

# *Evaluation of companies' sustainability in crisis conditions*

by *Iveta Pokromovica*\*

## *Abstract*

The study aims to identify the impact of global and national crises on the sustainability of companies in the example of manufacturing industries in Latvia and Ukraine. The study employed statistical analysis to identify the main trends and changes in global and national economic indicators that occurred due to the crisis. The regression analysis was used to establish a link between these indicators and the sustainability of manufacturing companies in the studied countries. The obtained results show that global and national indicators, changes which may indicate the presence of crisis phenomena, are related to the sustainability indicators of companies. However, this relationship is not the same for countries with different levels of economic openness and different degrees of economic integration into global markets. Thus, the sustainability indicators of Latvian companies are more closely correlated with the values of global and national gross domestic product, inflation, unemployment, production. In general, the resilience of Latvian companies is higher than that of Ukrainian companies. In both Latvia and Ukraine, companies' sustainability performance has been affected by the crisis, including the COVID-19 pandemic and the war in Ukraine. However, the war in Ukraine has had particularly severe consequences, including for the resilience of companies. Thus, the overall commercial profitability after tax, which was 10.11% in the country in 2021, fell to more than -3.24%. These results indicate the relevance of a study of the degree of influence of global and national trends in the process of assessing the sustainability of companies and may be useful for assessing the financial aspects of the sustainability of the manufacturing industry.

*Keywords:* global environment, local environment, macroeconomic indicators, financial indicators, war, pandemic.

*First submission:* 18 February 2025; *accepted:* 15 July 2025

---

\* Economics and Business Institute, Riga Technical University, Riga, Latvia.

*Rivista di Studi sulla Sostenibilità - Open access (ISSNe 2239-7221), 2025, 2*

Doi: 10.3280/riss2025oa19430

## Introduction

In the modern world, companies operate under the constant influence of crises generated both at the micro level and in the global environment. Assessing the resilience of companies to the crisis in such conditions is a necessary activity, as it can identify weaknesses and hidden potential of the company to counteract or adapt to the crisis conditions. The sustainability of individual companies determines the overall sustainability of the business sector, which in turn affects the sustainable development of countries.

Sustainable development is defined as maintaining a balance between the economic, environmental, and social components of company development (Kubiczek and Tuskiewicz, 2022; Hadasik et al., 2025). From a long-term perspective, one of the most important characteristics of a company's functioning is the stability of its financial position (Ismayilov et al., 2021; 2024). However, sustainability is not solely about financial stability; it also encompasses environmental stewardship and social responsibility. Environmental sustainability involves practices that reduce ecological footprints, such as minimizing waste, reducing carbon emissions, and utilizing renewable resources (Hussain et al., 2022; Remeshevska et al., 2021). Social sustainability focuses on fair labour practices, community engagement, and enhancing the well-being of employees and society at large. In today's environment, the financial stability of most companies is compromised due to the negative impact of internal and external environmental factors (Kredina et al., 2022). The impairment of financial sustainability, in turn, creates obstacles to the appropriate development of the environmental and social components. Without adequate financial support, it is impossible to guarantee, for example, the timely payment of salaries to staff, which violates the social aspects of sustainability (Kerimkulov et al., 2015; Khamzin et al., 2016). In addition, financial resources are needed to introduce more environmentally friendly technologies and implement other measures to preserve the environment.

Since the global financial crisis of 2008-2009, European countries, including Latvia, have been experiencing the most severe crises since then (Cheema et al., 2022; Vodovozov et al., 2021). These crises are caused, firstly, by the COVID-19 pandemic (2020) and secondly, by the war in Ukraine (2022) and subsequent problems with the supply of natural resources (Shahini et al., 2023). The consequences of these phenomena are catastrophic and global in scope (Boiko et al., 2025; Bisenovna et al., 2024; Tleubayev et al., 2024), affecting not only economic stability but also environmental and social structures.

Some papers highlight Latvia's particular achievements in dealing with the consequences of the crises. For instance, C. Challoumis (2021), studying the period after the global financial crisis (namely, 2012-2017), notes that the results of the assessment of the money cycle index for Latvia are higher than the global average value of this indicator. The researcher emphasises that a well-structured economy, as exemplified by Latvia, can withstand the economic crisis. However, the COVID-19 pandemic has exposed many problems in public administration in Latvia. Among the main problems are imperfect coordination between the economic sector and government agencies, lack of evaluation of the effectiveness of regulation, lack of learning from mistakes and inattention to identified shortcomings (Ketners et al., 2025). The pandemic created an impetus to address several shortcomings, contributing to the activation of the Latvian government. At the same time, the greatest positive effect of changes can be achieved if such changes are applied in long-term, refraining from a reaction to the crisis alone. It is important to increase the productivity of the Latvian economy; as low productivity is one of the most important factors determining the low gross domestic product (GDP) per capita in Latvia relative to other European Union (EU) countries. Increasing productivity depends primarily on the proper use of competitive advantages, including technological development, digitalisation and innovation. Crisis conditions can provide a significant impetus for more active use of these advantages (Krasnykov, 2023).

The speed of economic recovery from the crisis, including COVID-19, depends heavily on government support, its timeliness and scope. A good policy strategy can ensure a favourable environment for business development and encourage innovation. Innovations will ensure a business ecosystem that can adapt to shocks not only in the current crisis but also in the long term (Panchenko et al., 2022). These views are particularly relevant given that the pandemic crisis was immediately followed by a crisis due to the war in Ukraine. Latvia is actively supporting Ukraine in meeting the most urgent needs arising from the large-scale Russian invasion. In addition, as a state geographically close to Ukraine, Latvia recognises the potential danger that may arise in the future caused by the war. The Latvian National Defence Concept (2020) lists ensuring the sustainability of the national economy as one of the eight pillars. The document states that companies providing essential services and employing more than 250 people should ensure uninterrupted operations in times of crisis and war. The Concept also considers provisions on supply chain security, limiting economic and technological dependence on non-NATO and EU countries, creating backup systems (Bērziņš, 2023). Thus, ensuring the proper functioning of the economy in a crisis is one of the top priorities for the government and

economic actors. Many researchers link corporate sustainability to sustainable development in general. For instance, C. Malesios et al. (2021) in their literature review found that most of the work in the relevant field of research examines the link between environmental and social practices and economic and environmental performance. A.A. Jan et al. (2023), F. Bartolacci et al. (2020), R. Khaled et al. (2021) investigate the role of corporate sustainability in sustainable development and the sustainable development of firms in general.

Several studies noted that ensuring sustainable economic development in Latvia in the context of the crisis is achieved through the active implementation of innovations and the development of the digital economy (Ketners et al., 2024). Several studies also focused on different approaches to assessing the resilience of Latvian companies to the crisis (Bistrova et al., 2020; Pokromovica et al., 2022; Subačienė et al., 2024).

While existing studies have provided valuable insights into the resilience and sustainability of companies, several research gaps remain that this study aims to address. There is a notable lack of detailed analysis on how global and local crisis trends specifically impact the sustainability of companies in Latvia and Ukraine. This study intends to fill this gap by conducting an in-depth analysis that encompasses the financial, environmental, and social dimensions of sustainability. Previous studies have often focused on isolated aspects of sustainability and resilience, but this study integrates resilience theory, systems thinking, and the triple bottom line framework to offer a more comprehensive understanding of corporate sustainability. Additionally, while financial indicators are crucial, there is a recognized need for a more balanced discussion that includes the environmental and social dimensions of sustainability. This study acknowledges this need and suggests future research directions to incorporate these dimensions more fully. By addressing these research gaps, this study aims to contribute significantly to the academic and practical understanding of corporate sustainability and resilience in the face of global and local crises.

Therefore, the research aims to determine the impact of global and local crisis trends on the sustainability of companies in Latvia and Ukraine. Tasks of the study: to analyse global and local crisis trends; to analyse the sustainability performance of companies in Latvia and Ukraine; to determine the relationship between global and local crisis trends and sustainability indicators of Latvian and Ukrainian companies. This study is grounded in several key theoretical frameworks that provide a comprehensive understanding of the concepts of sustainability and resilience.

Resilience theory, originating from ecological studies and later applied to social and economic systems, emphasizes the capacity of systems to absorb

disturbances, reorganize, and continue functioning while retaining their essential structures and feedbacks. In the context of this study, resilience theory helps explain how companies in Latvia and Ukraine adapt to and recover from crises such as the COVID-19 pandemic and the war in Ukraine. By analyzing indicators such as financial stability, liquidity, and profitability, this study assesses the resilience of companies and their ability to withstand and adapt to external shocks.

Systems thinking provides a holistic approach to understanding complex systems by examining the interconnections and interdependencies among their components. This framework is particularly relevant for analyzing the macroeconomic indicators and their impact on company sustainability. By considering the global and national economic systems as interconnected entities, this study can identify how changes in one part of the system (e.g., global oil prices) affect other parts (e.g., company profitability). This study focuses on the financial aspect of sustainability but acknowledges the interconnectedness of social and environmental factors. The financial indicators used in this study, such as share of liabilities and commercial profitability, provide insights into the financial sustainability of companies, which is a prerequisite for achieving broader sustainability goals.

## **Materials and Methods**

The sample for the study includes the manufacturing industries of Latvia and Ukraine, which can be used to demonstrate the differences in the sustainability of manufacturing companies and the factors that influence them. In addition, in the context of the research topic, it was necessary to study the unique experience of countries in crisis. For Latvia, this is due to the effects of the COVID-19 pandemic, as well as the territorial proximity to Ukraine, which is at war and experiencing the most severe crisis compared to many countries today. Latvia is also experiencing reverberations of the crisis and needs to take security measures, including to ensure the resilience of companies.

The sample of indicators for the study includes the following macroeconomic indicators (for the world, Latvia and Ukraine):

- GDP and GDP per capita are the most general indicators of economic development and sustainability of global and national economies;
- inflation – due to rising prices for products, raw materials, and resources, it directly affects the sustainability and financial position of companies;

- unemployment – often accompanies crises of various origins, reduces the purchasing power of citizens, which can also affect the sustainability and profitability of companies;
- raw material prices – fluctuations in raw material prices can affect the economic situation of companies, cause cost increases;
- production volume – reflects the demand for goods or services of companies.

The sample also includes indicators that indicate the resilience of companies to crisis conditions:

- share of liabilities in the balance sheet (at the end of the year, times) – shows how much of the assets are financed by borrowings;
- share of short-term liabilities in the balance sheet (at the end of the year, times) – shows what part of the assets is financed by short-term borrowings;
- total liquidity (at the end of the year, times) – characterises the ability to repay current liabilities with current assets;
- commercial profitability after taxes (%) – demonstrates the company's profitability after taxes.

The leading method for the study is the method of statistical analysis. This method was used to analyse the trends in the above indicators for 2013-2022 (currently, the necessary data from official sources are available only up to 2022). The method was used to identify how the values of the indicators changed in the years marked by certain crisis phenomena. In addition, the use of statistical analysis was used to identify general trends in the indicators and link them to economic dynamics in the countries. To elevate the methodological approach, this study integrates advanced econometric techniques such as regression analysis and structural equation modelling. These techniques provide a deeper understanding of the underlying mechanisms and causal relationships between variables. Qualitative insights from case studies and expert interviews are also incorporated to complement the quantitative analysis, offering a richer contextual understanding of the factors influencing sustainability and resilience.

The paper uses data that is publicly available on such resources as the World Bank (2024), Official Statistics Portal (2024), State Statistics Service of Ukraine (2024) and Forbes (Prasad, 2023). The following software was used in the analysis process: MS Excel and Statista.

# Results

## Global and local crisis trends

Over the past decade, the global economy has been subject to many shocks, but the crises associated with the COVID-19 pandemic in 2020 and the beginning of the full-scale invasion of Ukraine in 2022 have had the most extensive impact. These consequences are reflected both in the local economic development of Ukraine and its neighbouring countries (in particular, EU countries, including Latvia) and in global indicators. Table 1 shows some of the main macroeconomic indicators, the values of which, in the author’s opinion, are closely related to global and national crisis trends. In other words, these are indicators whose growth or decline can determine the overall state of economic development, and which are closely correlated with global and local crises. The key macroeconomic indicators considered in this study include GDP (current USD), Inflation, consumer prices (annual %), Unemployment, total (% of the total labour force), Crude oil, average (USD/bbl), Manufacturing, value added (% of GDP) and GDP per capita (current USD).

Figures 1-6 illustrate the trends in the above indicators for the world. Sharp changes in indicators in a given period may indicate the global economy’s response to the crisis.

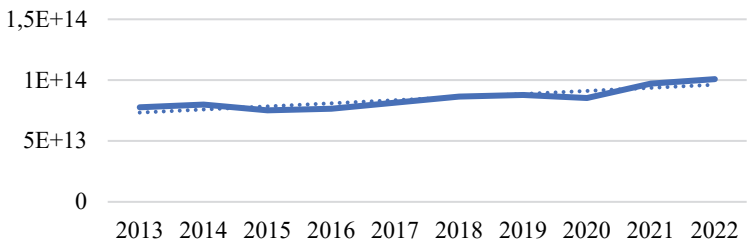


Figure 1 - Global GDP (current USD)

Source: compiled by the author based on the data from World Bank (2024).

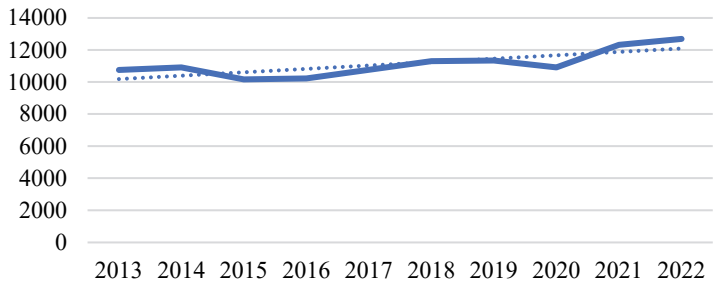


Figure 2 - GDP per capita (current USD)

Source: compiled by the author based on the data from World Bank (2024).

Table 1 - Importance of key macroeconomic indicators for the world, Latvia and Ukraine

Indicator	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
<i>World</i>										
GDP (current USD)	7.77E+13	7.98E+13	7.53E+13	7.65E+13	8.15E+13	8.65E+13	8.78E+13	8.53E+13	9.72E+13	1.0088E+14
Inflation, consumer prices (annual %)	2.651673	2.354491	1.443857	1.605539	2.254277	2.450362	2.206073	1.936941	3.466926	7.967573616
Unemployment, total (% of total labour force)	6.163629	6.022234	6.055028	6.021302	5.92976	5.768692	5.591542	6.603279	6.064105	5.267477115
Crude oil, average (USD/bbl)	104.08	96.24	50.75	42.81	52.81	68.35	61.41	41.26	69.07	97.10
Manufacturing value added (% of GDP)	15.8637	15.98736	16.44123	16.25112	16.31134	16.44001	16.03414	16.03266	16.5544	16.04771382
GDP per capita (current USD)	10749.96	10911.13	10168.12	10215.59	10754.93	11297.45	11338.15	10904.15	12316.1	12687.74189
<i>Latvia</i>										
GDP (current USD)	3.02E+10	3.14E+10	2.73E+10	2.81E+10	3.05E+10	3.44E+10	3.42E+10	3.44E+10	3.94E+10	40932030050
Inflation, consumer prices (annual %)	-0.02945	0.620491	0.174242	0.140633	2.930363	2.534454	2.811409	0.219065	3.275829	17.31028302



Unemployment, total (% of total labour force)	11.87	10.85	9.87	9.64	8.72	7.41	6.31	8.1	7.51	6.81
Manufacturing, value added (% of GDP)	11.09043	10.50167	10.46795	10.16648	10.47018	10.55715	10.64186	11.06913	12.38169	12.98333256
GDP per capita (current USD)	15007.49	15742.39	13786.46	14331.75	15695.12	17865.03	17883.35	18096.2	20930.4	21779.50426
Ukraine										
GDP (current USD)	1.9E+11	1.34E+11	9.1E+10	9.34E+10	1.12E+11	1.31E+11	1.54E+11	1.57E+11	2E+11	1.60503E+11
Inflation, consumer prices (annual %)	-0.23895	12.07186	48.69986	13.91271	14.43832	10.95186	7.886717	2.732492	9.363139	20.18363666
Unemployment, total (% of total labour force)	7.17	9.27	9.14	9.35	9.5	8.8	8.19	9.48	9.83	
Manufacturing, value added (% of GDP)	11.14059	12.22813	11.90278	12.21913	11.9803	11.53402	10.7886	10.10138	10.2833	7.576765142
GDP per capita (current USD)	4187.74	3104.654	2124.663	2187.728	2638.325	3096.563	3661.458	3751.737	4827.846	4533.975586

Source: compiled by the author based on World Bank (2024), Official Statistics Portal. (2024), State Statistics Service of Ukraine (2024).

As can be seen from Figures 1 and 2, global GDP, both in total and per capita terms, is on an upward trend, indicating a gradual growth of the global economy. In 2020, there was a slight decline, reflecting the overall economic downturn associated with the COVID-19 pandemic.

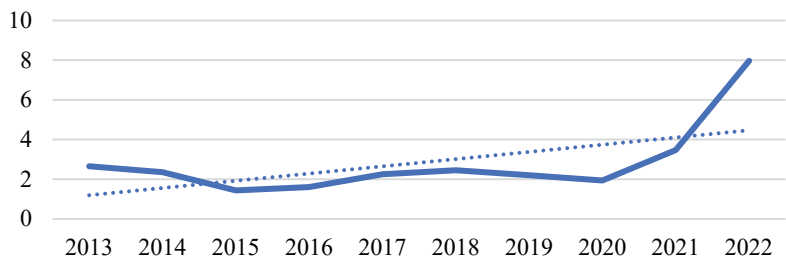


Figure 3 - Inflation, consumer prices (annual %)  
Source: compiled by the author based on the data from World Bank (2024).

Figure 3 shows that after 2020, consumer prices began to rise rapidly. Inflation can be attributed to a pickup in consumption after the first year of quarantine restrictions. Another reason could be the rise in prices due to the limited supply under quarantine conditions.

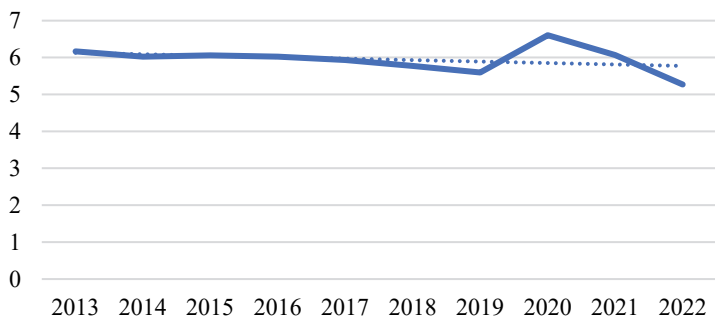


Figure 4 - Unemployment, total (% of total labour force)  
Source: compiled by the author based on the data from World Bank (2024).

2020 was also a critical year in terms of rising unemployment, as the pandemic left many people unemployed, and many companies laid off workers (Figure 4). Instead, in 2020, there was an increase in Manufacturing, value added (% of GDP). Another factor could be the rise in resource and energy prices (Figure 5).

Growth peaked in 2021, and in 2022, it declined again to around 2020 levels. These trends may also reflect crisis phenomena, for example, it is possible to assume that the share of manufacturing in GDP increased after 2020 due to the decline in the share of the service sector associated with quarantine restrictions. When demand for services stabilised, the indicator also returned to its previous values. The macroeconomic indicators of Latvia and Ukraine are noteworthy (Figure 7). These countries, especially Ukraine, have been more affected by crisis trends related not only to the pandemic but also to the war in Ukraine.

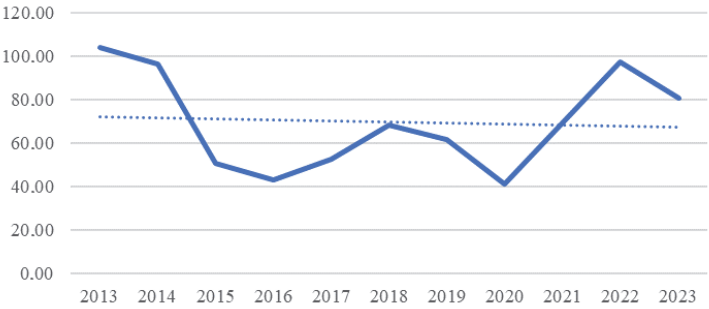


Figure 5 - Crude oil, average (USD/bbl)  
Source: compiled by the author based on the data from World Bank (2024).

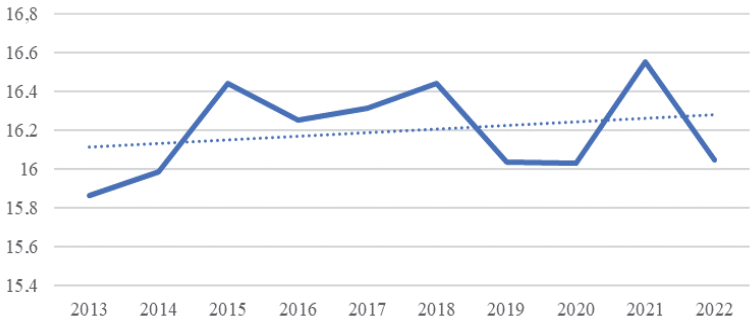


Figure 6 - Manufacturing, value added (% of GDP)  
Source: compiled by the author based on the data from World Bank (2024).

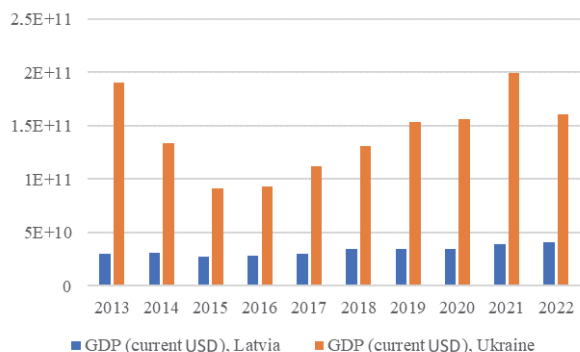


Figure 7 - GDP of Latvia and Ukraine (current USD)

Source: compiled by the author based on the data from Official Statistics Portal (2024), State Statistics Service of Ukraine (2024).

Figure 7 shows that Ukraine's GDP is significantly higher than Latvia's. However, the Latvian indicator is growing steadily, while Ukraine's GDP in 2022 experienced a significant decline. This decline coincides with the outbreak of the war in Ukraine, which has had a catastrophic impact on the country's economy (Figure 8).

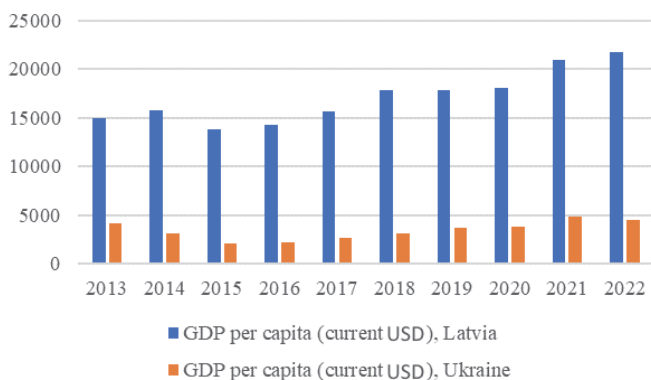


Figure 8 - GDP per capita of Latvia and Ukraine (current USD)

Source: compiled by the author based on the data from Official Statistics Portal (2024), State Statistics Service of Ukraine (2024).

GDP per capita is significantly higher in Latvia, although the total GDP in this country is lower than in Ukraine. This may indicate a higher standard

of living in Latvia and a more even distribution of wealth due to social programmes and/or more efficient economic activity in general (Figure 9).

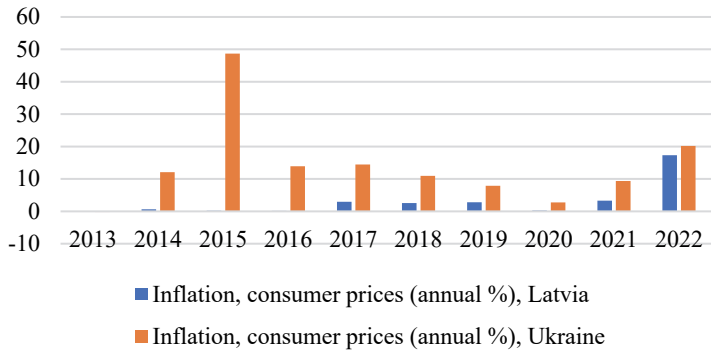


Figure 9 - Inflation of Latvia and Ukraine, consumer prices (annual %)  
Source: compiled by the author based on the data from Official Statistics Portal (2024), State Statistics Service of Ukraine (2024).

Ukraine’s inflation rate is significantly higher than Latvia’s, but in 2022, both countries saw a significant increase in consumer prices. This may be a result of military operations and the associated rise in energy and resource prices (Figure 10).

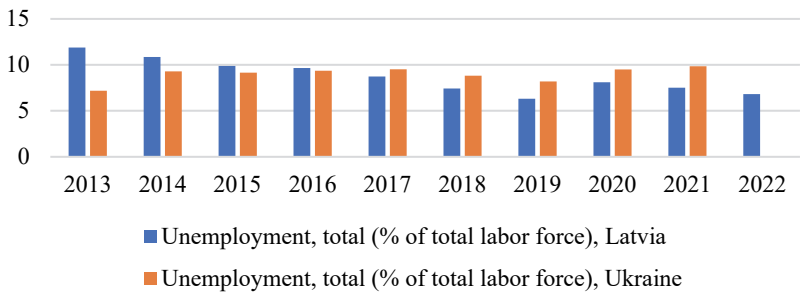


Figure 10 - Unemployment of Latvia and Ukraine, total (% of total labour force)  
Source: compiled by the author based on the data from Official Statistics Portal (2024), State Statistics Service of Ukraine (2024).

The unemployment rate in Latvia is mostly on a downward trend, while in Ukraine it is unstable and growing in 2019-2021. The lack of data for Ukraine for 2022 makes it impossible to assess the impact of the war on unemployment in the country. At the same time, other sources indicate that

the unemployment rate in Ukraine increased by 2.2% in 2022 compared to the previous period, although in 2023 it recovered to half of its pre-war level (Prasad, 2023).

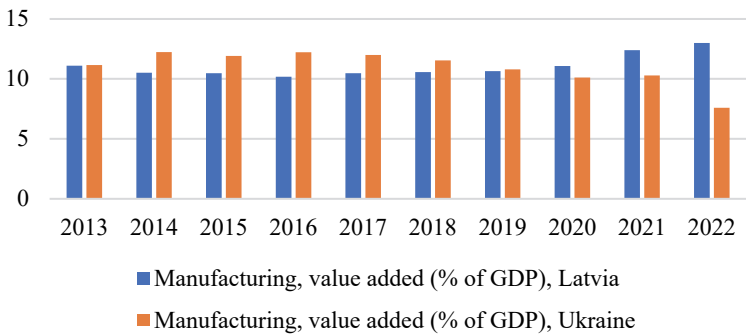


Figure 11 - Manufacturing of Latvia and Ukraine, value added (% of GDP)  
 Source: compiled by the author based on the data from Official Statistics Portal (2024), State Statistics Service of Ukraine (2024).

The share of manufacturing in Latvia’s GDP is gradually increasing. In Ukraine, this indicator has the opposite trend, but it fell particularly sharply in 2022. This may be determined by a change in the structure of the participation of various sectors of the economy in GDP due to the war. Thus, the macroeconomic indicators of the world in general and Latvia and Ukraine in particular confirm the significant impact of the crisis on the global and national economies. Both the COVID-19 pandemic and the war in Ukraine have had a negative impact on the economy. Ukraine has been most affected by the war. Latvia, as a country geographically close to Ukraine, has also experienced some negative trends. At the same time, the impact of the war can also be traced at the global level, for example, through rising oil prices. The impact of the pandemic is visible at both the global and local levels.

### *Sustainability of companies in the example of Latvia and Ukraine*

The analysis of the sustainability of companies in the example of Latvia and Ukraine includes indicators that characterise the financial stability, liquidity and profitability of companies. These indicators include share of liabilities in the balance sheet (at the end of the year, times), share of short-term liabilities in the balance sheet (at the end of the year, times), total liquidity (at the end of the year, times), commercial profitability after taxes (%). The values of these indicators for Latvia and Ukraine are presented in Table 2 and Table 3.

Table 2 - Values of company sustainability indicators for 2013-2022 for Latvia

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Share of liabilities in the balance sheet (at the end of the year, times)	0.656	0.645	0.635	0.626	0.614	0.596	0.590	0.559	0.515	0.512
Share of short-term liabilities in the balance sheet (at the end of the year, times)	0.320	0.303	0.298	0.294	0.295	0.296	0.284	0.259	0.256	0.272
Total liquidity (at the end of the year, times)	1.155	1.189	1.225	1.232	1.263	1.272	1.319	1.387	1.461	1.464
Commercial profitability after taxes (%)	2.365	2.744	3.066	3.747	4.980	6.303	6.242	4.488	7.546	6.827

Source: compiled by the author based on the data from Official Statistics Portal (2024).

Table 3 - Values of company sustainability indicators for 2013-2022 for Ukraine

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
Share of liabilities in the balance sheet (at the end of the year, times)	0.658	0.753	0.716	0.755	0.753	0.751	0.731	0.736	0.707	0.728
Share of short-term liabilities in the balance sheet (at the end of the year, times)	0.471	0.526	0.51	0.585	0.579	0.589	0.588	0.585	0.576	0.595
Total liquidity (at the end of the year, times)	1.141	1.038	0.998	0.987	0.979	0.981	0.982	0.991	1.037	1.036
Commercial profitability after taxes (%)	-0.699	-14.163	-7.334	0.607	3.037	4.467	7.592	0.921	10.11	-3.243

Source: compiled by the author based on the data from State Statistics Service of Ukraine (2024).



The optimal value of the Share of liabilities in the balance sheet (at the end of the year, times) is usually considered to be less than 0.5, although the normative values vary depending on the approach to analysis, industry, region, and can reach 0.7-0.8. Latvia's score was declining over the study period and was approaching the optimal value. Ukraine's figure was higher, with particularly sharp increases in critical years for the country: after the start of Russian armed aggression in the east of the country in 2014 and after the start of a full-scale Russian invasion in 2022. The growth of this indicator may indicate an increase in the financial dependence of companies and a breach of financial security in general. The share of short-term liabilities in the balance sheet (at the end of the year, times) also gradually decreased for Latvian companies and increased for Ukrainian ones. This may indicate liquidity problems, increased dependence on short-term borrowed funds, and lead to greater financial risks and reduced sustainability.

The optimal value of total liquidity (at the end of the year, times) should be in the range of 1-2. As Table 2 shows, the values of this indicator for Latvian companies were within the normal range. Table 3 shows that for Ukraine, the indicator was slightly below the norm during the period from 2015 to 2020 but reached the normative values by the end of the period. In general, this indicator describes the ability of companies to meet their current obligations. Thus, the growth of the previous indicator of the share of short-term liabilities in the balance sheet is ensured by the corresponding volume of current assets. Commercial profitability after taxes (%) grew steadily for Latvian companies until 2020 when there was a noticeable decline. However, in 2021, the indicator reached its highest level in the study period, and in 2022 it declined slightly again. Ukraine's score was negative from 2013 to 2015, which was due to the outbreak of armed Russian aggression in eastern Ukraine, but then gradually increased until 2020. In 2020, Ukraine's indicator, like Latvia's, experienced a significant decline, and in 2021 it reached its highest level in the study period. However, after the full-scale invasion, the indicator took on negative values, indicating the severe consequences of the war for the profitability of enterprises.

### *The relation between resilience and crises*

In the previous section, the sustainability indicators of Latvian and Ukrainian companies were analysed, and thus providing assumptions regarding the relationship between changes in the indicators and the most significant crisis events of the period under study. It is also necessary to identify whether there is a link between the sustainability indicators of companies and the global indicators identified in the paper as those most

closely related to global crisis trends. This will help determine how companies are responding to the crisis in general, and which global trends are having the most significant impact on their operations. The results of the analysis should serve as a basis for developing anti-crisis and/or adaptation strategies in response to the factors that will be most significant for the companies' operations. The results of the regression analysis between the sustainability indicators of Latvian and Ukrainian enterprises and global indicators are presented in Table 4.

*Table 4 - Results of regression analysis between sustainability indicators of Latvian and Ukrainian enterprises and global indicators*

	Ukraine				Latvia			
	Share of liabilities in the balance sheet (at the end of the year, times)	Share of short-term liabilities in the balance sheet (at the end of the year, times)	Total liquidity (at the end of the year, times)	Commercial profitability after taxes (%)	Share of liabilities in the balance sheet (at the end of the year, times)	Share of short-term liabilities in the balance sheet (at the end of the year, times)	Total liquidity (at the end of the year, times)	Commercial profitability after taxes (%)
GDP (current USD)	-0.009	0.578	-0.019	0.423	-0.937	-0.727	0.908	0.88
Inflation, consumer prices (annual %)	-0.117	0.271	0.257	-0.024	-0.665	-0.337	0.624	0.511
Unemployment, total (% of total labour force)	-0.159	-0.337	0.105	-0.067	0.294	-0.038	-0.258	-0.51
Crude oil, average (USD/bbl)	-0.47	-0.456	0.783	-0.347	0.032	0.346	-0.101	-0.081
Manufacturing, value added (% of GDP)	0.253	0.302	-0.482	0.373	-0.244	-0.282	0.237	0.425
GDP per capita (current USD)	-0.105	0.438	0.142	0.339	-0.857	-0.6	0.815	0.809

*Source:* compiled by the author based on the data from World Bank (2024), Official Statistics Portal. (2024), State Statistics Service of Ukraine (2024).

Firstly, it is worth noting that Latvia's indicators are generally more correlated with global indicators than Ukraine's. One of the reasons for this may be the greater openness of the Latvian market, which may indicate both greater economic efficiency and greater dependence on global economic processes. In general, GDP and GDP per capita correlate most strongly with the sustainability indicators of Latvian enterprises. Accordingly, GDP and GDP per capita are inversely related to indicators of enterprise sustainability that are disincentives (share of liabilities in the balance sheet and share of short-term liabilities in the balance sheet), while GDP and GDP per capita are directly related to stimulants (total liquidity and commercial profitability after taxes). In other words, the overall improvement in prosperity, as measured by global GDP, may affect the resilience of companies by reducing the share of borrowed funds in general and the share of short-term borrowed funds in particular. However, there is no such correlation for Ukraine, which may indicate a lower integration of the Ukrainian economy into global markets or internal features (Stychynska et al., 2024). In particular, the war in Ukraine and economic instability may affect the linkage of internal sustainability indicators of enterprises with global indicators. The only significant correlation between the global macroeconomic indicator and the internal sustainability indicator of companies in Ukraine is between the crude oil price and total liquidity. One likely reason is that rising oil prices may contribute to the sustainability and profitability of energy sector companies, which is closely linked to the increased liquidity of these companies.

Tables 5 and 6 present the results of a regression analysis between the internal sustainability indicators of Latvian and Ukrainian enterprises and national macroeconomic indicators. Such an analysis will deepen the understanding of which domestic macroeconomic trends affect the resilience of enterprises.

As shown in Table 5, the trends in the sustainability indicators of Latvian companies are closely linked to the trends in national macroeconomic indicators. This may indicate the relative stability of the companies' operations, as well as support for the companies due to economic growth in the country.

Table 6 shows that in Ukraine, companies' operations are less dependent on trends in national macroeconomic indicators than in Latvia. The analysis suggests that the more open the economy, the higher the interdependence of economic indicators in general and company sustainability indicators in particular on global trends. Economies that are less integrated into global markets are heavily influenced by domestic factors, especially local crises (Ketners and Petersone, 2021). At the same time, events such as the war in Ukraine have an impact on neighbouring countries, and in some respects on

global indicators. Thus, the sustainability of Latvian companies is correlated with both global and national macroeconomic indicators. The resilience of Ukrainian companies is dependent on internal factors, in particular, it is significantly affected by the economic instability in the country caused by military aggression and subsequent war. At the same time, the resilience of companies in both Latvia and Ukraine is affected by global crises such as the COVID-19 pandemic.

*Table 5 - Results of regression analysis between sustainability indicators of Latvian enterprises and national macroeconomic indicators*

	<i>Share of liabilities in the balance sheet (at the end of the year, times)</i>	<i>Share of short-term liabilities in the balance sheet (at the end of the year, times)</i>	<i>Total liquidity (at the end of the year, times)</i>	<i>Commercial profitability after taxes (%)</i>
GDP (current USD)	-0.914081	-0.715764	0.879405	0.830288
Inflation, consumer prices (annual %)	-0.671449	-0.359745	0.642228	0.578919
Unemployment, total (% of total labour force)	0.788303	0.719458	-0.79587	-0.914777
Manufacturing, value added (% of GDP)	-0.826256	-0.590203	0.79543	0.596556
GDP per capita (current USD)	-0.940817	-0.758249	0.911337	0.857118

*Source:* compiled by the author.

Comparing the examples of the two countries under study suggests that improving the sustainability of companies in Latvia and Ukraine should be based on the implementation of different strategies. The definition of specific goals and objectives of such strategies should address national peculiarities and the current situation in the country and the world. In addition, strategies may vary from industry to industry and from company to company. Various offensive anti-crisis strategies may be effective for Latvian companies, which involve strengthening their competitive advantages in the long term, for example, by attracting investment and actively implementing innovations. Ukrainian companies should consider defensive anti-crisis strategies aimed at using their existing potential to maintain their competitive position. In addition, such strategies should address the adaptation component, because, in the context of war and uncertainty about its duration and consequences, it is important to find a way to adapt to difficult

conditions. This may involve relocating companies, moving certain activities online, providing additional security measures.

*Table 6 - Results of the regression analysis between sustainability indicators of Ukrainian enterprises and national macroeconomic indicators*

	<i>Share of liabilities in the balance sheet (at the end of the year, times)</i>	<i>Share of short-term liabilities in the balance sheet (at the end of the year, times)</i>	<i>Total liquidity (at the end of the year, times)</i>	<i>Commercial profitability after taxes (%)</i>
GDP (current USD)	-0.645383	-0.146566	0.61753	0.426602
Inflation, consumer prices (annual %)	0.131398	-0.213383	-0.328615	-0.39199
Unemployment, total (% of total labour force)	0.649728	0.563322	-0.616922	0.001741
Manufacturing, value added (% of GDP)	0.403758	-0.229746	-0.125658	-0.603547
GDP per capita (current USD)	-0.570613	-0.042207	0.521604	0.478279

*Source:* compiled by the author.

## Discussion

The paper proposes an approach to assessing the sustainability of companies, which provides for the assessment of sustainability by four main indicators that characterise the financial stability, liquidity and profitability of companies. At the same time, the proposed approach included determining the relationship between the sustainability indicators of companies, on the one hand, and global indicators and national macroeconomic indicators, on the other. Assessing this relationship can help determine the dependence of companies' sustainability on global and local economic trends. The works of other authors present their approaches to assessing the sustainability of companies, which should be considered in more detail.

M. Kudej et al. (2021) assessed the potential and resilience of Czech companies to the crisis. The researchers used traditional ratios such as operating efficiency margin, total efficiency margin, total debt ratio, operating return on assets, and return on equity. The sample for the research

included more than 25 thousand companies of different sizes, but all of them were characterised by high financial stability. To analyse the performance of these companies, the paper applies the Kruskal-Wallis test. As a result of the analysis, the researchers found that the impact of the crisis on Czech companies was not as long and severe as it was assumed before the study began. Companies were characterised by high resilience in the fight against the crisis, which is true both for the global financial crisis of 2008 and the crisis associated with the spread of the COVID-19 virus. Government measures to resolve the crisis played a particularly important role in supporting companies and the country's economy. In addition, the study assessed the post-crisis development, which revealed positive trends in the companies' condition and suggested that they will successfully overcome the crisis. The author's research also included an analysis covering a large sample of companies, as it included all companies in the manufacturing sectors of Latvia and Ukraine. However, unlike the study, which, judging by the analysed indicators, was aimed at assessing business activity, financial stability and profitability, the author's work also contained an analysis of liquidity. Liquidity analysis is an important area of analysis, as it allows us to assess whether companies can meet their short-term obligations promptly and in full, whether they are sufficiently flexible and whether they manage their working capital efficiently.

C. Acciarini et al. (2021) studied the resilience of Italian companies to the COVID-19 crisis. The main method used in the study was a case study, which examined the response of large companies to the risks of the pandemic and how they managed to ensure business continuity. Based on the results of the analysis, the authors have developed a policy framework that should improve the resilience of companies in times of crisis. The advantage of this approach is the use of the successful experience of companies that have managed to survive the crisis and recover from it. However, the study did not analyse the negative experience of companies, which is also important for policy-making. T. Neise et al. (2021) investigated aspects of the resilience of German institutions to the crisis. The study uses an approach based on the method of interviewing experts. The researchers surveyed experts on the anticipated problems in business and the aspects that ensure greater resilience in a crisis. This study has led to an important conclusion about the importance of preconditions and their impact on business resilience to the current crisis. This approach differs from the author's approach, as it does not involve the calculation of financial indicators. This may lead to some subjectivity of the results, but it is valuable in terms of addressing the practical experience of professionals who have faced the need to overcome the crisis.

I. Danilevičienė and N. Lace (2021) assessed the growth of sustainable competitiveness in various industrial sectors. The researchers have built their approach to evaluation by combining theoretical provisions with practical aspects and statistical data analysis. This has revealed that companies should prioritise such areas as the introduction of technology, innovation, and capital accumulation. The study used such indicators as total factor productivity (TFP) and return on equity (ROE). These indicators provided valuable information about the company's performance, but they did not consider all the aspects that should be covered when assessing the resilience of companies to the crisis. The research of scientists focuses more on the sustainability of companies in the context of sustainable development, so the choice of indicators differs significantly from the one proposed in the author's article. At the same time, this work is worth noting because it adds another dimension to the sustainability of companies. In this context, further research could be focused on assessing the impact of sustainable development on companies' resilience to the crisis.

The study by I. Upton et al. (2022) reveals another approach to assessing the resilience of companies to the crisis. This approach used an in-depth analysis of the risks faced by companies in the crisis. As in the author's study, scholars have investigated the main trends caused by the crisis and their impact on certain aspects of companies' activities. However, this study focuses on risk assessment, which is an extremely important area in a crisis and is an undoubted advantage of the work. A comprehensive study of organisational resilience is presented in S.S. Rai et al. (2021). Scientists have identified three aspects of sustainability: expectations of the crisis, organisational strength and recovery capabilities. In addition, sustainability was discussed in terms of two aspects – social sustainability and economic sustainability. The study used a structural equation modelling approach, which revealed that crisis forecasting had a positive impact on the economic and social aspects of sustainability. While the inclusion of a social component is an advantage of this study, the use of a survey for evaluation raises the possibility of some subjectivity in the results. The author's research, in turn, is based on actual numerical data, which is an advantage in terms of objectivity. However, this approach does not allow for a more comprehensive analysis of sustainability, as in the researchers' work.

In conclusion, it is worth mentioning another approach to assessing sustainability, which is fundamentally different from the previous ones. M. Küle (2022) noted that EU countries need to address warfare issues, which is important for further prevention and response to any security crisis. The researcher noted that strategic management in European countries should not be based on GDP growth alone. Improving crisis prevention and enhancing

the EU's resilience should not only involve the application of a technocratic approach and aspects of economic development but also the organisation of a synthetic perception of truths about human nature, responsibility and freedom (de-Almeida-e-Pais et al., 2023). While this approach has revealed the problem of sustainability in times of crisis from a philosophical point of view, it is worth mentioning in this context to demonstrate that the sustainability of companies in today's environment is indeed not limited to the financial dimension. The author's research focuses on the financial aspects that are important for ensuring the social and environmental dimensions of sustainability. However, in the context of sustainable development and the reassessment of the values of the modern world, this should be only one stage of sustainability assessment (Spankulova et al., 2024).

This review has revealed the existence of numerous approaches to assessing sustainability, which have their advantages and disadvantages compared to the author's approach. At the same time, the author's approach is valuable in terms of identifying the relationship between the sustainability indicators of companies and global and national economic trends. In addition, an important observation was that this relationship varies across economies with different degrees of openness.

## Conclusions

The analysis of global economic indicators was used to identify the main trends and changes that occurred in these indicators in the context of the global crisis. This suggests that global crises such as the COVID-19 pandemic and the war in Ukraine have had a significant impact on the global economy. The same can be stated regarding trends and changes in local macroeconomic indicators in Latvia and Ukraine. The war in Ukraine has had a particularly strong impact on Ukraine's macroeconomic indicators, but it has also had an impact on the Latvian and global economies in some respects. This impact can be traced to changes in oil prices and inflation.

A comparison of the macroeconomic indicators of Latvia and Ukraine can be used to draw the following conclusions. The volume of GDP is much higher in Ukraine, but Latvia's GDP per capita is several times higher than Ukraine's. This indicates a more equitable distribution of wealth and an efficient economy in the country. Inflation is likely to rise in both countries in 2022, which may be because of the war in Ukraine and rising resource and energy prices. Production in Latvia is gradually growing, while in Ukraine it is declining, and the war is making the situation worse. The sustainability



indicators of Latvian and Ukrainian companies indicate that Latvian companies are significantly more resilient, given their greater financial independence (in terms of the share of liabilities in the balance sheet currency), overall liquidity and profitability. In addition, the war has had a significant impact on Ukrainian companies' sustainability performance. For example, the profitability of Ukrainian companies in 2021 was 10.11%, and after the start of the invasion, it dropped to -3.24%. At the same time, the financial stability indicators declined only slightly, and the total liquidity ratio remained almost unchanged, which may indicate resilience to the crisis in some respects.

The regression analysis between global indicators and national macroeconomic indicators, on the one hand, and the sustainability indicators of the companies in the countries studied, on the other hand, revealed that the correlations are significantly higher for Latvian indicators. In other words, the Latvian economy is more dependent on global trends, but at the same time more integrated into global markets. Given the findings, Latvian companies can be advised to implement various offensive anti-crisis strategies aimed at strengthening their competitiveness in the long term, in particular by attracting investment and stimulating innovation. Ukrainian companies should adopt defensive anti-crisis strategies designed to realise the existing potential to maintain their competitive advantage. Such strategies should include an adaptation component, which, in times of war and uncertainty, will be used to find a way to adapt to the current environment. Some of the measures include relocating companies to safer regions, moving certain activities online, providing employees and fixed assets with additional security measures.

The study's limitations include the lack of statistical information on certain indicators and the limited sample of companies. Thus, it is important to assess the crisis resilience of companies operating in the service sector in further research. In addition, the paper has only covered the financial aspects of sustainability, so further work by the authors may focus more closely on environmental, social and other aspects.

## References

- Acciarini C., Boccardelli P., Vitale M. (2021). Resilient companies in the time of Covid-19 pandemic: A case study approach. *Journal of Entrepreneurship and Public Policy*, 10(3): 336-351.
- Bartolacci F., Caputo A., Soverchia M. (2020). Sustainability and financial performance of small and medium sized enterprises: A bibliometric and

- systematic literature review. *Business Strategy and the Environment*, 29(3): 1297-1309.
- Bērziņš J. (2023). Latvia: From total defense to comprehensive defense. *PRISM*, 10(2): 38-53.
- Bisenovna K.A., Ashatuly S.A., Beibutovna L.Z., Yesilbayuly K.S., Zagievn A.A., Galymbekovna M.Z., Oralkhanuly O.B. (2024). Improving the efficiency of food supplies for a trading company based on an artificial neural network. *International Journal of Electrical and Computer Engineering*, 14(4): 4407-4417.
- Bistrova J., Lace N., Kasperovica L. (2021). Enterprise crisis-resilience and competitiveness. *Sustainability*, 13(4), 2057.
- Boiko R., Baran R., Boiko V., Vasylytsiv T., Mahas N., Berezhivskyi Y. (2025). Empirics of investment – social and economic development causal nexus in Ukraine (case study of the Lviv region of Ukraine). *Investment Management and Financial Innovations*, 22(2): 365-384.
- Challoumis C. (2021). Index of the cycle of money – The case of Latvia. *Economics and Culture*, 17(2): 5-12.
- Cheema M.A., Faff R., Szulczyk K.R. (2022). The 2008 global financial crisis and COVID-19 pandemic: How safe are the safe haven assets?. *International Review of Financial Analysis*, 83, 102316.
- Danilevičienė I., Lace N. (2021). Assessment of the factors of sustainable competitiveness growth of the companies in Latvia and Lithuania. *International Journal of Learning and Change*, 13(4-5): 510-526.
- de-Almeida-e-Pais J.E., Raposo H.D.N., Farinha J.T., Cardoso A.J.M., Lyubchik S., Lyubchik S. (2023). Measuring the Performance of a Strategic Asset Management Plan through a Balanced Scorecard. *Sustainability (Switzerland)*, 15(22), 15697.
- Hadasik B., Kubiczek J., Ryczko A., Krawczyńska D., Przedworska K. (2025). From coal to clean energy: Economic and environmental determinants of household energy transition in Poland. *Energy Economics*, 108697.
- Hussain K., Khan N.A., Vambol V., Vambol S., Yeremenko S., Sydorenko V. (2022). Advancement in Ozone base wastewater treatment technologies: Brief review. *Ecological Questions*, 33(2): 7-19.
- Ismayilov V., Ibrahimli C., Yusifov E., Nasirova O., Kamran S. (2024). An Econometric Model of the Dependence of Economic Growth of Gdp on A Group of Factors. *Journal of Ecohumanism*, 3(8): 12137-12150.
- Ismayilov V.I., Almasov N.N., Musayev N.S., Samedova A.Q. (2021). Model of the Influence of Internal Production Conditions on the Efficiency of Enterprises. *Estudios de Economia Aplicada*, 39(6).
- Jan A.A., Lai F.-W., Siddique J., Zahid M., Ali S.E.A. (2023). A walk of corporate sustainability towards sustainable development: A bibliometric analysis of literature from 2005 to 2021. *Environmental Science and Pollution Research*, 30(13): 36521-36532.

- Kerimkulov S., Teleuova S., Tazhbenova G. (2015). Measuring chaotic and cyclic fluctuations of cass freight index: Expenditures. *Actual Problems of Economics*, 171(9): 434-445.
- Ketners K., Jargalsaikhan Z., Miller A., Milienko O., Malkhasyan L. (2025). Evaluation of effective anti-corruption strategies in state institutions. *Ceridap*, (1): 93-118.
- Ketners K., Jarockis A., Petersone M. (2024). State budget system improvement for informed decision-making in Latvia. *Scientific Bulletin of Mukachevo State University. Series Economics*, 11(3): 86-99.
- Ketners K., Petersone M. (2021). The personalized model for the sustainable development of human resources in customs. *Intellectual Economics*, 15(1): 5-14.
- Khaled R., Ali H., Mohamed E.K. (2021). The Sustainable Development Goals and corporate sustainability performance: Mapping, extent and determinants. *Journal of Cleaner Production*, 311, 127599.
- Khamzin A.S., Aldashev S., Tileubergenov Y.M., Kussainova A.K., Khamzina Z.A., Buribayev Y.A. (2016). Legal regulation of employment in Kazakhstan. *International Journal of Environmental and Science Education*, 11(18): 11907-11916.
- Krasnykov Y.V. (2023). Development and implementation of new organizational structures in the public sector. *Democratic Governance*, 2(32): 11-27.
- Kredina A., Nuryмова S., Satybaldin A., Kireyeva A. (2022). Assessing the relationship between non-cash payments and various economic indicators. *Banks and Bank Systems*, 17(1): 67-79.
- Kubiczek J., Tuszkiewicz M. (2022). Intraday Patterns of Liquidity on the Warsaw Stock Exchange before and after the Outbreak of the COVID-19 Pandemic. *International Journal of Financial Studies*, 10(1), 13.
- Kudej M., Gavurova B., Rowland Z. (2021). Evaluation of the selected economic parameters of Czech companies and their potential for overcoming global crises during the Covid-19 pandemic. *Journal of International Studies*, 14(1): 258-275.
- Kūle M. (2022). Europe and Latvia: Critical thinking and strategic philosophical management for the future. In: *Proceedings of the 80th LU International Conference "Culture and Human Situation in the Context of Contemporary Crises of Humanism"* (pp. 7-14). Riga: University of Latvia.
- Latvian National Defence Concept (2020). -- [https://www.mod.gov.lv/sites/mod/files/document/Valsts%20aizsardzibas%20konceptija\\_ENG.pdf](https://www.mod.gov.lv/sites/mod/files/document/Valsts%20aizsardzibas%20konceptija_ENG.pdf).
- Malesios C., De D., Moursellas A., Dey P.K., Evangelinos K. (2021). Sustainability performance analysis of small and medium sized enterprises: Criteria, methods and framework. *Socio-Economic Planning Sciences*, 75, 100993.
- Neise T., Verfürth P., Franz M. (2021). Rapid responding to the COVID-19 crisis: Assessing the resilience in the German restaurant and bar industry. *International Journal of Hospitality Management*, 96, 102960.
- Official Statistics Portal (2024). -- [https://data.stat.gov.lv/pxweb/en/OSP\\_PUB/START\\_\\_ENT\\_\\_UA\\_\\_UFF/UFF050](https://data.stat.gov.lv/pxweb/en/OSP_PUB/START__ENT__UA__UFF/UFF050).

- Panchenko A., Voloshina A., Sadullozoda S.S., Boltyansky O., Panina V. (2022). Influence of the Design Features of Orbital Hydraulic Motors on the Change in the Dynamic Characteristics of Hydraulic Drives. In: *Lecture Notes in Mechanical Engineering* (pp. 101-111 Cham: Springer).
- Pokromovica I., Lace N., Oganisjana K. (2022). Business resilience to crisis: The Latvian case. In: *Proceedings of the World Multi-Conference on Systemics, Cybernetics and Informatics* (pp. 121-126). Winter Garden: International Institute of Informatics and Cybernetics.
- Prasad A. (2023). The government forecasts that unemployment will fall to 19% by the end of the year. In 2022, the figure was 21.1%. -- <https://forbes.ua/news/uryad-prognozue-znizhennya-bezrobittya-do-19-do-kintsya-roku-14092023-15998>.
- Rai S.S., Rai S., Singh N.K. (2021). Organizational resilience and social-economic sustainability: COVID-19 perspective. *Environment, Development and Sustainability*, 23(8): 12006-12023.
- Remeshevska I., Trokhymenko G., Gurets N., Stepova O., Trus I., Akhmedova V. (2021). Study of the ways and methods of searching water leaks in water supply networks of the settlements of Ukraine. *Ecological Engineering and Environmental Technology*, 22(4): 14-21.
- Shahini E., Myalkovsky R., Nebaba K., Ivanyshyn O., Liubytska D. (2023). Economic and biological characteristics and productivity analysis of sunflower hybrids. *Scientific Horizons*, 26(8): 83-95.
- Spankulova L., Kredina A., Kuanova L., Gamidullaeva L., Kongyrbay A. (2024). Analyzing the impact of cultural accessibility and ICT infrastructure on economic growth in Kazakhstan. *Journal of Infrastructure, Policy and Development*, 8(8), 6001.
- State Statistics Service of Ukraine (2024). Economic statistics/Macroeconomic statistics/Trends in business activity. -- [https://www.ukrstat.gov.ua/operativ/menu/menu\\_u/tda.htm](https://www.ukrstat.gov.ua/operativ/menu/menu_u/tda.htm).
- Stychynska A., Kravchenko A., Krasilnikova O., Husieva N., Kyzymenko I. (2024). Theoretical aspects of improvement of society-business-government cooperation in the context of European integration. *Social and Legal Studies*, 7(1): 243-253.
- Subačienė R., Budrionytė R., Žemgulienė J., Faituša I., Rudžionienė K. (2024). Economic shocks and perceptions of efficiency changes: The cases of Lithuania and Latvia. *Economies*, 12(1), 14.
- Tleubayev A., Kerimkhulle S., Tleuzhanova M., Uchkampirova A., Bulakbay Z., Mugauina R., Tazhibayeva Z., Adalbek A., Iskakov Y., Toleubay D. (2024). Econometric Analysis of the Sustainability and Development of an Alternative Strategy to Gross Value Added in Kazakhstan's Agricultural Sector. *Econometrics*, 12(4), 29.
- Upite I., Bite D., Pilvere I., Nipers A. (2022). Impacts of COVID-19 on the food supply chain for arable crops in Latvia. *Rural Sustainability Research*, 47(342): 47-60.

Vodovozov E.N., Dmytriiev I.A., Dmytriieva O.I., Spitsyna N.V., Mykolaiets A.P.  
(2021). Peculiarities and directions of interaction of stakeholders at transport enterprises. *Estudios de Economia Aplicada*, 39(6): 1-10.  
World Bank (2024). GDP (current US\$). -- <https://data.worldbank.org/indicator/NY.GDP.MKTP.CD>.