Efrat [8], T. Ziviki [44], S. Lin [18]).

However, bankruptcy should also be investigated as a method of crisis management, but with the caveat that this method should be used only as a last resource when the crisis in the company is completely out of control. Research on bankruptcy proceedings was conducted mainly in terms of revealing the essence of this concept as a negative phenomenon for the company. B. Moskvin believes that it is advisable to explore the concept of "bankruptcy" as a last resource for the owners and management of the company once and for all to overcome the crisis in the company and solve the problem of debt to creditors [21, p. 59].

The diversity of views of scientists is due to the influence of factors of both external and internal nature, and the presence of most of the considered interpretations reflects an understanding of the degree of influence of a factor. In our opinion, it is appropriate to define bankruptcy as an economic phenomenon that occurs when a company is unable to meet its obligations to its creditors, so it is forced to cease its activities without resuming it in the future.

The causes of bankruptcy are divided into external (exogenous) and internal (endogenous). External factors include crisis-making factors: economic, political, social ones, due to the imperfection of public policy, as well as factors of negative inheritance (inherited from the command-administrative system); inflation and default crisis; market factors (negative market conditions); factors of interaction with partners; innovation factors; resource deficit; natural disasters.

Chapter «Economic sciences»

Internal causes include: imperfection of the enterprise potential management system (managerial, marketing, labor, financial, rehabilitation, infrastructure, information, reproduction potential), irrational management decisions, production potential, etc.

The main causes of bankruptcy are presented in Figure 1.

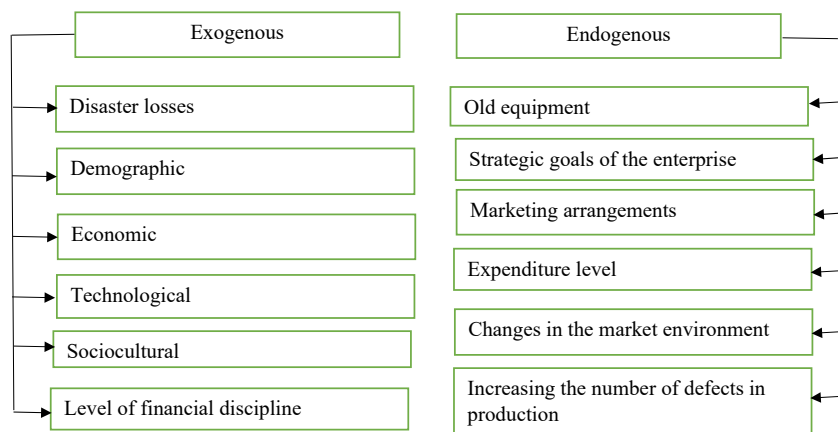


Figure 1. Causes of bankruptcy

Source: [40, p. 63]

Other authors believe that the causes of bankruptcy are financial crises [37, p. 13–15], which are caused by exogenous (economic downturn, declining purchasing power, high inflation, instability of economic and tax legislation, instability of financial and foreign exchange markets, increasing competition in the industry, crisis of a particular industry, seasonal fluctuations, discrimination by the government authorities, etc.) and endogenous factors (low quality of management, deficiencies in the organizational structure, low staff skills, shortcomings in the production sector, miscalculations in the supply sector, low level of marketing and loss of markets, miscalculations in investment policy, lack of innovation and efficiency drive, deficits in funding, lack or unsatisfactory performance of control services). It is obvious that the reasons will vary depending on the country, region, industry, size of the enterprise, form of ownership of the enterprise and its organizational and legal status, and so on.

Therefore, it is advisable to consider the new for today causes of bankruptcy of the enterprise, which arise as a consequence of the development of the world economy and foreign economic relations between market participants, as well as identify the causes of bankruptcy inherent to the domestic economy, and try to classify these causes into groups in order that the company optimized the resource spend when analyzing the causes of bankruptcy and developing elements of bankruptcy prevention.

The current causes of bankruptcy include:

- 1) increased role of TNCs, increase of large companies through mergers, acquisitions, and hence the level of competition;
- 2) growth of requirements and needs of consumers to products of enterprises;
- 3) increase of the share of knowledge-intensive products and services;
- 4) significant reduction in the life cycle of goods and services;
- 5) interdependence of economies of different countries and the possibility of a “domino effect” during financial and economic crises and bankruptcies (for example, the crisis of 2008, which affected many countries and caused negative consequences in the financial system of Ukraine);
- 6) an increase in the number of terrorist acts in the world;
- 7) increased restrictions on environmental protection, vigorous activities of environmental organizations;
- 8) Internet crimes and virtual fraud;
- 9) growth of natural disasters and the number of man-made accidents;
- 10) dynamism and turbulence of the world economy;
- 11) corporate scandals due to sexual harassment of employees [37, p. 61].

In developed countries with market economies, with stable political and economic systems, bankruptcies by 1/3 are mainly due to external factors and by 2/3 due to internal ones. Thus, it can be concluded that, firstly, the bankruptcy of economic entities under the conditions of their improper regulation can cause great damage to the state economy, and secondly, the state should take care to reduce the impact of external risks on national enterprises. And for this, it is necessary to have an adequate legal framework.

In general, the causes of bankruptcy of enterprises and organizations can be divided by characteristics into certain types (Table 2).

Thus, analyzing the statistics and causes of bankruptcy, we conclude that the largest number of bankruptcies occurs in the economy of a country experiencing

a recession or transformation. A similar situation is observed in the industries. If the industry is in the final stages of development or the demand for its products is falling in the market, the number of bankruptcies increases significantly. Other important causes of bankruptcy are the internal problems of the enterprise itself. Therefore, in the future it is necessary to develop approaches to the various stages of development of the economy, industry and enterprise.

Regarding the classification of bankruptcy, the following types of bankruptcy of enterprises are distinguished in legislative and financial practice (Table 3).

There are different ways to classify the phenomenon of bankruptcy. In particular, on the basis of the bankruptcy cause, we distinguish:

- 1) bankruptcy of the business (associated with inefficient management of the enterprise, marketing strategy or use of available resources);
- 2) bankruptcy of the owner (caused by lack of investment resources of the owner, necessary for the implementation of extended and sometimes simple reproduction);
- 3) bankruptcy of production (non-competitiveness of products);
- 4) the so-called “unconscionable management” – the actions of the company’s management associated with malicious evasion of obligations [32, p. 129].

Diagnostics of the crisis in the enterprise is a set of methods aimed at identifying negative performance indicators, in particular the problems that are the causes of poor financial condition (Table 4).

3. Statutory regulation of relations in the field of enterprise bankruptcy

The Law of Ukraine “On Bankruptcy” enacted by the Resolution of the Verkhovna Rada of Ukraine dated 05/14/1992 № 2344-XII [29], which was in force for seven years, became a novelty in the domestic legal field but it outlined only the state regulation of financial insolvency system and had significant shortcomings. First of all, the Law of Ukraine “On Bankruptcy” did not provide for the establishment of a specialized state regulatory body for bankruptcy, as well as the existence of one of the main figures in the bankruptcy procedure – arbitral trustee (property administrator, reorganization manager, liquidator).

On January 1, 2000, the Law of Ukraine dated June 30, 1999 № 784-XIV “On Restoration of Debtor’s Solvency and Recognition of

Classification of bankruptcy causes

No.	Signs of bankruptcy causes	Types of bankruptcy causes
1.	By way of fixing	regulatory (formal) illegal/unlawful (informal)
2.	By level of control	manageable potentially manageable unmanageable
3.	By period of influence	static dynamic
4.	By elements of origin	social psychological economic natural and ecological political administrative and legislative scientific and technical organizational
5.	By place of origin in the organization	corporate of units
6.	By level of occurrence	strategic operational
7.	By action mechanism	direct indirect
8.	By stages of operation of the enterprise	reasons at the stage of establishment of the enterprise reasons at the stage of growth and maturity reasons at the stage of liquidation of the enterprise
9.	By scale	global regional local industrial
10.	By types of resources involved	informational energy financial material labor
11.	By stages of activity in a certain field	entering the market functioning exit from the market

Source: [13, p. 62]

Bankruptcy classification

Type	Essence
Concealed bankruptcy	is considered as intentional concealment of his stable financial insolvency by providing inaccurate information by the founding citizen, owner or official of the business entity if it caused great material damage to the creditor
Fictitious bankruptcy	the essence of this type is to erroneously declare the company insolvent in order to mislead creditors to obtain from them a deferral (installment) of their credit obligations or reduce the amount of credit debt
Real bankruptcy	characterizes the complete inability of the company to restore in the future its financial stability and solvency due to real losses of capital used
Technical bankruptcy	characterizes the complete inability of the company to restore in the future its financial stability and solvency due to the actual loss of capital used. There is an excess of receivables over accounts payable, and the amount of assets – over liabilities
Intentional bankruptcy	characterizes the intentional creation (or increase) of the head or owner of the enterprise of its insolvency; infliction of economic damage to the enterprise in personal interests or for the benefit of others; incompetent financial management

Source: [40, p. 63–64]

Bankruptcy” [30] entered into force, and thus the next stage of development of state regulation in the field of bankruptcy was started. The benefits of the new Law, which expired with the introduction in 2019 of the Bankruptcy Code of Ukraine, at that time, were undeniable.

First, the Law established the conditions and procedure not only for declaring the debtor bankrupt, but also for restoring his solvency and applying the liquidation procedure, full or partial satisfaction of creditors’ claims. As a result, the Law had more articles than the previous Law that were consistent and logical.

Secondly, the glossary covered in Article 1 of the Law has been expanded. In particular, the concept of “bankruptcy”, which is used in the sense of recognizing the debtor’s inability to restore its solvency and satisfy the creditors’ claims recognized by the court, has been improved against the background of experience gained through the liquidation procedure.

Third, the existence of a state bankruptcy body and its powers have been enshrined de jure.

Stages of crisis development in the enterprise

Stages of the crisis	External manifestations
Latent crisis	<ol style="list-style-type: none"> 1. Decrease in efficiency of activity 2. Performance degradation 3. Increasing the duration of operating and financial cycles 4. Decrease in market value of the enterprise 5. Receipt of losses on individual transactions
Paying capacity crisis	<ol style="list-style-type: none"> 1. Periodic and ever-increasing shortage of funds 2. Delay in payment of current payments 3. The emergence of overdue accounts payable and outstanding loans 4. Payment of economic sanctions for breach of deadlines
Bankruptcy	<ol style="list-style-type: none"> 1. Inability to meet external obligations within three months of their occurrence 2. The enterprise creditors' appeal to the court 3. Initiation of bankruptcy proceedings at the initiative of the enterprise or its creditors

Source: [9]

This normative-legislative act has been used for a short time due to significant changes in the economy of Ukraine due to both the crisis in the world economy and domestic socio-economic and political problems. All this necessitated the improvement of regulatory and legal support for insolvency and bankruptcy procedures through the development of legislation and the Verkhovna Rada of Ukraine on December 22, 2011 adopted the Law of Ukraine “On Amendments to the Law of Ukraine on Restoration of Debtor’s Solvency or Bankruptcy” № 4212-VI, which entered into force on 01/19/2013 [30].

Special attention should be paid to such innovations in the bankruptcy legislation as the procedure for pre-trial reorganization and the procedure for initiating a simplified bankruptcy procedure of the debtor, which is liquidated by the owner himself. According to B. Volvach, today these provisions allow to more flexibly adapt national legislation on insolvency and bankruptcy to European law and increase the level of civilization to address these issues in the future [41, p. 5].

Particular attention should be paid to the relationship in respect of bankruptcy, which is governed by a number of regulations of different legal force, which together constitute a separate institution in the system of economic law. Regulations of this institute can be divided into three types:

1) legislative acts of general scope, containing certain rules regarding the regulation of relations in respect of bankruptcy (Commercial Code [11], Civil Code [38]);

2) legislative acts that determine the legal status of certain types of entities with an exceptional type of activity (banks, mutual investment institutions, insurance companies) or of a certain organizational and legal form (cooperatives, companies, farms) and contain certain rules on the possibility of recognition such entities as bankrupts;

3) special legislative acts governing the procedure for declaring business entities bankrupt.

The existence of gaps, the huge number of regulations adopted haphazardly, their low quality and sometimes inconsistencies on the one hand, as well as the importance and complexity of relations in this area, on the other hand, necessitated reform of bankruptcy legislation to reduce the length of bankruptcy proceedings, ensure an adequate level of protection of creditors' rights and reduce abuses in this area, as well as improve Ukraine's position in the Doing Business rating, which would improve the investment climate in the country.

Therefore, in order to reform the legislation in this area and solve the tasks set, the Code of Ukraine on Bankruptcy Procedures was adopted on 10/18/2018 № 2597-VIII (KUzPB № 2597-VIII) [24], which initiated the fourth stage of the development of bankruptcy legal regulation in Ukraine. The introduction of the Bankruptcy Code of Ukraine allowed to unify the legal framework and bring it in line with international standards [43], in addition to comprehensive regulation of relations in the field of bankruptcy regulation of legal entities, the main novelty of the Code was the introduction of debt settlement mechanism and other changes:

- the opening of bankruptcy proceedings by removing the restriction on the amount of debt was simplified;

- the deadline for filing an application by the creditor after the publication of the opening of proceedings has been canceled;

- the terms of bankruptcy proceedings were reduced to 170 calendar days without the right to extend;

- the powers of the court in which the debtor's bankruptcy case is pending have been increased;

- the creditors' committee or other creditors have been granted the right to independently convene a meeting;

- the creditors’ committee has been granted the right to approve the sale of the debtor’s property in liquidation and reorganization procedures, and the secured creditor has been granted the right to sell the property that is the subject of a collateral;
- the debtor’s management rights in the introduction of the procedure for disposing of property has been significantly reduced;
- the mechanism of sale of assets has been improved;
- joint (shared) liability of its management has been added to the subsidiary (additional) liability of the beneficial owners of the debtor;
- the terms of non-recognition of agreements that are unfavorable for the debtor or creditors has been extended to three years;
- new standards of activity of the arbitration trustee have been established;
- the amicable agreement has been canceled as one of the types of bankruptcy proceedings;
- the possibility of conducting a simplified bankruptcy procedure by the debtor has been abolished.

According to I. V. Minchynska, determining the peculiarities of the legislative regulation of bankruptcy in Ukraine would not be complete without determining the type of model of state legal regulation of these relations. The model of state legal regulation of bankruptcy is determined by the target direction of legislation in this area: maximum preservation of business and jobs of insolvent debtor or maximum return of funds to creditors during its liquidation, which generally distinguishes two legal theories: “pro-debit”, which prioritizes the interests of the debtor who is in a crisis mode and cannot pay debts on their obligations, and “pro-creditor”, which rather protects the interests of creditors. In our opinion, directing the legislation to the formation of one or another model of state regulation of bankruptcy is important, as giving preference to liquidation or reorganization procedures that can be used against insolvent debtors is economically important for the continued functioning of the economic system as a whole. Therefore, the assessment of legal regulation in this area also requires determining the type of bankruptcy state regulation model [22].

Analysis of the legal framework for regulating the bankruptcy institution in Ukraine makes it possible to develop a mechanism for its state regulation (Figure 2).

Definition of the concept of “bankruptcy” according to previous and current laws and statutory instruments of Ukraine are given in Table 5.

Official statistics on the parameters of the market for restructuring and insolvency in Ukraine are not presented.

According to market participants, the resolving insolvency indicators (resolution on insolvency) are at the following level:

- the average duration of litigation, in which the financial recovery of the debtor or the debtor's bankruptcy is carried out, is 2.9 years;
- the costs of supporting the bankruptcy proceedings are greater than or equal to 40.5% of the value of the debtor's property;
- the debt collection index, according to various estimates, ranges within 9%.

These modest indicators are reflected in the low Doing business rating. Ukraine ranked 146th in terms of resolving insolvency [2].

In the European Union, bankruptcy, to use a well-known terminology, is not recognized as an independent branch of law. Bankruptcy regulations are not singled out. However, rules aimed at regulating the insolvency of legal entities can be found in some specific areas of the EU legal framework. Bankruptcy in European countries is considered an important part of company law. In case of termination of the insolvent legal entity, special rules are applied for equal distribution of proceeds from the sold property of such a person [41, p. 8]. EU law guarantees individuals the right to freely participate in the capital of any company, regardless of the country in which it is registered. Another aspect of this right is the obligation to return the funds invested in the company, including in the event of its insolvency. Therefore, in the EU, bankruptcy proceedings as an element of a market-oriented economy are an important legal means of resolving debt problems in the structure of company law.

Bankruptcy in EU law is also linked to competition law in the field of economic governance. It is known that in this intergovernmental organization special attention is paid to legal means of maintaining fair competition. It should be noted that competition law is considered the area of legal regulation of private relations, which should be the subject of harmonization of legislation of countries-candidates for EU membership. The above is directly related to the law of bankruptcy, as bankruptcy procedures are the market mechanisms that guard fair competition, help regulate property relations between participants in economic relations without direct state intervention. Today in the EU, there is a special normative act regulating insolvency relations in cross-border cases – this is the Council Regulation 1346/2000 dated 05/29/2000 on insolvency proceedings (the Council

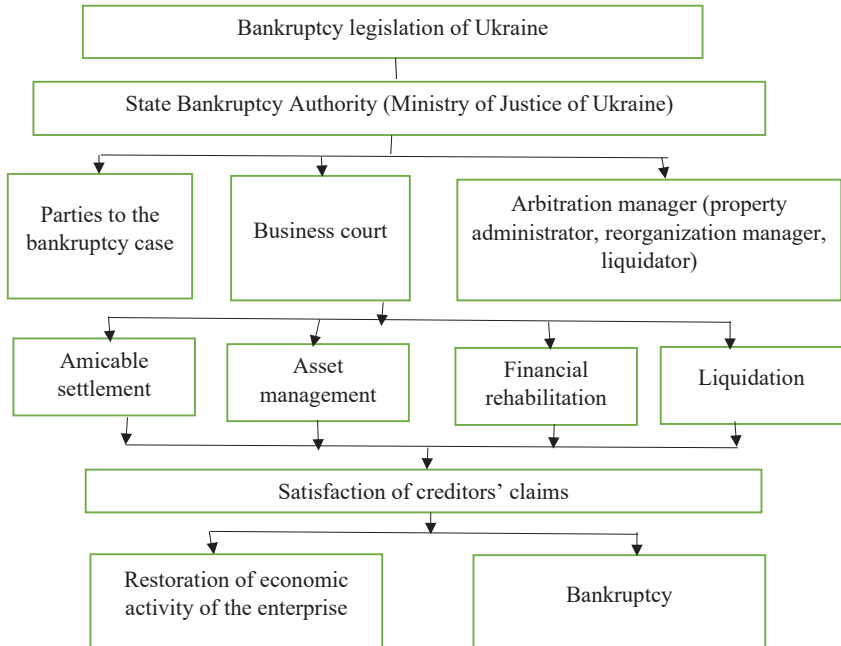


Figure 2. The mechanism of an enterprise bankruptcy state regulation in the economy of Ukraine

Source: supplemented by the author according to [17, p. 11]

Regulation 1346/2000/EC dated 29 May 2000 on insolvency proceedings) [28]. The main task of the drafters of the Regulation was to implement a system of measures to resolve problems in cross-border bankruptcies by ensuring the coordination of litigation in multiple bankruptcy cases.

4. The impact of the pandemic on the bankruptcy probability (according to Ukraine data)

Changing the political situation in Ukraine, changing the government, fighting in the east of the country and the COVID-19 outbreak have led to increased defense and medical spending, destruction of production facilities, infrastructure and transport, loss of land use, population run-down and decreased productivity indicators. The above factors have a negative impact

**Definition of the term “bankruptcy”
in laws and statutory instruments**

Source	Definition
1	2
Economic Code of Ukraine (Article 209) [11]	Bankruptcy is the inability of the debtor to restore its solvency and satisfy the creditors' claims recognized by the court differently than through the application of the liquidation procedure determined by the court.
Civil Code of Ukraine (Article 53) [39]	An individual who is unable to satisfy the creditors' claims related to his/her business activity may be declared bankrupt in accordance with the procedure established by law.
Bankruptcy Code of Ukraine (Article 1) [16]	Bankruptcy is the inability of the debtor recognized by the Commercial Court to restore its solvency through the procedure of rehabilitation and restructuring and repay the monetary claims of creditors established in the manner prescribed by this Code differently than through the liquidation procedure
Law of Ukraine “On restoring the debtor’s solvency or declaring him bankrupt” (Article 1) [29; 30]	Bankruptcy of an enterprise is the inability of a debtor recognized by a commercial court to restore its solvency through reorganization and amicable settlement procedures and to repay creditors’ monetary claims established in accordance with the law, differently than through the liquidation procedure.
Methodological recommendations of the NBU on the application of the Bankruptcy Law of Ukraine “On Bankruptcy” (paragraph 2) [19]	Bankruptcy is the inability of a legal entity – a business entity to meet creditors’ claims in a timely manner, repay bank loans and ensure mandatory payments to the budget.
Methodical recommendations of the Central Union of Consumer Societies of Ukraine on the analysis and assessment of the financial condition of enterprises (Chapter 2) [20]	Bankruptcy is the inability of an enterprise to pay its debts, which may be due to competition, incompetent management, stock market speculation, and so on.

Source: summarized by the author according to these sources

on GDP and the national economy as a whole, which, in turn, had a negative impact on businesses that have been subject to bankruptcy proceedings [2].

The statistics of bankrupt enterprises in Ukraine for 2016–2019 according to the Global Bankruptcy Report presented by Dun & Brad Street Worldwide Network [10], is presented in Table 6. It is not possible to present the statistics for 2020, as the data on Ukraine are not presented in the company's report for last year.

As can be seen from the Table, most enterprises in Ukraine went bankrupt in 2016, the least – in 2019, i.e. there is a downward trend in this indicator, which showed a gradual improvement in the economic situation in Ukraine. Most companies went bankrupt in February 2017, the least – in November 2019.

It is known that the Bankruptcy Procedure Code of Ukraine came into force on October 21, 2019 but the global COVID-19 pandemic decided to make its own adjustments. Under such conditions, the Code cannot be applied normally, then dire consequences are inevitable. Therefore, on April 10, 2020, the Verkhovna Rada of Ukraine registered the first draft law № 3322 on Amendments to the Bankruptcy Procedure Code of Ukraine to prevent bankruptcy abuses for the period of measures aimed at preventing the emergence and spread of COVID-19, which was adopted on 18.06.2020 [31]. Many companies have already faced the threat of insolvency, but others are trying to minimize the risks. The consequence remains the same for all – the responsibility on debt management of legal entities. The Bankruptcy Procedure Code states that joint and several liability of the company's management arises if the business is threatened with insolvency (Part 6 of Article 34 of the Bankruptcy Procedure Code).

The new Law stipulates that temporarily, for the period of quarantine established by the Cabinet of Ministers of Ukraine in order to prevent the spread of coronavirus COVID-19, and for 90 days from the date of the quarantine suspension:

- it is not allowed to open bankruptcy proceedings against debtors-legal entities at the request of creditors on claims against the debtor, which arose from March 12, 2020;

- the period specified in part six of Article 34 of the Bankruptcy Code is extended if the debtor proves that the inability to comply with the one-month deadline for filing for bankruptcy was caused by the spread of coronavirus COVID-19 and/or measures to combat the spread of this disease;

**Bankrupt enterprises in Ukraine in 2016–2019
(Distribution by months)**

Month	2016	2017	2018	2019	Deviations between 2019 and 2016
January	161	141	63	58	-103
February	169	245	57	40	-129
March	144	141	79	59	-85
April	138	107	69	71	-67
May	110	90	85	87	-23
June	133	101	79	60	-73
July	110	131	75	69	-41
August	100	71	61	37	-63
September	113	72	60	70	-43
October	107	79	79	103	-4
November	131	65	85	22	-109
December	148	92	57	42	-106
Total number	1524	1312	833	703	-821

Source: built according to [10]

– the creditors’ committee and the secured creditor (in respect of the property that is the subject of the security) have the right to decide to suspend the auctions for the sale of the debtor’s property. If the creditors’ committee and/or the secured creditor (regarding the property that is the subject of collateral) makes such a decision, the costs of preserving and maintaining the bankrupt’s property and all risks of losing or reducing its value are borne by creditors who made such a decision;

– the accrual of interest on the debtor’s liabilities to creditors who have been restructured by a plan to rehabilitate or restructure the debtor’s debts is stopped. Penalties for non-performance of such obligations by the debtor are not accrued. Overdue liabilities provided for in the debtor’s debt rehabilitation or restructuring plan shall be deferred for the duration of the debtor’s debt rehabilitation or restructuring plan.

Usually, small businesses, such as the company under study, begin to suffer financial losses for 2-3 months of financial crisis. Small businesses have suffered heavy losses as a result of the introduction of quarantine as a result of COVID-19. Thus, according to the Union of Ukrainian Entrepreneurs of

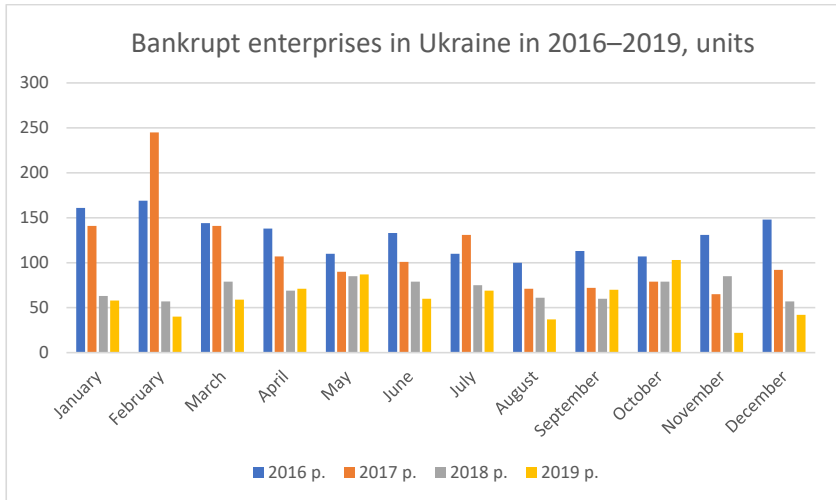


Figure 3. Changes in bankrupt enterprises in Ukraine

Source: built by the author on the basis of Table 6 data

Ukraine, about 6% of small businesses went bankrupt and closed their businesses during critical March 2020, which was a huge problem for the state. One third of business owners (mostly micro-) report a 90-100% drop in revenues in March-April 2020. The same entrepreneurs have already laid off up to 50% of the staff. Small and medium-sized business owners state a 25-50% decrease in income compared to the pre-quarantine period and have already laid off 10 to 25% of employees. For comparison, the loss of profits of large enterprises is 10-25%, there is a projected reduction in staff by 25% by the end of the restrictive measures.

In addition, there was an additional burden on the state in terms of social benefits and the criminogenic situation worsened due to the fact that many citizens found themselves without income [24].

5. Assessing the changes of export-import operations of Ukraine and forecasting in a global pandemic

Modern world society is characterized by strengthening cooperation between countries. The trend towards unification is exacerbated by the need

to address the global challenges facing humanity. The deepest basis for consolidating the integrity of the world is the interdependence of countries in the economic sphere. No country in the world can fully exist if it is not a full part of world economic relations. Today, there are two ways to globalize the world: through intergovernmental economic unions and through the World Trade Organization (WTO).

The most important feature of the development of the modern world economy is the internationalization of production, the growth of economic interdependence of states, the transition of civilized countries from closed national economies to open economies. One of the forms of openness is international economic integration, which can be considered as the highest form of internationalization in the economy.

In the article by Golubova G. V. it is noted that for the analysis of export-import operations it is expedient to use the coefficient of dependence of the country's economy on imports [19, p. 89–91]. And in the study Krasnoded T. L. it was noted that the coefficient of export coverage by imports is also an important indicator for the analysis [21, p. 32–35].

Since 2016, Ukraine has had certain problems with the balance of foreign trade (the difference between exports and imports), the value of which is often negative, indicating a higher value of goods and services that our country imports compared to their exports (Figure 4).

Let's calculate the econometric model of GDP dependence on exports and imports of Ukraine according to statistical data for 2010–2020.

In the process of identifying correlation and regression relationships between the performance indicator and factor values, multiple regression coefficient, coefficient of determination, standard error, Student's t-test was calculated in addition to building an economic-mathematical model, which is graphically shown in Tables 7, 8, 9 [27].

Table 7

Regression statistics indicators

Regression statistics indicators	
Multiple regression coefficient R	0.980939
Coefficient of determination R ²	0.962241
Normalized coefficient of determination R ²	0.952802
Standard error	247962.6

Source: calculated by the author based on Table 10 data

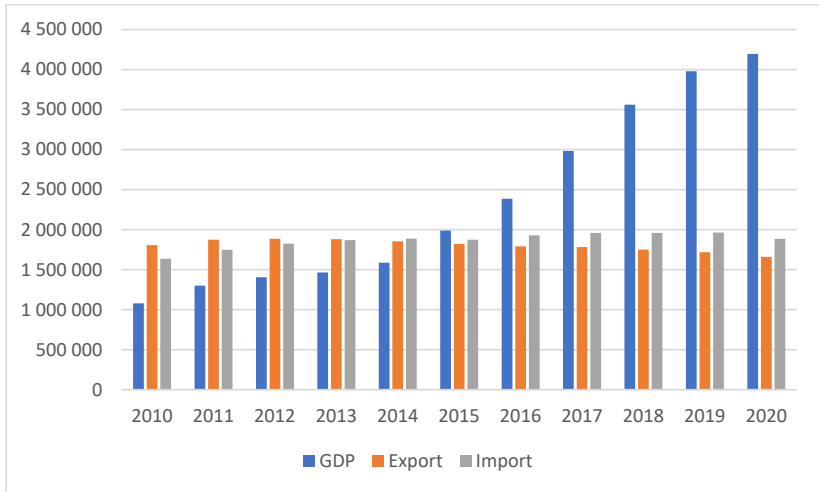


Figure 4. Dependence of Ukraine’s nominal GDP on exports of goods and services

Source: built by the author on the basis of Table 10 data

The multiple regression coefficient $R = 0.981$ indicates a very close relationship between the performance indicator and the factor values. Regarding the value of the coefficient of determination R^2 of the obtained correlation and regression model $R^2 = 0.962$, the dependence of gross domestic product by 96.2% is due to the cost of export and import operations. The remaining 3.8% are due to other factors that affect the volume of gross domestic product, but are not included in the regression model.

Table 8

Indicators that characterize the reliability of the regression model

	Df	SS	MS	F	Meaningfulness of F
Regression	2	1.25E+13	6.27E+12	101.9357	2.03E-06
Balance	8	4.92E+11	6.15E+10		
Total	10	1.3E+13			

Source: calculated by the author based on Table 10 data

Given the high values of the multiple regression and determination coefficients, this dependence is quite natural. The variance coefficient, significance of F and F-statistics indicator demonstrates a sufficient level of reliability of the evaluation results.

Meanwhile, to ensure the significance of the regression coefficients, the fulfillment of the condition according to which $t > t_{\text{CRIT}}$ was checked, and as a result the regression coefficient is significant.

Table 6 data show the following: t for Y – intersection and regression coefficients of factor values X_1 , X_2 reflect equal values.

The critical value of t_{CRIT} according to the established level of significance is $\alpha = 0.05$, determined using statistical tables of Student's distribution. The result of the calculation of the critical value is equal to $t_{\text{CRIT}} = 2,228$. Hence, the condition $t > t_{\text{CRIT}}$ is satisfied for all coefficients. Therefore, all coefficients of the model are statistically significant.

Therefore, the data in Table 6, allow to obtain the following regression equation:

$$Y = 15374863 - 11,89 * X_1 + 4,51 * X_2 \quad (1)$$

where factor-argument X_1 – exports of goods and services, X_2 – imports of goods and services, Y – GDP.

Thus, the content of factors not taken into account in the model is estimated to be UAH 15374863 million. Parameter a_1 shows the following: if the volume of exports increases by UAH 1 million, the gross domestic product will decrease by UAH 11.89 million provided that other factors remain unchanged. If the volume of imports is increased by UAH 1 million, the gross domestic product will increase by UAH 4.51 million provided that other factors remain unchanged.

One of the indicators of the balance of foreign trade is the level of import dependence of the country's economy:

$$K_1 = \frac{Imp}{GDP} \quad (2)$$

where Imp is imports, GDP is gross domestic product.

If this figure is less than 0.15 (or 15% as a percentage), then such transactions are quite safe.

The indicator of export coverage by imports, which is defined as the ratio of export earnings to import costs is also very important (can be measured as a percentage):

Table 9

Table of correlation coefficients

Indicators	Coefficients	Standard error	Student's t-test	P-value
Y-intersection	15374863	3158982	4.86703	0.001245
export	-11.8904	1.19116	-9.98217	8.6E-06
import	4.504582	0.857632	5.252346	0.000772

Source: calculated by the author based on Table 10 data

$$K_1 = \frac{Ex}{Imn} \quad (3)$$

de Ex is export.

Therefore, further research includes the calculation and analysis of these indicators (Table 10).

The lowest values of the import dependence ratio (less than 0.5) are observed in 2019 and 2020. The highest level is 1.51, in 2010 and more than one from 2010 to 2014. Note, that this ratio became lower in 2019 compared to the previous year (0.55 to 0.49). Although the whole period under study shows a tendency to maintain Ukraine's import dependence.

Table 10

Ukraine's foreign trade balance

Years	GDP	Export	Import	Import dependence coefficient	Export-import coverage ratio
2010	1 079 346	1 805 869	1635486	1.515256	1.104179
2011	1 299 991	1 873 475	1749041	1.345425	1.071144
2012	1 404 669	1 885 625	1824495	1.298879	1.033505
2013	1 465 198	1 881 041	1869365	1.275845	1.006246
2014	1 586 915	1 854 068	1886968	1.189079	0.982565
2015	1 988 544	1 820 935	1874511	0.942655	0.971419
2016	2 385 367	1 791 525	1928161	0.808329	0.929137
2017	2 983 882	1 782 913	1959506	0.656697	0.909879
2018	3 560 596	1 749 396	1958642	0.550088	0.893168
2019	3 978 400	1 718 528	1964242	0.493727	0.874906
2020	4 194 102	1 659 413	1885054	0.449454	0.8803

Source: calculated by the author based on [36] data

Similarly, the values of the export-import coverage ratio reflect the imbalance of foreign economic activity carried out by Ukraine. They are less than one since 2014. Thus, only in 2010–2014 the value of exports of goods and services exceeded the value of their imports. Please note, that the lowest value of the export-import coverage ratio, equal to 0.87, is observed in 2019, and in 2020 the figure slightly increased.

Thus, during 2014–2020 there is an inverse, unfavorable for Ukraine trend of lower value of exports of goods and services compared to their imports. Please specify, that the best values of indicators do not always coincide.

The impact of COVID-19 and the corresponding restrictive measures of countries in international trade is negative for the improvement of Ukraine's foreign trade balance. Ukraine also has high levels of corruption and inefficient governance, which is not conducive to effective international trade. In connection with the above data, Ukraine needs to work hard to increase export operations, obtain a positive balance of payments, along with reducing misuse and inefficiency of money and eliminate corruption, using and implementing innovative methods of production and management, making optimal management decisions.

Graphs of dependence of exports and imports on the number of the period are shown in Figure 5, 6.

Thus, for exports, the best approximation is a second-order polynomial, the determination coefficient is almost 93%, as well as for imports, the determination coefficient is 94%.

The predicted values are shown in Tables 11 and 12.

The changes of foreign trade turnover is significantly affected by seasonal fluctuations in export-import supplies. Seasonal fluctuations are characterized by relatively stable changes in supply volumes over intra-annual periods over a number of years, i.e. ups and downs of exports (imports) from year to year in certain months (quarters).

Seasonality is referred to as a steady trend of variation in the levels of the time series within the year by seasons. In practice, the identification and forecasting of seasonal components of the changes of export indicators are quite difficult.

To study seasonality, statistical methods are widely used, which make it possible to measure the intensity of seasonal fluctuations of the annual cycle over several years with the help of special indicators – seasonality

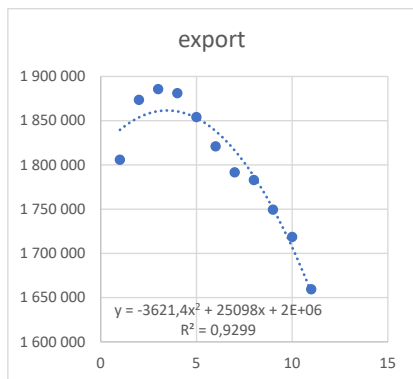


Figure 5

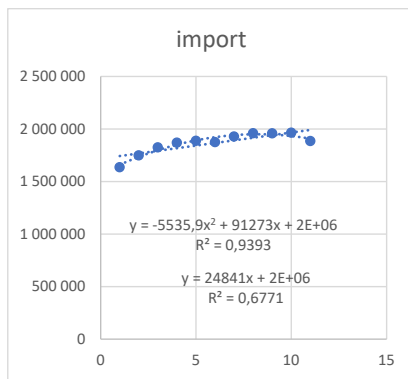


Figure 6

indices; establish the configuration of the seasonal wave and predict possible changes for the future taking into account seasonality. Methods of their calculation depend on the availability of the main trend in the series of time changes.

If the trend in the series of time changes is not available or insignificant, the seasonality indices are found by the formula:

Table 11

Export forecast, UAH million

Period	Model	Determination coefficient	Forecast
2021	$y = -3621.4x^2 + 25098x + 2E+06$	$R^2 = 0.9299$	1779694.4
2022	$y = -3621.4x^2 + 25098x + 2E+06$	$R^2 = 0.9299$	1714257.4
2023	$y = -3621.4x^2 + 25098x + 2E+06$	$R^2 = 0.9299$	1641577.6

Source: calculated by the author based on Table 10 data

Table 12

Import forecast, UAH million

Period	Model	Determination coefficient	Forecast
2021	$y = -5535.9x^2 + 91273x + 2E+06$	$R^2 = 0.9393$	2298106
2022	$y = -5535.9x^2 + 91273x + 2E+06$	$R^2 = 0.9393$	2250982
2023	$y = -5535.9x^2 + 91273x + 2E+06$	$R^2 = 0.9393$	2192786

Source: calculated by the author based on Table 10 data

Table 13
Forecast of exports and imports taking into account seasonal fluctuations

Quarter of the year	Export				Import			
	Seasonality index	Forecast for 2021	Forecast for 2022	Forecast for 2023	Seasonality index	Forecast for 2021	Forecast for 2022	Forecast for 2023
1	0.95	424297.9	408697	391369.4	0.91	522435.2	511722.2	498492,3
2	0.98	436368.2	420323.5	402503	0.90	517929.1	507308.6	494192,7
3	1.07	476470.4	458951.2	439493	1.05	601321.8	588991.2	573763,6
4	0.99	442557.9	426285.6	408212.3	1.14	656420.3	642959.9	626337
Year forecast	1779694	1714257	1641578	Year forecast	2298106	2250982	2192786	

Source: calculated by the author

$$I_c = \frac{\bar{y}_i}{\bar{y}} \cdot 100\% \quad (3.7)$$

where I_c is the seasonality index,

\bar{y}_i is the average level of the series of time changes for the time interval t (quarter, month),

\bar{y} is the general average level of the series of time changes for the year.

Seasonality indices, calculated according to this method, allow to distribute the volume of exports (imports) forecasted for the next year, by seasons in the middle of the year.

Let's determine the forecast of exports and imports and, taking into account seasonal fluctuations, determine their values for each quarter of 2021–2023.

The largest volume of exports falls on the third quarter, while the largest volume of imports was in the fourth.

As a result of the study, based on the analysis of the changes of exports, imports and gross domestic product of Ukraine during 2010–2020, it was found that exports and imports of goods and services have a general tendency to decrease.

Gross domestic product is closely related to these

indicators, so further research should be directed to the development and implementation of economic and political solutions to increase exports of Ukrainian goods and services, reduce import dependence.

6. Conclusions

After analyzing the work of some scientists and conducting our own research, we agree with the conclusion that we can identify the following actions for companies developing in adverse conditions that can reduce the risk of bankruptcy:

1) Strategic management in a crisis plays a paramount role. In a dynamically changing environment, it is the most important factor in the sustainability and development of the enterprise. The effectiveness of the strategy is determined by the relevant internal parameters of the enterprise, its position in the market and in the external environment in general.

2) Management of the enterprise in a crisis is due to rapid response and ability to predict the situation, quickly finding the problems that need to be solved. The creation of special units of analysts will give the head the necessary information to make adequate financial and economic decisions.

3) The speed and quality of information transfer, orders affect the speed of response and implementation of changes in the enterprise.

4) Formation of the company's budget. Cost planning and the transfer of cost management powers to department managers will significantly reduce the overall costs of the enterprise.

5) Suspension for some time or closing long-term investment projects [32, p. 131].

Thus, the bankruptcy of a company is a process related to an issue that still has many unexplored aspects. The existence of a large number of opinions on the definition of the correct interpretation of the concept of "bankruptcy" contributes to the emergence of various methods of its diagnosis. It can also be concluded that bankruptcy has both positive and negative consequences for enterprises, so it is advisable to constantly monitor the likelihood of bankruptcy of enterprises to avoid negative consequences.

One of the main tasks of management in a competitive market environment is to identify the threat of bankruptcy and develop countermeasures aimed at overcoming negative trends in enterprise development. Therefore, today it will be appropriate for businesses to analyze the terms of contracts with

respect to liability for default and the grounds for release from them in case of force majeure, as well as try to settle relations with the counterparty by amending the contract to postpone obligations. This will allow to solve the problem of contract implementation as soon as possible and direct the company's resources to other important areas of activity [7].

In times of economic crisis, you need to be very careful about the concept of “threat of insolvency” – a circumstance that confirms that in the near future the debtor will not be able to meet monetary obligations or make regular current payments. If such signs are found, it is necessary to immediately agree with your counterparties on deferral or installment payment of the debt. If no agreement is reached, you must immediately apply to the court to initiate bankruptcy proceedings.

In these difficult times, it is important to understand that bankruptcy is not the end of a business. Today, there is a generally loyal system for debtors: First, a moratorium is imposed on the forced recovery of debts that arose before the initiation of bankruptcy proceedings. Such arrears are repaid exclusively within the framework of a bankruptcy case with the participation of a qualified arbitration trustee, who will help to find a compromise with creditors and under the control of the court. Secondly, the economic activity of the enterprise still continues, employees are not fired, new contracts can be concluded and work continues to be performed under previously concluded contracts. Third, the seizure of the debtor's property or other restrictions on the debtor's disposal of the property belonging to him may be applied only by the commercial court in the bankruptcy proceedings. Fourth, the commercial court may, at the request of the property manager, lift the seizure of the debtor's property or other restrictions on the disposal of his property, if such arrests or restrictions hinder the debtor's business and restore its solvency. Fifth, transactions unfavorable to the debtor may be declared invalid, and the property alienated under these agreements – returned to the ownership of the debtor [24].

In a pandemic, businesses need to respond quickly to environmental conditions. Risks arising from quarantine measures need to be minimized immediately. This is achieved by creating an effective early warning and response system in the enterprise. However, it should be remembered that postponing the repayment of the debt will be a better choice for the lender than to go into bankruptcy for an indefinite period of time with the

prospect of getting nothing in the liquidation procedure, except the costs of bankruptcy proceedings.

The analysis of changes of export, import, gross domestic product of Ukraine during 2010–2020 were considered. It was found that the balance of foreign economic transactions, in particular the value of exports of goods and services, has a significant impact on Ukraine's gross domestic product. An adequate econometric model of GDP dependence on exports and imports of Ukraine was built. (Determination coefficient is 0.963). It is substantiated that with the increase in exports by UAH 1 million gross domestic product will decrease by UAH 11.89 million provided that other factors remain unchanged. If the volume of imports is increased by UAH 1 million, the gross domestic product will increase by UAH 4.51 million provided that other factors remain unchanged. The values of the coefficients of import dependence and export coverage of imports were analyzed and it was noted that these indicators significantly exceed the allowable level during almost the entire study period. The negative balance of export-import operations in 2010–2020 also indicates some imbalances in Ukraine's foreign trade relations.

The lowest values of the import dependence ratio (less than 0.5) were observed in 2019 and 2020. The highest level was 1.51, in 2010 and more than one was from 2010 to 2014. Please note, that this ratio became lower in 2019 compared to the previous year (0.55 to 0.49). Although the whole period under study shows a tendency to retain Ukraine's import dependence.

Similarly, the values of the export-import coverage ratio reflect the imbalance of foreign economic activity carried out by Ukraine. They are less than one since 2014. Thus, only in 2010–2014 the value of exports of goods and services exceeded the value of their imports. Please note, that the lowest value of the export-import coverage ratio, equal to 0.87, was observed in 2019, and in 2020 the figure slightly increased.

Thus, during 2014–2020 there was an inverse, unfavorable for Ukraine trend of lower value of exports of goods and services compared to their imports. Please note, that the best values of indicators do not always coincide.

It was determined that the changes of foreign trade turnover were significantly affected by seasonal fluctuations in export-import supplies. Seasonal fluctuations are characterized by relatively stable changes in supply volumes over intra-annual periods over a number of years, i.e. ups and downs of exports (imports) from year to year in certain months

(quarters). The forecast of exports and imports was determined and taking into account seasonal fluctuations we would determine their values for each quarter of 2021–2023. The largest volume of exports falls on the third quarter, while the largest volume of imports falls on the fourth one.

The impact of COVID-19 and the corresponding restrictive measures of countries in international trade has had negative effect for the improvement of Ukraine's foreign trade balance. It was found that exports and imports of goods, works and services have a general tendency to decrease.

It is proposed to direct further research to the development and implementation of economic and political decisions to increase exports of Ukrainian goods and services and reduce import dependence, through the use and implementation of innovative methods of production and management, making optimal management decisions.

References:

1. Andrushchak Ye. M. (2001). Udoskonalennia instytutu bankrutstva [Improving the Bankruptcy Institute]. *Finansy Ukrainy*, no. 9, pp. 29–37.
2. Bankruptcy-2020. «Chambers Global Guide». Retrieved from: <https://eba.com.ua/bankrutstvo-2020-chambers-global-guide/> (accessed 23 September 2021).
3. Bazilinska O. Ya. (2009). *Finansovyi analiz: teoriia i praktyka: navch. posib.* [Financial analysis: theory and practice: textbook]. Kyiv: TsUL, 328 p.
4. Blank Y. A. (2009). *Upravlenye fynansovoi bezopasnostiu predpriyatya* [2-e yzd.]. [Enterprise Financial Security Management] [2nd edition]. Kyiv: Elha, 645 p.
5. Boichyk I. M. (2006). *Ekonomika pidpriemstva: navch. posib. 2-he vyd., dop. i pererobl.* [Economics of the enterprise: textbook. 2nd ed., revised and corrected]. Kyiv: Atika, 528 p.
6. Brelly R., Maiers S. (2007). *Printsipy korporativnykh finansov* [Principles of Corporate Finance]. Moscow: Olymp-Byznes, 2008 p.
7. Danilov O. D., Paientko T. V. (2011). *Finansy pidpriemstv u zapytanniakh i vidpovidiakh: navchalnyi posibnyk* [Enterprise Finance in Questions and Answers: textbook]. Kyiv: TsUL, 256 p.
8. Efrat R. The Evolution of Bankruptcy Stigma. Theoretical Inquiries in Law. Retrieved from: https://www.researchgate.net/publication/250148303__The_Evolution_of_Bankruptcy_Stigma
9. *Finansovyi menedzhment: navch. posib. dlia stud. vyshchychkh navch. zakladiv* (2013) [Financial Management: Textbook for students Students of higher Higher education Education] / V. V. Krasnova, M. I. Khromov, B. O. Zhniakin ta in.; za zah. red. V. V. Krasnovoi. Donetsk: DonNU, 463 p.
10. Global bank ruptcy report Dun & Bradstreet World wide Network. Retrieved from: <https://www.bisnode.dk/globalassets/danmark/dokumenter/global-bankruptcyreport-2019.pdf>

11. Hospodarskyi kodeks Ukrainy: Zakon Ukrainy vid 16.01.2003 r. no. 436 [Economic Code of Ukraine: Law of Ukraine of January 16, 2003 № 436]. Retrieved from: <http://zakon2.rada.gov.ua/laws/show/436-15>

12. Hrynychutskiy V. I., Karapetian E. T., Pohrishchuk B. V. (2010). *Ekonomika pidpryiemstva: navchalnyi posibnyk* [Business Economics: Textbook]. Kyiv: Tsentr uchbovoi kultury, 304 p.

13. Huk O. V. (2006). Sutnist ta prychny bankrutstv pidpryiemstv [The Essence and Causes of Corporate Bankruptcies]. *Visnyk Natsionalnoho universytetu «Lvivska politehnika». Menedzhment ta pidpryemnytstvo v Ukraini: etapy stanovlennia i problemy rozvytku*, no. 575, pp. 58–64.

14. Iablonska A.S. Diialnist arbitrazhnykh keruiuchykh: normatyvne vrehulivannia ta neobkhdnist zakonodavchoho vdoskonalennia [Activities of Arbitration Trustees: Regulatory Regulation and the Need for Legislative Improvement]. Retrieved from: <http://www.minjust.gov.ua/?do=d&did=4793&sid=comments>

15. Iankovets T. M., Cherniuk Yu. V. (2016). Porivniannia suchasnykh modelei diahnostyky ymovirnosti bankrutstva pidpryiemstva: zakordonnyi ta vitchyzniani dosvid [Comparison of Modern Diagnostics Models of the Enterprise Bankruptcy Probability: Foreign and Domestic Experience]. *Investytzii: praktyka ta dosvid*, no. 20, pp. 58–62.

16. Kodeks Ukrainy z protsedur bankrutstva: Zakon Ukrainy vid 18.10.2018 r. no. 2597-VIII [Code of Ukraine on Bankruptcy Procedures: Law of Ukraine of 18.10.2018 № 2597-VIII]. Retrieved from: <https://zakon.rada.gov.ua/laws/show/2597-19#Text>

17. Kucherenko S. (2013). Normatyvno-pravove rehulivannia bankrutstva pidpryiemstva v ekonomitsi Ukrainy [Statutory Regulation of an Enterprise Bankruptcy in the Economy of Ukraine]. *Visnyk TNEU*, no. 3, pp. 7–13.

18. Lin S. The Empirical Studies of Chinas Enterprise Bankruptcy Law: Problems and Improvements. National Social Science Fund Project. Retrieved from: <https://onlinelibrary.wiley.com/doi/abs/10.1002/iir.1297>

19. Metodichni rekomendatsii NBU shchodo zastosuvannia komertsiinymy bankamy Zakonu Ukrainy «Pro bankrutstvo» vid 21.07.94 r, no. 23012/105 [Methodological Recommendations of the NBU on the Application of the Law of Ukraine “On Bankruptcy” of 21.07.94 № 23012/105 by Commercial Banks]. Retrieved from: http://zakon2.rada.gov.ua/laws/show/v_105500-944

20. Metodichni rekomendatsii Tsentralnoi spilky spozhyvchykh tovarystv Ukrainy z analizu y otsinky finansovoho stanu pidpryiemstv vid 27.03.2007 r. [Methodical Recommendations of the Central Union of Consumer Societies of Ukraine on the Analysis and Assessment of the Financial Condition of Enterprises of 27.03.2007]. Retrieved from: <http://www.uazakon.com/big/text892/pg1.htm>

21. Moskvina B. (2020). Bankrutstvo yak mekhanizm antykrizovoho upravlinnia pidpryiemstvom [Bankruptcy as a Mechanism of Crisis Management of the Enterprise]. *Visnyk KNTEU*, no. 2, pp. 58–68.

22. Mynchynska I. V. (2020). Otsinka efektyvnosti zakonodavstva pro bankrutstvo v Ukraini: ekonomiko-pravovy aspekt [Assessing the Effectiveness of Bankruptcy Legislation in Ukraine: Economic and Legal Aspects]. *Efektyvna ekonomika*, no. 10. Retrieved from: <http://www.economy.nayka.com.ua/?op=1&z=8267>

23. Oleksandrenko I. V., Ishchuk L. I. (2015). Osnovni prychnyny bankrutstva pidpriemstv [Main Reasons for Bankruptcy]. *Ekonomichnyi forum*, no. 2, pp. 222–226.

24. Onovlena protsedura bankrutstva pid chas pandemii COVID 19: perspektyvy ta realii. Yurydychna hazeta onlain [Updated Bankruptcy Proceedings during the COVID-19 Pandemic: Prospects and Realities. Legal Newspaper Online]. Retrieved from: <https://jur-gazeta.com/dumka-eksperta/onovlena-procedura-bankrutstva-pid-chas-pandemiyi-covid19-perspektivi-ta-realiyi.html>

25. Pepa T. V., Fedorova V. O. (2008). Upravlinnia finansovoiu sanatsiieiu pidpriemstv: navch. Posibnyk [Management of Financial Rehabilitation of Enterprises: Textbook]. Kyiv: Tsentri uchbovvoi literatury, 440 p.

26. Plastun O. L. (2009). Vyznachennia sutnosti poniattia «bankrutstvo» v suchasni naukovii literaturi [Definition of the Essence of the Concept of “Bankruptcy” in the Modern Scientific Literature]. *Visnyk ZhDTU*, no. 2, pp. 256–261.

27. Pravdiuk N. L., Potapova N. A., Volontyr L. O. (2009). Ekonometriia: navch. posibnyk [Econometrics: Textbook]. Vinnytsia: PP Baliuk, 274 p.

28. Pro provadzhennia u spravakh pro neplatospromozhnist: Rehlament Rady (IeS) № 1346/2000 vid 29.05.2000 r. [On Insolvency Proceedings: Regulation of the EU Council № 1346/2000 of 29.05.2000]. Retrieved from: old.minjust.gov.ua/file/32678.docx

29. Pro vidnovlennia platospromozhnosti borzhnyka abo vyznannia yoho bankrutom: Zakon Ukrainy vid 14.05.1992 r. no. 2343-XII [On the Restoration of the Debtor’s Solvency or Recognition of its Bankruptcy: Law of Ukraine of 14.05.1992 № 2343-XII]. Retrieved from: <http://zakon0.rada.gov.ua/laws/show/2343-12>

30. Pro vnesennia zmin do Zakonu Ukrainy «Pro vidnovlennia platospromozhnosti borzhnyka abo vyznannia yoho bankrutom»: Zakon Ukrainy vid 22.12.2011 r. no. 4212-VI [On Amendments to the Law of Ukraine “On Restoration of Debtor’s Solvency or Recognition of its Bankruptcy”: Law of Ukraine of December 22, 2011 № 4212-VI]. Retrieved from: <http://zakon0.rada.gov.ua/laws/show/4212-17>

31. Pro vnesennia zminy do Kodeksu Ukrainy z protsedur bankrutstva shchodo nedopushchennia zlovzhyvan u sferi bankrutstva na period zdiisnennia zakhodiv, spriamovanykh na zapobihannia vynyknenniu i poshyrenniu koronavirusnoi khvoryby COVID-19: Zakon Ukrainy vid 18.06.2020 r. no. 728-IX [On Amendments to the Code of Ukraine on Bankruptcy Procedures to Prevent Bankruptcy Abuses for the Period of Measures Aimed at Preventing the Occurrence and Propagation of COVID-19 Coronavirus disease Disease: Law of Ukraine of June 18, 2020 № 728-IX]. Retrieved from: <https://zakon.rada.gov.ua/laws/show/728-20#Text>

32. Rudyka V. I., Velykyi Yu. M., Zoma O. D. (2018). Ekonomichna sutnist poniattia «bankrutstvo»: prychnyny vynyknennia ta naslidky na pidpriemstvi [The Economic Essence of the Concept of “bankruptcy”: its Causes and Consequences to the enterprise], no. 18, pp. 127–133. *Infrastruktura rynku*. Retrieved from: http://www.market-infr.od.ua/journals/2018/18_2018_ukr/23.pdf

33. Shmorhun N. P., Holovko I. V. (2006). Finansovyi analiz: navch. posibnyk [Financial Analysis: Textbook]. Kyiv: TsNL, 528 p.

34. Skochylas S. (2008). Analiz ymovirnosti bankrutstva pidpriemstva [Analysis of the Enterprise Bankruptcy Probability]. *Ekonomichnyi analiz*, no. 3(19), pp. 232–234.

35. Sukrusheva H. O., Paputsyn V. M. (2017). Prychyny ta naslidky bankrutstva vitchyznianskykh pidpryemstv u suchasnykh umovakh [Causes and Consequences of Domestic Enterprises Bankruptcy in Modern Conditions]. *Ekonomika i suspilstvo*, no. 9, pp. 682–686.

36. State Statistics Service of Ukraine. Retrieved from: <http://www.ukrstat.gov.ua/>

37. Tereshchenko O. O. (2004). Finansova sanatsiia ta bankrutstvo pidpryemstv: navch. posibnyk [Financial Rehabilitation and Bankruptcy of Enterprises: textbook]. КНІММ: KNEU, 412 p.

38. Tretiak O. (2000). Pro problemu bankrutstva pidpryemstv [On the Problem of Bankruptcy of Enterprises]. *Ekonomika Ukrainy*, no. 2, pp. 46–50.

39. Tsyvilnyi Kodeks Ukrainy: Zakon Ukrainy vid 16.01.2003 r. no. 435-IV [Civil Code of Ukraine: Law of Ukraine of January 16, 2003 № 435-IV]. Retrieved from: <http://zakon2.rada.gov.ua/laws/show/435-15>

40. Volot O. I., Babykh I. M., Tkachenko O. O. (2015). Bankrutstvo pidpryemstva: sutnist, ymovirnist ta metody vyznachennia [Bankruptcy of the enterprise: the essence, probability and methods of determination]. *Naukovyi visnyk Polissia*, no. 4(4), pp. 61–67.

41. Volvach B. V. (2018). Pravove rehuliuвання neplatospromozhnosti ta bankrutstva (retrospektyvnyi i porivnialno-pravovyi aspekty) [Legal Regulation of Insolvency and Bankruptcy (Retrospective and Comparative Legal Aspects)]. *Teoriia i praktyka pravoznavstva*, no. 1(13), pp. 1–13.

42. Voronkova T. Ye., Rybalchenko N. P. (2017). Bankrutstvo pidpryemstva ta shliakhy yoho podolannia [Bankruptcy of the Enterprise and Ways to Overcome it]. *Internauka*, no. 2(24), t. 2, pp. 39–43.

43. Zastosuvannia norm Kodeksu Ukrainy z protsedur bankrutstva. Zbirka naukovykh statei (2019) [Application of the Norms of the Bankruptcy Procedure Code of Ukraine. Collection of Scientific Articles] / Za zahalnoi redaktsiieiu d.iu.n., sudu Verkhovnoho Sudu S. V. Zhukova. Kyiv: Alerta, 216 p.

44. Zywicki T. Bankruptcy. Economics of legal issues, government policy. Retrieved from: <https://www.econlib.org/library/Enc/Bankruptcy.html>