UNIVERSITY OF NATIONAL AND WORLD ECONOMY
„International Economics and Politics" Faculty
Department of „International Economic Relations and Business"

Twenty-first Scientific Conference dedicated to the 70th anniversary
of the International Economic Relations and Business Department
Under the patronage of the Rector of UNWE, Prof. Dr. Dimitar Dimitrov

THE MEMBERSHIP OF BULGARIA IN THE EUROPEAN UNION: FIFTEEN YEARS LATER

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21ST SCIENTIFIC CONFERENCE ON THE MEMBERSHIP OF BULGARIA IN THE EUROPEAN UNION: FIFTEEN YEARS LATER

The International Economic Relations and Business Department held its traditional Scientific Conference on the Membership of Bulgaria in the European Union: Fifteen Years Later. The two-day Forum was dedicated to the 70th Anniversary of the Department and took place under the patronage of the Rector of the UNWE Prof. Dr. Dimitar Dimitrov.

Assoc. Prof. Dr. Mihail Musov, Vice Rector for Research and International Affairs, Assoc. Prof. Dr. Vasil Petkov, Head of the International Economic Relations and Business Department, Assoc. Prof. Dr. Svetla Boneva, Secretary General for Research Projects of UNWE, Prof. D.Sc./Econ./ Bistra Boeva, long-standing lecturer at the Department

The Vice Rector Assoc. Prof. Dr. Mihail Musov greeted the delegates in the Conference on behalf of the Rector of UNWE outlining: „This Conference has been held for 20 years and has had a huge impact on the development of our society and economy not only with the valuable papers that have been published over the years, but also with the inspiration of students and researchers to lead the world towards a more humane future. It is a tremendous achievement, so congratulations to all of you.“

Prof. Dr. Bistra Boeva */in the picture above/* greeted the participants pointing out the importance of the Conference and drew attention to some topical issues suitable to be focus of discussions in the following editions of the Forum. She expressed special gratitude to Assoc. Prof. Dr. Svetla Boneva, Secretary General for Research Projects of UNWE and lecturer at the International Economic Relations and Business Department, for her enormous contribution to the implementation and development of the Conference since the very beginning and its transformation from a project into a traditional event for the Department by attracting a huge number of foreign participants.

Assoc. Prof. Dr. Svetla Boneva */in the picture above/*, greeted the foreign participants in the Conference and the guests from other universities and scientific organizations in Bulgaria. As initiator of the Conference she defined the current edition and the presented papers as very valuable having in mind the challenges facing the EU and the deepening energy crisis.

This year the thematic areas in the most recognizable scientific event of the Department were: the European Union - State and Prospects for Development; the European Union in the World Economy; International Competitiveness of the Bulgarian Economy; Management of European Projects; International Management and Marketing; International Business; International Finance; Sustainable Development - European Aspects; Innovation, Entrepreneurship and Digital Transformation; Legal Aspects of the European Union; Tourism - State and Prospects.

Moderators of the separate panel sessions of the Forum were the Head of Department Assoc. Prof. Dr. Vasil Petkov, Assoc. Prof. Dr. Svetla Boneva, Assoc. Prof. Dr. Dobroslav Mollov, Chief Assist. Dr. Monika Moraliyska, Chief Assist. Dr. Margarita Ivanova, Chief Assist. Dr. Stella Zhivkova, Chief Assist. Dr. Vasil Gechev.

Within the framework of the Conference programme, papers were presented by scientists and researchers from „St. Climent Ohridsky“ University of Sofia, University of Economics - Varna, „D. A. Tsenoff Academy of Economics, „Paisii Hilendarsky“ University of Plovdiv, New Bulgarian University, Burgas Free University, Institute for Economic Research at Bulgarian Academy of Sciences, Union of Economists in Bulgaria, universities from Greece, Germany, Republic of North Macedonia, Serbia, Slovakia.

THE WORLD ECONOMY AND BULGARIA – TRENDS AND PERSPECTIVES

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Abstract

The paper reveals the world economic development in retrospective period with a stress on the past few years. It tries to find the interconnections between the different factors and phenomenon. The trends in the leading economies are outlined – the USA, China, Japan, Germany and the Eurozone. Special attention is paid to Gross Domestic Product (GDP) growth rates, economic activity, and inflation rates. Short-term forecasts are made and a comparison with ready predictions is done. The major issues for the future development are assessed. The main macroeconomic indicators for Bulgaria are discussed and explanations for their specific movement is given – GDP growth, its components, export, import, budget deficit, debt to GDP rate, inflation and unemployment rates, etc. The specific factors which influence Bulgarian economy are found and solution for the mitigation of negative ones is given. At the end a forecast for the development of the economy of Bulgaria is given based on analysis of empirical information.

Key words: world economy, economic outlook, main indicators for Bulgarian economy, Bulgarian economic development

JEL: A10, F01

Introduction

The study starts with the explanation of the normality to have cyclical crisis from time to time. A brief overview of the world economic development in the second decade of XXI century is given and the major changes which occur are assessed. A special attention is given to the world economy performance during the pandemic and the reasons for energy and inflation crises are found. The forecasts by the International Monetary Fund are discussed and the high risk of global recession is underlined.

The paper continues with the current situation in the leading economies in the world. The mistakes are pointed out, as well to what consequences the measures that are undertaken will lead. Except the geopolitical tension the biggest problem

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in Western countries is the inflation while in China and in Japan the threat is the weaken demand and the fears of recession in the first group of countries. This inevitably will lead to a recession in the Asian countries as well, but they have better chance not to experience a 'hard landing' for their economies.

The influence of the external factors over Bulgarian economy is outlined and the internal problems are discussed. The major economic indicators are given for 2021, as well as for the first three quarters of 2022. A comparisons are made between them and the situation during the pandemic and before the pandemic. Bulgarian economy is performing well having in mind the decline in the leading economies. But soon or later Bulgaria will suffer the same problems.

In the text and in the conclusion the main factors and threats are pointed out because the only solution for the inflation is the increase of the interest rates. It is a work of art to find out the proper margins for their increase because the consequences appear after six or twelve months. So if a central bank increases the interest rates too quickly, this can lead to a severe recession after a year.

Due to the constant updates of the GDP growth or inflation or other indicators if not explicitly cited the data for the leading economies is taken from the website of Reuters/Economic news (https://www.reuters.com/news/archive/economicNews) and for Bulgaria the source is the website of National Statistical Institute of Bulgaria (https://www.nsi.bg/bg) with latest access on November 18th 2022.

The world economy – facts and figures

After the sharp downturn in 2020 and the better than expected recovery in 2021 the world economy in the first half of 2022 is suffering cyclical and structural problems. Moreover, the global recession is coming. Despite the efforts of the governments all around the world the postponed cyclical recession shouldn't be stopped to happen. It is better for the economic agents to enter a recession as soon as possible, otherwise the crisis will be deep and painful. It is normal to have cyclical crisis periodically, because the inefficient companies and activities have to be replaced by new ones.

The previous crisis was the World financial and economic crisis in 2007-2009. Due to the joint efforts of the countries from G20 and the introduction of the so-called 'quantitative easing' by the central banks the world economy has recovered. Nevertheless, some problems remained in the European Union (the EU) and especially in the Eurozone – debt crisis, fragile economic growth, and low levels of inflation (sometimes deflation). Important changes happened: the growth rate of the world GDP exceeded the growth rate of the international trade (before the crisis in 2007-2009 it was vice-versa); China accepted the new 'normal' decreased growth rate of its GDP between 5-6 % per year; the usage of renewable energy resources and shorten supply chains slowed down the trade; deglobalization, etc.

It was normal to have again a crisis at the end of second decade of XXI century. Some signs of deteriorating of major macroeconomic indicators appeared in the

USA and Germany – the engine of the EU economy - in the early autumn of 2019. But another threat appeared – it was the COVID-19 pandemic and the lockdowns all around the world. The economic activity slowed down. The governments started to help households and companies with the so-called 'helicopter's money'.

The world GDP growth rate in 2020 was -3.3 percent, while in 2021 it was 5.8 percent. Aggregates are based on constant 2015 prices, expressed in U.S. dollars. GDP is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. The calculations are made using the World Bank national accounts data and OECD National Accounts data files (World Bank, 2022).

The world economy in 2021 rebounded mainly due to the strong growth in the USA, China, and India. During the second and the third quarter of 2021 a strong demand for almost all products and resources occurred. China wasn't able to meet the increased demand and disruptions in supply chains appeared. Due to the constant lockdowns in the second economy in the world the freight rates also increased. The latter also started to boost the prices.

At the same time the recovery of Chinese economy induced higher needs for energy resources. The country was facing electricity shortage, as well as a certain threat for not conducting the Olympic Winter Games in February 2022. The increased demand for energy resources appeared all around the world which combined with the Russian attempts to use the gas and oil as geopolitical weapons led to enormous increase in their prices.

So the rebound of the world economy in the second and third quarter of 2021, the increased demand for resources, semiconductors, etc., the disruption in the supply chains, the higher transport cost, the increased needs for energy resources, and the helicopter's money started to create inflation. A great mistake was made by the central banks around the world, which thought that it would be a temporary phenomenon and no actions were undertaken. The problems with inflation started to intensify after the Russian invasion in Ukraine. In March 2022 the prices of many products and commodities reached their highest levels. For example FAO Food Price Index averaged 159.3 points in March, up 12.6 percent from February and reached its highest level since its inception in 1990 (FAO, 2022). After the highest level ever FAO Food Price Index started to post several consecutive months of decline, but it measured the prices of the major food commodities at the international markets. Nevertheless, the inflations continued to soar.

The central banks started to increase interest rates in order to cool the economic activity and thus to cope with the inflation. But first higher interest rates will lead to negligible growth of GDP or recession, after that an increase in the unemployment rate is expected, and finally it can have impact on prices. A risk of stagfla-

tion appears. This means stagnation plus high rates of inflation. The debt will also increase because of the expensive US dollar at the moment.

A forgotten phenomenon appeared first in the UK and after that in many of the advanced economies. This was the so-called 'cost-of-living' crisis when the households are unable to meet their ordinary needs for food and to pay their bills. If the situation will not change, it may lead to some social unrest. Moreover, the first half of 2022 was marked by the poor economic performance of almost all leading economies. The expectations for the third quarter are also gloomy.

Gross domestic product in the G20 area fell 0.4 percent quarter-on-quarter in the second quarter of 2022 after rising by 0.5 percent in the first quarter, according to provisional estimates. The contraction in the G20 area contrasts with GDP growth of 0.4 percent in the OECD area in the second quarter of 2022 (OECD, 2022).

Table 1: GDP growth projections by year (percentage change %)

Global economy			**Advanced economies**			**Emerging markets&Developing economies**		
6	3.2	2.7	5.2	2.4	1.1	6.6	3.7	3.7
2021	2022	2023	2021	2022	2023	2021	2022	2023

Source: IMF, 'World Economic Outlook', October 2022
Note: 2021, 2022 projections, and 2023 projections

The projected growth of the world GDP can lead to a conclusion that 2021 was almost a perfect year for the economic development and for the world economy. The latter means that we should be prepared for a decline in the economic activity, especially in the advanced economies. The engine for the world economic growth will be the emerging markets and the developing economies. The geopolitical tension can further help for the better results of the second group of countries.

The International Monetary Fund also forecasts that the global inflation will increase from 4.7 percent in 2021 to 8.8 percent in 2022 and then to decline to 6.5 percent in 2023 and to 4.1 percent in 2024.

The leading economies – brief overview and outlook

A brief overview of the fourth largest economies in the world will help to trace the major trends, opportunities, and threats. The possible future development is done by the author. And at the end a forecast by IMF is cited.

The United States

The first and the second quarter of 2022 were connected with negative growth of GDP and the country fell into recession (-1.6 percent for the first three months

and -0.6 percent for the second three months compared to a year earlier). The government introduced a new term for this situation – 'a technical recession'. The industrial production, the utilization of the production capacities, and the labor productivity slowly decline. The inflation in October 2022, measured by the Consumer Price Index, increased by 7.7 percent compared to a year earlier. The inflation posted several records and was connected mainly with the increase of the prices of food at work and school, airline fares, public transportation, and health insurance. The energy is not such a factor as in the EU. The increased interest rates will lead to a decline in the housing constructions and mortgage loans, to a slowdown in the households' consumption and to a shrinkage in the companies' expenditures. The strong dollar can attract investors but it will lead to export decrease because the US goods are becoming more expensive at the international markets. Nevertheless, the labor market remains stable and the deterioration may be expected in 2023. The US economy will suffer a further decline in the economic activity and the consumers' expenditures in the fourth quarter won't save the economy as they do from time to time. The economy will continue to be in a recession till the end of the year. For 2023 a fragile economic growth is expected and the inflation growth rate will slow to 4-5 percent.

China

China has registered an increase in the GDP during the first quarter of 2022 (4.8 percent) compared to a year earlier, but mainly due to the policy of 'Zero-COVID' and the lockdowns the growth in the second quarter was only 1.0 percent. The crisis with real estates had a negative impact on the lending policy and almost led to a bankruptcy of some of the largest companies in the real estate sector. Although the producers' prices have increased, the consumer inflation is lower compared to that in the Western countries – annual average inflation in October 2022 of 2.0 percent. The Chinese export started to register an increase which could help the economy to rebound. A strong demand came from Southeast Asia, Europe, and Russia. Although the government expects a growth of 5.5 percent during the whole 2022, the COVID-19 and the global recession risk will cool the economy and the growth for 2022 is expected to be below 4 percent. The beginning of the next year will be hard for the second largest economy in the world because of the traditional severe weather conditions in the USA and part of Europe, as well as due to the energy and inflation crisis.

Japan

Japan traditionally registers lower economic growth, lower inflation, and high levels of public debt. The GDP shrank in the first quarter of 2022 by 0.5 percent compared to a year earlier and there was a 3.5 percent increase in the second quarter. The preliminary data for the third quarter shows a decrease by 1.2 percent. The inflation is below the target of the central bank of 3 percent, but it will start

to soar due to the higher prices of energy resources and the weak yen. The import has started to increase which widened the trade deficit. Probably the country will register close to 1.0 percent economic growth for 2022, but during the next year it will fall into recession.

Germany and the Eurozone

Germany registered 3.7 percent GDP growth in the first quarter of 2022 compared to the same quarter a year earlier (price and calendar adjusted), but the growth in the second quarter was only 1.7 percent. Thus Germany succeeded to reach the level of its GDP before the pandemic. The consumers' spending and the government expenditures were the main reasons 'to start again as of fourth quarter of 2019'. The export is slightly increasing. The inflationary pressure remains and the energy crisis and the disruptions in the supply chains have a negative impact on the economy. The value added in the construction sector declines which is a sign for future problems. If the geopolitical situation doesn't change soon Germany, as well as the whole European Union, will face deindustrialization and will lose their competiveness. The reason for that are the better conditions for doing business in the USA and some factories together with the employees have already changed the continent. The inflation in Germany for October 2022 is projected to be 11.6 percent compared to a year earlier. The average yearly inflation in Eurozone will reach 10.7 percent which will be again a record. The energy still is expected to have the highest annual rate in October 2022 – 41.9 percent. Some countries will reach levels of 22.4 percent (Estonia), of 22 percent (Lithuania), of 21.8 percent (Latvia), and of 16.8 percent (Netherlands) (Eurostat, 2022). Many of the countries in the European Union are facing recession and if the inflation continues to soar they will enter a stagflation and 'the cost-of-living crisis' will deepen.

Table 2: GDP growth projections by region and by year (%)

United States			**Eurozone**			**Emerging and developing Asia**		
5.7	1.6	1.1	5.2	3.1	0.5	7.2	4.4	4.9
2021	2022	2023	2021	2022	2023	2021	2022	2023

Source: IMF, World Economic Outlook, October 2022
Note: 2021, 2022 projections, and 2023 projections

The IMF projections show more optimism compared to the forecasts which were mentioned above - especially for the Eurozone during the next year. Being part of the EU it will be better for Bulgaria to have trade partners with working economies which can purchase the output the country produces.

Bulgarian main macroeconomic indicators

Bulgaria is a small and open economy and is subject to all external shocks. Unfortunately, the country remains the poorest member of the EU. During and after the World financial and economic crisis in 2007-2009 Bulgaria followed austerity measures which kept its economy alive but didn't help to reach the average EU levels in many spheres and indicators. The economic growth and the increase in the purchasing power of the population wasn't enough to counter the perception of the nation for lack of welfare. Nevertheless, before the pandemic the country was among the best performers in the EU with a view to inflation rate, budget deficit, and debt to GDP ratio which are among the technical criteria to become a part of the Eurozone. Although Bulgaria is in the so-called 'Waiting hall' at the moment the inflation rate and the expected budget deficit exceed the threshold. The proper functioning of the economy, the rule of law, and the corruption hinder the development of the economy. Although in principle Bulgaria offers attractive conditions for doing business, the abovementioned problems lead to an outflow of the investment – at the end of the first decade of XXI century the foreign direct investments were billion euros, nowadays the figures are several times smaller. The currency risk is connected only with the stability of the euro because the national currency is pegged to it. When the US dollar becomes more expensive it leads to deterioration of the Net Barter Terms of Trade, because the export is predominantly in euros while the import is predominantly in US dollars.

Table 3: Main economic indicators for Bulgaria

Indicator	Period			
	2021	Q1 2022	Q2 2022	Q3 2022
GDP growth rate (y/y, %)	7.6	5.1	4.6	3.2
Individual Consumption (y/y, %)	8.1	5.8	2.9	3.0
Gross Value Added (y/y, %)	-8.3	-7.4	-11	-8.4
GDP mln. euro (constant prices=2015)	53 570	11 436	12 898	n/a
Export of goods and services (y/y, %)	11	4.8	8.9	7.8
Import of goods and services (y/y, %)	10.9	12.3	12.3	5.3
(Export of goods and services - Import of goods and services) mln. euro (constant prices=2015)	-3 097	-1565	-1277	n/a
Industrial Production Index (y/y, %, end of the period)	14.7	19.2	17.7	11

Foreign Direct Investment mln. euro (accumulated from the beginning of the year till the end of the period)	1 205	1 379	766	1 468
Budget deficit (as % of GDP, end of the period)	-3.9	-0.5	0.1	n/a
Gross External Debt (as % of GDP, end of the period)	58.4	52.6	52.7	n/a
Unemployment rate (%, end of the period)	4.5	4.9	4.7	3.7
Inflation rate (y/y, %, end of the period)	7.8	12.4	16.9	18.7

Source: National Statistical Institute of Bulgaria; Bulgarian National Bank
Note: 2021, Q1 2022 preliminary estimates, Q2 2022 preliminary estimates, and Q3 2022 preliminary estimates

Bulgarian GDP in 2019 is 51 822 mln. euro (constant prices=2015). In 2020 there is a decrease by 4 percent due to the pandemic. The GDP rebounds in 2021 with an increase by 7.6 percent which is better than expected. Although the crises which are spreading all around the world the country succeeded to register decent growth in the first three quarters of 2022. It should be pointed out that this growth is not enough to reach the average EU level of GDP in value or per capita. As far as the absolute value of GDP (in constant prices) is concerned there is a steady increase in the past ten years but with one or two billion euro per year. Bulgaria is a country which traditionally produces products with lower value added.

The main component which leads to increase of the GDP is the **consumption** which accounts for more than 70 percent. To some extent the government spending and the export also boost the economic growth. We can trace a downward trend in the GDP growth but still the figures look quite well. The consumption growth is also declining slowly, but one of the biggest issue is the **Gross Value Added** which crumbles. **Foreign Direct Investment** (FDI) are not enough to boost the growth and we also notice an outflow of Bulgarian capital abroad. In some periods Bulgarians who don't live in the country are the largest investors with the money they send to their relatives – children, parents, etc. The data for the second quarter of 2022, concerning the FDI, shows that there is a serious outflow between the end of March 2022 and the end of June 2022. So the economy is relying predominantly on the consumption.

The **financial and fiscal policy** of the state is not consistent due to the constant premature elections for parliament which lead to a row of different governments with different views about the future development of the country. Despite this fact only in 2020 the budget deficit exceeds -3 percent threshold. Debt to GDP ratio should be below 60 percent and throughout the years Bulgaria follows strict financial discipline. The incumbent government announces that its projections for 2023 budget are 6.6 percent deficit and that it intends to draw additional 8-billion-euro

debt. After this statement it refuses to prepare a new budget for the coming year and leave the task for the eventually regular government. The execution of the budget for 2022 in 2023 without changes brings the risk of not having in mind the new realities in the national and the world economy. At the same time there were several attempts to issue new government bonds but without a success or at high prices. The latter means that the markets assess Bulgaria as a risky country. But Fitch Ratings has affirmed Bulgaria's long-term foreign-currency issuer default rating (IDR) at 'BBB' with a positive outlook.

Being in Currency Board Bulgaria could not carry out its own **monetary policy**. Bulgarian National Bank should follow the requirements and for example could not 'print money'. The only instrument remains the interest rate. The Bank decided to increase it and now it is 0.59 percent as of November 1st 2022 which is a late decision. Because of the fact that the commercial banks use other base for the calculations of the loans' interests they start to increase them which will cool the borrowing activity of households and companies.

The **unemployment rate** is at historically low levels. At the end of September 2022 it is 3.7 percent and due to the end of seasonal employment a slight increase is expected. Although the National Statistical Institute of Bulgaria calculates an increase in the salaries the rate of inflation is higher and could not compensate the workers. There is an obvious division which to some extent doesn't give a true picture over the salaries – there are some people with very high salaries (5,000.00 EUR per month for example) while the rest receive the minimum – around 350 EUR per month.

The **inflation** is soaring mainly due to the increase in the prices of energy resources, commodities, and food. The official figures show 18.7 percent at the end of September compared to a year earlier. But the feelings of the ordinary Bulgarians are for inflation rates between 30 and 70 percent for different products. The employers are not keen on increasing the salaries and their usual explanation is that the productivity has not increased to such extent. Thus many Bulgarians are below the poverty line. But if there is something positive, this the fact that the prices of electricity, heating and water are still under State Agency control. May be Bulgaria is the last country in the EU where there is such mechanism.

As far as the **foreign trade** is concerned the export of goods and services is recovering and traditionally Bulgaria has a positive trade balance with EU countries but always total negative balance when the third countries are added. The reason is the import of energy resources because Bulgaria is relying to a greater extent to Russian import of oil and gas. The government is trying to diversify the international sources of natural gas supplies but the prices are higher and it leads to further increase in the value of import. Another reason is that the country is importing many machine and equipment which leads to outflow of national income.

An outlook for Bulgarian economy

The GDP will contract in the fourth quarter of 2022 but the growth for the whole year will be around 2 percent. The reason will be the strong first quarters of 2022. The economy still has a momentum and depending on the depth of the world recession we can witness a contraction during the winter months. The industrial production and the economic activity will slow down and the economy can rely only on the consumption if the economic agents will be willing to spend. The negative effects won't appear before the beginning of the next year due to another important reason – Bulgarians spend a lot during the holidays.

The Gross Value Added and the FDI will continue to decrease because of the unwillingness of businesses to spend during uncertain times and the lack of potential investors. The neighboring countries are performing quite well in attracting different countries and enterprises. The unemployment will gradually increase.

If a regular government is not elected, then a problem with the balance of proceedings and expenditures will occur. An interim government won't undertake any actions to change the tax policy and it will be forced to draw new loans. They will be at higher prices and the budget discipline will be destroyed. As a consequence the country won't be able to meet the technical criteria for joining the Eurozone and from January 1st 2024 we will continue to use our own currency. The trust in our country will be lost.

On the other hand, the inflation will continue to rise but with lower rate. Bulgarians will become poorer and there won't be any chance of keeping their faith in the welfare the EU can give them. At the same time the EU should show unity and to try to negotiate jointly the needed energy resources.

There is something optimistic – if the projects funded by the Cohesion Funds or by the European Green Deal or by NextGenerationEU start to be executed and payments to be received it will help the economic development.

Conclusion

The world economy is exposed to a recession. The war in Ukraine, the inflation and energy crises, the shortage of semiconductors and the lack of cooperation between the major players in the world will lead to a decrease in the economic activity. The hikes in interest rates will further cool the economies and we can witness a stagnation plus high rates of inflation. The cost of living is increasing and the households are spending more on goods with short-term usage. The businesses decrease their expenditures, including the purchases and the investment in gross capital formation. The latter will weaken the demand and some enterprises will be forced to fire employees. The increase in the salaries won't be enough to cover the increase in the prices. The USA, the EU, the UK, and Japan will suffer 'soft' or 'hard lending'. The engine of the world economy growth will be India and China.

India is expected to become the fifth largest economy and thus to take the place of the United Kingdom.

Bulgaria won't remain isolated. A recession in its major export market - the EU – will lead to a decrease of the economic activity and some export-orientated enterprises will be forced to reduce the utilization of working capacities. The increase in the interest rates will cool down the loan market which will have negative effect on the construction sector. The abovementioned together with high prices will lead to lower purchasing power of Bulgarians. The savings won't be enough to fill in the gap. A contraction in GDP is expected but not earlier than the first quarter of 2023. The further development of Bulgarian economy will depend on the cyclical movement of the world economy.

References

Eurostat (2022), 'Euro area annual inflation up to 10.7 %', 31 October 2022, available at: https://ec.europa.eu/eurostat/documents/2995521/15131964/2-31102022-AP-EN.pdf/9a37ec66-2f69-5b3c-a791-662cec2f439b (accessed 05 November 2022)

IMF (2022), 'World Economic Outlook', October 2022, available at: https://www.imf.org/en/Publications/WEO/Issues/2022/10/11/world-economic-outlook-october-2022 (accessed 16 October 2022)

FAO (2022), 'FAO Food Price Index posts significant leap in March', available at: https://www.fao.org/newsroom/detail/fao-food-price-index-posts-significant-leap-in-march/en (accessed 18 October 2022)

OECD (2022), 'G20 GDP Growth', 13 September 2022, available at: https://www.oecd.org/sdd/na/g20-gdp-growth-Q2-2022.pdf (accessed 04 October 2022)

Reuters (2022) 'U.S. inflation turning the corner as consumer prices rise below expectations', November 10-th 2022, available at: https://www.reuters.com/markets/us/us-consumer-prices-increase-less-than-expected-october-2022-11-10/ (accessed 10 November 2022)

World Bank (2022), 'GDP growth (annual %)', available at: https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?end=2021&start=1961&view=chart (accessed 19 October 2022)

THE ECONOMIC DYNAMICS OF THE EU IN RELATION TO THE DYNAMICS OF THE WORLD ECONOMY FROM 1970 TO THE PRESENT

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Abstract

A comparative analysis is made of the economic dynamics of the EU in relation to the dynamics of the world economy from 1970 until now. Several economic indicators are analyzed – Gross domestic product in dollars at constant 2015 prices, exports and imports in dollars at constant 2015 prices, research and development expenditures as a percentage of GDP, and data on dealing with the coronavirus pandemic 19. The complex situation facing the world and European economies is outlined in relation to the specific moment in which they find themselves – at the bottom of the transition from the first to the second Kondratiev long waves – respectively the risks of a Great Depression and a world war.

Key words: economic dynamics of the EU, dynamics of the world economy, gross domestic product, Kondratiev waves, great depression, world war

JEL: E01, F14, I18, N10, O30, O40

Introduction: Situational analysis

Economic context

A peculiarity of the period we are considering is that at the end of the 1980s, the second Kondratiev wave of the second cycle of evolution of the world market, which began with the First Industrial Revolution in Great Britain, ended and the upward phase of the first Kondratiev wave of the third cycle of evolution of the world market began. (Найденов, Харалампиев, 2019, pp. 138-145)

For a long time, the two co-authors adhered to the periodization of world market cycles proposed by Vladimir Pantin. (Пантин, 1996, pp. 57, 58) We currently continue to consider his periodization to be correct, except for the duration of the

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last two long waves. For Pantin, last two Kondratiev waves were of shorter duration than the previous ones. According to him, they last 36 years. Which is due, according to him, to the "compression" of social time and, respectively, the shorter time – 12 years, of their descending phase. We decided to test this hypothesis with quantitative methods.

Associate Professor K. Haralampiev made an extremely labor-intensive study of whether Kondratiev waves are shortened by the moving subperiods. Six countries were studied for which there are sufficiently long time series – two from the first echelon of capitalism – Great Britain and Hungary, two from the second echelon – Russia and Bulgaria, and two from the third echelon – China and Vietnam. In the seventh chapter of our monograph – Kondratiev waves during "socialism", the results of this research are shown. (Найденов, Харалампиев, 2014, pp. 180-203) The conclusion is that in the countries of the first echelon of capitalism there is a shortening of the long waves. In the countries of the second echelon, there is a shortening, but it is not categorical and convincing. In the countries of the third echelon, there is no shortening of the long waves. Therefore, if the world economy is considered as a whole, we can say that there is a shortening of the long waves. But it is not as significant as it is according to V. Pantin. It is clear that the duration of the descending phase of the last two long waves is shorter than that of the preceding waves. That is, it is shorter than 24 years. But it is also clear that it is greater than the 12 years proposed by V. Pantin. That is why for our periodization we take the arithmetic mean of the two quantities. It is 18 years. From the Figure 1 it is evident that the decline of the economic situation will continue from the period of the economic crisis of 2008-2012 until the end of the 20s and the beginning of the 30s. After that, the rise of the second Kondratiev wave begins in the current cycle of evolution of the world market, which V. Pantin calls – Market revolution[3]. Within it, the new technologies created during the ascending phase of the first Kondratiev wave are spread within the frame of the entire world market[4]. This is happening in the conditions of a finished struggle between the old center of the world market and the new challenger. Usually, at the bottom of the transition from the first to the second Kondratiev wave the question of which country is the center of the world market is clarified through the Second World War[5]. The specificity of the current period is that the world war between the old center of world trade – the USA, and the new challenger – China, could be nuclear. That is why we will briefly say a few words about the political and military context of the current economic dynamics.

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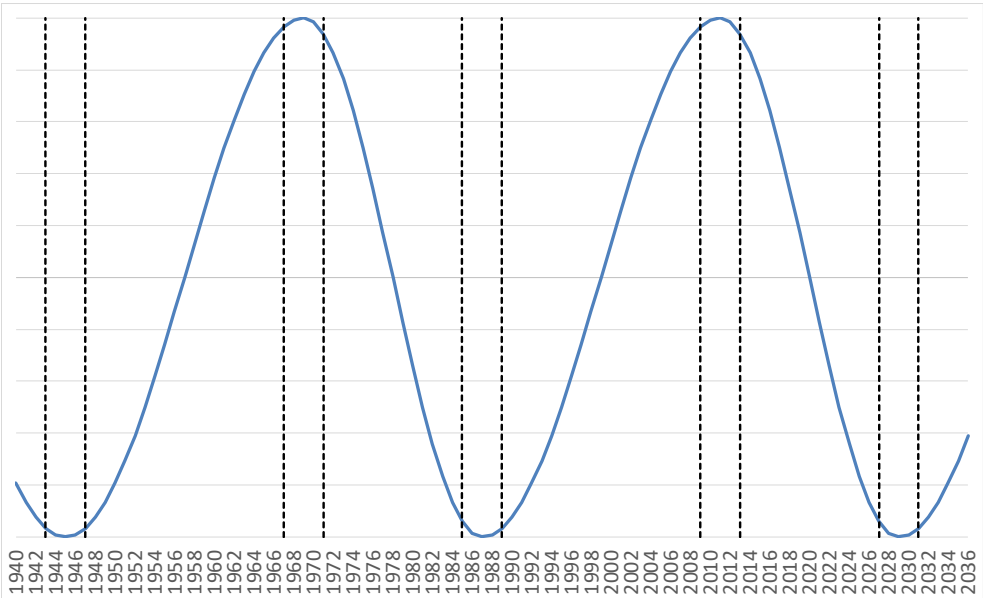
[3] Pantin calls the four phases of two Kondratiev waves, of which each cycle of world market evolution consists – Technological revolution, Great upheavals, Market revolution, Structural crisis (Пантин, 1996, pp. 57, 58)

[4] In the first wave, they cover only the market of the most developed countries.

[5] In the 19th century, World War I was in 1812 – the invasion of Napoleon Bonaparte's multinational army in multinational Russia, and World War II was the national liberation revolutions in 1848 of dozens of European nations. In the 20th century, there were two world wars – the first started in 1914, and the second in 1939.



Source: own calculation

Figure 1: Dynamics of the evolution of the world market

Political and military context

To determine which are the risk periods for a world nuclear war, we studied the dynamics of the American military budget (Найденов 2013; Найденов, Харалампиев, 2015, 2019a, 2019b). The reason we turn to studying the dynamics of the American military budget is that it is precisely these dynamics that determine the starting of major wars around the world. We found several cycles in the dynamics of the US military budget. Of these, the model of 18-year cycle is the closest to the real dynamics. This research, along with Kondratiev wave research, shows that the risk periods for a world nuclear war are 2017-2025 and 2035-2043.

And indeed – in 2019, the First World War of the current cycle of world market evolution begins. It begins as biological war. It is won by the clan of conditional Rothschilds. That is, from the British Anglo-Saxon and British Jewish elites, who linked their economic activity since the middle of the 19th century with the economic activity of the Han people[6]. Whether by 2025 the biological war will

[6] After Britain's opium wars against the Chinese Empire in the 1840s and 1860s, the British elite settled permanently in the territories inhabited by the Han people. Until now, the British Anglo-Saxon and British Jewish elites have close economic, political, cultural, etc. links with the Han elite in the following Han-populated countries – China, Hong Kong, Taiwan, Macau and Singapore. The British elite actively invested in the territories inhabited by the Han people. This choice – to bet on the Han people, especially when Britain's colonies in North America are the most economically dynamic region in the world, shows the pragmatism of

turn into a nuclear war depends solely on the Rothschild clan. After 27.02.2022, when Putin, in his capacity as commander-in-chief, issues an order to bring the strategic deterrent forces into a special mode of combat duty, it means that the Rothschilds now have Putin's nuclear "stick". It means that they can secure the "New Silk Road" by swinging the "stick". But whether they will just "swing" it or use it, the future will tell.

What are the economic dynamics of the EU compared to the dynamics of the world economy within the explained economic, political and military context?

Data and results

Dynamics of the Gross Domestic Product

Both the world economy and the EU economy entered the two latest economic crises synchronously. In 2008 and 2009, the world economy declined from $62,881,953,551.6 to $62,048,244,546,206.9 (See Figure 2). In the same years, the EU economy decreased from $13,187,461,029,195.9 to $12,614,061,684,415.7. The decline of the EU economy is more serious than that of the entire world. The relative share of the EU economy to the world economy falls from 21.0% to 20.3%.

In the next crisis – in 2019, 2020, the decline of the world economy is from $84,670,747,922,773.3 to $81,900,982,470,406.4. In the same years, the EU economy decreased from $14,772,269,194,026.8 to $13,892,463,409,192.3. Once again, the decline of the EU economy is more serious than that of the whole world. The relative share of the EU economy to the world economy falls from 17.4% to 17.0%.

In fact, for the entire period from 1970 until now, the relative share of the EU economy to the world economy has been falling. In 1970 it was 28.4%, and in 2021 – 16.9%. It can be seen that its reduction within half a century is very significant. Its relative share falls by 11.5 percentage points. The growth rates of the world economy are much higher than the growth rates of the EU economy. Apropos, this is quite natural. Almost always the economies of industrializing countries are higher than those of countries where initial industrialization has ended.

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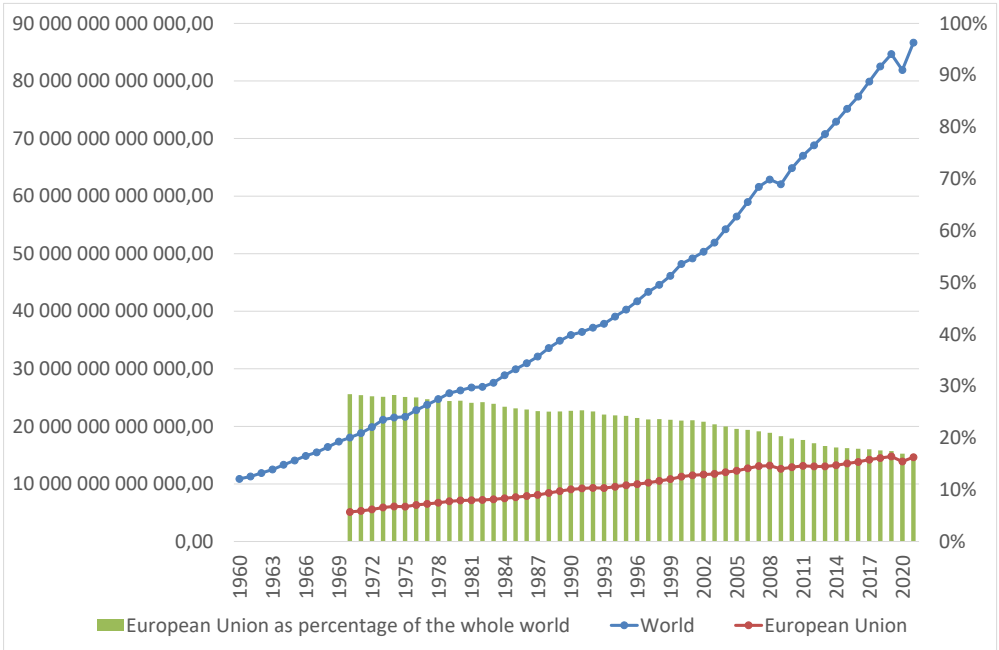
the British elite. It is very indicative of the direction of the economic interests of the British Anglo-Saxon and British Jewish elite that the Rothschild clan moved its headquarters from London to Singapore.



Source: own calculation based on data from World Bank

Figure 2: GDP in dollars at constant 2015 prices

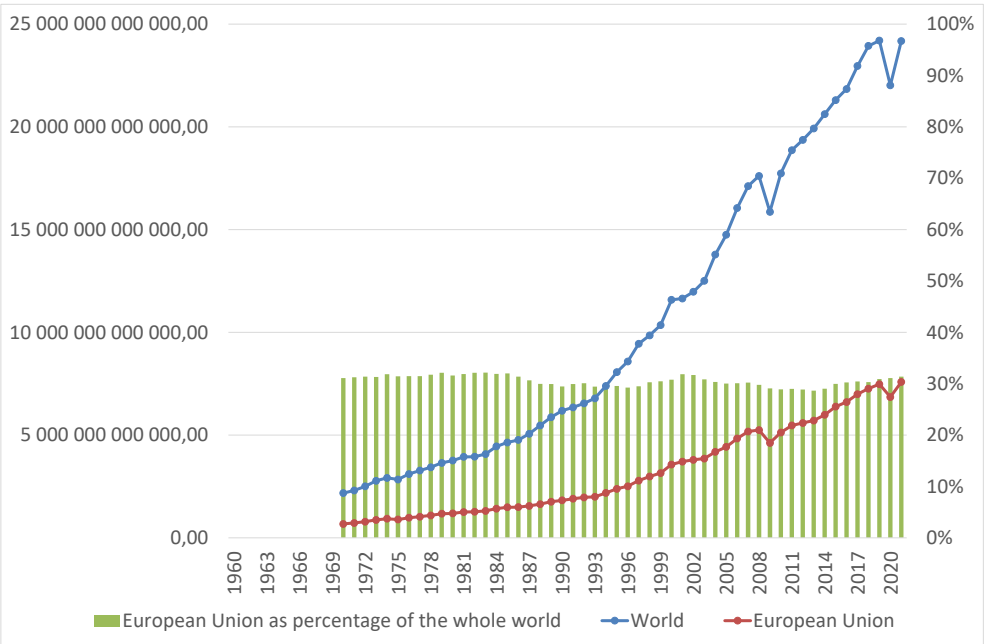
Exports of the world economy and the EU economy

We find that both in terms of Gross Domestic Product and exports, the world economy and the EU economy are synchronously falling into a "hole" in the two most recent economic crises. In 2008 and 2009, the world economy's exports fell from $17,610,843,619,704.6 to $15,865,353,106,978.9 (See Figure 3). In the same years, the exports of the EU economy decreased from $5,242,797,710,666.06 to $4,617,442,587,747.54. The decline in exports of the EU economy is more serious than that of the whole world. The relative share of exports of the EU economy to the world economy fell from 29.8% to 29.1%.

During the next crisis – in 2019, 2020, the drop in exports of the world economy is from $24,198,765,707,248.5 to $22,019,068,531,845.7. In the same years, the exports of the EU economy decreased from $7,478,864,398,483.03 to $6,848,005,731,463.08. In this crisis, however, the decline in exports of the EU economy is smaller than that of the whole world. The relative share of exports of the EU economy to the world economy increased from 30.9% to 31.1%.

Regarding the relative share of the exports of the EU economy to the world economy, we see that, in general, for the studied period – from 1970 until now, it remains at a relatively high level. In 1970 it was 31.1%. In 2021 it is 31.4%. There are fluctuations in different years. But they are not large. Maintaining the

high relative share of exports of the EU economy to the world economy is a very interesting fact. We will discuss it after looking at the dynamics of imports in the development of the world economy and that of the EU.



Source: own calculation based on data from World Bank

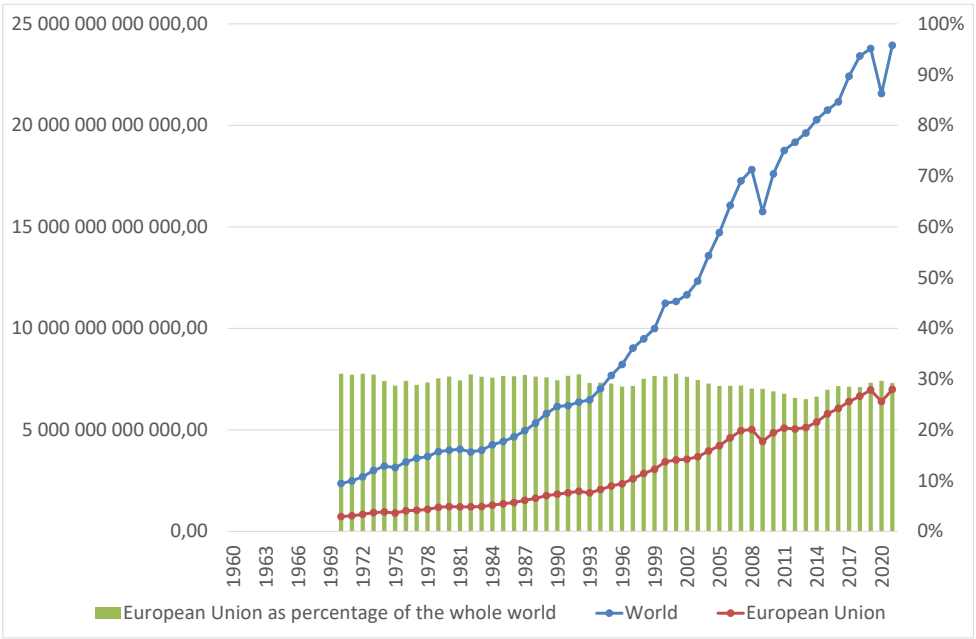
Figure 3: Exports in dollars at constant 2015 prices

Imports of the world economy and the EU economy

We find that in both exports and imports, the world economy and the EU economy have synchronously fallen into a "hole" in the two most recent economic crises. In 2008 and 2009, the world economy's imports fell from $17,823,757,641,156.6 to $15,750,854,984,949.0 (See Figure 4). In the same years, the imports of the EU economy decreased from $5,015,265,606,176.36 to $4,424,817,343,825.53. The rate of decline in imports of the EU economy and that of the whole world is the same. The relative share of imports of the EU economy to the world economy was 28.1%, both in 2008 and 2009.

During the next crisis – in 2019, 2020, the drop in imports of the world economy is from $23,785,047,769,998.9 to $21,566,816,267,515.1. In the same years, the imports of the EU economy decreased from $6,964,770,743,813.71 to $6,392,293,609,720.90 dollars. In this crisis, the fall in imports of the EU economy is less than that of the whole world. The relative share of imports of the EU economy to the world economy increased from 28.4% to 29.3%.

Regarding the relative share of imports of the EU economy to the world economy, we see that, in general, for the studied period – from 1970 until now, it remains at a relatively high level. In 1970 it was 31.1%. In 2021 it is 29.2%. As with exports, there are fluctuations from year to year. But they are not large.



Source: own calculation based on data from World Bank

Figure 4: Imports in dollars at constant 2015 prices

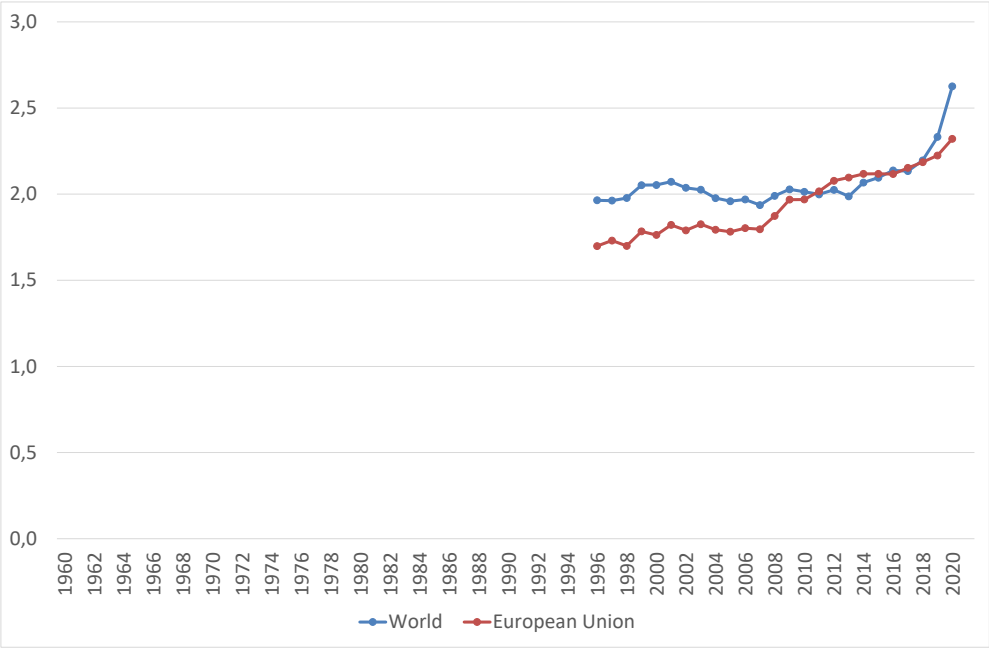
How can we explain the preservation of the high relative share of exports and imports of the EU economy to the world economy, given that the relative share of the EU's GDP to the world economy during this period is significantly decreasing?

The main reason for this "strangeness" is that in developing countries the share of natural economy and simple commodity production is still high. A significant part of their economy is not included in the international market. The social division of labor in them is still much less developed, compared to that of the EU countries. GDP in developing countries is increasing – both due to ongoing industrialization and population growth. But the participation of these countries in the international division of labor, respectively in international trade, still cannot overcome the dominance of the EU.

Investments in research and development are of great importance for the development of the economy. That's why we're going to investigate:

Research and development expenditures as a percentage of GDP

It can be seen that from 1996 to 2008 research and development expenditures as a percentage of GDP in the world were higher than in the EU (See Figure 5). In 1996, global expenditures were 2.0%, while in the EU they were 1.7%. Gradually, the expenditures in the EU increased and in 2009 they became equal to those in the world – 2.0%. After that, for a period of time, the expenditures are the same, and even in three years – 2012, 2013 and 2017, the EU expenditures on research and development as a percentage of GDP are higher than in the world. Since 2019, however, global expenditures are once again higher than in the EU – 2.6% versus 2.3% in 2020. Overall, research and development expenditures as a percentage of GDP are increasing both globally and in the EU. However, the trend is not in favor of the EU, as the relative share of its GDP compared to that of the world is steadily decreasing. Accordingly, even if it maintains its balance of research and development expenditures as a percentage of GDP relative to the world, the EU's scientific and technological progress will slow down compared to that of the world.



Source: own calculation based on data from World Bank

Figure 5: Research and development expenditures as a percentage of GDP

Finally, we will look at one more indicator – data on the coronavirus pandemic, and how the world and the EU are dealing with it. The pandemic is a social, not an economic indicator. But it strongly influences economic development.

The Covid-19 pandemic and how the world and the EU are dealing with it

Before analyzing the data, we want to note an interesting point about the role of the pandemic in the current economic crisis. Most authors consider the pandemic as the main cause of the crisis. However, some are not of this opinion. For example, Rickards correctly notes that depression begins before the Covid-19 epidemic. That is, the epidemic itself is not the cause of the depression. The epidemic is a factor that deepens the crisis phenomena. He makes a relevant criticism of the anti-epidemic measures. He convincingly proves that many of these measures are unnecessary, that they have dramatic consequences for the economy without being fatally necessary. In the future, he writes, "the quarantining of the American economy will be seen as the greatest political blunder of all time. Lost production and lost income are measured in the trillions of dollars. Any mention of lives saved or damage avoided would be irrelevant because effective tools of influence were available which were not implemented." (Рикардс, 2020, p. 19)

Delyagin's opinion is similar. According to him, "At the global level, the coronavirus is an ideal camouflage and excuse for the objectively inevitable collapse of global markets and the world's sinking into global depression. Now the eternal rule applies that if you cannot avoid a catastrophe, then you must lead it and make it manageable, so that you preserve yourself and eliminate the competitors." (Делягин, 2020)

Outside the topic of our article are the questions – is the origin of the virus natural or artificial; the old center of world trade – the USA, or the new challenger – China, "released" the virus, etc (Найденов, 2020). What we need to reveal from the data is – the EU is better or worse at handling the pandemic, compared to the whole world.

The data show that (See Table 1):

- The number of Covid-19 total cases per million population in the EU exceeds the number of total cases per million population in the world as a whole by 4.8 times;
- Deaths per million population in the EU exceeds deaths per million population in the world as a whole by 2.2 times;
- The deaths-to-cases ratio in the EU is more than two times less that of the world as a whole.

Table 1: Data on the Covid-19 pandemic

Country	Total cases	Deaths	Total cases per million population	Deaths per million population	Deaths-to-cases ratio	Population
World	575,510,807	6,403,964	73,833.00	821.57	1.1	7,794,763,954
European Union	156,784,678	802,551	352,479.20	1,804.27	0.5	444,805,472

Source: own calculation based on data from https://www.worldometers.info/coronavirus/

The conclusions we can draw are that:

- In the EU the virus is spreading much faster and "more successfully" than in the rest of the world. The reasons for this should be investigated very thoroughly. However, several factors undoubtedly have an impact – the greater density of the population in the EU, the high rate of immigration to the EU, which "compress" contacts between people, and the higher aging of the population in the EU compared to the world population. Undoubtedly, another factor has an influence, which, however, is of a "partial" nature. The ineffectiveness and inadequacy of the measures being taken in the EU, compared to the countries where the Han people predominate. Which is due to a certain extent to the technological backwardness of the EU from the countries of the Han people.
- Medical care in the EU, compared to medical care in the whole world, is at a significantly higher level. The fact that the deaths-to-cases ratio in the EU is more than twice as low as that of the world as a whole means that the health care system in the EU is in a much better state than in the rest of the world.

Conclusion

Although after the 2008-2012 crisis the world economy is in the downward phase of the first Kondratiev wave of the current cycle of world market evolution, both the world economy and the EU economy are developing relatively successfully. Undoubtedly, the economic situation is deteriorating. Already in the mandate of Donald Trump serious problems of the economic situation began. The USA is beginning to conduct an increasingly protectionist policy, to impose restrictions on its trade relations with China and Russia. As European elites find themselves in vassalage to American and British Anglo-Saxon and Jewish elites, the EU also begins to impose restrictions and sanctions in its economic and other relations with Russia and China. In particular, sanctions and restrictions are being strengthened after the start of Russia's special military operation to de-Nazify and demilitarize Ukraine in early 2022. Sanctions lead to a sharp decrease in natural gas imports from Russia to the EU. This makes serious difficulties for the economy and the population of the EU. Public opinion in EU countries is divided on the need for these sanctions. As a result of the sanctions the price of natural gas increases. Inflation is increasing in the EU. Dissatisfaction is growing both among businesses and among the population. Political instability is emerging in many EU countries, in particular in Bulgaria. Whether the worsening economic situation and political instability will lead to an escalation of biological war into a global nuclear war by 2025 remains to be seen. The fact is that the challenger for the new center of world trade – China, in these complex conditions is doing better than the old center – the USA. If the rivalry between them is resolved through biological rather than nuclear war, this is a chance for humanity's survival. We are all interested the clan of the British Anglo-Saxon and British Jewish elites, who are in symbiosis with the Han elite (the conditional Rothschilds) to win victory over the American Anglo-

Saxon and American Jewish elite (the conditional Rockefellers), without the use of nuclear weapons (Найденов, Харалампиев, 2019, pp. 155-214).

Acknowledgements

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References

Делягин, М. (2020), „Пандемията като инструмент за преобразуване на човечеството“, достъпно на: https://www.zakazanlak.bg/blgariya-i-sveta-34/pandemiyata-kato-instrument-za-preobrazuvane-na-chovechestvoto-11040 (дата на достъп 29 март 2022) (Delyagin, M., 2020. "Pandemiyata kato instrument za preobrazuvane na chovechestvoto", available at: https://www.zakazanlak.bg/blgariya-i-sveta-34/pandemiyata-kato-instrument-za-preobrazuvane-na-chovechestvoto-11040, accessed 29 March 2022)

Найденов, Г. (2013), „Изтребление и рискове от световна война“, в Етиката в българската правна система, сборник с доклади от осмата национална конференция по етика, София, България, 2012, Издателски комплекс – УНСС, София (Naydenov, G., 2013, "Iztreblenie i riskove ot svetovna voyna", in Etikata v balgarskata pravna sistema, sbornik s dokladi ot osmata natsionalna kinferentsiya po etika, Sofia, Bulgaria, 2012, Izdatelski kompleks – UNSS, Sofia)

Найденов, Г. (2020), „Коронавирусът и Третата световна война“, Политически хоризонти, година IV, брой 2, стр. 28-40 (Naydenov, G., 2020, "Koronavirusat i Tretata svetovna voyna", Politicheski horizonti, Vol. IV, No. 2, pp. 28-40)

Найденов, Г. и Харалампиев, К. (2014), Дългите вълни на Кондратиев при „социализма“, Издателски комплекс – УНСС, София (Naydenov, G. and Haralampiev, K., 2014. Dalgite valni na Kondratiev pri "sotsializma", Izdatelski kompleks – UNSS, Sofia)

Найденов, Г. и Харалампиев, К. (2015), „Локални и глобални рискови фактори за развитието на България и света през второто десетилетие на XXI век“, Годишник на УНСС, Философия на икономиката, стр. 49-98 (Naydenov, G. and Haralampiev. K., 2015. "Lokalni i globalni riskovi faktori za razvitieto na Balgariya i sveta prez vtoroto desetiletie na XXI vek", Godishnik na UNSS, Filosofiya na ikonomikata, pp. 49-98)

Найденов, Г. и Харалампиев, К. (2019a), Рискове и социални трансформации, Издателски комплекс – УНСС, София (Naydenov, G. and Haralampiev. K., 2019a. Riskove i sotsialni transformatsii, Izdatelski kompleks – UNSS, Sofia)

Найденов, Г. и Харалампиев, К. (2019b), „Третият арбитраж – апокалипсис сега? Или по-късно?“, в Науката в полза на обществото, сборник, посветен на 70-годишнината на проф. д.с.н. Духомир Минев, издателство на

БАН „Проф. Марин Дринов“, София, стр. 133-147 (Naydenov, G. and Haralampiev. K., 2019b. “Tretiyat arbitrazh – apokalipsis sega? Ili po-kasno?”, in Naukata v polza na obshestvoto, sbornik, posveten na 70-godishninata na prof. d.s.n. Duhomir Minev, izdatelstvo na BAN “Prof. Marin Drinov”, Sofia, pp. 133-147)

Пантин, В. (1996), Циклы и ритмы истории, Аракс, Рязан (Pantin, B., 1996. Tsikli i ritmi istorii, Araks, Ryazan)

Рикардс, Д. (2020), Новата велика депресия – Печеливши и губещи в постпандемичния свят, Кръгозор, София (Rikards, D., 2020. Novata velika depresiya – Pechelivshi i gubeshti v postpandemichniya svyat, Kragoazor, Sofia)

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THE ECONOMIC DYNAMICS OF THE EU IN RELATION TO THE DYNAMICS OF THE WORLD ECONOMY FROM 1970 TO THE PRESENT

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Abstract

A comparative analysis is made of the economic dynamics of the EU in relation to the dynamics of the world economy from 1970 until now. Several economic indicators are analyzed – Gross domestic product in dollars at constant 2015 prices, exports and imports in dollars at constant 2015 prices, research and development expenditures as a percentage of GDP, and data on dealing with the coronavirus pandemic 19. The complex situation facing the world and European economies is outlined in relation to the specific moment in which they find themselves – at the bottom of the transition from the first to the second Kondratiev long waves – respectively the risks of a Great Depression and a world war.

Key words: economic dynamics of the EU, dynamics of the world economy, gross domestic product, Kondratiev waves, great depression, world war

JEL: E01, F14, I18, N10, O30, O40

HOW TO MEASURE COHESION IN THE EU?

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Summary

To implement common policies in the EU, the Member States need to have a very strong cohesion among them in all the three dimensions of the cohesion specified in the EU treaties - economic cohesion, social cohesion, and territorial cohesion. But how do we determine the size of cohesion? How can we assess whether the financial means used for cohesion measures in the EU have in fact given the necessary result? If we want to measure cohesion, we must define a proper set of indicators that actually measure it and not only various side effects associated with it. This article examines two possible approaches to assessing cohesion in the EU. The first of them is labeled by the author as a traditional approach. It is based on the understanding that the convergence process is a kind of catch-up development of the Member States and regions that lag EU average in various aspects. Another approach proposed by the author is labeled as a new approach and is focused more on the fitness and readiness of Member States and regions to function together as one organism.

Key words: cohesion, cohesion policy, cohesion indicators, European Union

JEL: C83, F15,

Introduction

It is well known that the term "cohesion" first appeared in research publications in the 17th century related to Physics and Chemistry. Cohesion is described as a force capable to hold together molecules of a chemical substance. Later, in the 20th century cohesion becomes a new meaning in the form of "social cohesion", which is a force keeping together different social groups in a society, regardless of their ethnic, racial or gender differences (Stanley, 2003).

In publications of EU institutions, it can be read that cohesion is "an Overall Value of the European Union" (European Committee of the Regions, 2021), but unfortunately the legal acts and other documents of the EU institutions lack a clear definition of the term "cohesion". It is only assumed that cohesion refers to the force that brings member states, regions, and people together. In Article 3 of the

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Treaty on European Union we can read that the union "…shall promote economic, social and territorial cohesion, and solidarity among member States" (European Union, 2012). Recently, public attention has focused on a new concept related to cohesion in the EU, namely the so-called cohesion spirit, assuming that it should cover, if not all, then almost all EU policies, similar to the approach already used to introduce environmental norms into all EU policies (European Committee of the Regions, 2021).

But why is exactly the correct evaluation of EU cohesion so important?

Firstly, because the EU's cohesion policy is quite expensive, and its effectiveness needs to be carefully monitored. According to the European Court of Auditors "the EU's economic, social and territorial Cohesion policy accounts for around one third of overall spending under the EU budget" (European Court of Auditors, 2020, p. 4).

Secondly, several EU policies depend strongly on the level of the EU cohesion. If we take, for example, EU economic cohesion we can find out that higher cohesion means much lower costs for companies to implement different regulations concerning proper functioning of the EU single internal market, the Climate and environment policy, Competition policy and some sectoral policies like the Common agricultural policy, Transport policy, and Energy policy. Higher economic cohesion in the EU also means a better functioning of the Eurozone, because the monetary policy of the Central Bank strongly depends on economic convergence among Eurozone Member States. A greater similarity in export specialization thanks to successful economic cohesion means a better functioning of the EU Customs union, Common commercial policy and other aspects of the EU foreign relations. Higher economic cohesion also means a higher energy efficiency which facilitates implementation of the EU Climate policy.

Regarding the EU social cohesion we can say that higher cohesion means successful creation of a single EU social model and in that way an opportunity for better functioning of a common social policy as well as of a common policy in supplying society with different social services like health care, education, etc. Higher social cohesion in Europe also means bridging the gap between West and East, creating preconditions for a more efficient common foreign and security policy.

Territorial cohesion means for the business lower logistic and transport costs, more intra-EU tourism, better functioning of the Customs union. Developing of an intra-EU system for transmission of gas and electricity gives a better chance of implementation of the EU Energy policy, of achieving the EU climate goals. Creation of an EU Single information area is impossible without the development of a sophisticated intra-EU communications network.

And thirdly, because cohesion in the EU aims to correct imbalances between countries and regions and in this way to strengthen solidarity and justice and especially solidarity and justice are what the EU strongly needs in the present situ-

ation of high turbulences after Brexit and Covid-19 and in the time of the war in Ukraine.

Traditional approach to cohesion assessment

Without any doubt the GDP per capita indicator is the most synthesized indicator for measuring cohesion between states or regions in the EU. It has been used in this direction by several authors (Bal-Domańska, Sobczak, 2016; Hadjinikolov, 2017, etc.). The presumption is that the more similar the results of different member states or regions are, the stronger the cohesion is, and vice versa, the greater the deviations are from the average level, the weaker the cohesion is. The main handy tool for measuring differences (or similarities) is mean average deviation (MAD) with the following formula:

$$MAD = \frac{1}{n} \sum_{i=1}^{n} [x_i - \mu]$$

where, $n = 28$ *(the number of EU member states),* x_i *is the GDP per capita in the member state* i*, while* μ *is the mean size of GDP per capita in the EU.*

In addition, the Coefficient of Variation can be calculated. The formula is:

$$CV = \frac{MAD}{\mu} \times 100$$ *where,* μ*, represents the mean.*

Both of these instruments, of course, can be used also to establish differences (similarities) in other cohesion indicators like "People at risk of poverty and social exclusion", "Export specialisation", or even in such an indicator as "Total length of motorways (km) per 1000 km2 territory.

Some authors use more complex models like Propensity Score Matching (PSM) (Bal-Domańska, Sobczak, 2016), Structural Equation Modelling (SEM) (Maucorps, Jestl, Römisch, 2020), Markov Chains Method (Begu, 2011), or Regression-Discontinuity Design (RDD) (Becker, Egger, Ehrlich, 2010). Regardless of how complex the method applied by the authors is, the goal is always similar - to determine the reduction or increase of differences between the subjects due to the EU cohesion process.

But why this traditional "catch-up approach" to cohesion estimation is not enough for decision making bodies and researchers? Because although catch-up development is an important sign of increasing cohesion, it is not really the core aim of the cohesion process in the EU. If we compare the German unification at the end of the last century with the cohesion process in the EU, we can say that the catch-up development of the eastern German Länder (provinces) was essential, but the main condition for the success of the unification was another - the creation of a functioning single economy, a functioning single social and political system. We can say that if the EU wants to become a single economic and political system it

has to follow the way of the German unification and to use the Cohesion policy in the same direction as it was done in Germany in the late 90s. But if we formulate the goal of cohesion in this way, then we cannot accept the use of only criteria and methods that measure convergence (similarity) without considering the goal of the cohesion process. The United Kingdom, for example, was very close in several economic and social parameters to the core of the EU, and this did not prevent it from leaving the union.

What should be done?

In short, for measuring of all three types of cohesion in the EU, we should use not only criteria that measure degree of achieved structural homogeneity among member states and regions, reflecting in catch-up development, but we should use also criteria measuring achieved fitness of member states and regions to function together as one single organism.

There are already some significant achievements in this direction, such as the EU Cohesion Monitor. Several indicators, included in this instrument are oriented on the goal of the EU cohesion and not only to the catch-up aspect of cohesion. Such indicators are for example: "Citizens of other EU countries", "Visited another EU country", "Socialised with people from other EU countries", "Trade in goods with the EU", "Trade in services with the EU", "Trade openness towards the EU", "EU spending in country", "Contribution to the EU budget", "Number of opt-outs in policy integration", "Single market transposition deficit", "Single market infringements", "Participation in multinational deployments", "Multinational commands and forces" ((European Council on Foreign Relations, 2022).

At the same time, however, some criticisms can be made regarding EU Cohesion Monitor. Above all, too many criteria are based on the subjective assessment of the EU citizens surveyed. How Europeans feel about European integration is important, but no less important is whether there are objective prerequisites for achieving high cohesion. For example, citizens of a country like Albania may have a very positive perception of European integration, but does this mean that Albania is highly involved in the European cohesion process? That's why it would be good if more indicators were included in the monitoring, which are by relating statistics. Another critical note is that the monitoring lacks indicators to measure territorial cohesion in the EU. Greater attention should also be paid to the ability of not only citizens but also businesses to cooperate, as well as the effectiveness of European instruments to create a better business environment at the Union level.

Some proposals

Based on the postulate presented above for orienting the cohesion indicators towards the goal of cohesion, we could make some proposals.

Table 1: Proposals in the field of EU economic cohesion

Indicator	Affected EU policies
Schengen area population proportion to EU population	Internal labour market, Single visa policy, Common asylum policy
Euro area population proportion to EU population	Single monetary policy, Internal market for goods, services, and capital
Share of intra-Union FDI flow and stock	Capital markets union, Securitization of economy
Number of non-German EU companies listed on Frankfurt Stock Exchange	Capital markets union, Securitization of economy
Number of European Commission investigations into infringement of EU internal market rules	Competition policy, Internal market for goods, services, and capital
Number of European Commission investigations into infringement of EU customs union rules	Single customs policy, Common trade policy,
Number of enterprises included in European business register	Enterprise policy, Internal market for goods and services
Number of enterprises included in European patent register	Innovation policy, Enterprise policy, Internal market for goods and services

Source: The author

Table 2: Proposals in the field of EU social cohesion

Indicator	Affected EU policies
EU budget proportion to EU GDP	Social policy, Environment and climate change policy, Education, Healthcare, Europe in the world, European Neighbourhood Policy, Justice, and Home Affairs, etc.
Cohesion expenditures proportion to EU budget total expenditures	Social policy, Environment and climate change policy, Education, Healthcare, etc.

Share in EU employment by citizens of member state different from state of employment	Social policy, Enterprise policy, Competition policy
Share in EU total number of students by students of member state different from state of studying	Education, Innovation policy
Number of EU citizens receiving a pension from a member state different from state of permanent residence	Social policy, European Pillar of Social Rights
Value of medical services received in the EU by citizens different from state of permanent residency	Healthcare, European Pillar of Social Rights
Number of EU citizens supported by Union level programs for employment	Employment policy, European Pillar of Social Rights Action Plan
Number of Union level programs supporting healthcare in the EU	Healthcare, European Pillar of Social Rights

Source: The author

Table 3: Proposals in the field of EU territorial cohesion

Indicator	Affected EU policies
Length of completed cross-border transport corridors	Transport policy, Internal market for goods and services, Environment, and climate change policy
Average speed on cross-border transport corridors	Transport policy, Internal market for goods and services, Tourism policy
Length of completed cross-border gas pipelines	Energy union, Environment, and climate change policy
Share of intra-EU electricity exports in total EU electricity exports	Energy union, Environment, and climate change policy, Internal market for goods and services, Competition policy
Number of member states‘ violations of common rules in energy	Energy union, Environment, and climate change policy, Internal market for goods and services, Competition policy
Volume of data transmitted via intra-EU roaming	Internal market for goods and services, Competition policy, Consumer policy
Number of member states‘ violations of common rules in telecommunications	Internal market for goods and services, Competition policy, Consumer policy

Source: The author

Conclusions

Cohesion in the EU has a very high economic, social and political price and therefore its precise assessment is a must.

Traditional approach (“catch-up approach”) is not enough for strict assessment of the level of cohesion in the EU.

We must find criteria for measuring the fitness and readiness of member states, and regions to function together as one single organism.

The specified criteria must cover all three forms of cohesion in the EU - economic, social, and territorial.

Bibliography

Bal-Domańska, B., Sobczak, E., (2016), *On the Relationships between Smart Growth and Cohesion Indicators in the EU Countries*. Statistics in Transition, Vol. 17, No. 2, Wrozlaw, pp. 249-264.

Becker, S., Egger, P., Ehrlich, M. (2010) *Going NUTS: The effect of EU Structural Funds on regional performance*, Journal of Public Economics, 94 (9-10), pp. 578-590.

Begu, L.-S. (2011) Cohesion in the European Union – Used Markov Chains Method, Review of General Management Volume 14, Issue 2, pp. 91 – 96.

European Committee of the Regions (2021) *Cohesion as an Overall Value of the European Union,* Brussels.

European Council on Foreign relations (2022) *EU Cohesion Monitor*. Available at: EU Cohesion Monitor – European Council on Foreign Relations (ecfr.eu). Accessed: 02.10,2022.

European Court of Auditors (2020) *Implementing Cohesion policy: comparatively low costs, but insufficient information to assess simplification savings*, Special report 07, Luxembourg,

European Union (2012) *Consolidated version of the Treaty on European Union*, Official Journal if the European Union, C326/17, 26.10.2012, Brussels.

Hadjinikolov, D. (2017) *Bulgaria in the EU Cohesion Process,* Economic Alternatives, 2017, Issue 2, pp. 213-225.

Maucorps, A., Jestl, S., Römisch, R. (2020) *The Effects of the EU Cohesion Policy on Regional Economic Growth: Using Structural Equation Modelling for Impact Assessment*, wiiw, Working Paper 185.

Stanley, D., (2003), *What Do We Know about Social Cohesion: The Research Perspective of the Federal Government's Social Cohesion Research Network*. The Canadian Journal of Sociology, Vol. 28, No. 1, Special Issue on Social Cohesion in Canada (Winter, 2003), Montréal, pp. 5-17.

Todorova-Petkova, S. (2021) *Problemi pred sblizhavaneto na planovite rajoni v Bulgaria*, Narodostopanski arhiv, (4), pp. 57-72 [Тодорова-Петкова, С. (2021) *Проблеми пред сближаването на плановите райони в България,* Народностопански архив, (4), с. 57-72].

BULGARIA AND THE EU CONVERGENCE REPORTS FROM 2022

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Abstract

The 2022 Convergence Reports from the European Commission and European Central Bank are currently the last official assessments of the preparedness of the EU Member States that are outside the euro area about their readiness to adopt the euro. In these reports only Croatia was assessed as a Member State that is ready to adopt the euro. The paper will analyse the assessment of the EU institutions on the Bulgaria readiness to adopt the euro. The initial reading of the reports may suggest that they are not too positive about Bulgaria as there are several requirements that shall be further met in the short to medium term, including in relation to the price stability and the need to further amend the legal framework. However, these reports contain also many good news for Bulgaria that will be the focus of the current research.

Key words: Euro Area, Bulgaria, accession, convergence criteria

JEL classification: E02, F02

1. Introduction

The European Central Bank and the European Commission issued their last regular Convergence Reports in June 2022 for the preparedness of the EU Member States outside the euro area to join the single currency.[2] These reports have been issued in accordance with the provisions of Article 140 from the Treaty on the Functioning of the EU (TFEU).[3]

The two reports have made an assessment of seven out of the eight EU Member States outside the euro area, namely: Bulgaria, Croatia, Czechia, Hungary, Poland, Romania and Sweden. Denmark has still its "opt-out" clause for entering in the

[1] The views expressed in this paper are personal and they do not engage the institutions in which the author works.

[2] See: European Commission, *Convergence Report*, Institutional Paper 179, June 2022, ISSN 2443-8014 (online) and European Central Bank, *Convergence Report*, June 2022, ISSN 1725-9525.

[3] See: Consolidated version of the Treaty on the Functioning of the European Union, OJ C 326, 26.10.2012., p. 47—390.

last stage of the EMU and as it did not express intention to join the euro, it is not subject to the convergence monitoring by the EC and ECB.

The EC and ECB reports concluded that Croatia fulfills all the convergence criteria. In addition, its legislation is in full compliance with the provisions of the TFEU and the Statute of the European System of Central Banks and of the ECB (the Statute). It is projected Croatia's accession to the euro to happen from 1 January 2023.[4]

Bulgaria and the other five EU Member States outside the euro area that are assessed in the reports *do not fulfil* all the convergence criteria and they are not ready yet to adopt the euro. This fact and the initial reading of the two reports from the Commission and the ECB may lead to a conclusion that they are not too positive about Bulgaria in relation to its readiness to adopt soon the single currency. The main requirements that shall be further met in the short to medium term by Bulgaria are related to the price stability and the need to further amend the national legal framework to respond to the TFEU and the Statute. Some additional factors or "soft requirements" shall be also further improved by the country. There is a need also to keep public finances stable.

However, the two reports contain also many good news for Bulgaria that will be the main focus of the current research. The first one is namely the accession of Croatia to the euro. This fact demonstrates that the enlargement of the euro area is still a priority in the EU and that even in difficult times (Brexit, pandemia, the war against Ukraine, energy and supply crises, etc.) the accession to the euro is possible for other Member States too. On the other hand, Bulgaria continues to fulfil the majority of the convergence criteria and now, after the 2020 accession to the ERM II and the Banking Union, it is closer to euro area accession. Last but not least, the non-compliance in relation to the price stability is not too high at this stage and Bulgaria is assessed with a level of inflation of only 1 percent above the reference value. All these facts and figures may allow Bulgaria to join soon the euro, if the internal and external conditions are favourable and the euro area accession remains a priority for the country.

This paper is structured in the following way. The section afterwards provides data on the criteria that are fulfilled by Bulgaria in accordance with the 2022 Commission and the ECB reports. The section afterwards provides details on the criteria and factors that are still not met by the country. The following section is making an assessment of the implications for Bulgaria from the Croatia's accession to the euro area. The last section concludes.

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[4] See: European Commission, *Convergence Report Reviews Member States' preparedness to join the Euro Area and Paves the Way for Croatia's Euro Adoption on 1 January 2023*, Press Release, Brussels, 1 June 2022.

2. Bulgaria meets the majority of the convergence criteria

One of the good news in the last 2022 convergence reports from the Commission and the ECB is that *Bulgaria* ***fulfils the majority of the convergence criteria*** for euro area accession. Some of these criteria are constantly fulfilled over the last ten to fifteen years by the country with few exceptions. The convergence criteria that are met in accordance with the 2022 reports from the Commission and the ECB are the criteria on public finances, the exchange rate criterion as well as the one on long-term interest rate. Some of the additional factors that are analysed by the European Commission and the ECB also demonstrate positive results.

Although Bulgaria registered a budget deficit of 4.0% of GDP in 2020 and a budget deficit of 4.1% of GDP in 2021, the assessment of the EU institutions is that the country ***fulfils the criterion on public finances***. The main reason for that is the fact that Bulgaria is not subject to a Council Decision on existence of excessive deficit. A prerequisite for that is an earlier Commission Communication from the start of the pandemia in March 2020 that allowed the use of the so-called general escape clause under the Stability and Growth Pact. This general escape clause permits for temporary deviation from the fiscal rules in case of serious economic crisis that affects the whole EU or the euro area. The crises after the COVID-19 pandemia is considered to be such an event.[5]

The 2022 convergence reports take into account the fiscal effects from the COVID-19 crises as well as from the war in Ukraine. Therefore, for Bulgaria and other 17 EU Member States there was no a decision on excessive deficit procedure even though they do not fulfill completely the budget deficit criterion. It shall be noted that the TFEU also contains a large degree of flexibility as it allows, for example, an excess over the reference value of 3% of GDP. This excess is allowed only if it is not permanent and if it stays close to the value that is used as a reference (see Article 126(2) from the TFEU).

There are three other important facts that facilitates the EU institutions to conclude that Bulgaria fulfills the public finance convergence criterion:

- In the period 2016-2019, for four consecutive years, Bulgaria registered a budget surplus on its budget balance.
- The debt-to-GDP ratio in Bulgaria in 2021 is only 25.1%. This is the third lowest government debt-to-GDP ratio in the whole EU-27, Estonia and Luxemburg being the only two EU countries that perform better than Bulgaria for this criterion. Furthermore, this figure is well below the 60% government debt-to-GDP ratio that shall be fulfilled in accordance with the Maastricht convergence criteria.

[5] See: European Commission, *Communication to the Council on the activation of the general escape clause of the Stability and Growth Pact*, Brussels, 20 March 2020, COM(2020) 123 final.

- Last but not least, it is expected that the country will be meeting again the budget deficit target of not more than 3% of the GDP already in 2023, if there is no substantial change on the government budget policy. [6]

The compliance of Bulgaria in relation to the ***exchange rate convergence criterion*** leads to some interesting conclusions. Although Bulgaria has introduced 25 years ago a currency board that pegged the Bulgarian lev to the euro (the first year and a half it was pegged to the Deutschmark), this was not recognised by the EU institutions as fulfilling the criterion. It was needed also a membership in the ERM II (the Exchange Rate Mechanism II that was established after the creation of the euro area). Until recently, there were not any concrete conditions for entering in ERM II. This was changed with the Eurogroup Statement from July 2018 for Bulgaria, repeated to a great extent also in the Eurogroup Statement for Croatia in July 2019.[7] The main condition was the need for both countries to join also the so-called Banking Union as well as to fulfill some pre-ERM II commitments.

These pre-ERM II commitments were successfully met by both countries and on 20 July 2020 they joined together the ERM II and few weeks later the Banking Union too. Therefore, the Commission and the ECB concluded in 2022 reports for the first time that Bulgaria as well as Croatia met the exchange rate convergence criterion. The reason is that there are 2 complete years (24 months) between 20 July 2020 and the time when Council Decisions might take place for joining the euro area, namely July 2022.[8] These are the only two countries that fulfill the exchange rate criterion out of the seven countries assessed in the 2022 convergence reports. The third country that is a member of ERM II is Denmark but as we already mentioned, Denmark is not assessed by the EU institutions on EMU convergence as it still holds its "opt-out" clause.

Another convergence criterion that is fulfilled by Bulgaria according to the 2022 convergence reports is the one on ***long-term interest rates***. As stipulated in the EU law, the reference value is calculated on the basis of the simple average of the 12-month average (i.e. these are the 12 months before the examination) of the 3 best-performing Member States in terms of price stability plus 2 percentage points. The three best-performing Member States in relation to that criterion and their 12-month average long-term interest rates are: France - 0.3%, Finland - 0.2% and Greece - 1.4%. The simple average of the three countries is 0.6% - (0.3+0.2%+1.4%)/3. Adding 2 percentage points to this figure calculates the reference value for this criterion at the level of 2.6%.

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[6] See: European Commission, *Convergence Report*, Institutional Paper 179, June 2022, p. 9-10.

[7] See: Council of the EU, *Statement of the Eurogroup on Bulgaria's path towards ERM II participation*, Brussels, 12 July 2018 as well as Council of the EU, *Statement of the Eurogroup on Croatia's path towards ERM II participation*, Brussels, 8 July 2019.

[8] Later on, after the issuance of the two convergence reports, the Council took in July 2022 a favorable decision only for Croatia that it is ready to join the euro from 1 January 2023 as Bulgaria does not fulfill some of the other convergence criteria.

The same criterion calculated for Bulgaria for the purposes of the 2022 convergence reports is 0.5%. This figure is well below the reference value of 2.6% and demonstrates a steady compliance of Bulgaria in relation to long-term interest rate convergence. There are many reasons for that, some of them being the stable implementation of the currency board arrangement in the country, the monetary arrangements as well as the prudent and sound policies of the Bulgarian National Bank.

Another positive fact is that Bulgaria steadily fulfills the long-term interest rate convergence criterion over the years after 2007. All the Commission and ECB convergence reports with one slight exception demonstrates that Bulgaria meets this criterion. The only exception was in 2010 convergence reports, at the heart of the global crisis that affected economic as well as financial markets, when the long-term interest rate in Bulgaria was measured at 6.9%, slightly above the then reference value of 6.0%.[9]

The convergence reports from the European Commission and the European Central Bank assess also some ***additional factors*** that affect the economic, financial and institutional stability in the countries. These are not obligatory compliance indicators but they provide a clear analysis on the real preparedness of the EU Member States outside the euro area to join the single currency.

Some of the additional factors that show positive results about Bulgaria in 2022 are the following ones:

- The Bulgarian external balance demonstrates surpluses in the recent years, including in the period 2020-2021.
- There is a significant trade and investment integration of Bulgaria into the euro area taking into account that almost half of the trade of Bulgaria is with the 19 euro area Member States and almost half of the investments also come from these countries.
- There is a stability in the financial system in the country that is largely dominated by the banking sector.
- There are no currently substantial macroeconomic imbalances that are identified by the European Commission.[10]

The positive results for these and other additional factors further stimulate Bulgaria to continue its efforts towards overcoming the remaining challenges before euro accession of the country.

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[9] For more information on the compliance of Bulgaria with the long-term interest rate convergence criterion, see the respective Commission and ECB convergence reports from 2008, 2010, 2012, 2014, 2016, 2018 and 2020 as well as Simeonov, K., *The Road of Bulgaria towards the Euro Area. From the European Association Agreement to the ERM II*, Sofia University, Sofia, Publishing house Minerva, 2022, p. 313-316.

[10] See: European Commission, *Convergence Report*, Institutional Paper 179, June 2022, p. 11.

3. Convergence criteria and additional factors presenting challenges for Bulgaria

However, there are still some important challenges for Bulgaria in order to be prepared for the joining of the single currency. The main one is the fulfilment of the price stability convergence criterion. Other challenges are related to the need the Bulgarian law to correspond fully to the EU law in certain fields such as central bank independence and compliance with the above cited Statute of ESCB and ECB. Some of the additional factors analysed in the convergence reports for Bulgaria also contain some challenges for the country before euro adoption. The public finances shall be also maintained in a stable position taking into account the different crises that affect currently the EU.

The most important challenge for Bulgaria's accession to the euro, including in the 2022 convergence reports from the Commission and the ECB, is the fulfilment of the ***price stability criterion***. In accordance with the reports, the average inflation rate in Bulgaria for the 12 months preceding the assessment date is 5.9%. This is just one percent over the reference value for price stability in the 2022 convergence reports, namely 4.9%.

The reference value for price stability shall be calculated taking into account the average rate of three best-performing Member States and adding 1.5%. These states as well as their inflation in accordance with the 2022 convergence reports are France (inflation at the level of 3.2%), Finland (3.3%) and Greece (3.6%). The average of these three rates is 3.4% - (3.2%+3.3%.+3.6%)/3. Adding 1.5% makes the reference value of exactly 4.9%.

The projections of the Commission are that the price levels in Bulgaria will be above the reference value in the months after the issuance of the convergence reports. In the coming years it is expected a further price increase in Bulgaria as the price convergence with the euro area is still too early to be achieved. According to data from 2020 the price levels in Bulgaria are only 52% from the euro area average price levels.[11]

The only two Member States outside the euro area that are assessed as meeting the price stability criterion are Sweden – 3.7% and Croatia – 4.7%, the latter just

[11] See: European Commission, *Convergence Report*, Institutional Paper 179, June 2022, p. 9. The fulfillment of the price stability criterion by Bulgaria in the previous convergence reports shows a mixed picture. Bulgaria fulfilled this criterion according to the convergence reports from 2012, 2014, 2016 and 2018. Bulgaria did not fulfill it according to the convergence reports from 2008, 2010 and 2020. In two out of the three cases when it did not fulfill this criterion it was with less than one percentage points from the reference value. The non-compliance was larger only in the distant 2008. For more information, see the respective Commission and ECB convergence reports from 2008, 2010, 2012, 2014, 2016, 2018 and 2020 as well as Simeonov, K., *The Road of Bulgaria towards the Euro Area. From the European Association Agreement to the ERM II*, Sofia University, Sofia, Publishing house Minerva, 2022, p. 298-307.

below the reference value of 4.9%. However, it shall be taken also into account that for the calculation of the reference value two Member States with lower inflation was excluded by the EU institutions as outliers. These two Member States are Malta with inflation for the last 12 months before the assessment of 2.1% and Portugal with price level of 2.6%. Malta was considered as an outlier by the EU institutions because of the very low energy prices in the country that were due to different reasons, including some targeted government measures. Portugal was considered as outlier again because of the very low energy price levels but also because of its weaker cyclical position compared to other Member States. The latter is considered to put additional pressure on the price levels in the country not to increase at an appropriate pace compared to other EU Member States.

Some analysts criticise this practice of the EU institution to exclude some Member States from the calculation of the price reference value. They have quite appropriate arguments in doing so. First, they calculate that if the three best-performing Member States will be the ones with the lowest inflation, meaning no outliers are identified, these will be Malta, Portugal and France. This will lead that the average of the three price levels is 2.6% and adding 1.5% in accordance with the TFEU – the reference value will be then 4.1%. The latter will mean that Croatia will not fulfil the price convergence criterion if such an approach was followed by the EU institutions because of its price level assessed at the 4.7% in the convergence reports. Furthermore, the analysis of an independent researcher shows that other Member States might be also considered as outliers on the same reasons as for Malta and Portugal. In such a case even Bulgaria would meet the price convergence criterion with its price levels measured at 5.9%.[12]

It is true that the EU law gives too much of manoeuvre and discretion of the institutions of the European Union in relation to their appraisal of the price reference value. This makes the whole process of euro area accession less transparent and credible. However, a reform in the convergence criteria and their assessment is not very likely in the near future. On the other hand, it shall be admitted that even without these calculations and observations, the achievement of the price convergence to the euro area still remain a substantial challenge for Bulgaria.

Another challenge for the country in accordance with the 2022 convergence reports, is the need to achieve full ***legal compliance*** with the EU law that affects the entering into the third stage of the EMU. The two EU institutions specify that Bulgaria shall amend its national legislation in order to achieve compliance with the EU rules at the time of euro adoption. These amendments shall be made at least in the following directions:

- prohibition of monetary financing
- central bank independence,

[12] See: Darvas, Z., *Discretion lets Croatia in but leaves Bulgaria out of the Euro Area in 2023*, Bruegel Blog, 22 June 2022.

• central bank integration into the ESCB.[13]

However, reaching full legal compatibility with these EU rules shall not be a substantial challenge for the country.

The convergence reports in 2022 identified also significant challenges in Bulgaria in the framework of the so-called ***additional factors*** that are analysed in view to the preparedness for euro area accession. An important additional factor is the institutional framework of Bulgaria that shall facilitate the economic, social and financial development of the country. The EU institutions identified several problems with respect to that framework, including those related to the levels of corruption and the government efficiency in the country. The EU institutions identified also needs for substantial improvement of the business environment. The level of the non-performing loans as well as the low penetration of capital market financing are identified as other challenges by these institutions. These are not the only challenges that were mentioned in the Commission and ECB convergence reports from 2022. Other additional factors shall be also improved by Bulgaria in order to allow a smooth integration of the country in the euro area.

There is also a need for Bulgaria to keep stable its public finances and especially not to increase its budget deficit. This is particularly relevant if the country would like to join the euro area soon but also to maintain sound public finances in the coming years.

4. Implications for Bulgaria from the Croatia's accession to the Euro Area

It is difficult to measure with precision what will be the effects for Bulgaria from the decision of the EU institutions to allow Croatia to join the euro area from 1 January 2023. To a great extent the effects will depend from the concrete results and implications for Croatia for joining the single currency. If the inflation as well as the economic and financial stability are maintained in the first months and years after Croatia joins the euro area from 2023, then the public opinion in Bulgaria for adopting the euro may also turn to be positive.

Currently the public opinion in Bulgaria for joining the euro continue to be rather negative and the trends are also not positive. In accordance with the results from the last Eurobarometer survey of the Commission from June 2022 (fieldwork conducted in April 2022) on the euro perceptions in the non-euro area Member States, only 7% of the respondents in Bulgaria think that the introduction of the euro will have very positive results for the country and 28% think that it will have rather positive results (35% positive results). In contrast, 26% of the respondents in Bulgaria are on the opinion that the introduction of the euro will have very negative consequences for Bulgaria and 34% that the consequences will be rather

[13] European Commission, *Convergence Report*, Institutional Paper 179, June 2022, p. 8.

negative (60% negative results). At the same time 4% of the respondents do not have an opinion.[14]

However, the fact that Croatia joins the single currency area may have also positive implications for Bulgaria and its future aspirations to join the euro. First, as already mentioned, the positive implications for Croatia after its euro area accession are likely to change also the perceptions in Bulgaria.

Second, the decision on Croatia by the European Union institutions demonstrates that the euro area enlargement is still a priority project for the EU. The decision that Croatia will join the euro area and that it will became its 20th member has been taken in 2022, just 20 years after January 2002, the date when the euro banknotes and coins were introduced in a physical form.

Last but not least, the decision for Croatia for joining the single currency area demonstrates also that euro accession is possible even in difficult and crisis times. Croatia joins the euro area when the COVID-19 pandemia is still not completely over, the war in Ukraine does not shows signs to be stopped soon and the energy and other prices reach records that may lead to a significant drop of the consumption as well as recessions in the EU economies.

The success of Croatia for joining the euro area may invoke more positive perceptions for euro accession not only in Bulgaria that is already in the ERM II and the Banking Union but also in other non-Euro Area Member States that are still far away to start preparations for euro adoption. Brexit and the withdraw from the EU of the largest and the strongest non euro area Member State may further induce consolidation of the single currency area and more interest in euro accession.

5. Conclusions

If one analyses the programmes of the Bulgarian governments after 2007, it will see that euro area accession is one of the constant priorities in these documents. However, the country did not advance too much in its convergence towards the euro area in the last 15 years after EU entry in 2007. The only exception being the Bulgaria's entry into the ERM II and the Banking Union in 2020. This main conclusion might look surprising taking also into account that from 25 years Bulgaria has a stable currency board pegged for the most of the time to the single European currency. The main reason for that was the reluctance of the EU institutions and some Member States to allow Bulgaria to join subsequently the ERM II and the euro area.

Therefore, it is interesting to see what are the main conclusions from the convergence reports that were published by the EU institutions in 2022. At first reading one might consider that these reports are not positive for Bulgaria as they

[14] See: European Commission, Introduction of the euro in the Member States that have not yet adopted the common currency, Flash Eurobarometer 508, fieldwork in April 2022, publication in June 2022.

conclude that the country does not fulfil all the convergence criteria and it is still not ready to join the euro area. The negative assessment is particularly relevant for the fulfilment by Bulgaria of the price stability convergence criterion, the level of legal approximation of certain national rules that shall be aligned with the EU law before adoption of the single currency as well as the assessment by the EU institutions on some additional factors.

However, if the convergence reports are analysed in more details, one may discover that the positive news for Bulgaria are much more than the negative ones. First, Bulgaria fulfils steadily the exchange rate and the long-term interest rate convergence criteria. It fulfils currently also the public finance criterion and its government debt-to-GDP ratio is the third lowest in the whole EU.

Second, Bulgaria shows also a high degree of trade and investment integration to the euro area, significant financial stability, improvements in the balance of payments and other additional factors that are assessed in the light of the euro area accession. Although these additional factors are not obligatory for euro accession, they also demonstrate the relative preparedness of the country to adopt the euro.

Last but not least, the decision for Croatia to join the euro area from 1 January 2023 has positive consequences for Bulgaria too. It shows that the enlargement of the euro area is a vivid and important project in the EU. It demonstrates also that the euro area accession is possible in crises times such as pandemia, war in Ukraine and significant disturbances in price levels and supply chains.

However, in order Bulgaria to become full member of the euro area many other steps and achievements shall be fulfilled. The compliance with the convergence criteria and the improvement of some important additional factors are just one side of the coin. Much more important is the need the Bulgarian authorities to start appropriate communication campaign for the benefits and effects from the adoption of the single currency. It is appropriate to analyse the effects on citizens, business as well as on the whole society. It may turn that the most important challenge for Bulgaria's accession to the euro area is the low level of confidence in the euro and the myths and fears among the population of the country.

Bibliography

Consolidated version of the Treaty on the Functioning of the European Union, OJ C 326, 26.10.2012., p. 47—390.

Council of the EU, *Statement of the Eurogroup on Croatia's path towards ERM II participation*, Brussels, 8 July 2019.

Council of the EU, *Statement of the Eurogroup on Bulgaria's path towards ERM II participation*, Brussels, 12 July 2018.

Darvas, Z., *Discretion lets Croatia in but leaves Bulgaria out of the Euro Area in 2023*, Bruegel Blog, 22 June 2022.

European Central Bank, *Convergence Report*, June 2022, ISSN 1725-9525.

European Commission, *Convergence Report*, Institutional Paper 179, June 2022, ISSN 2443-8014 (online).
European Commission, *Convergence Report Reviews Member States' preparedness to join the Euro Area and Paves the Way for Croatia's Euro Adoption on 1 January 2023*, Press Release, Brussels, 1 June 2022.
European Commission, Introduction of the euro in the Member States that have not yet adopted the common currency, Flash Eurobarometer 508, fieldwork in April 2022, publication in June 2022.
European Commission, *Communication to the Council on the activation of the general escape clause of the Stability and Growth Pact*, Brussels, 20 March 2020, COM(2020) 123 final.
Simeonov, K., *The Road of Bulgaria towards the Euro Area. From the European Association Agreement to the ERM II*, Sofia University, Sofia, Publishing house Minerva, 2022.

APPLYING TRADE FACILITATION MEASURES FOR INCREASING REGIONAL TRADE IN SOUTHEAST EUROPE

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Abstract

In this paper we analyze the exchange of goods between the countries in Southeast Europe (SEE). By application of the gravity model of international trade, we determine the drivers of trade among 10 SEE countries: Albania, Bosnia and Hercegovina, Bulgaria, Croatia, Montenegro, Moldova, North Macedonia, Romania, Serbia and Slovenia. The focus of the research is to evaluate the influence of Trade Facilitation Indicators (TFIs) developed by OECD on intraregional trade. These indicators cover a wide range of existing border procedures determined as trade facilitation measures. The individual estimations show that, after controlling for the usual gravity model variables, seven out of the total eleven TFIs show a positive and significant impact on trade in SEE. These results point to the existence of a potential for a further boost of the intraregional trade by improving the activities related to information availability, formalities-documents, fees and charges, formalities-automation, formalities-procedures, appeal procedures and governance.

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JEL Classification: F10; F14; C23

Introduction

Living in the middle of the Balkans, in a region politically and economically divided into several small neighboring economies heavily dependent on imports of basic goods and energy, is motivation to pay attention to trade liberalization issues and the advantages of implementation of trade facilitation measures. Physical barriers and all the deferent trade policies applied at national, but at the same time negotiated at regional or European level, created a significant number of visible and non-visible trade and non-trade barriers. These barriers additionally lowered the poor efficiency and productivity of the Balkan countries, created significant losses to their economies and diminished the competitiveness of their exports to foreign markets. The division of the region, all the obstacles to the physical border infrastructure, the differences in the trade policies and the variety of combinations of visible and non-visible trade barriers, affected not only the exports from the region but also the transiting goods, thus making all the individual economies from the region unattractive for foreign investors, especially for investment in the form of foreign direct investment.

Having in mind relevant economic literature, this research is based on the viewpoint that trade facilitation is an area in international trade that deals with the alleviation of certain administrative and customs procedures to decrease the trade transaction costs, which happens to be its first and most obvious benefit. However, empirical evidence also confirms that trade facilitation might also lead to potential advantages such as stimulating substantial export diversification, increment of productivity, creation of new jobs, and finally, increment of FDI inflows (OECD, 2021).

The reaction of CEFTA-2006 member-states to the COVID-19 pandemic crisis regarding coming to a mutual agreement on the implementation of new trade facilitation measures, thus enabling faster movement of essential goods across the borders and the effects thereof, was the focus of previous research. However, the latest developments with the Ukrainian crisis, which at present faces for certain the European continent with, among all other unfortunate issues, a severe energetic crisis with the unpredictable possible outcome(s), inspired us to look further and spread our research also over some of the countries from Southeast Europe. Aware that Southeast Europe might be defined in different ways for the needs of certain research, this research follows the effects of eleven trade facilitation indicators upon the economies of the following ten countries: Albania, Bosnia and Hercegovina, Bulgaria, Croatia, Montenegro, Moldova, North Macedonia, Romania, Serbia and Slovenia. Thus, the research is done for six CEFTA-2006 members (excluding

Kosovo, for which data are non-available), and four EU member-states that share borders, being neighboring countries to CEFTA-2006 countries.

The research is based on the gravity model to evaluate the effects of trade among the countries from the SEE by implementing trade facilitation measures at the national level. The analysis is done by eleven so-called Trade facilitation indicators (TFIs) developed by OECD to measure trade facilitation in separate countries: involvement of the trade community, fees and charges, formalities-documents, information availability, formalities-automation, advance rulings, formalities-procedures, internal border agency co-operation, external border agency co-operation, appeal procedures, and governance and impartiality. The results of the model pointed out that seven out of eleven indicators have a significant impact on the trade of the SEE countries.

After the introduction, the paper explores relevant economic literature on trade facilitation and provides data on the OECD Trade Facilitation Indicators for the countries in the analysis. In the next section, the model is presented, the way it was constructed and the data. The following section elaborates on the results obtained from the model and in the last section, some conclusions from the research are presented.

Literature review

This study relates to two broad streams of literature. First, the topic of the paper is closely linked to the growing body of research on the effects of trade facilitation on trade. Second, it is linked to the gravity model-based research on the determinants of trade in the Southeast Europe countries.

The first group of research presents estimations of the favorable effects of trade facilitation measures on trade flows. According to a study by WTO, the complete implementation of the WTO Trade Facilitation Agreement should lead to increase of exports under the intensive margin of trade of at least 9.1%, which would be particularly beneficial for developing and low-income countries (WTO, 2015). More conservative estimations by Beverelli et al. (2015) point to at least a 0.23% increase in exports, measured by the extensive margin of trade, due to the implementation of trade facilitation measures. Further empirical evidence highlighting the favorable effects of trade facilitation on exports is provided by the estimations by Moïsé et al. (2013), Volpe Martincus et al. (2015), Persson (2013) and Fontagné et al. (2016).

The second stream of research examines the determinants of trade within the region of SEE and its potential in a gravity framework. One of the first empirical efforts is by Christie (2002), analyzing the trade flows of a sample of SEE countries in a gravity model. Bussière et al. (2005) applied a gravity model for the CESEE countries which are in the euro area and tried to analyze the factors of trade integration. The analysis has shown that the integration in trade between most of the largest CEE countries in the euro area is already relatively advanced, while the

SEE countries still have the potential for integration. Similarly, Kucharčuková et al. (2010) show that the international trade of the SEE countries is still below its potential, due to weak institutions and past regional conflicts. These findings are later confirmed by the gravity model by Pllaha (2012). In addition, his research shows that trade in the SEE region is adversely impacted by the transportation distance between countries, while FTAs are positively linked to regional trade integration. The importance of regional integration, particularly for the subregion of the Western Balkans, is also emphasized in the work by Murgasova et al. (2015), Trivić and Klimczak (2015), Pere and Ninka (2017) and Kaloyanchev et al. (2018).

This research specifically builds upon earlier estimations by Toševska-Trpčevska and Tevdovski (2016) on the influence of trade facilitation indicators on trade in SEE countries for the period 2008-2012. The specifications from the model showed that several factors, such as availability of information, trade community involvement, appeal procedures, automation of formalities and agency cooperation, can have a positive effect on exports. Trade facilitation effects on regional trade are later re-examined by Toshevska-Trpchevska et al. (2022) in a gravity panel model on a smaller sample of CEFTA-2006 countries. With the current study, the analysis is extended by broadening the sample of countries and the time under consideration, to provide a more comprehensive assessment of the developments in the implementation of trade facilitation and regional trade outcomes.

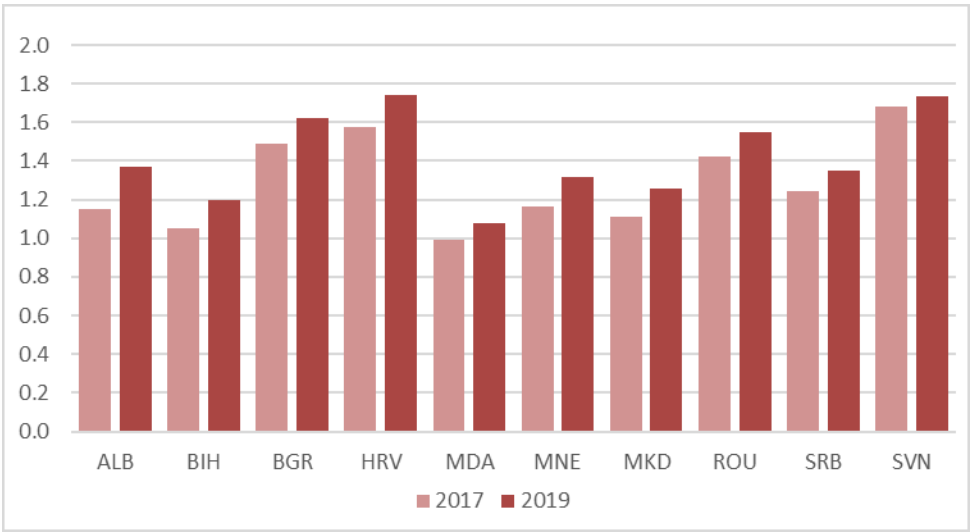
Trade facilitation and recent developments in SEE countries

Discrepancies in the regulatory frameworks and the non-tariff barriers pose a severe hindrance to international trade. Therefore, beyond its original focus on the simple reduction of tariffs and the elimination of quantitative restrictions, the current global trade policy is focused on measures aimed at reducing non-tariff restrictions on trade. By facilitating cross-border economic activity, the trade policy can support the competitiveness and growth of the economy.

Trade facilitation has the potential to create valuable global economic advantages. By eliminating customs-related delays and increasing the speed of delivery, trade facilitation promotes efficiency gains, lowers overall input costs, stimulates domestic and export demand, as well as production. According to the OECD estimates, complete implementation of the TFA could potentially lead to increase of world trade by 0.6% and the overall output by up to 0.5%, across all country groups (OECD, 2021). Over the long-term trade, facilitation impacts resource allocation and wages, which could eventually translate into rising incomes and welfare gains (OECD, 2021).

The OECD Trade Facilitation Indicators (TFIs) are a useful tool in assessing and monitoring policies aimed at border procedures streamlining, trade costs reduction and stimulation of trade flows. They are a valuable instrument for monitoring and comparing the trade facilitation performance of economies. In

Figure 1 the average values of implemented trade facilitation measures in the SEE countries are presented. These results point to that these countries have experienced improvement in the trade facilitation field from and average score of 1.288 in 2017 to 1.422 in 2019.

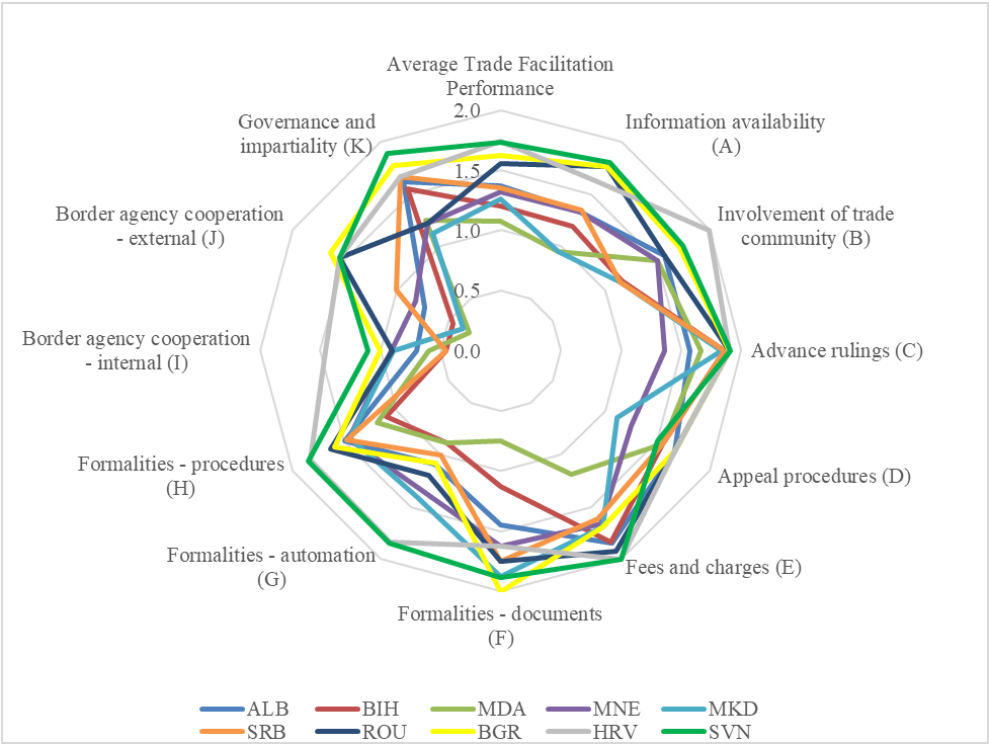


Source: OECD Trade Facilitation Indicators database.

Figure 1. Average Trade Facilitation Performance in SEE countries, 2017 and 2019

Figure 2 analyzes the separate eleven trade facilitation indicators across SEE countries. From the data presented in Figure 2 we could say that these countries have best performing results in the following trade facilitation indicators: 1.776 is the average score for advance rulings, 1.745 is the average score for fees and charges, and 1.583 is the average score of formalities-documents. The SEE countries have shown that they have their worst scores of trade facilitation indicators of 0.846 in internal border agency cooperation and 0.994 in external border agency cooperation.

In sum, the average values of the Trade facilitation indicators show that the SEE countries have shown improvement in the field of trade facilitation. Still, there remains room for further improvement, especially in terms of cross-border agency cooperation – internal and cross-border agency cooperation - external.



Source: OECD Trade Facilitation Indicators database.

Figure 2. Trade Facilitation Performance in SEE countries, 2019

The Empirical Model and Data

The model used in the paper tries to provide a qualitative analysis of the bilateral trade relations of the countries from Southeast Europe (SEE) and the influence of Trade facilitation indicators on their mutual trade. Countries that are being analyzed are Albania, Bosnia and Hercegovina, Bulgaria, Croatia, Montenegro, Moldova, North Macedonia, Romania, Serbia and Slovenia. Kosovo is excluded from the analysis due to the lack of data. The trade flows among the countries in the SEE region proved to be stable, due to the geographical proximity of the countries and similar rates of economic growth. However, the trade orientation of the region is dominantly towards the European Union.

In the dataset annual data on trade from 2006 to 2020 are included. With these data we have obtained more than 1.300 observations to make our estimations. For the analysis we have applied panel estimation of standard gravity model. The original gravity model is proposed by Linder (1961) and Linnemann (1966), and it is based on Newton`s theory of gravitation. The model is widely used in papers that focus on international trade (Deardorff, 1995, Anderson and van Wincoop, 2003).

The estimates are made in E-views based on the OLS model, without effects. For the gravity model we have applied the following specifications:

$$ln\ [\![EXP]\!]\_ijt = \beta\_0 + \beta\_1\ ln\ [\![GDPdiff]\!]\_jt + \beta\_2\ ln\ [\![SumPOPULATION]\!]\_it + \beta\_3\ ln\ [\![BORDimp]\!]\_jt + \beta\_4\ ln\ [\![DISTANCE]\!]\_ij + \beta\_5\ [\![LANG]\!]\_ij + \beta\_6\ [\![(TFI\_\_X*)]\!] + (1)ij + \lambda\_t + \varepsilon]\!]\_ijt$$

The dependent variable $[\![EXP]\!]\_ijt$ represents the exports from country i to country j expressed in millions of US dollars.

In terms of independent variables, we measure distance relative to trade flows, economic size, and population, and we add two binary variables trat measure common language, and common border. In separate regressions, we estimate the influence of each Trade facilitation indicator.

There are five independent variables included in the model. The variable $[\![sumPOPULATION]\!]$ is calculated as a natural logarithm of the product of the populations of two countries and represents the relative size of both countries by their population. To capture the level of difference in economic development between the trading partners included in the analysis we used the variable $[\![GDPdiff]\!]$. It is calculated as a natural logarithm of the difference between the maximum value and the minimum value of the GDP per capita between trading partners. The variable $[\![DISTANCE]\!]$ measures the geographical distance between the biggest cities of countries i and j expressed in km. The variable $[\![LANG]\!]$ is a binary variable equal to 1 for countries that have common language and 0 otherwise and $[\![BORD]\!]$ is a binary variable equal to 1 for countries that have common border and 0 in they don't have common border. It is expected that countries that have similar languages and share a common border, will have reduced transaction costs that will result in higher bilateral trade.

The variable TFI_X_* is referring to a natural logarithm of the product of the value of trade facilitation indicators of both trading partners. Eleven specifications use different OECD trade facilitation indicators: involvement of the trade community, fees and charges, formalities-documents, information availability, formalities-automatization, advanced rulings, formalities-procedures, border agency cooperation - internal, border agency cooperation – external, appeal procedures, and governance and impartiality.

This variable makes it possible to see at the same time how improvements in specific TFI could affect both, exporters, and importers. The values of the indicators are from 0 which is the lowest to 2 which is the highest value. For the purposes of this analysis, we have rescaled the values of the indicators from 0-10. The variable TFI_X_* is constructed as a natural logarithm of the product of a specific TFI for importer and exporter.

$$TFI\_X* = TFI\_XJ * TFI\_xi$$

We apply the letter X ranging from A, B, …, to K to denote specific trade facilitation indicator. We run 11 regressions to analyze the influence of each of 11 OECD trade facilitation indicators. Since there is high correlation between the trade facilitation indicators, we needed to apply different specifications of the model for each indicator (Wilson, 2010).

The analysis is based on annual data. The source for export data is the International Monetary Fund, Direction of Trade Statistics. Data on GDP per capita and population are extracted from the World Bank Database. Data on the geographical distance between the economic centers of the two countries are from the website http://www.worldatlas.com. We have obtained the data for the Trade facilitation directly through e-mail from OECD responsible persons. Since 2012 the indicators are published every two years, and since then there were measures in 2015, 2017 and 2019. In our analysis we have included the values of all four trade facilitation indicators for the countries.

Results

In Table 1 we present the results from the analysis. For this research, eleven regressions are run to measure the influence of each of the Trade Facilitation Indicators (TFIs) on export among the subset of ten countries from Southeast Europe. The results from the eleven regressions enable us to verify the model and indicate a robustness check. In all eleven regressions, the results from the four independent variables: population, GDP, language, and distance are stable and highly statistically significant. This means that a bigger population and higher GDP in the countries that trade has a positive impact on their export performances. Also, countries that share a common or similar language have a higher probability to trade among themselves. The influence of the variable distance is with a negative sign which is the nature of gravity models. Increasing the distance between the countries is expected to influence on decreasing the probability to trade and decreasing the distance between them should have positive impact on their mutual trade. The variable border appears to be insignificant in most of the cases.

Out of eleven TFIs, eight are highly statistically significant at a 99% level of export. These are information availability, formalities-documents, fees and charges, formalities-automation, formalities-procedures, internal border agency-cooperation, appeal procedures, and governance and impartiality. All indicators have positive signs except for the indicator: internal border agency cooperation. This means that improving the results in the field of internal border agency cooperation will have a negative influence on these countries' export, i.e., the export will decrease. But for the purposes and the goal of this paper, the task was to define the trade facilitation measures in which countries could intervene and enhance their export and trade potential. In this regard we would like to point out that the highest positive effects for increasing export among the countries of Southeast Europe would be possible by undertaking measures to decrease and

harmonize the formalities-documents, to decrease the fees and charges to trade and to decrease and ease the trading procedures. The coefficients of the Trade facilitation indicators measuring formalities-documents, fees and charges and formalities-procedures are highest. 1% improvement in the indicator Formalities-documents could lead to a 1.22% increase in export among the countries in Southeast Europe. 1% improvement in the indicator Fees and charges could lead to a 1.06% increase in mutual export. 1% improvement in the indicator Formalities-procedures could lead to a 0.91% increase in mutual trade. These results indicate that there are still customs and administrative procedures that hinder trade among the countries in Southeast Europe and these results should be considered when creating future trade policies and initiatives.

The results also indicate that positive results in increasing countries' mutual export could be done by undertaking measures to alleviate the appeal procedures, increase automation of the trading procedures and increase the application of automated trade facilitation solutions, as well as by increasing the transparency and availability of information among the traders and the operators in the region of Southeast Europe. Positive results are expected if countries also undertake measures to improve the whole process of governance and impartiality in trade.

The indicators that measure the involvement of the trade community, advance rulings and external border agency cooperation appear to be insignificant for increasing trade among the Southeast Europe countries.

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11
No of observations	1302	1200	1182	1302	1182	1302	1302	1200	1302	1302	995
C	-22.460***	-17.722***	-22.070***	-23.998***	-28.698***	-24.756***	-21.040***	-20.050***	-16.500***	-19.148***	-18.526***
Log of Population	0.887***	0.859***	0.915***	0.927***	0.999***	0.888***	0.883***	0.840***	0.836***	0.967***	0.909***
Log of GDP difference	0.289***	0.316***	0.300***	0.285***	0.157***	0.224***	0.273***	0.303***	0.312***	0.205***	0.263***
Border	0.155	0.074	0.126	0.190	0.594***	0.302**	0.092	0.012	0.240*	0.062	-0.087
Language	2.064***	1.929***	2.055***	2.104***	1.980***	1.839***	1.901***	1.871***	2.084***	1.784***	1.890***
Log of Distance	-1.714***	-1.890***	-1.735***	-1.693***	-1.016***	-1.437***	-1.869***	-2.022***	-1.663***	-1.819***	-2.018***
Log of A - Information availability	0.659***										
Log of B - Involvement of the trade community		-0.145*									
Log of C - Advance rulings			0.315								
Log of D - Appeal procedures				0.749***							
Log of E - Fees and charges					1.061***						
Log of F – Documents						1.219***					
Log of G – Automation							0.733***				
Log of H – Procedures								0.912***			
Log of I - Internal border agency co-operation									-0.627***		
Log of J - External border agency co-operation										0.019	
Log of K - Governance and impartiality											0.244**
R-square	0.6048	0.6262	0.5874	0.6033	0.6326	0.6309	0.6159	0.6340	0.6124	0.5644	0.6088
Adjusted R-square	0.6030	0.6243	0.5853	0.6015	0.6307	0.6292	0.6141	0.6322	0.6106	0.5606	0.6064

Source: Authors' calculation

Table1. Results for the influence of TFIs on trade in SEE, 2019

Conclusion

The purpose of this paper is to investigate the importance of trade facilitation measures to increase trade among the countries in Southeast Europe. For this goal gravity model is applied to measure the importance of eleven Trade facilitation indicators created by OECD on trade among ten countries from the region. The results have shown that undertaking trade facilitation measures among the countries of Southeast Europe could have a positive impact and increase mutual trade.

The highest importance and greatest effect on increasing export could have the indicators: formalities-documents, fees and charges and formalities-procedures. 1% improvement in the indicator Formalities-documents could lead to a 1.22% increase in export among the countries in Southeast Europe. 1% improvement in the indicator Fees and charges could lead to a 1.06% increase in mutual export. 1% improvement in the indicator Formalities-procedures could lead to a 0.91% increase in mutual trade. Although the performances of these countries in these indicators are of the highest value, this research shows that their improvement could have an even greater impact on increasing export and increasing their mutual trade.

The results from this research indicate that there are still customs and administrative procedures that hinder trade among the countries in Southeast Europe and these results should be considered when creating future trade policies and initiatives. Although these countries trade on a preferential basis among themselves as the European Union has offered preferential treatment in trade to all Western Balkans countries since 2001, this research has shown that trade among the countries in Southeast Europe is hindered by many documents, additional fees and charges and lengthy customs and administrative procedures. Undertaking measures to decrease and simplify the documents, the trading procedures and the fees and charges should have the biggest positive effect on trade. Positive results for increasing these countries' mutual export could be also done by undertaking measures to alleviate the appeal procedures, increase automation of the trading procedures and increase the application of automated trade facilitation solutions, as well as by increasing the transparency and availability of information among the traders and the operators in the region of Southeast Europe.

References:

Anderson, J. E., & Van Wincoop, E. (2003), "Gravity with gravitas: A solution to the border puzzle". American economic review, *93*(1), 170-192.

Beverelli, C., Neumueller, S., The, R. (2015), "Export Diversification Effects of the WTO Trade Facilitation Agreement". World Development 76, pp. 293–310. https://doi.org/10.1016/j.worlddev.2015.07.009.

Bussière, M., Fidrmuc, J., Schnatz, B. (2005), "Trade Integration of Central and Eastern European Countries: Lessons from a Gravity Model", Working Papers 105, Oesterreichische Nationalbank

Christie, E. (2002), "Potential Trade in Southeast Europe: a Gravity Model Approach", wiiw Working Paper, No. 21, The Vienna Institute for International Economic Studies (wiiw), Vienna

Deardorff, A. V. (2011), "Determinants of bilateral trade: does gravity work in a neoclassical world?" In Comparative advantage, growth, and the gains from trade and globalization (pp. 267-293).

de Sá Porto, P. C., Canuto, O., Morini, C. (2015), "The Impacts of Trade Facilitation Measures on International Trade Flows", Policy Research Working Paper; No. 7367. World Bank. https://openknowledge.worldbank.org/handle/10986/22451

Fernandes, A. M., Hillberry, R. H., Alcantara, A. M. (2015), "Trade Effects of Customs Reform: Evidence from Albania"

Fernandes, A. M., Hillberry, R. H., Berg, C. N. (2016), "Expediting Trade: Impact Evaluation of an in-House Clearance Program"

Fontagné, L., Orefice, G., Piermartini, R. (2016), "Making (Small) Firms Happy. The Heterogeneous Effect of Trade Facilitation Measures"

Go, E. (2018), "Contribution and Effectiveness of Trade Facilitation Measures: A Structured Literature Review", World Bank Group

Hillberry, R. H., Zhang, X. (2015), "Policy and Performance in Customs: Evaluating the Trade Facilitation Agreement"

Kaloyanchev, P., Kusen, I., Mouzakitis, A. (2018). "Untapped Potential: Intra-Regional Trade in the Western Balkans", European Commission Discussion Paper, No. 80.

Kucharčuková, O., Babecký, J., Raiser, M. (2010). "A Gravity Approach to Modelling International Trade in South-Eastern Europe and the Commonwealth of Independent States: The Role of Geography", CNB Working Paper.

Linder, S. B. (1961), "An essay on trade and transformation" (pp. 82-109). Stockholm: Almqvist & Wiksell

Linnemann, H. (1966), An econometric study of international trade flows (No. 42). Amsterdam, North-Holland.

Moïsé, E., Sorescu, S. (2013), "Trade Facilitation Indicators: The Potential Impact of Trade Facilitation on Developing Countries' Trade", OECD.

Murgasova, Z., Ilahi, N., Miniane, J., Scott, A., Vladkova-Hollar, I. and an IMF Staff Team. (2015). "The Western Balkans: 15 Years of Economic Transition", IMF Regional Economic Issues Special Report.

OECD (2021), "Competitiveness in Southeast Europe 2021: A Policy Outlook", Competitiveness and Private Sector Development, OECD Publishing, Paris, https://doi.org/10.1787/dcbc2ea9-en

OECD/WTO (2019), "Aid for Trade at a Glance 2019: Economic Diversification and Empowerment", OECD Publishing, Paris, https://doi.org/10.1787/18ea27d8-en

OECD (2018), "Trade Facilitation and the Global Economy", OECD Publishing, Paris, https://dx.doi.org/10.1787/9789264277571-en

OECD (2009), "Overcoming Border Bottlenecks: The Costs and Benefits of Trade Facilitation", OECD Trade Policy Studies. OECD

Pere, E., Ninka, E. (2017). "International Trade in Western Balkan Countries: Analysis Based on the Gravity Model", The WIIW Balkan Observatory, Working Papers, No. 126.

Persson, M. (2013), "Trade Facilitation and the Extensive Margin. The Journal of International Trade & Economic Development" 22 (5): 658–93 https://doi.org/10.1080/09638199.2011.587019

Pllaha, A. (2012) "Free Trade Agreements and trade integration among South Eastern European countries; Gravity model estimations", Bank of Albania Working Paper. No. 05 (36).

Tosevska-Trpcevska, K., Makrevska Disoska, E., Kikerkova, I., Tonovska, J. (2022), "The Impact of Trade Facilitation Indicators on Trade Between CEFTA-2006 Countries", Proceedings of the 13th SCF International conference "Contemporary Economic Policy and European Union Accession Process", University in Belgrade, Serbia

Tosevska-Trpcevska, K., Tevdovski, D. (2014), "Measuring the Effects of Customs and Administrative Procedures on Trade: Gravity Model for South-Eastern Europe", Croatian Economic Survey, 16(1), 109-127. DOI: 10.15179/ces.16.1.4

Toševska-Trpčevska, K., Tevdovski, D. (2016), "Trade facilitation indicators and their potential impact on trade between the countries of South-eastern Europe", Scientific Annals of Economics and Business 63 (3), 2016, 347-362, DOI: 10.1515/saeb-2016-0127

Trivić, J., Klimczak, L., "The Determinants of Intra-Regional Trade in the Western Balkans" (June 17, 2015). Zbornik radova Ekonomskog fakulteta u Rijeci, časopis za ekonomsku teoriju i praksu - Proceedings of Rijeka Faculty of Economics, Journal of Economics and Business, Vol. 33, No. 1, 2015, pp. 37-66, Available at SSRN: https://ssrn.com/abstract=2632969

UNECE (2021), "Digital and Sustainable Trade Facilitation", UNECE Regional Report 2021

Volpe Martincus, C., Carballo, J., Graziano, A. (2015), "Customs", Journal of International Economics 96 (1): 119–37. https://doi.org/10.1016/j.jinteco.2015.01.011

Wilson, Norbert, (2010), "Examining the Effect of Certain Customs and Administrative Procedures on Trade" in OECD Trade Policy Studies, Overcoming Border Bottlenecks: The Costs and Benefits of Trade Facilitation, Paris: OECD Publishing.

WTO (2015), "World Trade Report 2015—Speeding up Trade: Benefits and Challenges of Implementing the WTO Trade Facilitation Agreement", WTO.

THE CHANGING GLOBALIZATION: WHAT POSSIBLE CHANGES FOR EUROPEAN COMPANIES?

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Abstract

Globalization has given rise to new forms of production and trade, which have found expression in the fragmentation of production processes within Global Value Chains (GVCs). The European Union is an open economy and the European single market, European GVCs oriented their investments, not only in Southeast Asia and mainly China, but they localize industries in geographically close regions, as Central and East European (CEE) countries. The EU CEE member states were bound by production and trade value chains and they became part of the international trade. Recently, the pandemic crisis related to COVID-19 changed the structure and the organization of GVCs and they followed (albeit more slowly) to strengthen the broken connections and productions. The EU faces new challenges in relation to rising inflation and rising economic and political risk factors. Questions are being asked about the future economic and political power stance in the world and how it would affect European companies and the EU's goals towards a digitalized and green economy.

Key words: European global values chains, Central and East European countries inclusion in industrial network, COVID 19 and the impact on European GVCs.

JEL: F18, F21,F23

1. European global value chains companies - global market positions and development

After the 1980s, the penetration of multinational companies (MNCs) in different regions of the world expanded, which was due to the opening of national economies, to the rapidly developing information communication links (ICT), to the expanding online connections (Internet), as well as to the change in the

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corporate strategies of firms, which has found expression in the reshaping and change of the production and the commercial tasks, that are often outsourced to foreign operators.

At each stage of the production process, by virtue of the vertical industrial integration, the companies producing for the multinationals specialize in the performance of different industrial and trade tasks. Within the production chains, interdependent tasks are performed - from the design to the sale of goods or services.

The internationalization of the chain of activities in industry and services is geographically dispersed in different countries of the world. Production networks are being formed, benefiting from the information and communication technologies (ICT) and by new business models of management in order to optimize strategies for the supply of raw materials and production, through the geographical reorganization and separation (fragmentation) of the stages of production. The Global value chains (GVCs) are a new stage in industrial production and a new structure arising because of the globalisation.

They contribute to the expansion of international trade, because they make optimal use of geographical location, factors of production and comparative advantages in different countries. Labor productivity improves, economies of scale are realized, and profits are growing.

The country where GVCs is located facilitates the inclusion of domestic companies, as sub-suppliers of the parent company. On the one hand, GVCs benefit from low labor costs in developing countries, but on the other, they create jobs, improve the qualifications of workers, form a new type of consumer demand and contribute to the inclusion of these countries in the international trade exchange. In a number of developing countries (from the South), GVCs perform low-paid and low-skilled activities peripheral to production, while in developed economies (countries from the North), high-tech industries, requiring a highly qualified workforce and organizational skills. Although, the GVCs activities in India and in China, for example, were favorable for their economic development, for the development of high-tech industries and for the positioning of these countries on the international trade map.

The practice of outsourcing and offshoring, in which a large part of the tasks are transferred to external firms, has allowed the modernisation of the industrial equipment, the expansion of subcontractors, according to differences in production costs, competencies and skills and innovation capabilities of the host- country.

To remain competitive, international companies are increasingly locating industries in foreign markets by dividing their value chains into smaller parts that are performed by an increasing number of established global suppliers. The delocalization of various business activities is the key feature of the GVCs.

International companies positioned in different parts of the world consider countries as „territories“, since the main international trade players are the

multinationals, looking for efficient deals and comparative advantages in different regions of the world. The expansion of intra-industry trade is a sign that most of the world trade market deals are carried by the large international companies trading among themselves, and not by the countries. Recently around 50% of the international exchange is based on the intra-industrial trade.

Competition on the international trade market is increasing with the growing of the industrial and the commercial potential of GVCs, originating from emerging economies (China, South Korea), which are gradually occupying an ever-increasing share of the international market of high-tech goods.

The liberal concept defines the changes in the international trade and the globalization as an „objective limitation". From one side, there is a certain decline in the competitiveness of companies at the national level and at the same time, the competitiveness of international companies in the world market increases due to the scale of production and consumption in global aspect.

2. The guidelines of the operational production activity of the European Global Value Chains

The European GVCs and production networks are particularly active in innovative technologies (computer and electronic industry). The main drivers are investments in ICT, in high-tech production segments, located in different parts of the world, fuelling FDI growth on the emerging markets. The industrial structure of ICT permits the development of creative technological clusters, located horizontally in the industries of different countries, including also the services.

European companies take advantage of the benefits of economic globalization by expanding their localization in foreign markets, profiting from the comparative advantages, afforded them by host countries.

Other advantages are the consolidation of production capital through mergers of enterprises and/or acquisition of equity capital, through FDI and through licenses' sale. Additional profits were generated by the low production costs, due to the opportunities that the globalization is providing to produce and operate in different regions of the world.

A feature of the European GVCs is their regional orientation. Significant investments have been made in heavy industrial branches in Central and Eastern European (CEE) countries. These countries dispose with a developed industrial base, a skilled workforce and relatively lower wages. The highly professional skills and the organization of the firm management compensate the increase of wages in CEE countries.

The automotive industry is more concentrated in certain regions of CEE countries and this production is not as global in nature, as the electronics and computer industries. The automotive industry is agglomerated in specialized clusters, located in national economies and macro-regions, which is also due to

the high capital intensity of this industry and the participation of GVCs. National and regional automotive value chains are "embedded" in the global organizational structures and business relationships of the largest multinationals.

According to Eurostat's survey observations in the field of international outsourcing and the relocation of business operations in Europe, several main trends are outlined that determine the localization of European companies in other markets or within the European Single Market:

- International relocation mainly takes place from one EU member state to another, which underlines the importance of the European Single Market;
- The largest share of international outsourcing is observed in small open economies, where the cost of labor is high, in search of better production efficiency;
- International relocation is mainly carried out by European industrial companies and the non-financial sector;
- More than a third of international European companies provide foreign companies (external operators) with administrative and management functions, as well as services in the field of ICT sector;
- Geographical proximity is an important factor in the company's strategic decision-making to delocalize production and services, giving priority to investments and production in the Single Market and not so much the penetration of more distant destinations;
- The direct employment effects on European industry have repeatedly been highlighted as significant, but recently, the decline in employment in European industry has not been so significant, but nevertheless the accumulated controversies and problems of the past, as well as other indirect effects, significantly affect the developing processes in the European production process and on European companies.

3. European companies and the growth of foreign trade

EU is one of the most open economies and the largest single market in the world. European companies' strategies for commercial and investment penetration of various markets contribute significantly to the growth of import-export operations of EU member states. Between 1999 and 2010, EU external trade is doubling and now its accounts for more than 30% of EU27 GDP. The share of the EU27 in world trade amounts to 15.6% (2019), or the EU is the second main exporter of goods on the world market. In 2009-2019, the growth rate of EU27 foreign trade was 6.1%, in 2014-2019 - 3.5%, in 2018-2019 - 3.5%.

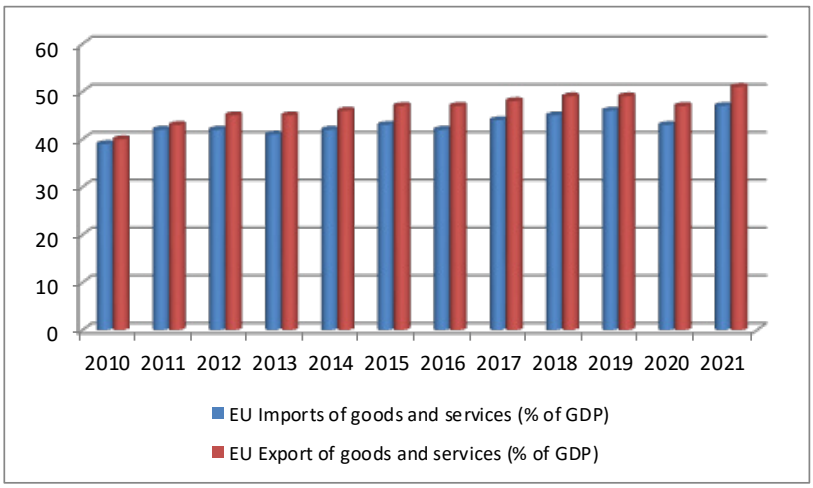

Figure 1 EU imports and exports of goods for the consecutive years

Source: https://data.worldbank.org/indicator/NE.EXP.GNFS.ZS?locations=EU

EU import and export, as a % of GDP, fluctuates between 40-50% for the period 2010-2021.. European exporting and importing companies maintain their share in the international market of goods and services, although macroeconomic imbalances and sovereign debt increase after the Global Financial Crisis and the Sovereign Debt Crisis.

The structure of exports shows that, despite deindustrialization, the EU27 countries remain one of the main exporters of technological and technical goods. (Figure 2)

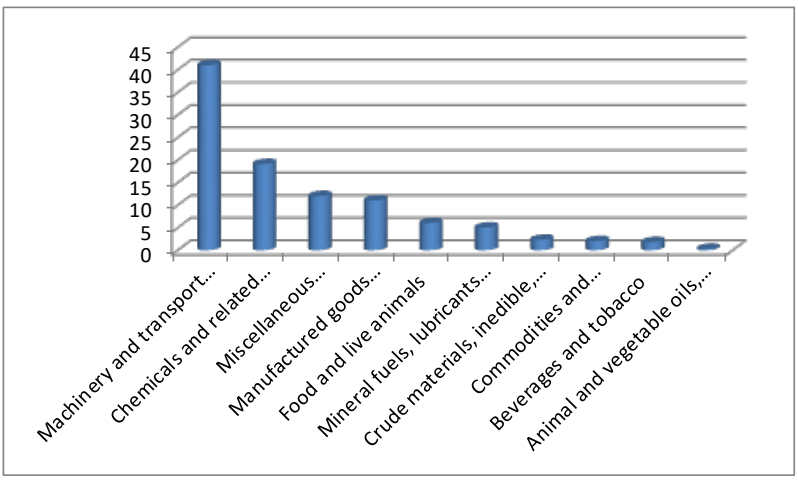

Figure 2, Exports of goods from the EU 27 by economic sectors (2019)

Source: World Input Output Tables 2016

ECB is implementing an accommodative monetary policy with low interest rates hovering around zero and even below zero. Solid credit support was provided to European banks, through the purchase of assets and the financing of their activities, in order to stabilize the balance sheets of monetary institutions, which were heavily affected by the European sovereign debt crisis. The ECB's unconventional monetary measures are not accompanied by reforms, aimed at increasing economic growth and stimulating foreign trade.The attractiveness of EU CEE countries disposes of competitive advantages and specialties that reinforce the European multinationals interest. The intensification of trade between Central and Eastern European Countries (CEECs) and Western European countries, offers significant economic opportunities. Indeed, the CEE countries have undeniable assets: an educated workforce, lower labor costs,, geographical proximity, EU integration and the European Single market. The EU countries have the potential of developing new digital technology, automation and robotisation. Slovakia has internationally recognized expertise in the production of industrial machinery. Poland - in the field of construction and construction sites. The value added and the employment in the manufacturing sector are higher in CEE countries in comparison with EU28 average level in 2016. (Table 1)

Table 1: Value added, employment and apparent labor productivity in manufacturing in the EU CEE countries, 2016, in %

	Value added (VA) at factor costs % of total non-financial business	**Employed persons % of total non-financial business**
EU28	26.6	21.4
Bulgaria	28.8	30.4
Romania	28.1	30.4
Czech Republic	39.9	35.3
Hungary	38.5	27.7
Poland	33.1	28.7
Slovakia	36.6	31.4

*Source***:** Based on statistical data provided by Eurostat Database [23].

The most intensive export of added value for direct use in the overseas production units of GVC is carried out by Poland. It is followed by the Czech Republic, Hungary, Slovakia, and Romania. Bulgaria is part of the production value chains in the production of automotive elements and assembly of car components, but this activity is much more limited compared to other CEE countries. The inclusion of Bulgaria and Romania in GVCs expands the opportunities of local companies, as parts of the international market of goods and services.

Table 2: Imports content of exports, total % of gross exports, 2016 In %

Romania	21.6
Bulgaria	32.2
Euro area 19	16.4
EU 28	**11.6**
Domestic value added in Gross exports Total, 2016, In %	
Romania	78.4
Bulgaria	67.8

Source: WTO data of Global Value Chains

The contribution towards the internal and the external added value in the production have with a strong impetus on trade relations. Compared to Romania, Bulgaria imports more intermediate goods for the production of some products. Domestic value added, as a share of gross exports is higher for Romania. Both economies invest more in imported value added in the production of a given product, than the euro area countries'industries and the other EU countries in general. (see Table 2).

The global value chain index (GVC index), calculated by the OECD, shows the integration of the individual EU country in the global production and trade global value chains. This index estimates both the share of imported foreign value added in a country's exports (backward linkages) and the country's domestic value added in other countries' exports as a share of the country's total exports (forward linkages).

Bulgaria is an importer of foreign industrial goods for intermediate consumption, "back down the chain". In the classification „backward in the chain", Bulgaria participates in the GVCs along with countries such as Lithuania, Estonia, Slovakia, Hungary, Ireland, Denmark, Luxembourg, Malta. These economies are net „recipients" of added value from the rest of the EU.

Bulgaria is included in GVC in automobile and textile industries, in mining of base metals, in the production of chemicals, in machine building and in various types of equipment.

Romania is in the group of Germany, Austria, Sweden, France, Finland, Great Britain, Netherlands, Poland. These countries are net contributors of added value and are in the classification of countries that invest more in new and green technologies. Romania is classified as a country that invests more value in gross exports (direct links). Romania produces energy carriers and specializes in automotive, chemicals and raw material. Domestic added value is higher in exports. The Romanian production of goods and services requires less imported intermediate goods and therefore the domestic value added is higher.

The CEE countries produce industrial intermediate goods (part of the production of other goods for export) within the framework of the GVCs. Intermediate goods are also exported along the production chains in third countries.

4. The emergence of external shocks, altering the activity of global value chains and new economic and political challenge to overcome

In recent years, EU international trade has been subjected to a series of challenges, such as the growth of non-tariff restrictions in the EU, a change in US trade policy and the introduction of customs restrictions on some goods, which is increasing controversy within the World Trade Organization (WTO). The growing contradictions in the field of international trade are also expressed by the emerging problems for the European GVS in the world.

One of the significant shocks is the pandemic crisis related to COVID-19, which reversals and impact has affected a wide range of industries and services.

The EU‘s foreign trade has been severely affected because European industrial production was operating at reduced capacity. The activity of small and medium-sized enterprises (SMEs), which were tied to industrial services and tourism, was also at very low level. In practice, entire parts of the enterprises were closed, except for those, that quickly retooled the production base and directed it to the production of goods related to health care. Significant measures were taken at the EU and national level to financially support industrial production, but the financing measures thus applied proved to be insufficient, although they contributed to some extent for the economic and the financial support of enterprises.

The uncertainty and the unpredictability, regarding the economic and commercial status of companies from the non-financial sector increased. Facing the closure of production, the companies implemented significant flexibility plans to quickly adapt to the changing economic environment, seeking ways to maintain the scaled-down production and to limit risks to firms.

The foreign affiliates proved to be a challenge for the host economy, because the closing of productions gave rise to significant economic and social costs, exceeding the immediate losses of jobs, of business activities and of trade turnover. The activity of foreign affiliates hampers internal supply chains, the provision of local services and, in the medium and long term, the quality of infrastructure, unless targeted financial strategies have been put in place to overcome the effects of the crisis.

A number of European countries are introducing temporary export bans and export restrictions on critical goods. With most economies were under full or partial lockdowns, the execution of the already concluded trade and investment deals remain uncertain to be finalized. The future of offshoring was not quite clear, than before the pandemic crisis due to COVID 19. The WTO announced a decline

of between 13% and 32% of external deals, while the foreign direct investments (FDI) fell from 30% to 40% in 2020-2021. (UNCTAD data).

A major problem remains the slow recovery of global value chains, which will be longer than the preliminary prognostics. This also applies some shortages to the production of important components for the electronics industry (the microchip production) and for the automotive industry. The prices of transport services (transport containers) are also rising, which is a prerequisite for the GVCs to pass on the rising costs to consumers, based on the rising prices of the raw materials. Due to the global shortage of semiconductors, the growth of trade in information and communication equipment, as well as automobiles and specific precision machines is continuing to be below the pre-pandemic levels.

The EU is highly dependent on imports of goods for structural industries and for consumption. The European economy faces significant challenges related to rising fuel prices, high inflation, shrinking FDI, expectations of a decrease in the growth rate of international trade due to low growth rates of world production and that of the EU in 2022 and in the near future.

Despite the uncertain geo-economic environment, the CEE region is experiencing economic dynamism in 2021, with the resurgence of mergers of companies and acquisitions of equity capital. It is a proof for the regained confidence of investors after the pandemic crisis with COVID 19 and despite the war on the territory of Ukraine.

Mergers and acquisitions of equity capital remain stable also in 2022. In 2020, transactions‘ values exceeded EUR 20 blns. The number of transactions. The strong post-COVID-19 economic recovery in the area, has also returned to its pre-pandemic high level, with 2,015 transactions, even exceeding the number of 1,958 transactions (in 2019). In 2021, the zone‘s overall transaction value increase by 55.1% to reach 94.27 EUR blns euros, a record increase since 2013.

Conclusion

European GVCs revealed to be particularly vulnerable during the pandemic crisis with COVID 19, because the shrink in the supply of goods and the low rebuilding of industrial networks contributed for the widening of imbalances between supply and demand for goods in Europe. Rising geopolitical tensions with the war on the territory of Ukraine, as well as the high inflation and the rise in fuel prices had also a negative impact on EU GVCs.

The EU is aware with the tremendous challenges that the EU countries must face. In these conditions, EU is reinforcing the industrial and trade policies towards strengthening European strategic autonomy - helpful for the deepening of the European and monetary integration and to boost ahead the climate neutral and green investments into the EU.

Although, it is not yet known how the geopolitical and geo-economic world policies will turn to be in the near future. Because of the economic disbalances in

Europe, certain European enterprises orient their production towards other markets and namely in the USA.

It is quite possible, that new centers of economic power and trade emerge. Certain alliances may forge poles of industries in the Western countries, other in Asia with the predominance of Chinese companies. Over the past decade, it became evident that the geopolitical world is changing and became more diffuse with the rise of China like the first world exporter of goods.

In this area, the EU‘s path coincide with European GVCs strategic plans to invest substantial resources in digitalization and the green economy. Should we expect a reorientation in the globalisation and the GVCs with the possible reorganisation of international trade poles, accompanied by the strong impetus of digitalisation and the adoption of new forms of industrial production and trade?

Bibliography

Hymer S.H (1976) The International Operations of National Firms: A Study of Direct Foreign Investment, PhD Dissertation, Published post-humously, The MIT Press, Cambridge, Mass.

Caves C R.E. (1974) Multinational Firms, Competition and Productivity in the Host country, Economica, 41,: 176-193.

Dunning J.H., 2000, The eclectic paradigm as an envelope for economic and business theories of MNE activity, International Business Review, 9, 163-190.

Baldwin R., J.Lopez Gonzales, (2015) Supply-chain trade: A portrait of global patterns and several testable hypotheses, CEPR Discussion Papers, No 9421.

Baldwin, R. (2013). Trade and Industrialisation after Globalisation’s Second Unbundling: How Building and Joining a Supply Chain Are Different and Why It Matters. In: R. F. Feenstra and A. M. Taylor (eds.). Globalisation in an Age of Crisis: Multilateral Economic Cooperation in the Twenty-First Century. University of Chicago Press: 165-212.

Baldwin, R. (2012). Global Supply Chains: Why they emerged, why they matter, and where they are going, CEPR Discussion Papers No. 9103, Centre for Economic Policy Research.

Timmer M. P., Bart Los, R. Stehrer and Gaaitzen J. de Vries, (December 2016) An Anatomy of the Global Trade Slowdown based on the WIOD 2016 Release, University of Groningen.

Amador J., R. Cappariello, R. Stehrer, (March 2015), Global value chains: a view from the euro area, ECB Working Paper 1761.

G. Gereffi, J.Huphrey, Th. Sturgeon (February 2005) The Governance of Global Value Chain, Review of International Political Economy, 12(1):78.

Stöllinger R. D. Hanzl-Weiss S. Leitner, R. Stehrer (April 2018), Global and Regional Value Chains:How Important, How Different? Wiener Institut für Internationale Wirtschaftsvergleiche Research Report 427

M. Dupré (17 août 2020) Les chaines de valeur régionaliser et relocaliser ; veblen-institute :org

ZimmermanThomas A., (2008), Les investissements directs : évolution actuelle en théorie, pratique et politique, La vie économique, Revue de politique économique, 7/8.

The Future of Global Value Chains. Business as usual or a "new normal"? (July 2017), OECD Science, Technology and Innovation, Policy Papers, No 41.

Investing in Innovation and skills. Thriving in Global Value Chains, October 2017, OECD Science, Technology and Innovation, Policy Papers, No 44.

Alan M.Rugman, Internalization is still a general theory of foreign direct investment, New theories of international trade and FDI)

Gros, Alcidi C. M.Biggs, T. Mayer, B.Ark, 2010, The Impact of the Financial Crisis on the Real Economy, Intereconomics Vol. 45, 1.

Blanchard O., LeighD., 2013, GrowthForecastErrorsandFiscalMultipliers, IMF-WorkingPaper, WP/13/1.p. 1-43

S.Jean., 2016, Vue d'ensemble, la montée des tensions, L'Economie mondiale *2017,* Collections Repères, Paris.

Rodrik D. 2011, The Globalization Paradox. Democracy and the Future of the World Economy, W. W. Norton & Company, New York.

TRADE FINANCE – KEY FACTOR FOR INTERNATIONAL ECONOMIC GROWTH

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Abstract:

Similar world trade finance instruments stayed in use from long-term perspective more than eight centuries. The bill of exchange has proven to be extremely flexible. Its transformation over time reflected the evolution of global trade finance market. Nowadays the structure of trade finance market is the same as it was at its origin. Local banks and local branches of world banks offer to firms a range of products. In combination with credit insurance or guarantees as additional government`s support medium-term trade finance (or export finance) has been comparatively more flexible in comparison with short-term trade finance. Trade finance kept its low-risk profile in the turbulence times[2].

Key words*:* Trade Finance, Bills of Exchange, Negotiable Trade Finance Instruments, Acceptance Houses, Documentary Credit, Documentary Collection, Cash-in-advance, Open Account.

JEL: F1, F3, F4, G2

As the oldest field of international finance, trade finance comprises all instruments and methods necessary for obtaining large amounts of capital for short time financing international activities and covering the risks of all participants (merchants and firms) in the international trade. From the very beginning of the international trade history, exporters and importers have tried to find new techniques for lowering the risks specific for long-distance international transactions in the organization of great amount of working capital. They are produced either by banks, known as "bank-intermediated trade finance" in the modern literature, or by trading firms abroad, called "inter-firm" trade credit.

The structure and governance of this market have been reshaping in parallel with the evolution of international monetary and financial system from middle Ages up to the present. Trade credit instruments and the intermediation of banks in the basic world financial centers in financing world trade have also been evolving over time.

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[2] It should be noted that the present article is part of a research project „Export financing and the practice of China Development Bank in Bulgaria", funded by UNWE, **Grant N НИД НИ-25/2020**

From historical point of view, the bill of exchange was the most universal instrument broadcasted in the middle Ages. At first, issued by merchant and banking firms, consisted of specific assets, bills of exchange have been used as private credit instruments for the financing of international trade.

The standardization of the trade finance products rose up from the sixteenth century onwards and progressively the process of centralization of the world trade financing around the main trading centers of Antwerp, Amsterdam and London was on. In the nineteenth century London was transformed into global center for international trade finance, a large part of which was financed through the London money market.

The disintegrated structure of the world trade finance market evaluated during the interwar and post-war years. The decentralized market in the form of trade finance products issued by banks in the trading countries recovered in the years after 1970.

1. Trade Finance in the period of 1100-1800.

The information for the emergence of trade finance is not so much in the Antiquity however it was present in the early civilizations of the Middle East being one of the anchors of the banking systems from the time of the Greek Mediterranean.

The available information came from the re-emergence of trade finance in the Western countries after 1000 AD. International trade was basically financed by typical native lending activities up to 13th century. The trade organization was still represented as "caravan trade", in which the financing was organized through the creation of special partnerships among fellow citizens. The organization and financing itself happened on a bilateral foot although the links between the entrepreneurs' place of origin with a world trading center.

• *Specifics of Medieval bill of exchange.*

During the 13th century, when the merchants started to establish permanent networks of correspondents, the trade started to change its structure in the form of "sedentary trade". Such phenomenon was typical for Italian companies (except the Germans, Baltic regions, extra-European places, without Constantinople).[3] Within the new trading model, the trade flows were arranged in each single correspondent network multilaterally among different vertexes. The organization of trade continued to be among groups of fellow citizens on a greater scale than before and the funding derived from such "clans". That was the way of emergence of the future main instrument of international trade finance – *the bill of exchange*.

The original bill of exchange was not a standardized credit instrument. It was a certificate of a private credit contract between two local agents, to be presented to a foreign correspondent.

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[3] De Roover, Raymond (1953), *L'evolution de la letter de change, XIVe-XVIIIe siecles*, Paris: Armand Colin.

Being not standardized instrument, it was not possible to trade with medieval bills of exchange on an open market. In the medieval period the nature of financing trade is quite specific. A good example is the medieval bill of exchange, known as "exchange on Venice" (cambium ad Venetias)[4]. In the 15th century the international trade to and from Venice was financed by Florentine capital in the form of non-marketable local credit contracts, issued by Florentine companies. Companies like the Medici bank started to offer to Florentine investors a new financial product, denominated in Florentine currency with return indexed on Venetian interest rate.[5]

• *The Appearance of Negotiable Trade Finance Instruments.*

In the early modern era trading firms abroad started to credit directly each other by selling and purchasing their bills after the introduction of negotiability. The nature of the bill of exchange as a certificate of a local credit contract evolved. The bill transformed into an exchange-traded financial instrument. In the mid-18th century the financing of trade transactions was organized through credits lent between firms themselves specialized in overseas trade.

In the first half of the 16th century the role of Antwerp as a commercial metropolis of Western Europe remained the same. The management of inter-group liquidity for financing the trade was the advantage of network companies in comparison with the more primitive traders. They had to mobilize quickly the returns of their sales and to convert them into commodity for re-export. To that aim, Northern traders insisted on getting the recognition of the principle of negotiability of credit instruments by the Antwerp authorities, which transferred to the bearer the juridical protection previously granted exclusively to the original creditor[6]. The necessary condition for trade finance to overcome local dimensions was the negotiability.

The new international standard – the "Antwerp custom", was established as a result of the role of Antwerp as new European trade center by the early 17th century. The negotiable bill of exchange had transformed into basic instrument for financing the intra-European trade. Finally the location of the borrower and the lender had been separated.

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[4] De Roover, Raymond, Money, Banking and Credit in Mediaeval Bruges (Cambridge, Mass. 1948), pp. 56, 72; from the Datini Archives of Prato, pp. 1146.

[5] De Roover, Raymond (1974), "*Cambium ad Venetias:* Contribution to the History of Foreign Exchange", in Julius Kirsher (ed.), *Business, Banking, and Economic Thought in Late Medieval and Early Modern Europe: Selected Studies of Raymond De Roover,* Chicago and London: University of Chicago Press, pp. 239-259.

[6] Accominotti Oliver, Stefano Ugolini. International Trade Finance from the Origins to the Present: Market Structures, Regulations and Governance. Eric Brousseau, Jean-Michel Glachant, Jerome Sgard. The Oxford Handbook of Institutions of International Economic Governance and Market Regulation, Oxford University Press, In press, 9780190900571. 10.1093/oxfordhb/9780190900571.013.1. hal-02941654.

In the meantime, the emergence of Amsterdam as leading trade center pushes the transforming the bill on Amsterdam into an increasingly popular instrument.[7] During the 17th and 18th centuries the organization of trade finance in terms of geographic and demographic aspect became with free-entry in comparison with late medieval age, in which the list of banks, characterized by oligopolistic Italian companies, was very restricted.

The introduction of negotiability shifted the architecture of the trade finance market with substantial evolution of trade finance instruments in parallel but their circulation remains restricted. The payment of reciprocal debt among merchant firms was organized by the appearance of new negotiable bill of exchange. Nevertheless international trade was mainly financed on a decentralized basis. Specialized agents had extended credits in the exporters` and importer`s countries.

2. The Trade finance in the period of 1800-1900. The Bill on London.

Deep evolution of the world trade finance market happened after the appearance and gradual internationalization of the large discount market for bills of exchange in London from the second of the 18th century to the early 20th century. Being highly liquid and secure money market instruments bills of exchange drawn on London City began to circulate across the globe and to finance trade transactions around the whole world. A great number of participants from the country and all over the world took part in the trade with such highly-standardized products, issued by specialized agents, around one financial center. They were a brand-new instrument, the so-called *inland bill*, issued at first by the London discount market. The role of Britain is central in financing the global trade boom of the second half of the 19th century and in regulating firm`s access to trade finance.

Drawn and payable in England the inland bill was only domestic credit instrument. The inland bill became a very popular means of payment for domestic transactions in England. It was exchanged on the constantly increasing discount market, which was soon used for financing also the world trade.

At the beginning of 20th century the inland bill disappeared from circulation after the transformation of London discount market into international market. The instruments, used to finance domestic, intra-continental, and inter-continental trade unified.[8] Bills of exchange drawn by agents from all over the world became traded on the London discount market.

"*Acceptance houses*", being specialized intermediaries and established abroad, appeared in London. In order to allow their customers to borrow from investors in the London bill market, they guaranteed (accepted) bills on their account.

[7] Gillard, Lucien (2004), *La Banque d`Amsterdam et le florin europeen au temps de la Republique neerlandaise (1610-1820)*, Paris:EHESS.

[8] Nishimura, Shizuya (1971), *The Decline of Inland Bills of Exchange in the London Money Market, 1855-1913*, Cambridge: Cambridge University Press.

Bank of England encouraged the investment in the bill market. By setting formal and informal rules, as a result of its lending-of-last-resort policy the British central bank stimulated the appearance of credit instruments on the market. By reducing the credit and liquidity risk concerning bills the bank supported their usage as an international "safe asset" on the London bill market.

Being world`s trade center London kept its role unmatched from 1870 to 1914. By the adoption of international gold standard, drawn from any country, but payable by a London acceptor and eligible for rediscount at the Bank of England, the bill on London transformed into the most widely demanded short-term financial instrument in the world.[9] Diversity of investors - English financial institutions and investment trusts, central and trade banks abroad, invested in sterling bills to finance global trade boom of 1870-1914. At the beginning of the 19th century the depth of the London discount market urged the appearance of "bill brokers" or discount houses. Buying bills of exchange they financed themselves through short-term deposits and credits from commercial banks.[10] The locations of all firms trading abroad and that of the lenders disconnected. British and foreign investors could lend funds to borrowers located in any country and finance a trade transaction from all over the world through the platform of the London market.

Any formal modification in the legal status of the bill of exchange could not be found in parallel with the remarkable transformation of the London discount market between its emergence as a domestic platform in the mid-18th century and as an international one in the late 19th century.

The introduction of the principle of negotiability in 16th century Antwerp was the only significant legal change in the history of Western trade finance. Both acceptance houses and the Bank of England contributed to set eligibility standards for access to the market by outsiders as informal regulation in Britain and merchant banks and banks of issue established domestic standards on the Continent.[11]

3. The Collapse of Global Trade Finance in the period of 1914-1939.

• *The First World War and the disruption in the London money market*.

During the First World War and interwar years the leading role of London in the world trade finance market gradually declined. London discount market was seriously influenced by the war.

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[9] Lindert, Peter, H. (1969), "*Key Currencies and Gold, 1900-1913*", Princeton Studies in International Finance, No 24, pp.1-85.

Flandreau, Marc, and Clemens Jobst (2005), "*The Ties That Divide: A Network Analysis of the International Monetary System, 1890-1910*", The Journal of Economic History, vol.65, pp.977-1007.

[10] King, Wilfred T.C. (1936), *History of the London Discount Market*, London: Routledge.

[11] Ugolini, Stefano (2017), *The Evolution of Central Banking: Theory and History*, London: Palgrave Macmillan.

As a result of the capital control debtors abroad who had drawn bills of exchange on leading acceptance houses or banks of London could not transfer funds to these institutions to return their credits. It happened to be even difficult for some houses that had accepted/guaranteed great amounts of bills to cover their liabilities.

Britain avoided a banking crisis after the strong measures of the British Government and Bank of England, but the liquidity of the world`s most prevalent trade finance instrument – the sterling bill – had been ruin. Difficulties over capital flows and war time problems in the management of international trade became the reasons for restricting the function of London as a world trade financial center.

• *Rebirth of Trade Finance in the 1920s. The double-natured Market Structure.*

After the First World War the United States transformed into the biggest creditor country and the world`s main trading power. The global trade finance market restored over the instruments from the 19th centuries. In the mid-1920s greater part of the European currencies stabilized. World commercial, capital flows and the demand for credit from the trading firms abroad substantially rose last half of the decade.

After removing the limitations on US national banks` and Federal Reserve[12] member banks` acceptance activities by the Federal Reserve Act of 1913, a market for dollar denominated bankers` acceptances appeared in New York. The dominance of London discount market was provoked by the emergence of another large acceptance market in New York. The US acceptance market was dominated by the country`s biggest trade banks and directly supported from the monetary authorities in contrast to London where the biggest share of bankers` acceptances was drawn by small acceptance houses specialized in trade finance.[13]

At the end of the 1920s, the number of dollar bankers` acceptances rose substantially and the structure of the global trade finance market divided into two – London and New York fell in competition for the financing of world trade.

After the stabilization of the European currencies in 1920s, a great part of the related credit demand still remained run by the London City. In 1930 New York and London were financing equal parts of the global trade. The intensive competition between the banks in the two centers in the world acceptance market resulted in decreasing the fees charged in exchange for the guarantees and in a reduction in the standards set by intermediaries and monetary authorities.[14]

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[12] *The Federal Reserve System* (also known as the Federal Reserve or simply the Fed) is the central banking system of the United States of America. It was created on December 23, 1913, with the enactment of the Federal Reserve Act, after a series of financial panics (particularly the panic of 1907) led to the desire for central control of the monetary system in order to alleviate financial crises

[13] Accominotti, Olivier (2012), "*London Merchant Banks, the Central European Panic and the Sterling Crisis of 1931*", The Journal of Economic History, vol.72, pp.1-43.

[14] Accominotti Oliver, Stefano Ugolini. International Trade Finance from the Origins to the Present: Market Structures, Regulations and Governance. Eric Brousseau, Jean-Michel

• *The World Economic Crisis and the Collapse of Trade Finance in the 1930s.*

As a result of the World economic crisis of the 1930s the world trade collapsed, the world income declined in parallel with the reduction of the world export. Between 1929 and 1933, world export declined by almost 30 percent in real terms and this considerably reduced the demand for financing from firms.[15] The rebirth of acceptance finance of the 1920s was not for a long time.

On the other hand the supply of trade finance was influenced by the financial crisis of the 1930s. In the summer of 1931 Germany and Central European countries imposed capital controls. Intermediating trade finance for continental customers the acceptance houses of the London City were heavily influenced by the international economic situation.[16] Dominated by the biggest trade banks the acceptance business in the United States was less affected by the European crisis. Decreasing its holdings of bankers` acceptances to reinforce the dollar`s gold parity the Federal Reserve withdrew the help to the New York acceptance market in 1931. The expansion of the market was hold.[17]

In the second half of the 1930s the global trading system started to reorganize. Quantitative restrictions on trade flows and bilateral agreements[18] were established in many countries with Central European and Latin American countries. As a result state interference in international trade increased and cross-border credits declined. The share in the world export financed by New York and London discount market fell to 25 percent, in comparison with 43 percent in 1930.[19]

Being the major money market instrument in the interwar period the private firm`s debt bankers` acceptances were replaced by the government debt Treasury bills. During The First World War the volume of Treasury bills, issued by the British authorities, rose significant.

In contrast with the weakening bill of exchange system the Convention on the Uniform Law of International Bills of Exchange, as one of the experiences to create

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Glachant, Jerome Sgard. The Oxford Handbook of Institutions of International Economic Governance and Market Regulation, Oxford University Press, In press, 9780190900571. 10.1093/oxfordhb/9780190900571.013.1. hal-02941654.

[15] Federico, Giovanni, and Antonio Tena-Junguito (2016), "*World Trade, 1800-1938: A New Data-Set*", EHES Working Paper No93 (January 2016).

[16] Accominotti, Olivier (2012), "*London Merchant Banks, the Central European Panic and the Sterling Crisis of 1931*", The Journal of Economic History, vol.72, pp.1-43.

[17] Eichengreen, Barry, and Marc Flandreau (2012), "*The Federal Reserve, the Bank of England, and the Rise of the Dollar as an International Currency, 1914-1939*", Open Economies Review, vol.23, pp.57-87.

[18] These agreements were based on the principle of reciprocal trade and left the management of the bilateral trade balance to a government agency or compensation office.

[19] Accominotti Oliver, Stefano Ugolini. International Trade Finance from the Origins to the Present: Market Structures, Regulations and Governance. Eric Brousseau, Jean-Michel Glachant, Jerome Sgard. The Oxford Handbook of Institutions of International Economic Governance and Market Regulation, Oxford University Press, In press, 9780190900571. 10.1093/oxfordhb/9780190900571.013.1. hal-02941654.

a uniform international financial regulation, was signed in Geneva in 1930. Being relatively similar to the English convention but with some formal differences, Anglo-Saxon countries refused to ratify the Convention. Its establishment as a uniform international legal standard was prevented.

4. Trade Finance after the Second World War.

• *Trade Finance in the Bretton Woods Years in the period of 1944-1971.*

At the end of the Second World War international trade resumed and the old channels restarted to finance trade activities. The acceptance business of London trade and clearing banks and American commercial banks started again to provide trade credits to domestic and foreign exporters and importers.

The Bretton Woods conference in 1944 organized a system of fixed exchange rates to the US dollar as a dominant currency, and countries maintained restrictions on international capital movements.[20] Many of the bilateral clearing agreements established in the 1930s continued to operate after the war.

Until the end of Bretton Woods world trade and finance stayed regulated by state authorities. Over the 1950s and 1960s the limitations to foreign lending were removed and current account convertibility was recovered.

• *Trade Finance in the post-Bretton Woods Years in the period of 1973-1985.*

Capital controls were removed after the collapse of the Bretton Woods system in 1971-1973. The demand for trade finance rose after the resurrection of world trade in the late 1970s and early 1980s. In the post-Bretton Woods years the US dollar had established its position as the prevailing world currency since the United States was at the center of the world trading system through the US market, used by the exporters and importers to finance their trade activities.

In the late 1970s the US bankers` acceptance market survived. The US banking regulation made the activity of accepting bills an attractive business for American banks. In 1973 the acceptances became free from reserve requirements.[21] Around 17% of world exports were financed though US bankers` acceptances in 1982-1984.[22]

The New York market never resumed its importance in financing of world trade it had had at the end of the 1920s. The issuance of US dollar bankers` acceptances constantly decreased after 1985. First, the growth of the commercial paper market allowed large corporations to borrow directly from non-financial investors and without

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[20] Eichengreen, Barry (1996), *Globalizing Capital: A History of the International Monetary System*, Princeton NJ: Princeton University Press.

[21] Jensen, Frederik H., and Patrick M. Parkinson (1986) "Recent Developments in the Bankers Acceptance Market", Federal Reserve Bulletin, vol. 72 (January 1986), pp. 1-12.

[22] Accominotti Oliver, Stefano Ugolini. International Trade Finance from the Origins to the Present: Market Structures, Regulations and Governance. Eric Brousseau, Jean-Michel Glachant, Jerome Sgard. The Oxford Handbook of Institutions of International Economic Governance and Market Regulation, Oxford University Press, In press, 9780190900571. 10.1093/oxfordhb/9780190900571.013.1. hal-02941654, pp.18, figure 3.

the signature/guarantee of a US money-center bank. Second, acceptances lost their privileged regulatory status. Other forms of short-term asset-backed commercial paper got free from capital requirements at the end of 1990.[23] The issuance of acceptances became less attractive activity for US financial institutions. From 1980s onwards the role of American banks became marginal.

• *Trade Finance after 1985.*

The trade finance infrastructure is completely different in the late 20th century in comparison with the global platform such as that developed in London over the course of the 19th century. The methods of financing have evolved. The international trade is financed by the intermediation of local banks in the trading abroad firms` countries as it was at the origin of this market.

Initially exporters and importers rely on inter-firm trade credit. The exporters finance directly (*the open account method*) or the importers pre-pay (*cash in advance/pre-payment method*) the trade transaction. National and global banks provide direct loans and overdraft facilities to firms in need of working capital.[24] Large corporations also borrow in the US or Euro commercial paper markets.[25]

To insure exporters against importers` default risk, banks offer specific trade finance products such as *letter of credit* and *documentary collections*.[26] The bank of the importer issues a letter of credit guaranteeing the exporter that payment should be made against presentation of a set of documents proving the shipment of goods. The confirmation by the exporter bank adds another guarantee to the payment in the letter of credit product. The exporter often postpones the payment from the importer by selling the acceptance of the letter of credit by the issuing bank at a discount. By contrast, in the case of documentary collection banks are only transferring the documents from the exporter to the importer and assisting in the collection of payment.[27] The exporters provide the insurance from non-bank, insurance companies against importers` payment default or receive guarantees from export credit agencies.[28]

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[23] LaRoche, Robert K. (1993) "Bankers Acceptances", Federal Reserve Bank of Richmond Economic

Quarterly, vol. 79 (Winter 1993), pp. 75-85.

[24] Cooper, Stuart, and Inke Nyborg (1997), "The Financing and Information Needs of Smaller Exporters", Bank of England Quarterly Bulletin, Q2, pp. 166-172.

[25] Asmundson, Irena, Thomas William Dorsey, Armine Khachatryan, Ioana Niculcea, and Mika Saito (2011), "Trade and trade finance in the 2008-09 financial crisis", IMF Working Paper 11/16.

[26] Amiti, Mary, and David E. Weinstein (2011), "*Exports and Financial Shocks*", Quarterly Journal of Economics, vol. 126, pp. 1841-1877.

[27] Asmundson, Irena, Thomas William Dorsey, Armine Khachatryan, Ioana Niculcea, and Mika Saito (2011), "*Trade and trade finance in the 2008-09 financial crisis*", IMF Working Paper 11/16.

[28] Bank for International Settlements (2014), "*Trade Finance: Developments and Issues*", CGFS Papers No 50, January 2014.

The structure of the late 20th century global trade finance is different from that of the 19th century. In the nineteenth century the world trade finance passed through the London financial center. While nowadays national banks or branches of world banks situated in the countries abroad are the intermediaries in trade finance services. Centralization around London before the First World War determined the implicit regulation of trade finance services by the Bank of England. The regulation of local and global banks nowadays is in priority of national authorities. The decentralized organization of the world trade finance nowadays resembles the organization at the origins of the market in the medieval period, reminding of the international pre-eminence of Italian and South-German banking groups in the late middle Ages.[29]

When the banking system is not so developed, a phenomenon known as the "trade finance gap", it is possible local firms to suffer from a lack of intermediation.[30] The trade finance of such firms might be more vulnerable to stress at the local financial system. During the crisis of the 1990s the reduction of the export of the Japanese firms was stronger than the others.[31] Many researchers[32] have investigated the effects of global financial crisis of 2008-2009 over the supply of trade finance. The credit restrictions affected firms engaging in international trade and a collapse in the world trade followed in the year after the crisis.

The other characteristic of the trade finance market nowadays is the level of credit securitization. The establishment of bills of exchange negotiability accelerated their usage as a trade transaction financing instrument around the world in the sixteenth century. In the nineteenth century and interwar period and to a lesser extent in the 1970s and 1980s, bankers` acceptances drawn by firms around the world on leading financial houses in London and New York were used as money market instruments and traded by different types of bank and non-bank investors. From 1980s the trends has changed and the usage of trade finance products for money market transactions reduced. Due to the lack of standardization and

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[29] De Roover, Raymond (1953), *L'évolution de la lettre de change*, XIVe-XVIIIe siècles, Paris: Armand Colin.

[30] Asmundson, Irena, Thomas William Dorsey, Armine Khachatryan, Ioana Niculcea, and Mika Saito (2011), "Trade and trade finance in the 2008-09 financial crisis", IMF Working Paper 11/16.

[31] Amiti, Mary, and David E. Weinstein (2011), "Exports and Financial Shocks", Quarterly Journal of Economics, vol. 126, pp. 1841-1877.

[32] Ahn, JaeBin, Mary Amiti, and David E. Weinstein (2011), "*Trade Finance and the Great Trade Collapse*", American Economic Review Papers and Proceedings, vol. 101, pp. 298-302.Del Prete, Silvia, and Stefano Federico (2014), "*Trade and Finance: Is There More than Just "Trade Finance"? Evidence from Matched Bank-Firm Data*", Bank of Italy Working Papers No 948, January 2014.

Paravisini, Daniel, Veronica Rappoport, Philipp Schnabl, and Daniel Wolfenzon (2015), "*Dissecting the Effect of Credit Supply on Trade: Evidence from Matched Credit-Export Data*", Review of Economic Studies, vol. 82, pp. 333-359.

knowledge of this type of products, the demand for them from non-bank investors stays restricted, while global banks made attempts to securitize their trade finance portfolios or specific trade finance credits.[33] There are two ultimate sources for international trade transactions finance nowadays – one relying on inter-firm credit or not discounted by the exporter`s bank letter of credit and the other from the bank of the exporter or the importer (in case of a letter of credit with a working capital loan). Local firms were borrowing directly from banks as providers of capital for the world trade finance nowadays. In comparison with pre-First World War period there were different types of investors in bills of exchange without having any specific knowledge of the last borrower.

5. The evolution of short-term and medium-term trade finance in the 2020s.

The trade finance industry is highly influenced by factors affecting international trade and the money supply. Less trade means less potential business to finance. At the same time the rising trade risk can be the reason for increasing demand for risk mitigation instruments, such as credit insurance or guarantees. The aggregate demand and the financing conditions of trading firms can be affected similarly by the changes in monetary and fiscal policies.

• *Surging the credit of the private sector.*

Central banks around the world struggle with the negative impact of the pandemic on the global economy using different policy tools to maintain borrowing, to support access to credit to business and households. The targeted groups started from different level of governments (from central to local), various sizes of businesses (small and medium enterprises to large corporations) to households and non-profit organizations. The instruments included: keeping the interest rates at historical low levels and forward guidance to stabilize expectations; quantitative easing by purchasing treasury and mortgage-back securities; lending to financial firms, purchases of corporate securities, direct lending to nonfinancial firms, international swap lines among others to keep the liquidity provision and credit support; reductions of reserve requirements for lending, lower standards for collateral.

Households` savings highly increased as a result of fiscal transfers, short-term working schemes and tax measures used in several economies. The financial support to businesses` cash-flow and households` income and employment provided by governments included: loans, debt guarantees or equity injections to support businesses activities and employment; job retention schemes; deferral of tax, rent, utilities payments and social security contributions, and debt moratorium; paid sick leave; direct lump sum payment and increase of unemployment benefit payments. As a result, credit to non-financial institutions raised by 8% of GDP

[33] Bank for International Settlements (2014), "*Trade Finance: Developments and Issues*", CGFS Papers No 50, January 2014, pp. 27-30.

in Eurozone countries, 6% in the United States, and 15% of GDP in emerging economies and credit to households increased by 3 and 8% of GDP for advanced and emerging economies. [34]

- *Short-term trade finance declined in 2020 against medium-trade finance expansion.*

The demand of short-term trade finance declined in 2020 after the contraction of the demand and supply of merchandises trade as a result of the Covid-19 crises. Short-term trade finance exposure declined by 21% to the amount of USD 2,043 billion after the large reduction of merchandises imports and exports.[35] Trade loans and import letters of credit contracted by 23% and 29%, respectively.

Banks from the private sector restricted the supply of short-term finance. According to the data from the 2021 ICC Trade Register the lower supply of liquidity from the banking sector determined the decline (75% of total exposure) in short-term trade finance products in 2020, a decrease in the number of borrowers for trade loans (-8%) and letters of credit (-18% for imports, -9% for exports) and a reduction of the median amount for trade loans by 30% from USD169 to 129 million. In the beginning of 2020 a liquidity withdrawal was also caused by the rising Treasury-Eurodollar rate (TED) [36]spread from 0.4 in the beginning of the lockdown to the peak of 1.4 at the end of March 2020. The restrictive trend of the lending market to the private sector might also be strengthened by the Basel and solvency requirements.

In combination with credit insurance or guarantees as additional government`s support medium-term trade finance (or export finance) has been comparatively more flexible in comparison with short-term trade finance. The raising of medium-term trade finance has been 26% reaching USD 65billion between 2019 and 2020 - 70% of the increase covered by the corporate loans, followed by the sovereign loans. [37] To support trade and to fill the trade financing gap through the Export Credit Agencies governments implemented different measures as: boosting their working capital support programs; introducing export credit insurance or guarantees; improving the flexibility for repayments, interest rates, fees, claims; improving the policy approval, contactless application processes, provided deadline extensions and extended time for notification and filing claims.

Trade finance kept its low-risk profile in the turbulence times. The trade collapse provoked by the lockdowns doubled the value of defaults for short-term trade finance to reach USD 5.5billion between 2019 and 2020. The trend was determined by trade loans defaults amounted 80% of the increase. The default rate as a percentage of total exposure stayed low and reached 0.3% in 2020 while

[34] OECD, "OECD SME and Entrepreneurship Outlook 2021", OECD Publishing, Paris,2021, https://doi.org/10.1787/97a5bbfe-en

[35] International Chamber of Commerce, "*2021 Trade register report, Global risks in Trade Finance*", 2021

[36] Difference between 3-Month LIBOR based on US dollars and 3-Month Treasury bill.

[37] International Chamber of Commerce, "*2021 Trade register report, Global risks in Trade Finance*", 2021.

global non-performing loans exceeded 6% in 2020 and during the global financial crisis in 2009/2010.[38]

Summary:

Similar world trade finance instruments stayed in use from long-term perspective more than eight centuries. The bill of exchange has proven to be extremely flexible. Its transformation over time reflected the evolution of world trade finance market. Starting from localized bank-intermediated medieval bills of exchange, the appearance of the negotiable bill of exchange pushed trade finance instruments to proliferate broadly during the early modern times. The standardization of bills (or acceptances) transformed the London acceptance market into the world`s important money market. In the interwar period and the period after the Second World War the acceptance market declined and could not recover after the new boom in the international trade after 1980. Nowadays the structure of trade finance market is the same as it was the case at its beginning. Local banks and local branches of global banks offer a range of products to firms.

In the nineteenth century the main trade suppliers could be found in London under the authority of the Bank of England. During the interwar period the control and regulation of trade finance by Britain as the leading political power was challenged when London acceptance houses fell into competition with the big US trade banks.

Nowadays national authorities regulate banks offering trade finance products, while firm`s access to trade finance credits are defined on a local basis. In combination with credit insurance or guarantees as additional government`s support medium-term trade finance (or export finance) has been comparatively more flexible in comparison with short-term trade finance. Trade finance kept its low-risk profile in the turbulence times.

Literature:

1. Accominotti Oliver, Stefano Ugolini. International Trade Finance from the Origins to the Present: Market Structures, Regulations and Governance. Eric Brousseau, Jean-Michel Glachant, Jerome Sgard. The Oxford Handbook of Institutions of International Economic Governance and Market Regulation, Oxford University Press, In press, 9780190900571. 10.1093/oxfordhb/9780190900571.013.1. hal-02941654.
2. Accominotti, Olivier (2012), "London Merchant Banks, the Central European Panic and the Sterling Crisis of 1931", The Journal of Economic History, vol.72, pp.1-43.

[38] International Chamber of Commerce, "*Recent Trends and Trade Finance. Impact of the Covid-19 Crisis and Challenges Ahead*", March 2022, Figure 23.

3. Ahn, JaeBin, Mary Amiti, and David E. Weinstein (2011), "Trade Finance and the Great Trade Collapse", American Economic Review Papers and Proceedings, vol. 101, pp. 298-302.
4. Amiti, Mary, and David E. Weinstein (2011), "Exports and Financial Shocks", Quarterly Journal of Economics, vol. 126, pp. 1841-1877.
5. Asmundson, Irena, Thomas William Dorsey, Armine Khachatryan, Ioana Niculcea, and Mika Saito (2011), "Trade and trade finance in the 2008-09 financial crisis", IMF Working Paper 11/16.
6. Bank for International Settlements (2014), "Trade Finance: Developments and Issues", CGFS Papers No 50, January 2014
7. Chapman, Stanley D. (1984), The Rise of Marchant Banking, London: Allen&Unwin.
8. Cooper, Stuart, and Inke Nyborg (1997), "The Financing and Information Needs of Smaller Exporters", Bank of England Quarterly Bulletin, Q2, pp. 166-172.
9. De Roover, Raymond (1953), L'evolution de la letter de change, XIVe-XVIIIe siecles, Paris: Armand Colin.
10. De Roover, Raymond (1974), "Cambium ad Venetias: Contribution to the History of Foreign Exchange", in Julius Kirsher (ed.), Business, Banking, and Economic Thought in Late Medieval and Early Modern Europe: Selected Studies of Raymond De Roover, Chicago and London: University of Chicago Press, pp. 239-259.
11. De Roover, Raymond, Money, Banking and Credit in Mediaeval Bruges (Cambridge, Mass. 1948), pp. 56, 72; from the Datini Archives of Prato, pp. 1146.
12. Del Prete, Silvia, and Stefano Federico (2014), "Trade and Finance: Is There More than Just "Trade Finance"? Evidence from Matched Bank-Firm Data", Bank of Italy Working Papers No 948, January 2014.
13. Eichengreen, Barry (1996), Globalizing Capital: A History of the International Monetary System, Princeton NJ: Princeton University Press.
14. Eichengreen, Barry, and Marc Flandreau (2012), "The Federal Reserve, the Bank of England, and the Rise of the Dollar as an International Currency, 1914-1939", Open Economies Review, vol.23, pp.57-87.
15. Federico, Giovanni, and Antonio Tena-Junguito (2016), "World Trade, 1800-1938: A New Data-Set", EHES Working Paper No93 (January 2016).
16. Flandreau, Marc, and Clemens Jobst (2005), "The Ties That Divide: A Network Analysis of the International Monetary System, 1890-1910", The Journal of Economic History, vol.65, pp.977-1007.
17. Geva, Benjamin (2011), The Payment Order of Antiquity and the Middle Ages: A Legal History, Oxford and Portland OR: Hart Publishing.
18. Gillard, Lucien (2004), La Banque d`Amsterdam et le florin europeen au temps de la Republique neerlandaise (1610-1820), Paris:EHESS.

19. International Chamber of Commerce, “2021 Trade register report, Global risks in Trade Finance”, 2021.
20. International Chamber of Commerce, “Recent Trends and Trade Finance. Impact of the Covid-19 Crisis and Challenges Ahead”, March 2022, Figure 23.
21. Jensen, Frederik H., and Patrick M. Parkinson (1986) “Recent Developments in the Bankers Acceptance Market”, Federal Reserve Bulletin, vol. 72 (January 1986), pp. 1-12.
22. King, Wilfred T.C. (1936), History of the London Discount Market, London: Routledge.
23. LaRoche, Robert K. (1993) “Bankers Acceptances”, Federal Reserve Bank of Richmond Economic Quarterly, vol. 79 (Winter 1993), pp. 75-85.
24. Lindert, Peter, H. (1969), “Key Currencies and Gold, 1900-1913”, Princeton Studies in International Finance, No 24, pp.1-85.
25. Moshenskyi, Sergii (2008), History of the Weksel: Bill of Exchange and Promissory Note, Bloomington IN:Xlibris., pp.172-174.
26. Mueller, Reinhold C. (1997), The Venetian Money Market: Banks, Panics and the Public Debt, 1200-1500, Baltimore MD: Johns Hopkins University Press.
27. Murray, Daniel E. (1994), “The U.N. Convention on International Bills of Exchange and International Promissory Notes with Some Comparisons with the Former and Revised Article Three of the UCC”, University of Miami Inter-American Law Review, vol. 25, pp. 189-225.
28. Nishimura, Shizuya (1971), The Decline of Inland Bills of Exchange in the London Money Market, 1855-1913, Cambridge: Cambridge University Press.
29. OECD, “OECD SME and Entrepreneurship Outlook 2021”, OECD Publishing, Paris,2021, https://doi.org/10.1787/97a5bbfe-en
30. Paravisini, Daniel, Veronica Rappoport, Philipp Schnabl, and Daniel Wolfenzon (2015), “Dissecting the Effect of Credit Supply on Trade: Evidence from Matched Credit-Export Data”, Review of Economic Studies, vol. 82, pp. 333-359.
31. Roberts, Richard (2013), Saving the City: The Great Financial Crisis of 1914, Oxford: Oxford University Press.
32. Ugolini, Stefano (2017), The Evolution of Central Banking: Theory and History, London: Palgrave Macmillan.

THE EUROPEAN GREEN BOND MARKET – DEVELOPMENT, CURRENT STATE AND REGULATORY REGIME[1]

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Abstract:

The financial markets, and more specifically the debt markets are expected to play a significant role in the transition to a green economy. One of the instruments that offers several advantages and whose market has seen the most substantial growth in recent years are green bonds. Currently the green bond market regulation is based on private governance and market-based standards, as there is no public regulation. With the launch of the EU green bond standard, the EU is going to pave the way for a public governance in this field. Therefore, the paper aims at exploring the current state and the development of the European green bond market, as Europe is a leading player. Additionally, I try to compare the suggested EU standard to the existing private standards, namely the Green Bond Principles and the Climate Bond Standard.

Key words: green bonds, regulation, EU green bond standard

JEL classification: G15, G18, F64

1. Introduction

Financial markets have a significant role in the development of the economy in that they channel financial resources to their most efficient uses. Undoubtedly, the financial markets, and more specifically the debt markets, will also play a significant role in the transition to a green economy. One of the instruments that offers a number of advantages and whose market has seen the most substantial growth in recent years are green bonds. Although there is a variety of sustainable finance instruments like blue bonds, social bonds, catastrophic bonds, sustainable bonds and so on, these are green bonds that dominate the market and occupy the largest share. Green bonds resemble classic bonds (the so-called "plain vanilla" bonds) in terms of structure, with their essential feature being that their proceeds

[1] This paper represents the contributory work of the author on a collaboration project for scientific research, financed by the UNWE under number НИД НИ-12-2021, named "Debt Instruments for Financing Sustainable Development in the EU".

are earmarked for assets, projects and/or activities that are environmentally sustainable.

There is no universally accepted definition of a "green bond". The definition that will be used for the purposes of this study is that of the International Capital Markets Association (ICMA) contained in the Green Bond Principles (GBP), namely "Green Bonds are any type of bond instruments where the proceeds or an equivalent amount will be exclusively applied to finance or re-finance , in part or in full, new and/or existing eligible Green projects and which are aligned with the four components of the GBP"

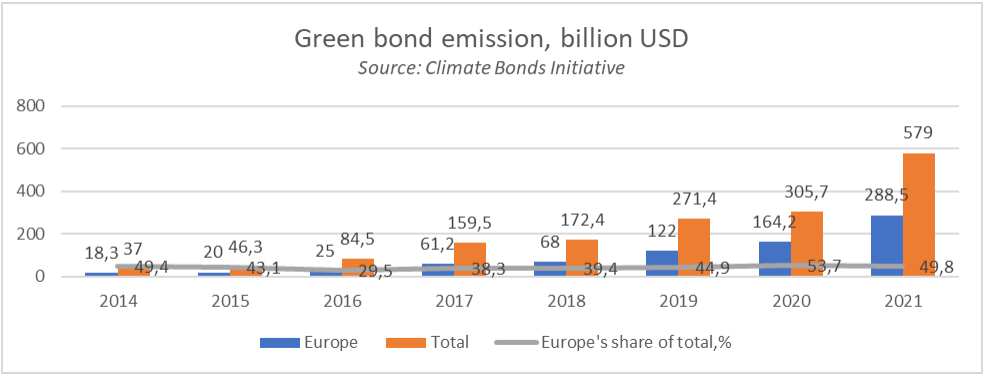
Although their characteristics and pricing are the same as for the plain vanilla bonds, the issuers of green bonds face some additional costs. Those cost are associates with the necessity to prove that their bonds are truly green. There are two aspects in this respect – one is to prove that the assets, projects and/or activities in which the proceeds will be invested are green and the other is to prove that the proceeds are really used for those purposes. Following from that are two questions – who decides which projects and activities are green and who can confirm that the proceeds are used for green purposes. Therefore, to eliminate greenwashing and to instill credibility in the green bond market, the regulation of the market and the establishment of standards is essential.

2. Development and state of the European green bond market

The first green bond was issued by the European Investment Bank in 2007, and a year later the International Bank for Reconstruction and Development also issued green bond. Up to 2013 the market was small and was dominated entirely by development agencies. In the years following 2013, the demand for such instruments began to exceed the supply, and this led to their sale at a higher price and the formation of the so-called „greenium" (a situation in which a green bond is sold at a higher price, at a premium, compared to a similar in characteristics ordinary bond). There are several tendencies that stimulate the rapid development of the market since 2013, namely the emergence of new issuers, the rising demand from investors and the development of new instruments. The year 2013 saw the first issue of bond exceeding the 1 bln. USD mark and the first corporate issuance of green bonds, which attracted the attention of the corporate sector. In the same year the first green muni bond was issued as well as the first green city bond. In 2016 Poland became the first sovereign issuer of green bonds, soon followed by France. The market expanded in terms of geography as well. Up to date 61 countries have issued green bonds. Different types of green bonds appeared on the market to cater for the different preferences of issuers and investors. Despite the exponential growth of the market, green bonds yet represent a small share of the total bond issuance (about 0,5% in 2021). It is estimated that for the Paris agreement targets to be achieved by 2050, the annual investment in green projects should be about 9 trillion per annum.

Europe as a region and the EU countries specifically are leading in the green bond market. As of 2021, the cumulative issue of green bonds amounts to 1.6 trln. USD, of which 758 bln. dollars (47%) are European issuance. In fig. 1, the dynamics in the development of the market volume in the period 2014 - 2021 can be traced globally and for Europe.

Fig. 1. Annual green bond emission 2014-2021, billion USD



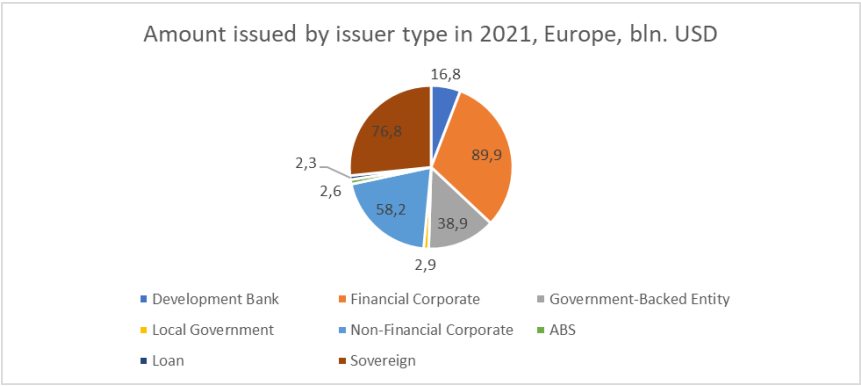
Source: Climate Bond Initiative.

From USD 37 billion in 2014, green bond issuance is steadily growing to reach USD 579 billion in 2021. Every year of the period under review, the green bond market in Europe grew, and over the entire period it increased 14 times (comparable to the growth of the global market). Europe also maintains a relatively constant, high share of the market, with nearly half of the green bonds issued in the world being issued in Europe. Europe achieved the largest share in 2020, 53.7%.

The leading position of Europe in the green bond market is also demonstrated by the high share of the green bonds, denominated in euros. In 2021, 42% of the amount issued is in euros, compared to 30% issuance in dollars and 10% in Chinese yuan. The high and growing share of the euro as a currency in which green bonds are denominated is expected to expand the international role of the European currency.

As far as the issuer type is concerned, in 2021 in Europe the highest volume of green bonds is issued by financial corporations (89,9 bln. USD and 31% share), followed by sovereigns (76,8 bln. USD and 27% share) and non-financial corporations (58,2 bln. USD and 20% share). This data contrasts a bit to the global trend, where sovereigns account for only 14,8% of the issuance while non-financial and financial corporates account for 26% and 25,3% respectively. This highlights the significance of European sovereigns as issuers of green bonds.

Fig. 2. Amount issued by issuer type in 2021, Europe, bln. USD.

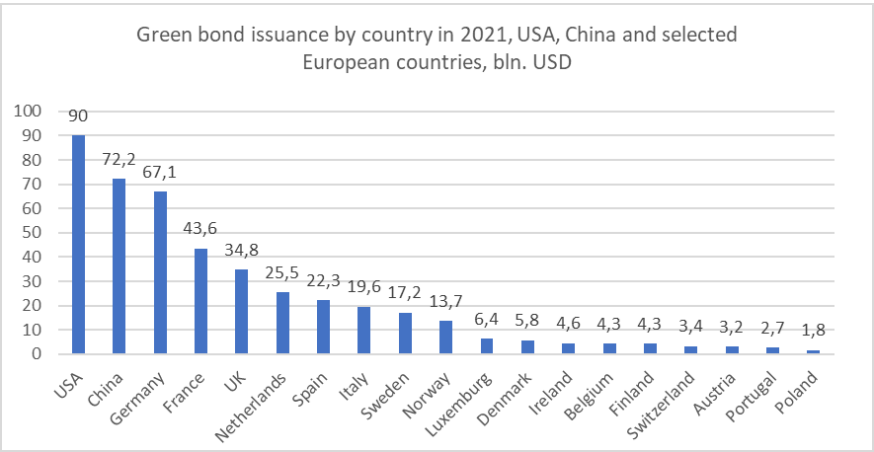


Source: Climate Bond Initiative.

In terms of single issuers, the European states rank among the first in terms of issued amounts of green bonds. Germany and France rank third and fourth respectively, following the leaders USA and China. The fig. 3 below illustrates that and shows the green bond issuance of selected European countries in 2021 which are significant issuers.

In October 2021 the European Commission (representing EU as a supranational entity) issued a 12 bln. EUR green bond to finance its Next Generation EU plan, thus becoming the largest issued volume in history. To fully realize its plans the European Commission is about to issue up to 250 bln. EUR green bonds till 2026, giving substantial boost to this market.

Figure 3. Green bond issuance by country in 2021, USA, China and selected European countries, bln. USD



Source: Climate Bond Initiative.

3. Regulatory regime of the green bond market

A pending issue that is going to shape up the development of the green bond market is how it should be regulated. Currently, the regulatory regime can be defined as quasi-regulation or private governance regime, founded on investor-based standards, market-oriented certification schemes, specialized indices and external assurance (*Park*, 2018)[2]. Yet, there is no public regulatory regime of the green bond market. China and India have a public regulation in place that refers to some shares of their green bond markets. European Union is about to be the first to impose a truly public green bond standard.

As the market was dominated by development institutions till 2013, the private standards that emerged afterwards follow the practices and standards, established and imposed by those institutions. They were aimed primarily at reducing the opportunities for greenwashing. Therefore, their main element is the requirement for transparency as to how are the proceeds of the bonds used. There is a variety of private standards, but the most credible and widely used are the Climate Bond Standard and the Green Bond Principles and, which are going to be discussed below.

About two thirds of the green bonds are certified by an independent third party as per any of the private standards. The remaining part are self-labeled as green by the issuers. The certification is essential in that it increases the trust of the investors in the green bonds. The certification matters for the stock market response and for the effectiveness of the issuers as well. Research by *Flammer (2019)*[3] documents a significant positive relation between the issuance of green bonds and the stock market reaction, as in the two days window following the issuance the public companies register substantial cumulative abnormal returns. In the same manner the author finds out that green bond emission has a positive effect on the long-term financial results for public companies (measured by ROA and ROE) and on their environmental performance (the companies increase their environmental rating and reduce their carbon footprint) in the years following the issuance. By splitting the green bond sample into certified and non-certified the author proves that the above-mentioned effects are significant only for green bonds that are certified, suggesting that certification is an important governance tool.

The Climate Bond Standard is a voluntary standard and certification scheme introduced by the Climate Bond Initiative. It is an international non-profit organization established in 2010. The Climate Bond Initiative was launched in 2009 during the COP15 United Nations Climate Change Conference in Copenhagen. Specifically, the standard is developed and adopted by a Climate Bond Standard Board, which is composed of independent members and which reviews and approves applications for certification. The first version of the standard appeared

[2] Park, S. (2018), Investors as regulators: green bonds and the governance challenges of the sustainable finance revolution, Stanford Journal of International Law, Vol. 54, No. 1, 2018.

[3] Flammer, C. (2010), Green Bonds: Effectiveness and Implications for Public Policy, NBER Working Paper 25950, June 2019.

in 2011, and in 2014 the first climate bond certified according to this standard was issued. The third version of the standard has been in force since 2019. Its aim is to help investors, governments and other participants in financial markets easily identify which investments are „low-carbon and climate-resilient“ and thus contribute to stimulating the transition to a green economy. Climate bonds, climate loans and climate debt instruments can receive a certification mark under this standard.

Key features of the Climate Bond Standard are: 1) adherence to the Climate Bond Taxonomy and the ICMA's Green Bond Principles; 2) mandatory requirements regarding use of proceeds, project and asset selection, proceeds management and reporting; 3) sectoral designation criteria for "low-carbon and climate-resilient" projects and assets; and 4) mandatory verification by independent reviewers.

Climate bonds are based on the Climate Bonds Taxonomy, which was adopted in 2013. It was developed for the purposes of the Climate Bonds Standard, and the taxonomy development process involved a wide range of experts and researchers. It is based on the achievements of science in the field of climate change and indicates the economic activities that are consistent with the goals of the Paris Agreement. This taxonomy is constantly being developed and enriched, in accordance with changing conditions and with new scientific results. It also includes sectoral criteria developed with the help of working groups.

The certification process mandates a verification by an independent reviewer. Independent reviewers guarantee that the climate bond responds to the requirements of the standard. Each year the issuer is obliged to submit reports in order to sustain the certification. The reports are three types – for allocation of proceeds, for eligibility and impact report.

The third version of the standard claims to have full compliance with the draft EU green bond standard, as well as with Green Bond Principles, Green Loan Principles, ASEAN Green Bond Standards, Japan's Green Bond Guidelines and India's Disclosure & Listing Requirements for Green Bonds.

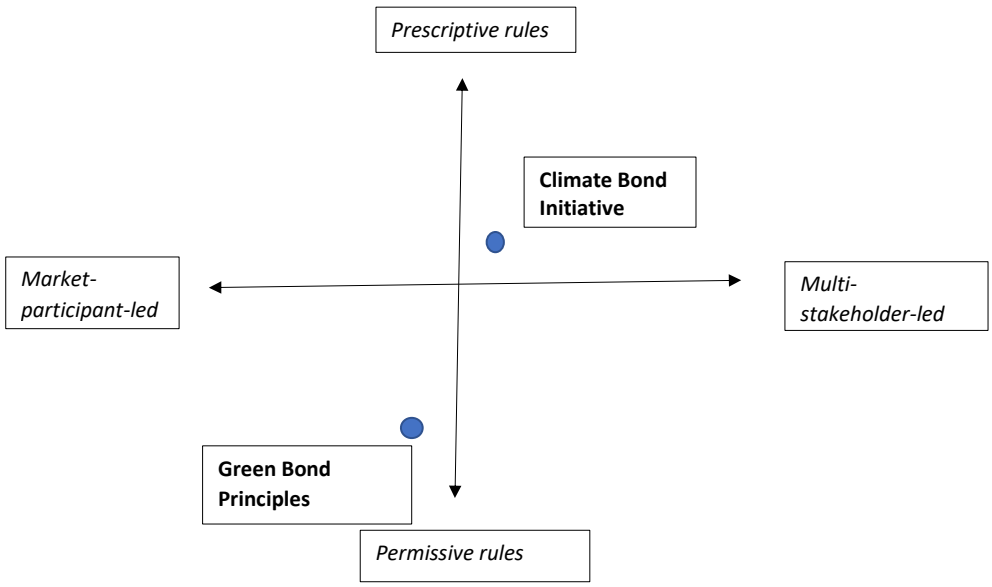
The Green Bond Principles represent a set of voluntary guidelines and process standard for issuance of green bonds, established in 2014 by a few investment banks. Currently the principles are administered and supervised by the International Capital Markets Association (ICMA) and more specifically by the Principles' Executive Committee. Principles are being regularly updated to reflect the market developments. Currently the version of 2021 of CBP is in force. The principles give a definition of a green bond which was already cited in the beginning of the paper. An annex to the main document points out to the different types of green bonds. The four key elements of GBP are: use of proceeds, project evaluation and selection process, proceeds management and reporting. Regarding the use of the proceeds, the principles list the categories of eligible projects that are financed. The climate goals to which the projects should contribute are also explicitly stated:

mitigation of climate change, adaptation to climate change, preservation of natural resources, preservation of biodiversity and prevention and control of pollution.

Annually, issuers should prepare reports on the use of green bond proceeds. Unlike the Climate Bond Standard, CBP does not mandate, but only recommends, the use of an external pre- and post-issuance verifier to verify the bond's compliance with the four requirements of the principles and the use and management of proceeds. Guidelines for external evaluation have been developed for this purpose.

Based on this information on both industry standards, let's try to characterize them.

Fig. 4. Inclusiveness and prescriptiveness of green bond private standards



Source: Adapted from Parker (2018)

Parker (2018) provides a useful tool to assess the private governance regimes, including those of the green bond market. He ranks the regimes on two axes, which represent spectrums of inclusiveness of the regime and the permissiveness or prescriptiveness of its rules. Inclusiveness refers to the extent to which different stakeholders are involved in the establishment and enforcement of the regime and therefore to the interest represented. At one end are regimes that reflect the interests of markets participants only, while at the other end are private governance regimes which are more inclusive as they also reflect the interests of larger array of stakeholders as government agencies, social and environment protection groups, local communities etc. On the other axis the regimes are ranked in terms of hardness

and enforceability of the rules. While private regimes lack the enforceability of public law, they still can differ in the way they mandate behavior. As figure 4 suggest the Climate Bond Initiative regime can be described as more inclusive and more prescriptive than the Green Bond Principles, which is illustrated by their belonging to different quadrants. Green Bond Principles fall in the bottom left quadrant, which reflect their status of voluntary guidelines, which are permissive and the low level of inclusiveness. The low inclusiveness is determined by the governance structure of the GBP, namely the fact that the Executive Committee which manages the standard is composed of only investors, issuers and underwriters (24 organizations, 8 of each group). Members of the GBP can be also representatives of only those three groups while stakeholders as non-governmental organizations (NGOs), universities and etc. can only be observers. In contrast, the Climate Bond Standard is more prescriptive and inclusive, therefore it belongs to the upper right quadrant. Its prescriptiveness is associated with the certification incorporated in the standard and the mandatory external review. The wider inclusiveness of the Climate Bond Standard is attributable to the fact that the Climate Bond Standard Board that oversees the standard is representative of the interest of a wider array of investors and stakeholders, including institutional investors and environmental NGOs.

The lack of a unified standard and the lack of public, enforceable rules may represent a threat to the development of the market, as it may suffer a lack of credibility, both from the perspective of investors and issuers. The plurality of standards can create ambiguity in the understanding of what projects are green and of what is the role of the third-party assurance/second opinion in the process. Another problem can be the possibilities for regulatory arbitrage that are provided by multiple standards. On the other hand, strengthening and hardening the rules may play a negative role as it may cool down the issuers and investors' appetite for this type of instruments by increasing the administrative and expenditures burden.

The EU-initiated International Platform for Sustainable Finance, which has been operating since 2019, is the forum for discussions between representatives of the individual jurisdictions responsible for the further development of the regulatory framework in the field of sustainable finance.

Having presented the main characteristics of the two leading private standards, lets look at the European proposal for a public regulatory regime for green bonds.

4. European Green Bond Standard

Mobilizing a significant financial resource and channeling it to achieve the goals of the green transformation requires the availability of financial instruments to make this happen. Green bonds are one such financial instrument, but the EU lacked a single green bond standard. As it was explained above, there is a lack of unified green bond standard on a global level. The lack of a unified EU standard

can impede the further development of the EU market by causing fragmentation and provoking regulatory arbitrage.

Therefore, in 2019 the Green Deal called for the creation of a European standard for green bonds. The Commission's High Level Expert Group on Sustainable Finance also recommended in its final report the setting up of a European standard for green bonds. Thus, this task was enshrined in the Action Plan of the Commission for Financing Sustainable Development from 2018. Subsequently, the Technical Expert Group on Sustainable Finance also gave its recommendations on the development of the standard. Following extensive public consultations, in July 2021 the EU Commission published the text of the Proposal for a Regulation on European green bonds[4]. When enacted, this standard, together with the Taxonomy Regulation as well as with the Disclosure requirements will represent the building blocks of the EU sustainable finance framework.

According to the draft regulation, the European Green Bond Standard is a voluntary, not a mandatory, standard. This means that issuers and investors can issue or invest in other green bonds, but if they wish to use the label "EuGB", they must comply with the requirements of the standard. All issuer types as private (financial and non-financial enterprises), public and non-EU issuers will be able to issue such bonds. The standard is based on four requirements: alignment with the European taxonomy, transparency, a requirement for external verification and supervision by the European Securities and Markets Authority (ESMA).

First, the requirement of alignment with the European taxonomy is introduced in Art. 6 of the draft regulation, which states that proceeds from green bonds are directed to economic activities that meet the requirements of the European taxonomy or will begin to meet these requirements within a certain period. Therefore, the European Green Bond standard is closely related to the European taxonomy and the funds raised through such bonds can only be directed to assets and economic activities appearing in the classification system. For more information on the EU taxonomy, please see the information in the box below.

[4] Proposal for a Regulation of the European Parliament and of the Council on European Green Bonds, Strasbourg, 6.7.2021 COM /2021/ 391 Final, European Commission.

Box 1. European Taxonomy

One of the first tasks in the establishment of a European sustainable finance framework was to provide a clear definition of what is "sustainable" and to develop a classification of sustainable business activities that is valid throughout the European Union. This task was achieved with the adoption of a Regulation establishing a framework for facilitating sustainable investment, known as The Taxonomy Regulation[5], which entered into force on July 12, 2020. In essence, the taxonomy is a classification system of environmentally sustainable economic activities. The existence of such a single European classification facilitates the mobilizing and channeling of capital flows to achieve the goals of sustainable development.

According to the regulation, an investment is environmentally sustainable when it is in one or more economic activities that are environmentally sustainable according to this regulation. In order to be defined as ecologically sustainable, the economic activity should cumulatively meet four criteria:

to contribute substantially to the achievement of one or more of the environmental objectives specified in the regulation, *not to cause significant damage* to any of the environmental objectives, to be carried out in accordance with the established *minimum safeguards* and *to meet the technical verification criteria* established by the Commission.

For the purposes of the regulation, the environmental objectives are the following: climate change mitigation; adaptation to climate change; sustainable use and protection of water and marine resources; transition to a circular economy; pollution prevention and control; and protecting and restoring aquatic biodiversity and aquatic ecosystems.

According to the regulation, the Commission should issue delegated acts to adopt the technical verification criteria, which detail the conditions under which an economic activity is defined as significantly contributing to the achievement of a given environmental objective, as well as the conditions under which an economic activity causes significant harm to one or more of these objectives.

[5] Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088, PE/20/2020/INIT, *OJ L 198, 22.6.2020*

The first such delegated act was published in December 2021 and applies since 1 January 2022. It sets out technical screening criteria in relation to economic activities that achieve the first two objectives, namely climate change mitigation and adaptation to climate change. In this delegated act, the lists of economic activities are given in two annexes. The idea is that in the future it will be supplemented and changed with new economic activities, which will reflect changes in technology and the progress in scientific research on this issue. A delegated act concerning the remaining four objectives is expected in 2022. In addition, in 2022 the Commission also adopted a delegated act amending the above two delegated acts with a view to including some specific activities in the field of nuclear and gas energy in the list of activities covered by the European taxonomy. It will enter into force from the beginning of 2023. It is believed that the inclusion of nuclear energy and gas in the list of sustainable economic activities will contribute to the faster transition from solid fuels to green energy.

Source: Prepared by the author based on the Regulation on the EU Taxonomy.

The transparency requirement places certain tasks on the issuers, both pre- and post- the issuance of the financial instrument. Before the issuance, the issuer completes an information document. After the issuance, the issuer should prepare reports on the allocation of the proceeds of the bond every year until the full allocation. In addition, after the full allocation of the proceeds and at least once during the life of the bond, the issuer also prepares an impact report of the use of the bond proceeds on the environment.

The draft Regulation on green bonds introduces the figure of the external reviewer. The pre-issuance information document should receive a positive opinion of the external reviewer, as well as the final report on allocation of proceeds, which need to be verified. The rationale for an external review is to be guaranteed that the funds raised from the issue are directed to activities and assets, in accordance with the requirements of the regulation and in accordance with what is laid down in the information document. The transparency of the process is reinforced by the requirement that the issuers publish these documents and other information related to the issue in a separate section of their websites. The external reviewers should be registered and supervised by the European Securities and Markets Authority (ESMA), which keeps a public registry of the external reviewers on its webpage. The registration requirements, organizational and other rules for the management and performance of activities of the external reviewers are specified in detail in the draft regulation.

The following table contains a detailed comparison between the proposed EU Green Bond Standard and the Climate Bond Standard. The reading of the table suggests a great similarity between both standards. Both are based on and aligned

with respective taxonomies, require green bond framework document, reporting and reviews pre- and post- issuance.

Table 1. A comparison between the Climate Bond Standard and the EU Green Bond Standard

Key Feature	EU Green Bond Standard (draft)	Climate Bond Standard, v. 3.0
Eligibility of projects and assets	Based on the EU Taxonomy which includes detailed criteria for relevant activities. Climate change mitigation criteria are aligned with achieving the goals of the Paris Agreement	Based on the Climate Bonds Taxonomy plus sector-by-sector Eligibility Criteria. All criteria are aligned with achieving the goals of the Paris Agreement
Green Bond Framework	Green Bond Framework document must be prepared as per specific requirements. Mandatory disclosure of the Framework prior to or at issuance.	Green Bond Framework document must be prepared as per specific requirements. Mandatory disclosure of the Framework prior to or at issuance.
Reporting prior to issuance	Legal documentation must include specific information regarding the environmental objective of the bond and use of proceeds.	Legal documentation must include specific information regarding the use of proceeds, management of proceeds, external reviewer and plans for reporting after issuance.
External review prior to issuance	Mandatory verification prior to issuance and disclosure of verifier's report prior to or at issuance.	Mandatory verification prior to issuance and disclosure of verifier's report prior to or at issuance.
Reporting after issuance	Mandatory reporting with specific requirements for contents of the report. Annual reporting and disclosure is mandatory up to full allocation of proceeds and in case of any material change in allocation of proceeds. Defines 2 types of reporting: Allocation and Impact.	Mandatory reporting with specific requirements for contents of the report. Annual reporting and disclosure is mandatory for the entire period the bond remains outstanding. Defines 3 types of reporting: Allocation, Eligibility and Impact.
External review after issuance	Mandatory verification at least once after issuance and must be at or after full allocation of proceeds. Mandatory disclosure of verifier's report.	Mandatory verification at least once after issuance, within two years of issuance. Mandatory disclosure of verifier's report.

Status of external reviewers	Must be Registered under the Voluntary Interim Registration Scheme.	Must be listed as an Approved Verifier on the Climate Bonds Initiative website.
Labelling of existing bonds	Allowed, with mandatory verification and disclosure of key documents.	Allowed, with mandatory verification and disclosure of key documents.

Source: Climate Bond Standard, Version 3.0, Climate Bond Initiative 2019, https://www.climatebonds.net/files/files/climate-bonds-standard-v3-20191210.pdf

Following the comparison between the proposed EU green bond standard and the Climate Bond Standard, we may conclude that in terms of key features both standards are very similar. This reflects the idea of the European legislator to align the EU standard with the existing market standards and best practices and to provide unified regulation throughout the European union.

In June 2022, the last phase of negotiations on the draft regulation began, the so-called trialogue between the European Parliament, the Commission and the Council. More information on the discussions in the European Parliament on the draft Regulation can be found in the May 2022 Report of the Committee on Economic and Financial Affairs of the European Parliament[6]. The final version of the regulation will be a result of the trialogue discussions. They may end up with a Regulation that much departs from the initial proposal of the Commission that was presented above, as the Parliament's Report contains some serious amendments. First, the report suggests imposing disclosure requirements under the green bond standard not only to issuers of EuGB (with taxonomy-aligned use of proceeds) but to all issuers of green bonds (with use of proceeds that are not EU taxonomy-aligned) and sustainability-linked bonds. The other proposal requires that large undertakings, issuing EuGB prepare transition reports to achieve climate neutrality by 2050 and obtain a positive auditor opinion on this report prior the issuance. Both proposals aim at aligning the EU green bond standard with the other legislative proposals, namely those, concerning sustainability disclosures. As this is reasonable to some extent, the legislators should pay attention that if these proposals are accepted, they will represent hardening of the rules and imposing additional administrative burden on the issuers. It should be also noted that prior the publication of the report the draft report contained even harder proposals to make the standard mandatory, which would suggest that all environmentally sustainable bonds issued in EU should meet the EU green bond standard. It was considered that such a move would impede the development of the EU market and encourage regulatory arbitrage.

[6] Report on the proposal for a Regulation of the European Parliament and of the Council on European Green Bonds, Committee on Economic and Monetary Affairs, 22 May 2022, European Parliament.

5. Conclusion

The research on the development of the green bond market and its regulation shows that it has transitioned from its nascent phase of development. In this moment the governance regime of the market and the way its is regulated will be very important. Currently it is governed by private standards and EU is about to be the first to impose a public regulation. The comparison of the proposed EU green bond standard to the existing private regimes shows great similarity to one of them, namely that of the Climate Bond Initiative, which implies that the future EU standard will be aligned with the private standards but will provide for the needed unification in the EU market. It is yet unknown what the final version of the EU standard will represent. It is also unknown if other jurisdictions will follow the EU lead, proposing their public regulatory regimes. The move to public regulation should be very precise and look for keeping the balance between the needed trust and credibility of the market, on one hand, and the economic stimuli of issuers and investors on this market. The success in this will be key for the smooth transition to a green economy.

Literature

Clifford Chance, European Green Bond Regulation, European Capital Markets Monthly Briefing Series, June 2022

Climate Bond Initiative, Climate Bond Standard, Version 3.0, 2019.

Flammer, C. (2010), Green Bonds: Effectiveness and Implications for Public Policy, NBER Working Paper 25950, June 2019.

Park, S. (2018), Investors as regulators: green bonds and the governance challenges of the sustainable finance revolution, Stanford Journal of International Law, Vol. 54, No. 1, 2018.

Proposal for a Regulation of the European Parliament and of the Council on European Green Bonds, Strasbourg, 6.7.2021 COM /2021/ 391 Final, European Commission.

Regulation (EU) 2020/852 of the European Parliament and of the Council of 18 June 2020 on the establishment of a framework to facilitate sustainable investment, and amending Regulation (EU) 2019/2088, PE/20/2020/INIT, *OJ L 198, 22.6.2020.*

RESEARCH ON THE RELATIONSHIPS AMONG BULGARIAN BANKS' FINANCIAL STATEMENT ELEMENTS AS A BASIS FOR A THOROUGH ANALYSIS OF THEIR ACTIVITIES

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Banks' financial statements are the main source of information for a wide range of users (investors, regulatory authorities, etc.). A qualitative analysis of the information contained in the elements of financial statements is a prerequisite for making justified and constructive decisions. This paper presents a research that aims to assess the significance of information relationships among the elements of the financial statements of banks as a starting point for analysing their financial position. The research thesis is that the relationships and dependencies among financial statement elements should be used as a basis for structuring the indicators and models for analysis of banking activity in order to obtain qualitative analytical information that would help the users of these financial statements (including bank managers and supervisory bodies) make informed economic decisions.

To prove this thesis, the following hypothesis was formulated and empirically tested: financial statement elements reflect different aspects of the economic processes taking place in banks and therefore there is an interdependence among the positions (items) of the financial statements.

The correlation of certain financial statement positions was identified and measured by means of regression and correlation analyses of the data from the financial statements of Bulgarian banks published on the official website of the Bulgarian National Bank. The relationships were determined using a univariate linear regression analysis while the covariance was measured using the Pearson correlation coefficient. The research covers twenty-five banking institutions (including branches of foreign banks) operating on the territory of our country.

The results of the research determine the relationships and correlations among certain positions of the financial statements of these banks and empirically confirm the formulated hypothesis, which in turn corroborates the main research thesis.

Keywords: banks, financial statements, regression analysis

JEL: M41

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Introduction:

The availability of reliable information is one of the important conditions in the process of decision-making and economic development. A large volume of such information is generated by accounting information systems and reported in the financial statements of enterprises.

Banks are enterprises of significant public interest and as such prepare their financial statements according to the provisions of international accounting standards as well as the European and national regulations related to the banking sector. Banks in the Republic of Bulgaria prepare their financial statements in compliance with the Accountancy Act (Accountancy Act, 2015) and the requirements of the Bulgarian National Bank (BNB) (Law on Credit Institutions, 2006). As enterprises of public interest, banks prepare their financial statements for general purposes in compliance with the International Accounting Standards (Regulation (EC) No. 1126/2008) as of January 1, 2003. Currently, this obligation is regulated by Art. 34, para. 2 of the Accountancy Act. The principles for recognition and measurement of items in the banks' financial statements are in accordance with the Conceptual Framework for Financial Reporting and IAS 1 Presentation of Financial Statements, viz.: fair presentation and compliance with IFRS, going concern, current accrual, consistency of presentation, materiality and consolidation, compensation and comparable information.

According to Bozhkov (2014), all elements of the annual financial statements are interrelated as they reflect different sides of the same transactions or events.

Banks in Bulgaria are required to disclose certain information to BNB for supervisory purposes as their activities are subject to a strict regulatory regime. BNB supervises the activities of banks in order to maintain the stability of the banking system and protect the interests of depositors. The Bulgarian banking system is subject to the Basel III international regulatory framework enforced in the European Union through Regulation (EU) 575/2013 on prudential requirements for credit institutions and Directive 2013/36/EU of the European Parliament and of the Council on access to the activity of credit institutions. The latter has been transposed into Bulgaria's national legislation through the Law on Credit Institutions and the regulations on its implementation.

The activities of each commercial bank are monitored in terms of regulatory reports and on-site inspections. Supervisory reports have a mandatory form and content in accordance with Regulation 680/2014 on reporting and the related IASs/IFRSs. BNB publishes aggregated data for the banking system and groups of banks monthly, and for individual credit institutions – quarterly.

Considering the above information, we may infer that there is a coherent system of supervisory requirements, regulations and rules for banking activity and that it is based mostly on the information obtained from the financial statements for general and other (supervisory) purposes.

The aim of this research is to analyse the relationships between the positions in the financial statements of the banks in the Republic of Bulgaria. The research thesis is that the relationships and dependencies among financial statement elements should be used as a basis for structuring the indicators and models for analysis of banking activity in order to obtain qualitative analytical information that would help the users of these financial statements (including banks' managing and supervisory bodies) make informed economic decisions.

2. Financial statements as a sources of information for making substantiated economic decisions

The review of the existing literature showed that research on the effective use of financial statements as a basis for making informed economic decisions is widely discussed in various scientific journals and online sources. The opinion of various researchers regarding the importance of financial statements as an information source can be presented as follows:

According to Anthony and Rees (2001), Katarina Zager and Lajos Zager (2006), financial statements can be a sufficient source of information to form a reliable assessment about the financial status of enterprises.

Raymond (2016), Holt(1993), Suryanto and Thalassinos (2017), express the opinion that financial statements are not able to fully secure the information needs for a reliable assessment of its financial status. It is also possible to use information of a non-financial nature.

In IAS 1 Presentation of Financial Statements it is clearly stated that „financial statements are a structured representation of the financial position and financial performance of an entity. The objective of financial statements is to provide information about the financial position, financial performance and cash flows of an entity that is useful to a wide range of users in making economic decisions. Financial statements also show the results of the management's stewardship of the resources entrusted to it."

The Conceptual Framework for Financial Reporting gives a similar definition and specifies three groups of users of general financial reporting information: "existing and potential investors, lenders and other creditors, who make decisions relating to providing resources to the entity."

Abib et al (2015) opine that the usefulness of information increases when it undergoes analysis. In this sense, Osadchy et al (2018), notes that through the analysis of the information from the financial statements, not only the financial condition is evaluated, but the problems of the management of the enterprise's activity are identified. In this way, its users have the opportunity to evaluate not only the financial situation, but also the development strategy.

Katarina Zager and Lajos Zager (2006) point out that one of the most important tools of the analysis of information from financial statements is the used

coefficients, which express different ratios and dependencies of different data from financial statements.-

Ivanova (2015) points out that the data obtained from financial statements is used for systematic analyses of the main indicators for the assets and the financial position of banks and the effectiveness of their activities such as capital adequacy, solvency, liquidity, cost efficiency, etc.

The main source of information for the analysis of banks' assets, equity and liabilities are the statement of financial position (balance sheet), the statement of changes in equity, reports on selected balance sheet items, etc. Atanaska Filipova-Slancheva (2018) systematizes that the analysis of banks' income and expenses is carried out based on the information from their profit or loss statement and data from other reports and references revealing and using intra-system relations between them.

To assess the entity's prospects for obtaining future net cash inflows, users of financial statements need information about the entity's economic resources and claims as well as how efficiently and effectively the entity's management has discharged its responsibilities to use the entity's economic resources.

Financial performance is reflected in terms of accrual accounting and changes in cash flows. According to the Conceptual Framework for Financial Reporting, the characteristics of these two methods are as follows:

- Financial results based on current accrual - the information on financial results determined on the basis of current accrual helps its users to track changes in the financial status of the enterprise for different accounting periods.
- Financial results based on past cash flows - financial results based on cash flows help users of information to determine the liquidity stability and solvency of the enterprise, as well as to assess how it manages its cash flows.

Veisel (2018) points out that the fact that financial performance is reflected in two ways (by accrual accounting and by past cash flows) means that accrual accounting does not take precedence over past cash flows.

The main indicators for the financial position of banks are defined in various laws and regulations relating to the banking sector. They protect both the interests of banks as independent institutions and of their customers and depositors. Maintaining the necessary capital adequacy, capital buffers, asset quality and liquidity is of primary importance.

To determine the capacity of financial statements to provide useful information to their users in forming economic decisions about the reporting entity requires an assessment of the usefulness of the information they provide. This is determined by a number of properties referred to as qualitative characteristics. The Conceptual Framework for Financial Reporting of 1989 defined four main characteristics of information usefulness: understandability, relevance, reliability and comparability.

It also defined three constraints on information relevance and reliability: timeliness, balance of costs and benefits, and balance of qualitative characteristics.

According to the Conceptual Framework for Financial Reporting from 2010 and its 2018 revision, financial information is useful when it has certain fundamental qualitative characteristics (FQC) and enhancing qualitative characteristics (EQC). Weisel (2018) emphasizes that fundamental quality characteristics are critical to its usefulness while EQC are desirable.

The fundamental qualitative characteristics are:

- Relevance – Relevant financial information is capable of making a difference in the decisions made by users.
- Faithful Representation - To be a perfectly faithful representation, a depiction would have three characteristics. It would be complete, neutral and free from error.

The Conceptual Framework also defines Materiality in relation to relevance. Information is material if its omission or misleading presentation would affect the economic decisions of users made on the basis of the financial statements. Materiality is an aspect of relevance because irrelevant information does not influence the decision made by the user.

The usefulness of information provided in financial statements is enhanced if it is comparable, verifiable, timely and understandable. They are defined as qualitative characteristics that improve the usefulness of information.

The only constraint on the usefulness of financial information defined in the Conceptual Framework is the cost of creating and using the information compared to the benefits it provides to the users of financial statements.

According to Bozhkov (2010), the changes in the Conceptual Framework are intended to establish a conceptually new understanding of the content of financial statements with a view to satisfying the informational needs of the main users of financial information.

The rate of development of the market economy matches the rate of development of the accounting profession and development and enhancement of financial reporting. According to Jugoslav Aničić et al, the more developed the economy is, the greater the importance given to a good quality financial reporting. In recent years there have been significant changes in the financial and supervisory reporting of banks aimed at improving their usefulness. In an effort to improve financial reporting and enhance its relevance to users, the IASB is issuing new or amending existing IFRSs. Of key importance for banks is IFRS 9 Financial Instruments (Regulation (EU) 2016/2067) adopted by the European Commission in 2016. The standard aims to improve the understanding of investors and other users of financial information regarding the presentation of financial instruments in financial statements.

The new Basel 3 regulatory framework in Europe imposes many new challenges for reporting and analysis in banks. The major challenges are related to bank supervision.

Certain changes in the reporting of commercial banks also occurred in connection with the requirement of the Accounting Act (effective from 01 Jan. 2017) that they are to disclose information in corporate governance statements and non-financial statements. Currently banks tend to integrate all financial and non-financial information they are required to disclose in a single document (known as "integrated report"), from which the users can make a more reliable assessment of the financial position, the performance and the development prospects of the banking institution.

The Federation of European Accountants (2015) emphasizes that financial reporting in general is significantly more important to the functioning of markets and the economy than some users perceive. It provides the primary evidence of the financial position of a company together with its delivery of financial returns, and should not be relegated to the secondary status of being merely confirmatory. However, to achieve greater relevance, many changes to financial reporting in terms of format, presentation and timeliness may be necessary in the coming years.

Methods, results and interpretation

The research on the stated problem was based on regression and correlation analyses.

Regression analysis estimates the relationship between a dependent variable and one or more independent variables.

Correlation analysis measures the strength of the linear relationship between two variables.

Regression and correlation analysis can be applied to various aspects of bank operations to estimate the materiality of individual components of formulas and models for analysis of various aspects of the enterprise's activity (Ainslie et al, 1998).

The results of the regression and correlation analysis are used to forecast the financial position and performance of enterprises (Levin, 1998).

This paper examines the relationship between the cost of impairment of financial assets reported at amortized cost and their financial result. More specifically, it examines how the change in the impairment costs of held-to-maturity financial assets affects the change in the financial result and how significant this effect is.

The regression and correlation analyses determine which of the relevant sources of income or expenses has the most significant impact on the financial result.

The following empirical data was used in the regression and correlation analyses:

According to banks' financial statements published by the Banking Supervision Directorate of the Bulgarian National Bank for the last seven years, the impairment

of financial assets reported in the amortised cost category and the financial result of the banks are as follows:

Table 1: Impairment of financial assets reported in the amortised cost category and Financial results of the banking system

Year	**Impairment of financial assets reported in the amortised cost category (BGN thousand) - x**	**Financial result (Profit) (BGN thousand) - y**
2014	1 151 427	744 859
2015	1 100 122	1 012 686
2016	813 960	1 409 910
2017	745 368	1 308 376
2018	478 719	1 818 649
2019	430 665	1 840 210
2020	876 088	900 972
Total	5 596 349	9 035 662

Source: Bulgarian National Bank

The data set covers a seven-year period, as prior to 2014 a different impairment and provisioning model was used for financial assets reported at amortised cost.

The use of regression and correlation analyses was based on the following arguments:

First. Costs are taken into account in calculating the financial result (profit) of entities, including banks.

Second. Loans have the largest relative share of all financial assets of banks reported at amortised cost. This is a reason to assume that changes in their value have a significant impact on the financial results of banks.

A single linear regression equation and a Pearson's correlation coefficient were used to determine more accurately the form of their relationship and dependence.

Since any increase in costs corresponds to a decrease in the financial result, there is a linear relationship between the independent variable (impairment costs) and the resulting variable (financial result of the bank). The correlation dependence in this case is negative.

The regression and correlation analyses are intended to answer the following questions:

First. What is the amount of change of the dependent variable for a unit change of the independent variable?

Second. How much of the change of the dependent variable is due to the changes of the independent variable?

The linear regression equation used to perform the regression analysis is:

$y = a + bx$, where

b is regression coefficient;

a is the intercept, which is the mean value of the response variable when the predictor variable in the model is equal to zero.

The value of the regression coefficient b shows the amount of change of the dependent variable y (the financial result of the bank) for a unit change of the independent variable x (cost of impairment of financial assets reported at amortised cost.)

The parameters of the regression equation were set by the following system of equations:

$$\begin{cases} \sum y = Na + b\sum x \\ \sum yx = a\sum x + b\sum x^2 \end{cases}$$

The solution to the system of equations defines the parameters a (the intercept) and b (the regression coefficient)

The regression coefficient b and the intercept a are expressed as:

$$\begin{cases} a = \bar{y} - b\bar{x} \\ b = \dfrac{\sum yx - \sum y \sum x}{N\sum x^2 - \sum x \sum x} \end{cases}$$, where

$\bar{y}$ is the average of the dependent variable

$\bar{x}$ is the average of the independent variable.

The average of the independent variable is calculated by dividing the total of x by the number of years (observations) as follows:

$$\bar{x} = \frac{\sum x}{N} = \frac{5\,596\,349}{7} = 799\,478.40$$

The average of the dependent variable is calculated using the following equation:

$$\bar{y} = \frac{\sum y}{N} = \frac{9\,035\,662}{7} = 1\,290\,808.86$$

Using these results in the regression equations we get the following values for the intercept: **a** = 2 461 541.15 and for the regression coefficient: **b** = -1.46.

The calculated values of **a** and **b** are then interpreted to estimate the actual effect of the independent variable (x) on the dependent variable (y).

The value of **a** shows what the financial result of the banks would be if their financial assets reported at amortised cost are not impaired. The value of the

regression coefficient **b** is more meaningful. It represents the amount by which the financial result of the banks will change for a unit change of the independent variable. Considering the analysed data, the value of **b** shows that each increase of the impairment costs by one BGN will result in an average decrease of the financial result across the banking system of BGN 1.46 over the analysed period. This means that this type of cost has a significant effect on the financial results of banks and that the efforts of their management should be aimed at reliably identifying and assessing the risks related to the acquisition of these assets.

The negative values of **b** prove the inverse relationship between the independent and the resulting variables as well as the negative value of the correlation coefficient.

The next step in the analysis is to solve the system of equations by successively substituting the values of the independent variable **x** in the regression equation to determine the theoretical values of the resulting variable **y** as if the dependence were unchanged for all observations (Slaveva, 2018). The theoretical values of the resulting variable ŷ are a necessary component for calculating the correlation coefficient. They represent the estimation of the resulting variable **y** under direct influence of the independent variable **x** calculated by its successive substitution in the equation**.**

Therefore, the resulting equations will be:

$$\hat{y}_1 = a + bx_1,$$
$$\cdots\cdots\cdots$$
$$\hat{y}_7 = a + bx_7,$$

The criterion for the correctness of the calculations is the established equality between the sum of the empirical and theoretical values of the resulting variable **y**.

After defining the relationship and correlation between the independent and the resulting variables, it is necessary to measure the degree of the correlation between them using the Pearson correlation coefficient, which is calculated as:

$$r = \sqrt{1 - \frac{\sum(y-\hat{y})^2}{(y-\bar{y})^2}}$$

The correlation between the variables is very strong when the Pearson coefficient value approximates 1(-1;+1) (Turun, 2020).

The calculated value of the coefficient is 0.94, which shows a very strong correlation between the cost of impairment of financial assets reported at amortised cost and the financial reults of banks.

By taking the square of Pearson's coefficient, we get the coefficient of determination (C_d) in cases of linear regression. It is a statistical measure of how well the regression predictions approximate the real data points and is calculated as:

$$C_d = r^2$$

The calculated coefficient of determination is 88%. Therefore, 88% of the changes in Banks' profits are due to changes of their impairment costs.

The percentage change in the dependent variable resulting from a 1% increase in the independent variable is expressed by the coefficient of elasticity (C_E) calculated as (Slaveva, 2018):

$$C_E = b\frac{\bar{x}}{\bar{y}}$$

The estimated coefficient of elasticity is – 0.90 %. This means that a 1% increase of the independent variable (impairment costs) results in 0.90% decrease in the dependent variable due to the strong correlation relationship between them.

Conclusion

There is a strong correlation between the variables "cost of impairment of financial assets, reported at amortised cost" and "financial result". This type of cost has the greatest influence on the financial result, since financial assets reported at amortized cost occupy the largest relative share of the total amount of assets of banking institutions. The scientific contribution and the main result of the study is the performance of regression and correlation analyses regarding the items of certain elements of financial statements. This dependence should be the basis for structuring of coefficients and models for the analysis of certain aspects of banking activity. The research findings in this report can be applied in terms of: revenue efficiency analysis; cost effectiveness analysis; analysis of factors affecting profit, etc.

In the context of the present study, the obtained results are useful in determining the impairment recovery rate, which can be defined as the ratio of impairment costs to income from subsequent remeasurement of financial assets reported at amortised cost. The strong dependence between the impairment costs and the bank's financial result draws the attention of the users of information from the financial statements to the fact that impairment costs are one of the risks to which financial results are exposed. There are opportunities for future research on the use of multiple regression and correlation analyses to assess the complex effect of the independent factors.

References:

Божков, В. (2010), Подобряване и конвергенция на концептуалните основи на финансовите отчети с общо предназначение (по Международните стандарти за финансово отчитане), сп. ИДЕС, бр. 7, стр. 16. (Bozhkov, V. (2010), Podobryavane i konvergentsiya na kontseptualnite osnovi na finansovite otcheti s obshto prednaznachenie (po Mezhdunarodnite standarti za finansovo otchitane), sp. IDES, br. 7, str. 16.)

Божков, В., Симеонова, Р. (2014), Общо счетоводство, първо издание, Свищов, АИ „Ценов“. (Bozhkov, V., Simeonova, R. (2014), Obshto schetovodstvo, pŭrvo izdanie, Svishtov, AI „Tsenov“.)

Вейсел, Али (2018) Концептуална рамка за финансова отчетност от 2018 година – анализ на основните концепции и промените, Годишник на ИДЕС . (Veisel, Ali. Kontseptualna ramka za finansova otchetnost ot 2018 godina – analiz na osnovnite kontseptsii i promenite, Godishnik na IDES.)

Закон за счетоводството, обн. ДВ. бр.95/08.12.2015.г, изм. и доп. ДВ. бр.19/05.03.2021г.(Zakon za schetovodstvoto, obn. DV. br.95/08.12.2015g., izm. i dop. DV. br.19/05.03.2021g.)

Закон за кредитните институции, обн. ДВ, бр. 59/2006 г., в сила от 01.01.2007 г., изм. и доп. ДВ. бр.51/01.07.2022г.(Zakon za kreditnite institutsii, obn. DV, br. 59/2006 g., v sila ot 01.01.2007 g.,posl. izm. i dop. DV. br.51/01.07.2022g.)

Иванова, Р.(2015), Анализ на финансовото състояние на предприятието. С., УИ „Стопанство“, (Ivanova, R.(2015), Analiz na finansovoto sŭstoyanie na predpriyatieto. S., UI „Stopanstvo“)

Славева, Кр. (2018) Методика и методология на емпиричните изследвания (Модул „Статистика“). Свищов, АИ „Ценов“, Свищов. (Slaveva, Kr. Metodika i metodologiya na empirichnite izsledvaniya (Modul „Statistika“). Svishtov, AI „Tsenov“, Svishtov.)

Филипова – Сланчева, Атанаска (2018), Предизвикателства пред счетоводството и анализа в банките от промени в приложимата правна рамка, Годишник на ИДЕС. (Atanaska Filipova – Slancheva, Predizvikatelstva pred schetovodstvoto i analiza v bankite ot promeni v prilozhimata pravna ramka, Godishnik na IDES.)

Abib, M., Catapan, E.A., Catapan, A., Catapan, D.C., Da Veiga, C.P. (2015), Financial statement analysis as a preliminary step to short, medium and long-term planning in Brazil: A case study in votorantim cimentos. Espacios, Vol.36, No.8, pp.4-4

Anslie, Andrew, Leyland Pitt (1998). Unibank and the analysis of the excursioncard customer database: a practical application of statistical techniques in database marketing. Journal of interactive marketing, Vol. 12, No. 3, p. 57

Anthony, R., Rees, J. (2001), Accounting: situations and examples. Trans. from English. Moscow: Finances and statistics.

Casta, J., Ramond, O. (2016), Financial reporting and fair value: Where do we stand? IFRS in a global world: International and critical perspectives on accounting.

COMMISSION REGULATION (EU) 2016/2067 of 22 November 2016 amending Regulation (EC) No 1126/2008 adopting certain international accounting standards in accordance with Regulation (EC) No 1606/2002 of the European Parliament and of the Council as regards International Financial Reporting Standard 9

COMMISSION IMPLEMENTING REGULATION (EU) No 680/2014 of 16 April 2014 laying down implementing technical standards with regard to supervisory reporting of institutions according to Regulation (EU) No 575/2013 of the European Parliament and of the Council

COMMISSION REGULATION (EC) No 1126/2008 of 3 November 2008 adopting certain international accounting standards in accordance with Regulation (EC) No 1606/2002 of the European Parliament and of the Council

COMMISSION REGULATION (EC) No 1126/2008 of 3 November 2008 adopting certain international accounting standards in accordance with Regulation (EC) No 1606/2002 of the European Parliament and of the Council

CONCEPTUAL Framework for Financial Reporting, Issued by the International Accounting Standards Board, March 2018.

DIRECTIVE 2013/36/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 26 June 2013 on access to the activity of credit institutions and the prudential supervision of credit institutions and investment firms, amending Directive 2002/87/EC and repealing Directives 2006/48/EC and 2006/49/EC

Holt, R.N. (1993), Fundamentals of financial management: Trans. from English. Moscow: Delo.

Levin, Nissan, Zahavi, Jaob (1998), Continuous predictive modeling— a comparative analysis- Journal of interactive marketing Vol. 12, No. 2, p. 5

Marinescu, Radu Titus, Lilea, Florin Paul Costel, Bardaşu, Georgeta Dumitru, Daniel (2018) The use of the simple linear regression in the analysis of correlation between GDP and final consumption. Romanian Statistical Review - Supplement No. 7, p. 58

Osadchy, E.A. Akhmetshin, E.M., Amirova, E.F., Bochkareva, T.N., Gazizyanova, Yu.Yu. Yumashev, A.V. (2018), Financial Statements of a Company as an Information Base for Decision-Making in a Transforming Economy, European Research Studies Journal Vol. XXI, No. 2, pp. 339-350.

Suryanto, T., Thalassinos, I.E. (2017), Cultural ethics and consequences in whistle-blowing among professional accountants: An empirical analysis. Journal of Applied Economic Sciences, Vol.12, No. 2, pp.1725-1731.

The Future of Corporate Reporting – creating the dynamics for change FEE Federation of European Accountants October 2015, available at: https://www.accountancyeurope.eu/wp-content/uploads/FEECogitoPaper_-_TheFutureofCorporateReporting.pdf (accessed 8 September 2022)

Turun, Ugur (2020), A correlation coefficients analysis on innovative sustainable development groups, EUREKA: Social and Humanities, No.1.

Zager, Katarina and Lajos Zager (2006), The Role of Financial Information in Decision Making Process. Innovative Marketing , Vol. 2, No3, 01.

BANK FOR INTERNATIONAL SETTLEMENTS' ACTIONS TO LIMIT THE NEGATIVE CONSEQUENCES OF THE CRISIS WITH THE COVID-19 PANDEMIC ON THE BANKING SYSTEM

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Abstract

In this paper, the effects the implemented Basel standards have had on the resilience of the banking system and banks' behaviour during the period of the COVID-19 pandemic have been evaluated. The measures taken by the Bank for International Settlements to limit the negative impact of the COVID-19 pandemic on banks have been examined. The Bank for International Settlements' response to economic crises has been studied.

Key words: Bank for International Settlements, COVID-19 pandemic, global financial and economic crisis.

JEL: E52

Introduction

The Covid-19 pandemic is a major disruptive event for the global economy. It is revealing financial vulnerabilities and testing the post-financial crisis economic system. Central banks and international financial institutions are seeking to mitigate the immediate impact on the real economy through extraordinary fiscal, monetary and macroprudential measures (BIS, Coronavirus (Covid-19)). The banking system entered economic crisis provoked by the Covid-19 pandemic with ample capital and liquidity as a result of the Basel III reforms implemented after the global financial and economic crisis (Langton, 2020).

The main objective of this paper is to examine the Bank for International Settlements' response to the crisis caused by the COVID-19 pandemic.

In order to realize the objective, the following concrete tasks have been outlined in the paper:

1. Examination of the effects the implemented Basel standards have had on the resilience of the banking system and banks' behaviour during the period of the COVID-19 pandemic.

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2. Analysis of the Bank for international settlements' actions to mitigate the negative impact of the crisis caused by the COVID-19 pandemic on the banking system.

3. Evaluating the measures which have been taken by the Basel Committee on Banking Supervision to help banks deal with the consequences of the COVID-19 crisis.

Object of the investigation is the impact of the crisis caused by the COVID-19 pandemic on the banking system. Subject of the examination are the measures taken by the Bank for International Settlements to limit the negative impact of the COVID-19 pandemic on banking activity.

The main thesis of the research is that the Bank for International Settlements' response to the crisis caused by the COVID-19 pandemic has been effective.

1. Effects of the implemented Basel standards on the resilience of the banking system and banks' behaviour during the Covid-19 pandemic

The overall aim of the Basel III accord is to minimize and preferably eliminate the risk of global financial turmoil in the future. The accord emphasizes the importance of increasing the capitalization of banks and their liquidity (Falzon, 2013a). The Basel III accord has been established in an attempt to improve regulation, supervision and risk management in the banking sector (Falzon, 2013b).

The economic crisis caused by Covid-19 has been the first test for the Basel reforms since they were introduced in response to the global financial and economic crisis. The early Covid period data can be used to evaluate the effects the implemented Basel standards have had on the resilience of the banking system and banks' activities.

Table 1 Banking indicators for the period 2013 - 2020

	31 December 2013			**31 December 2019**			**30 June 2020**		
	Group 1	Of which: G-SIBs	Group 2	Group 1	Of which: G-SIBs	Group 2	Group 1	Of which: G-SIBs	Group 2
Risk-based capital, initial Basel III framework									
CET1 ratio	10.1	9.9	8.4	12.9	12.8	13.9	12.7	12.5	14.5
Tier 1 ratio	10.4	10.3	9.1	14.5	14.4	14.9	14.3	14.2	15.5
Total ratio	11.8	11.6	10.8	17.0	16.9	17.3	16.9	16.7	18.1

Leverage ratio: Fully phased-in final Basel III Tier 1 leverage ratios	4.5	4.4	3.9	6.2	6.2	5.1	6.1	-	-
Liquidity									
LCR	122.3	127.1	145.8	136.1	132.8	163.1	140.3	136.7	188.3
NSFR	112.5	115.0	113.0	116.9	118.0	120.7	118.7	120	122.5

Source: Basel Committee on Banking Supervision

The data in table 1 shows that banks entered the pandemic with higher capital and liquidity ratios[2]. At the global level, as of 30 June 2020 banks' CET1 ratios are 12.7%, as compared with 10.1% at the end of 2013. Leverage ratios have risen from 4.5% at the end of 2013 to 6.1% in June 2020. The Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR) are 140% and 119% at the end of June 2020, as compared with 122% and 113% in 2013. The banking system has remained resilient during the period of pandemic.

The higher quality and levels of capital and liquidity have permitted banks to continue providing lending and liquidity to the real economy. The analysis proves the importance of a robust regulatory framework for a resilient banking sector. The extensive and wide-ranging monetary and fiscal support measures that cushioned the shock should also be acknowledged (BIS, 2022a).

The analysis of capital buffers indicates that most banks maintained capital ratios well above their minimum requirements and buffers during the pandemic. This was partly due to the authorities reducing regulatory requirements, releasing buffers, and imposing restrictions on capital distributions via dividend payments and share buybacks, as well as due to the extensive fiscal and monetary support provided to borrowers (BIS, 2021b).

The increased quality and levels of capital and liquidity held by banks have helped them absorb the considerable impact of the Covid-19 pandemic. A conclusion can be drawn that the Basel reforms have achieved their objective of strengthening the resiliency of the banking system. Throughout the economic downturn the banking system has continued to perform its functions. Banks have continued to provide credit and other services (BIS, 2021b).

Most authorities that maintained a positive countercyclical capital buffer (CCyB) prior to the pandemic reduced them in order to provide banks with additional

[2] Refers to "Group 1" banks which are defined as internationally active banks that have Tier 1 capital of more than €3 billion and include all 29 institutions that have been designated as global systemically important banks (G-SIBs).

headroom. Similarly, several authorities that did not have positive countercyclical capital buffers lowered other regulatory requirements or buffer levels. While it is difficult to assess the quantitative effect of these capital releases independent of other measures, there is some evidence that the capital release had a positive effect on lending during the pandemic.

Certain banks faced liquidity pressure in the early phase of the pandemic. The severity of the pressure largely depended on banks' funding models. For example, banks reliant on unsecured wholesale money markets were more likely to have experienced pressure as funding sources dried up and they experienced large draws on loan facilities. In contrast, banks with stable deposit franchises experienced negligible liquidity pressure even at the peak of the stress. While an increase in the amount of high-quality liquid assets that the Liquidity Coverage Ratio (LCR) requires banks to hold helped banks absorb this liquidity pressure, measures taken by central banks and governments to support economies significantly reduced liquidity pressures. Overall, banks met large drawdown demands on committed lines and engaged in early buybacks of funding instruments from money market funds (BIS, 2021b).

Extensive governmental support measures to borrowers significantly mitigated the impact of the economic crisis on bank capital (BIS, 2021b).

The banking system has remained resilient during the pandemic, strengthened by substantial increases in capital and liquidity held by banks since the adoption of the Basel reforms. No internationally active bank has failed or required significant public sector funding since the beginning of the pandemic. Banks have as a whole managed to absorb temporary increases in the costs of liquidity and higher credit risk while maintaining their services to customers. More highly capitalized banks showed bigger increases in lending to businesses and households than other banks. Thus, the global banking system has been able to complement and support monetary and fiscal authorities' efforts to maintain economic activity during the pandemic, helping to absorb the shock rather than amplifying it, as occurred during the 2007–2009 financial crisis (BIS, 2021b).

2. Measures of the Bank for International Settlements to limit the negative impact of the COVID-19 pandemic on the global economy

Committees hosted by the BIS investigate the implications of coronavirus and other relevant issues for payment systems, the financial system and central banks (https://www.bis.org/topic/coronavirus/cooperation.htm).

The BIS's oversight body, known as the Group of Central Bank Governors and Heads of Supervision (GHOS), endorsed a coordinated approach to mitigating the risks posed by the pandemic to the global banking system. That approach includes ongoing monitoring of risks to the global banking system from Covid-19, sharing information, encouraging banks to use their capital and liquidity flexibility, and

taking additional globally coordinated measures, if needed. This will help further reinforce the ability of banks to absorb shocks and maintain lending to creditworthy households and businesses during the pandemic by providing further certainty regarding the usability of the Basel III capital and liquidity buffers (Langton, 2020).

The Basel III capital and liquidity buffers help banks to absorb shocks and keep lending to creditworthy households and businesses. Using capital and liquidity resources in this way should take priority. Once the crisis is over, regulators will provide banks with time to rebuild their capital and liquidity buffers (Langton, 2020).

The remaining Basel III reforms will be fully and consistently implemented on their existing deadlines. Doing so will help to lock in the benefits of these standards to ensure that banks can withstand future crises. Future changes to the Basel III framework will be limited and will be based on the assessed efficacy of these reforms, incorporating lessons from the Covid-19 crisis (Langton, 2020).

Technical guidance was issued, clarifying that banks should take into account the extraordinary government support measures and payment moratoriums when calculating their risk-weighted assets and implementing expected credit loss (ECL) accounting frameworks (BIS, 2020d). On the latter, the Committee gave jurisdictions additional flexibility in deciding whether and how to apply transitional arrangements for the regulatory capital treatment of expected credit loss (BIS, 2020b).

After the pandemic the Basel Committee on Banking Supervision will monitor any remaining jurisdictional measures. And while assessing its impact on the banking system, the Committee is ready to deploy additional policy or supervisory measures as needed (BIS, 2022b).

The Bank for International Settlements has created a database on central banks' monetary policy actions during the Covid-19 crisis. 39 countries are represented, with policy actions broken down into different tools: reserve policies, interest rate measures, asset purchase programmes and foreign exchange operations, lending operations (BIS, 2021a).

Conclusion

Banks entered the pandemic with higher capital and liquidity ratios compared to the global financial and economic crisis. Over the period 2013 - 2020, capital ratios rose by 25 to 35%, while liquidity buffers grew by 5% to 15%. Banks have remained stable during the pandemic. They have generally managed to cope with temporary increases in the costs of liquidity and higher credit risk. There have been no failed banks operating internationally, nor have any such banks required significant public sector funding during the pandemic. The increased quality and higher levels of capital and liquidity held by banks have helped them limit the impact of the economic crisis caused by the Covid-19 pandemic. Banks have continued to grant loans and provide liquidity to the real economy. The Basel III capital and

liquidity buffers help banks to absorb shocks and continue to lend to creditworthy households and businesses. This proves the importance of the regulatory framework for a more resilient banking sector. From this we can conclude that the Basel reforms have achieved their broad objective of strengthening the resiliency of the banking system. The substantial monetary and fiscal support measures taken have also been essential for limiting the impact of the economic crisis caused by the Covid-19 pandemic on the banking sector.

Greater increase in lending to businesses and households by more strongly capitalized banks compared to other banks has been observed. The global banking system has in this way been able to complement and support monetary and fiscal authorities' efforts to maintain economic activity during the pandemic, helping to absorb the shock.

It can be concluded that the Covid-19 crisis showed that the banking system is more resilient as a result of the Basel reforms. The unprecedented government measures to contain the pandemic's economic effects and protect the financial system against losses and the temporary jurisdictional adjustments to standards as well as the fact that not all standards were fully implemented should also be taken into consideration.

The Basel Committee on Banking Supervision assessed the risks to the banking system resulting from the pandemic, shared information, coordinated initiatives, and agreed on measures to mitigate the short-term financial stability risks.

The Bank for international settlements' actions to limit the negative consequences of the crisis with Covid-19 pandemic on the banking system can be assessed as effective. It helps mitigate the negative consequences of the crisis for banking activity.

References

BIS. "Coronavirus (Covid-19)", https://www.bis.org/topic/coronavirus.htm

BIS. (2019). "Newsletter on buffer usability", 31 October, https://www.bis.org/publ/bcbs_nl22.htm

BIS. (2020a). "Basel Committee coordinates policy and supervisory response to Covid-19", Press release, 20 March, https://www.bis.org/press/p200320.htm

BIS. (2020b). "Basel Committee sets out additional measures to alleviate the impact of Covid-19", Press release, 03 April, https://www.bis.org/press/p200403.htm

BIS. (2020c). "Governors and Heads of Supervision announce deferral of Basel III implementation to increase operational capacity of banks and supervisors to respond to Covid-19", Press release, 27 March, https://www.bis.org/press/p200327.htm

BIS (2020d). "Measures to reflect the impact of Covid-19", Basel Committee on Banking Supervision, April.

BIS. (2021a). “BIS launches database on Covid-19 monetary policy actions”, 07 Apr, https://www.centralbanking.com/central-banks/economics/data/7819706/bis-launches-database-on-covid-19-monetary-policy-actions

BIS. (2021b). “Early lessons from the Covid-19 pandemic on the Basel reforms”, Basel Committee on Banking Supervision, July.

BIS. (2022a). “Lessons from Covid-19 on Basel reforms and next steps”, Keynote speech by Pablo Hernández de Cos, Chair of the Basel Committee on Banking Supervision and Governor of the Bank of Spain, at the BCBS-CGFS research conference, 11 May, https://www.bis.org/speeches/sp220511.htm

BIS. (2022b). “Newsletter on Covid-19 related credit risk issues”, 2 March, https://www.bis.org/publ/bcbs_nl26.htm

BIS. (2022c). “Governors and Heads of Supervision unanimously reaffirm commitment to implementing Basel III framework; reappoint Pablo Hernández de Cos as Chair of the Basel Committee”, Press release, 09 February, https://www.bis.org/press/p220209.htm

Falzon, J. (2013a). “Bank Performance, Risk and Securitisation”, Palgrave Macmillan Studies in Banking and Financial Institutions, Palgrave Macmillan UK.

Falzon, J. (2013b). “Bank Stability, Sovereign Debt and Derivatives”, Palgrave Macmillan Studies in Banking and Financial Institutions, Palgrave Macmillan UK.

Langton, J. (2020). “BIS backs banks using buffers to combat Covid-19 fallout”, Investment Executive, 30 November, https://www.investmentexecutive.com/news/from-the-regulators/bis-backs-banks-using-buffers-to-combat-covid-19-fallout/

https://www.bis.org/topic/coronavirus/cooperation.htm

MIGRATION TRENDS AND LABOUR MIGRATION POLICY IN THE EUROPEAN UNION IN THE PERIOD 2013 – 2020

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Abstract

The paper analyses the migration trends in the EU in the last decade (2013 – 2020) – emigration and immigration. The net migration is then presented and analyzed in terms of its major economic and social consequences and its potential impact on the European labour market. For that purpose, migration and migrant population data from Eurostat are used to analyze the current state and perspectives on union and country level, as well as some projections and analytical reports regarding the labor force deficit in them.

Key words: migration, emigration, immigration, labor market, European Union

JEL: J60, K37, O52

Migration trends in the EU in the period 2013 - 2020

The migration trends in the EU in the last decade (2013 – 2020), including emigration and immigration are explored. The net migration is then presented and analyzed in terms of its potential impact on the European labour market. For that purpose, migration and migrant population data from Eurostat are used to analyze the current state and perspectives on union and country level, as well as some projections and analytical reports regarding the labor force deficit in them.

EU emigration trends

In 2020, there were totally 2 169 540 emigrants in the EU. From them about 956 000 people emigrated from the EU to a country outside the EU, and 1.2 million people previously residing in one EU Member State migrated to another Member State. To compare, in 2019 about 1.2 million people emigrated from the EU to a country outside the EU and 1.4 million people previously residing in one EU country moved to another EU country (Eurostat, 2022).

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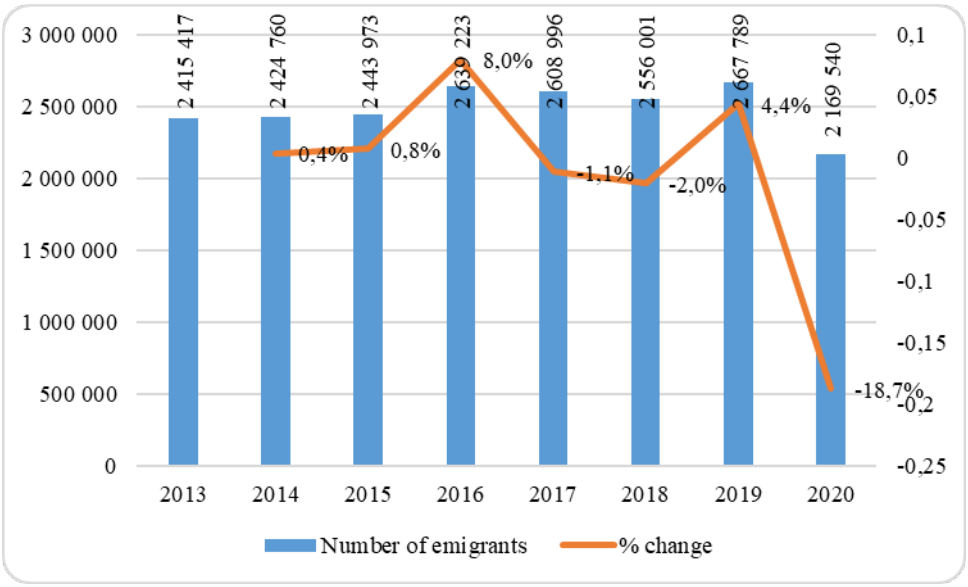
This data shows a substantial decline in the emigration figures of the Europeans in 2020 in comparison to 2019 (- 18,7 %), which can be explained with the Covid-19 pandemic restrictions (Figure 1).



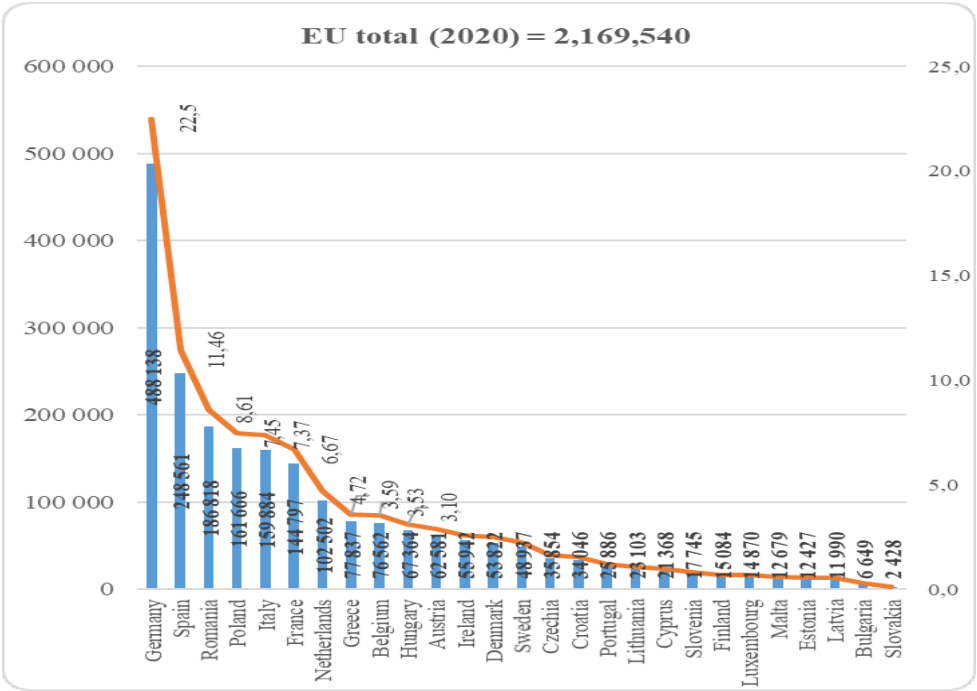
Def.: An emigrant is considered a person, who is leaving his/her EU country to move to other EU country for more than 12 months.

Figure 1: Total emigration (number of emigrants) on EU level, 2013 – 2020

Source: Author calculations with Eurostat data (Eurostat, 2022)

In the other years a comparatively stable trend is observed of slight change in the emigration values, amounting to up to 2 % of increase or decrease, except for the year 2016 when a significant rise (8%) in the emigration flow from and within the EU took place.

The distribution of emigrants as per country of emigration is quite uneven (Figure 2). It is obvious that Germany is the leader with more than 22% of the emigrants in the EU in 2020.



Def.: An emigrant is considered a person, who is leaving his/her EU country to move to other EU country for more than 12 months.

Figure 2: Emigration by country of next residence in 2020, as number of persons and as a share (%) of the EU total emigration

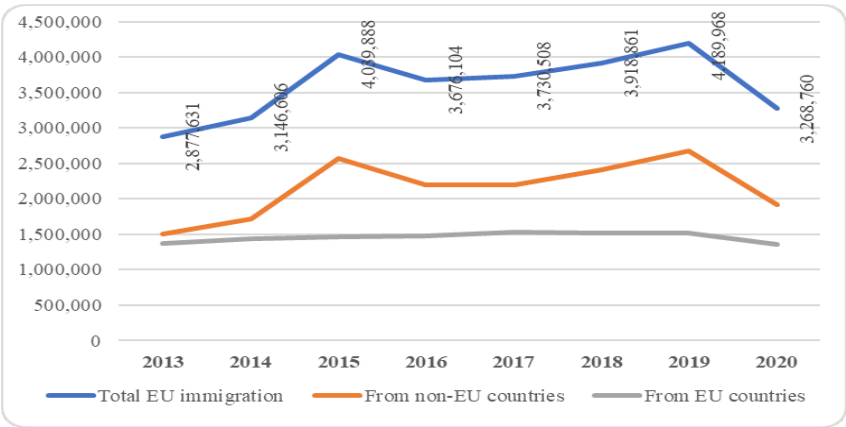
Source: Author calculations with Eurostat data (Eurostat, 2022)

EU immigration trends

The immigration trends are wavering. The Eurostat migrant data statistics allow the distinguishment of immigration that comes from third countries, i.e countries outside the EU (external immigration) and immigration from other EU countries (internal immigration).

In 2020, the number of immigrants in the EU was totally 3 162 411 persons. Approximately 1.9 million of them were immigrants from third countries, and 1.2 million represent internal immigrants from other EU countries. To compare, in 2019 these figures were as follows: 2.7 million immigrants to the EU from third countries and 1.4 million internal immigrants from other EU countries (Eurostat, 2022).

While the immigration from other EU countries has been stable in 2013 – 2020 at around 1,5 million persons per year, the immigration from third countries outside the EU has been significantly fluctuating, reaching its peak at almost 4,2 million in 2019 and marking a serious drop in 2020, most probably as a consequence to the Covid-19 pandemic (Figure 3).



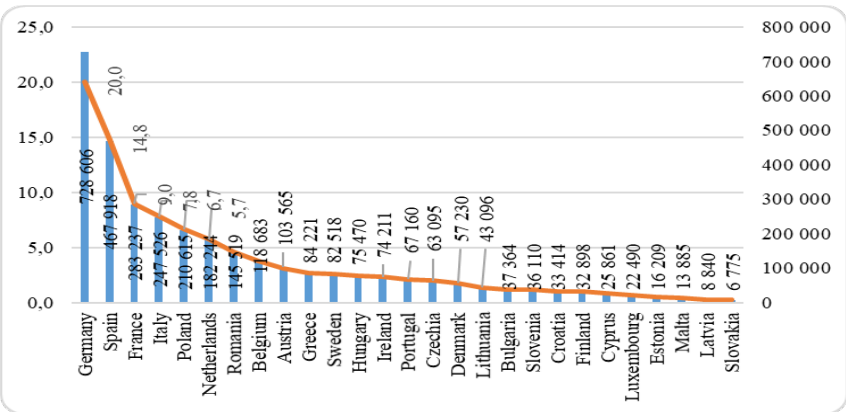
Def.: An immigrant is considered a person, who is establishing his/her residence in an EU country after being a resident of another EU country.

Figure 3: Total immigration (number of immigrants) on EU level, 2013 – 2020

Source: Author calculations with Eurostat data (Eurostat, 2022)

Germany attracted 1/5 of the total EU immigrants in 2020 (Figure 4).

EU total = 3 162 411



Def.: An immigrant is considered a person, who is establishing his/her residence in an EU country after being a resident of another EU country.

Figure 4: Immigration by country of next residence in 2020, as number of persons and as a share (%) of the EU total emigration

Source: Author calculations with Eurostat data (Eurostat, 2022)

EU net migration

Taking into consideration the data above, the figures of net migration have been positive throughout the whole period. The peak of net migration took place in 2015 and subsequently in 2019, just before the pandemic (Figure 5).

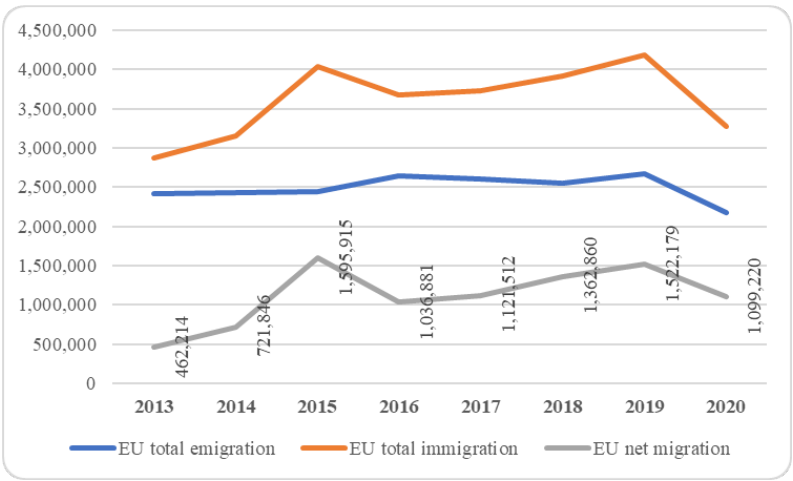
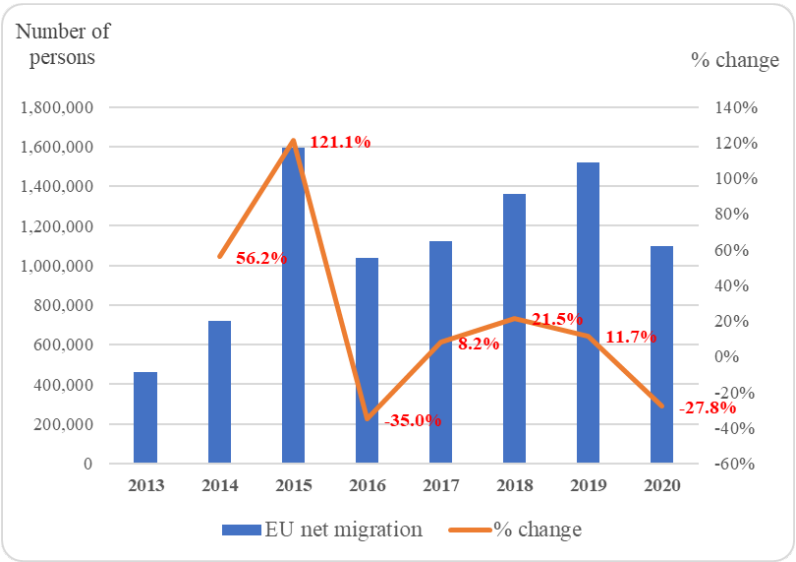


Figure 5: Net migration in the EU, 2013 – 2020

Source: Author calculations with Eurostat data (Eurostat, 2022)

As a consequence of Covid-19 restrictions the net migration recorded a record high decline in 2020 falling with 27,8 % in comparison to 2019 (Figure 6).



Definitions:

Net immigration: The difference between immigration and emigration on a yearly basis.

Figure 6: Percentage change in EU net migration, 2013 – 2020

Source: Author calculations with Eurostat data (Eurostat, 2022)

Logically, Germany was the country with the highest value of net migration in 2020, followed by Spain and France (Figure 7).

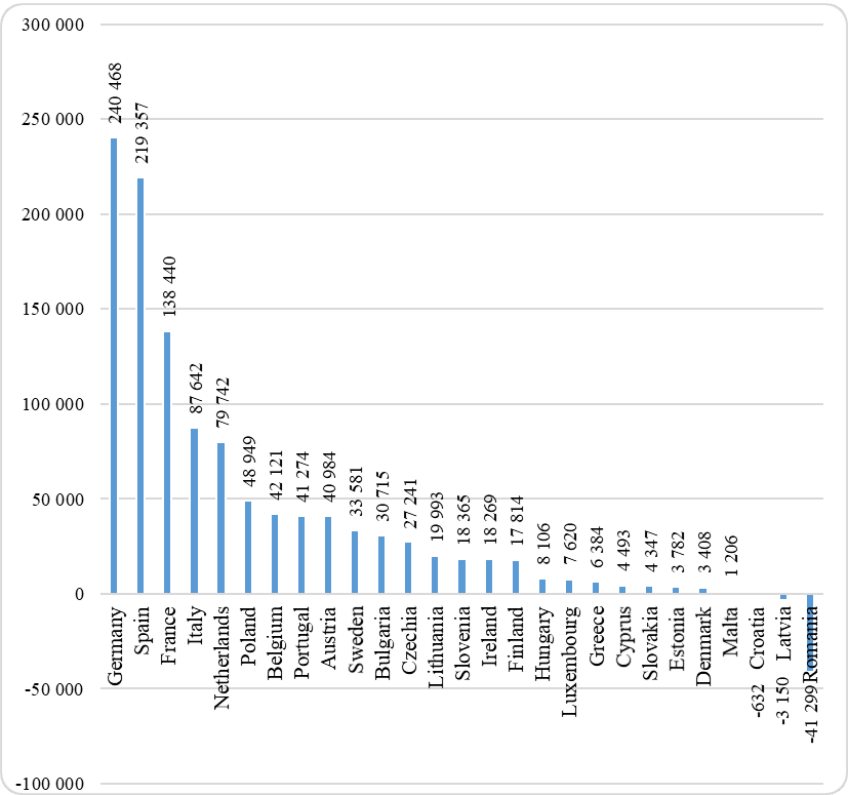


Figure 7: Net migration (number of persons) by country, 2020

Source: Author calculations with Eurostat data (Eurostat, 2022)

EU migration trends and their relevance to the labour force in the EU

The development of a common immigration policy is a part of the European law and it is stipulated in Article 79 of the TFEU. It is directed at both – ensuring immigrants' rights and fighting illegal immigration. Meanwhile, it does not prevent the EU countries from applying their own admission quotas to immigrants pursuing work possibilities in their countries. Thus, even though there are common rules concerning labour migration, as part of a European immigration policy, the EU countries have always shown reluctance to harmonize this area of law. In fact, due to the national governments' willingness to maintain their exclusive competences to regulate the admissions of third country nationals pursuiting work, the EU's labour migration policy is developing slowly and in a fragmented way. Several

EU legislative instruments have been adopted to manage the admission and the conditions under which different categories of third country nationals can move to an EU state for work or education such as: the Blue Card Directive, the Intra-Corporate Transferees Directive, the Seasonal Workers Directive and the recently adopted Students and Researchers Directive.

It has often been stated in numerous EU institutions' and other organizations' analyses that the migration policy should be integrated in the labour market policy of the EU.

There is well-known paradox on the EU labour market compromising of the fact that while many people are unemployed, there is also a significant need for labour. In that respect, taking into consideration the aging European population, the need to attract skills and talents from outside the Union is growing, and providing a strong labour force is not just a labour market issue but not succeeding can have serious consequences for the European social model and standards of living (The Migration Policy Centre, 2015b).

The European Commission has emphasized that the inclusion of migrants in the labour market of the EU is a very important factor for both: their integration in the society and for developing the European economy, and that the emigrants can be a part of the solutions to the skills shortages in certain sectors (European Commission, 2017).

In a report the European Parliament (2015) has emphasized on the gap between the need for immigrant workers in order for the EU to soften the problem with its aging population, and the missing regulation and instruments for that. It is a problem not only for the incoming immigrants in the European Union but also for their further mobility between the member states, as their migration regulation widely differ.

This is also the conclusion of the European Migration Network (2013), which states that for the entrepreneurs and self-employed persons from non-EU countries it is difficult to settle in another member state because of different labour market restrictions, bureaucracy, difficult process of diploma recognition and others. In many cases these requirements are as complex and difficult to obtain as the ones needed for their first entry in the European Union.

This is why the European Parliament (2015) has proposed steps in different directions. First, it recommended to broaden the integrated European public employment services to cover third-country nationals (f.e. through extending the European Job Mobility Portal, EURES, to third countries). Secondly, it considers as very important to make it easier for the currently present immigrant workers in the EU to move to another member state without major barriers to that. Thirdly, the Parliament recommends the adaptation of legal migration channels to the needs of European labor markets with less costs for migrants and employers and more mobility rights within the EU for blue card holders. Last but not least, the pool of potential labor migrants can be expanded, e.g. by giving foreign students

graduating from EU educational institutions access to the European labor markets. Last but not least, the recognition of degrees and diplomas of immigrant workers that they got in their native countries is also a question that needs to be considered.

The Migration Policy Centre (2015a) reconfirms the need for supra-national labour migration policy that will provide regulatory framework on European Union level. It could be integrating the European Employment strategy so that the ultimate result would be the opening of the way for foreign workers that could decrease the deficit of labour force in the EU.

Another important reason for EU-level labour migration policy, in addition to its role for the matching of the supply and demand on the labour market, is that it would allow the provision of labour force with different levels of education and skills. Having this legal framework would also help to prevent illegal labour migration (European Parliament, 2015).

The EU's activation of the Temporary Protection is defined as a "progress on migration policy" (Euroactiv, 2022). The Temporary Protection Directive was activated for the first time following Russia's invasion of Ukraine on 24 February following adoption by the European Council on 4 March. This means a quick and secure residence permit, the opportunity to work, the right to attend school or university. However, there are concerns over risks and negative effects of too open EU migration policy connected with potential abuse of the European economies, the protection of the external borders, and overwhelmed social-security systems of the EU member states (Euroactiv, 2022).

Conclusion

There is a potential to support the European economy and labour market with the labour force of the migrants in the Union. For that purpose, a EU-level labour migration regulation is needed as a part for the European integration in this sphere. The work on migration policy reform under the French Presidency of the EU Council in the first half of 2022, has welcomed tha European Commission's 2020 proposal for a New Pact on Asylum and Migration. In June 2022, 18 member states signed up to a voluntary solidarity mechanism that envisages relocations, financial contributions and support to alleviate pressure on member states hosting the largest numbers of asylum-seekers. This could be a future step not only towards a more common migration policy, but also to a new common European labour policy as well.

References

Euroactiv, 2022. Scholz lays out vision for future EU migration policy. Available at:
https://www.euractiv.com/section/justice-home-affairs/news/scholz-lays-out-vision-for-future-eu-migration-policy/ Accessed on: 14 October 2022

European Commission, 2017. Migration and Home Affairs. Available at: https://home-affairs.ec.europa.eu/policies/migration-and-asylum/legal-migration-and-integration/integration/integration-labour-market_en Accessed on: 11 October 2022

European Migration Network (2013), Intra-EU Mobility of Third Country Nationals. Available at: https://ec.europa.eu/migrant-integration/library-document/intra-eu-mobility-third-country-nationals_en Accessed on: 28 August 2022

Eurostat, 2022. Migration and migrant population statistics. Available at: https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Migration_and_migrant_population_statistics Accessed on: 28 August 2022

European Parliament, 2015. Exploring new avenues for legislation for labour migration to the European union. Available at: https://www.europarl.europa.eu/thinktank/en/document/IPOL_STU(2015)536452 Accessed on: 15 October 2022

Migration Policy Centre, 2015a. A Comprehensive Labour Market Approach to EU Labour Migration Policy. doi:10.2870/753878, ISBN 978-92-9084-315-3, ISSN 2363-3441.

Migration Policy Centre, 2015b. Towards a pro-active European labour migration policy: concrete measures for a comprehensive package. ISSN 2363-3441, DOI 10.2870/040713, ISBN 978-92-9084-232-3.

ASYLUM SEEKERS AND ECONOMIC BURDEN: EVIDENCE FROM REFUGEES' REALITIES IN GERMANY

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Abstract

In the context of refugee crises, which have become the leading topic of political as well as scientific debates in past decade, the impact of migrants and asylum seekers on the labour market of the receiving country has attracted remarkable attention. Empirical research in this area indicates that migration has an insignificant effect on the change of the average wage, but it negatively affects the low-skilled labour force on the one hand and positively affects the high-skilled labour force on the other. The purpose of this article is to analyse the influx of refugees and asylum seekers to Germany with an emphasis on the genesis of the crisis in 2015-2016. We try to illustrate the integration of refugees in the local labour market. In accordance with the purpose of the paper we suggest two hypotheses reflecting refugees' economic burden for hosted country and spatial distribution relevance for integration. To reach the purpose, we apply qualitative research methods such as semi-structured interviews. Our results suggest the limited refugees' economic burden for German economy and significant effect of geographical allocation on integration process.

Key words: refugee crisis, labour market, economic burden, spatial distribution, Germany

JEL: F22, E24

Introduction

Last decade was marked by geopolitical tensions and humanitarian crisis in geographical regions neighboring the European Union. These political turbulences have created the European migration crisis that arose because of multiple increase in numbers of refugees seeking asylum on the territory of European countries (Marfleet and Hanieh 2014, Park 2015, Yazgan et al. 2015, Sprandel 2018). This topic is even more relevant in the context of current events related to war in Ukraine that generated almost 7 million forcibly displaced persons across Europe just in the first half of 2022 (UNHCR, 2022). As European union member state Germany has led the refugee and asylum seekers influx by Dublin regime and received approximately 1.8 million refugees between 2015 and 2020. In 2015, the

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country absorbed more than 890,000 refugees and registered more than 440 000 first asylum applications (Eurostat, 2022).

The subject of our work is the crisis of 2015–2016 created by high number of refugees coming from war effected countries including Syria, Afghanistan, and Iraq. Citizens of these countries, as well as others, found themselves on the run and sought safety in Europe. The country to which the largest number of refugees and asylum seekers went was Germany, thus the targeted country of this particular research.

The purpose of the paper is to answer contemporaneous questions related to the integration of refugees and asylum seekers. We chose the issues of the economic burden (d'Albis, Boubtane and Coulibaly, 2018) and spatial distribution of this group of forcibly displaced persons as the subject of our research. The present geographical distribution of refugees is often an argument for the failure of the integration process (Katz, Noring and Garrelts 2016; OECD 2018) and leads to a negative perception by the local population

Literature review

Several theoretical, analytical (Parsons, 2016; Zetter, 2012) or empirical works have focused on migration waves and their impact on receiving nations (Gieseck, Heilemann, and von Loeffelholz, 1995; Tumen, 2016; Mahia et al. 2019; Altındağ, Bakış, and Rozo, 2020) or country groups (d'Albis, Boubtane and Coulibaly, 2018; Manthei, 2021). Gieseck, Heilemann, and von Loeffelholz (1995), for instance, have dealt with a macroeconometric analysis of the effects of the migration wave in West Germany on the labour market and economic growth at the turn of the 1980s and 1990s, whereas proved a significant positive effect on migration flows on GDP growth and job creation. They emphasize that migrants have been successful in finding work and thus helped to eliminate labour shortages in particular industries. Recent study on refugees' inflow and their effect on western economies including Germany was conducted by d'Albis, Boubtane and Coulibaly (2018). Authors confirms that in long term influx of asylum seekers does not worsen the economic performance of studied countries. In contrary the fiscal expenditures on asylum governance are offset by the increase in tax revenue over time. The work of Altındağ, Bakış, and Rozo (2020) is one of the prominent studies of the impact of refugees on the national economy of Turkey, which has probably become one of the main points of migration flows in the last two decades. Using data from 2006 to 2015, the authors report positive impact of refugees on the performance of companies. The latest Germany case study (Manthei, 2021) also confirms the beneficial impact of refugees on economic development expressed through economic growth per person. The author concluded that relatively young refugees with sufficiently high qualifications are significantly increasing the effect of immigration on economic growth. Authors such as Fratzscher and Junker (2015) also dealt with the issue of positive economic effects of immigration in Germany.

However, in the recent literature we can find works that point to the negative effects of immigration in this European nation (Van Suntum and Schultewolter 2016, Manthei and Raffelhüschen 2018), while the last study emphasizes the problem of fiscal sustainability associated with immigration.

Based on literature analysis, we concluded that most of past and recent publications are concentrated on empirical investigation of migrant's impact on national economy using widespread econometric models. To widen the existent literature, we choose the alternative qualitative approach to study the problem of interaction between refugees' integration and economy using semi-structured interviews.

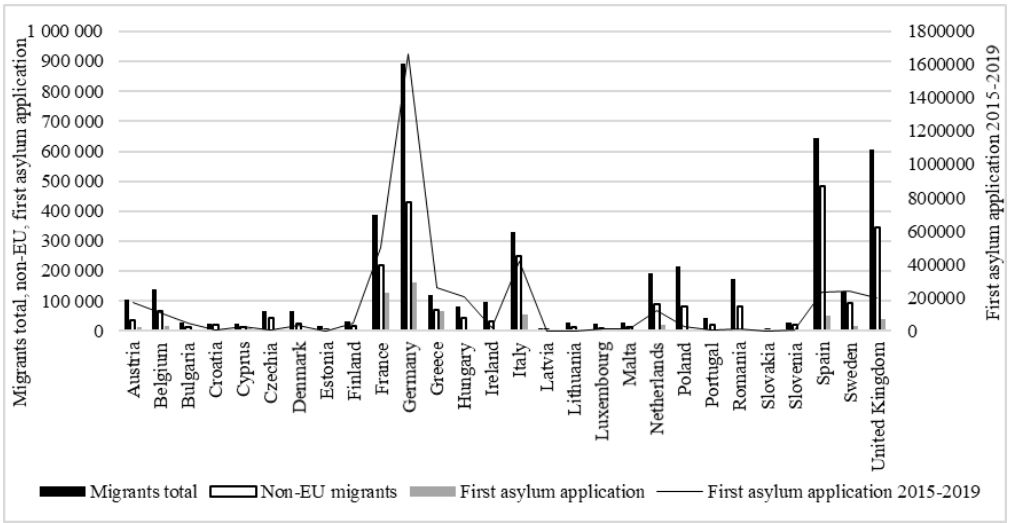
Data and methodology

To fulfil the primary and secondary goals, we chose several research methods. The main method used in our work was semi-structured interviews with respondents from Germany conducted during online field research in 2021. Due to the unfavourable pandemic situation, we decided to conduct the research exclusively online. Performing the interviews was preceded by thorough preparation. First, we needed to get respondents for our research, while we focused on the federal states and cities throughout Germany where the most migrants and asylum seekers live, or where the largest refugee camps are located. Finally, we decided to approach them with a request for an interview and questionnaire. The appendix to the interview consisted of an official questionnaire, which served as a basis for semi-structured interviews. The questions in the questionnaire were divided categorically according to the nature of the respondent. The first category of respondents were municipalities, the second category were represented by non-profit organizations and companies employing asylum seekers, and the last category were asylum seekers. It is necessary to note that questions within interview procedure differed for each category. We sent the official e-mail to approximately 30 municipalities and 30 non-profit organizations active in the field of migration or helping refugees. About three-quarters of contacts did not respond to our e-mail, and one-fifth emphasized their lack of interest in an interview for several reasons including work busyness, numerous similar requests, or extended character of topics within processed questionnaire. During the interviews themselves, we used questions from the questionnaire related primarily to the labour market, and at the same time we provided enough space for free discussion within the topic. Finally, 6 respondents with different professional backgrounds agreed to take part in semi-structured interviews. The groups of respondents have included a formal city mayor, a social worker, a trouble-shooter, a municipal worker, a refugee, and a lawyer. All interviews were conducted online using various platforms preferred by the respondent. With the consent of the respondents, the interviews were audio and video recorded. After the interviews themselves, we transcribed them into written form and key information from them was used in the results of this research. As

part of the interviews, we addressed a wider range of respondents in terms of the diversity of their professions as well as in terms of the size and location of cities in Germany. This ensured a comprehensive geographical coverage of the targeted country. The first respondent was a resident of a smaller city with a population of 7,500 people, the second respondent came from a larger city with a population of 150,000, and the remaining four respondents live in cities with a population of at least one million. In terms of federal states, the respondents came from the federal states of Lower Saxony, North Rhine-Westphalia, Bavaria and the city-states of Berlin and Hamburg.

Development of the refugee crisis in Germany

Already in the 20th century, Germany has experienced the huge influx of refugees and migrants. Only at the beginning of unified Germany, this country used to receive more then million migrants every year from 1990 to 1995 (Eurostat, 2022). Here for instance, we can mention the refugees from the southern regions of Europe during the war in Balkans or persecuted persons from post-soviet states (Boswell, 2005). In the current century, Germany reached the largest share of newly registered refugees in 2015, when the German authorities recorded over a million refugees. This value represented the largest influx of refugees in the country itself in the 21st century. During the studied period 2015-2019 Germany has received around 1,7 million official first-time asylum applications.



Source: Eurostat, 2022

Figure 1: Migration dynamics in EU member states, 2018

According to collected data (Statista, 2022; Eurostat, 2022) in 2015 we can observe a several-fold increase in the number of refugees flowing to Germany at the

outbreak of the refugee crisis. In 2014 the number of refugees constituted around 238,000, while the following year it exceeded the 1 million threshold. We can also see that after 2015 there was a downward trend in the number of refugees, as the number of newly registered refugees decreased significantly. In 2017, the values were even lower than before the crisis. Though German authorities recorded the largest number of refugees in 2015, the number of first asylum applications was the highest in 2015 and 2016. During the record period of 2016 local authorities have received more than 745,000 asylum applications. The following years were accompanied by a downward trend as was also the case with the number of refugees. This unexpected increase thus put the German government to the test of preparedness and ability to manage the crisis and lead the other EU countries through the issues of asylum governance, refugees' integration, and labour market pressures. The outstanding position of Germany regarding numbers of received migrants and asylum seekers in the whole EU is pictured in Figure 1.

Results: exploring the interviews

To reach the purpose of the paper regarding labour market integration of refugees in targeted EU country we have performed a text analysis of conducted interviews aimed to analyse the job occupation parameters. Firstly, we tested the hypotheses that (H1) *refugees and asylum seekers are a burden for economy due to the absence of highly skilled labour inflow*. Generally, refugees and asylum seekers receive their personal income through different options including legal work, illegal work, and social programs offered by the state in the form of monthly allowances and financial reimbursement. Several of our interviewees said that most refugees mostly end up working in low-skilled jobs. Layer form Berlin, for instance, stated that *"Most of them [refugees], at least those who wanted, found jobs as well as low level jobs, of course, most of them entry level."* Another respondent, social worker, has estimated that only up to 20% of refugees are highly skilled: *"I think that for about maybe 15 to 20% are high qualified which means they have bachelor or master's degree."* According to municipal worker in Munich the most frequently examples of refugee employment are in gastronomy sector. In addition, many refugees do physically demanding jobs, other examples are jobs such as courier, nurse, car mechanic, cleaner, security guard, etc. He stated that *"Most of our clients do labour at least in gastronomy service, handcraft jobs and nursing."* and added that *"We have some industry here, like automotive industry. They get jobs where you didn't even need a specific education or like the gastronomic sector, like working in cafeterias as assistants."*

Some refugees and asylum seekers frequently occupy job positions that need a special qualification as well. Mayor from small German city, for instance, gave us another concrete examples of employment. She mentioned a refugee from Afghanistan who is a volunteer as well as an employee in the Red Cross. According to this respondent *"He has own flat, his own money, and he*

is working voluntarily at the Red Cross. He really has a paid job at the Red Cross, and when he has a free time, he's voluntarily working at the Red Cross. That man from Afghanistan made very, very good, and good pay job." She also remembered the example of a woman from Syria who trained and works as a kindergarten teacher. According to the experience of trouble-shooter from Hamburg, there are cases of refugees who are employed as IT experts, architects, engineers, bus drivers. He describes the example of a Syrian women who got a job position in one of the best public television stations in Germany and work there as a journalist. Refugees and their professions can also differ according to individual nationalities. For example, refugees from Syria are very goal-oriented, hardworking, and active in culture, literature, film industry or journalism. On the other hand, for example, refugees from Iran in Hamburg occupied high-skilled and well-paid positions such as doctors and engineers. Troubleshooter from Hamburg also added that most refugees were able to integrate. According to his own estimates, up to 80% of refugees have fully integrated, and most of them are able to work and pay taxes.

To study spatial issues of refugees and asylum seekers labour market integration we have proposed second hypotheses that (H2) *in geographical areas with the lack of economic opportunities the integration of asylum seekers is slower*. To verify the stated hypotheses, we compare the integration of refugees in cities and in the countryside. The last include several difficulties, however integration in cities is easier since the integration processes is more developed. The most prominent problems of rural integration are poor infrastructure, lack of schools and language courses, isolation, as well as lack of job opportunities. A social worker from Paderborn with population around 150 000 describes the situation as follows: *"In big cities, like our city, I think we have a high grade of integration and of acceptance of migrants and refugees as well. In the suburban areas, where we have gone to other small villages around our city here, for example, we do have maybe probably 500 or 400 citizens in their village, we have larger problems, but we are pretty sure that these problems are not based on a different thinking of the people who stay there. But the problems are based on the differences in the suburban infrastructure, because in the villages for example, we generally do not have language courses. Sometimes we do not have schools or schools for the larger kids. So, it makes it rather difficult to integrate the people, especially the refugees, they even do not live in the village, sometimes they live on a former farm, which is for about one or two kilometres away from the village. So, rather isolated in the suburban areas and this is the biggest problem in order to integrate them in this area."* Next example was presented by municipality worker from Munich that confirmed geographically uneven distribution of infrastructure among German federal states. Especially in the eastern regions there are many areas with undeveloped infrastructure suitable for refugees and asylum seekers integration. As mentioned by the respondent, on the one hand, there is a greater

supply of housing, but on the other hand, the number of economic opportunities is insignificant. He stated that *"there are regions in Germany that have lots of vacancies, especially in Eastern Germany, but also in the eastern part of Bavaria. It's also like economically, not very strong part and the flats are cheap and empty. The mayors of those towns, and the districts and regions, they said, you can't just put everybody [here], what are people supposed to do when they live here, we got no work, we got low or weak infrastructure for kids and public transport and all that stuff and you can't just put like, 1000 people somewhere out in the green and leave them to their own, it's going to be a disaster and of course, they're going to take drugs and be bored."*

Conclusion

Based on semi-structured interviews with respondents of different qualifications and professional positions we have tested two research hypotheses. We managed to partially disprove the first hypothesis that (H1) *refugees and asylum seekers are a burden for economy due to the absence of highly skilled labour inflow*. The first reason for refuting this hypothesis is the arrival of a highly qualified workforce within the targeted group of refugees and asylum seekers. An example of the arrival of highly skilled labour is Iranian refugees, who are often employed on high qualified and well-paid positions. Despite few outlaying observations we agree that most refugees are employed mainly in low-skilled and low-paid jobs. Such realities of labour market penetration, hence, may be the results of geographical and institutional obstacles, or asylum governance failures. The second reason to partially refute this hypothesis is the fact that up to 80% of refugees can be fully integrated into the German social-economic and labour environment via participation in economic life and local tax system. The second hypothesis stated that (H2) *integration of asylum seekers is slower in geographical areas where there is a lack of work and economic opportunities*. We confirm this hypothesis, as the integration of asylum seekers is slower mainly due to weak infrastructure, missing integration courses and lack of job opportunities. Areas with a lack of work and slower integration of asylum seekers are primarily small towns in the eastern parts of Germany.

The results of this work are intended to serve as an overview of the refugee realities and asylum governance in Germany as well as to provide basic insights on labour market integration and problems related to spatial distribution of forcibly displaced persons. To conclude it is necessary to mention the high degree of labour market integration capabilities of refugees on the one side and asylum governance failures connected to distribution and allocation of targeted groups in underdeveloped parts of the country that lacks appropriate educational, social, and economic infrastructure on the other side.

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References

Altındağ, O., Bakış, O. and Rozo, S. V. (2020). Blessing or burden? Impacts of refugees on businesses and the informal economy. *Journal of Development Economics*, *146*.

Boswell, Ch. (2005). *Migration in Europe* [online]. [5. 9. 2022]. Available at: https://www.iom.int/sites/g/files/tmzbdl486/files/jahia/webdav/site/myjahiasite/shared/shared/mainsite/policy_and_research/gcim/rs/RS4.pdf

d'Albis, H., Boubtane, E. and Coulibaly, D. (2018). Macroeconomic evidence suggests that asylum seekers are not a "burden" for Western European countries. *Science advances*, *4*(6).

Eurostat (2022). *Statistics.* [online]. [18. 8. 2022]. Available at: https://ec.europa.eu/eurostat/web/main/data/database

Fratzscher, M. and Junker, S. (2015). Integrating refugees: A long-term, worthwhile investment. *DIW Economic Bulletin*, *5*(45/46), 612-616.

Gieseck, A., Heilemann, U. and von Loeffelholz, H. D. (1995). Economic implications of migration into the Federal Republic of Germany, 1988–1992. *International Migration Review*, *29*(3), 693-709.

Mahia, R., de Arce, R., Koç, A. A., & Bölük, G. (2019). *The short and long-term impact of Syrian refugees on the Turkish economy: a simulation approach. Turkish Studies, 1–23.*

Manthei, G. (2021). The long-term growth impact of refugee migration in Europe: A case study. *Intereconomics*, *56*(1), 50-58.

Manthei, G. and B. Raffelhüschen (2018). Migration and Long-Term Fis- cal Sustainability in Welfare Europe: A Case Study. *FinanzArchiv*, *74*(4), 446-461.

Parsons, R. (2016). Refugees: Economic burden or opportunity. *E-International Relations*, *7*.

Statista (2022). *Anzahl der neu registrierten Flüchtlinge in Deutschland von 2014 bis 2018.* [online]. [9. 9. 2022]. Available at: https://de.statista.com/statistik/daten/studie/663735/umfrage/jaehrlich-neu-registrierte-fluechtlinge-in-deutschland/

Suntum, van U. and D. Schultewolter (2016) Das Costa Fast Gar Nix? Das Costa Ganz Viel! Kritik einer DIW-Rechnung zu den Ökonomischen Auswirkungen der Flüchtlinge. *ifo-Schnelldienst*, *69*(4), 30-38.

Tumen, S. (2016). The economic impact of Syrian refugees on host countries: Quasi-experimental evidence from Turkey. *American Economic Review*, *106*(5), 456-60.

UNHCR (2022). *Operational Data Portal: Ukraine Refugeee Situation.* [online]. [18. 1. 2020]. Available at: https://data.unhcr.org/en/situations/ukraine
Zetter, R. (2012). Are refugees an economic burden or benefit? *Forced Migration Review*, (41).

CHINA AND BULGARIA: SO FAR AND SO CLOSE. THE AUTHENTIC ENERGY OF CULTURAL PROXIMITY

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Abstract

Despite the many obvious differences, China and Bulgaria share common cultural fundamentals, providing for a fertile ground for successful long-term meaningful relationships between the people of both countries. Undoubtedly cultural similarities create inroads for mutually satisfactory business relationships as well.

At first glance, China and Bulgaria are so distant from one another. Situated in different continents, at a distance of almost 7000 kilometers, representatives of different races, speaking so different languages. However, all these dissimilarities may prove to be outweighed by the aspects of culture, shared by both countries.

The paper presents cross-cultural analysis of both countries, based on the framework of cultural divides as suggested by Richard Gesteland. To that end, literature review and analytical reasoning are used. The elaborations lead to the conclusion that although spotted at a distance on the cultural continuums, what is 'desirable' in both countries is quite close in the perception and interpretation of the Chinese and Bulgarians. That cultural proximity heralds trustworthy, emotionally comfortable and productive relationships which to be used to the advantage of both countries.

Key words: international business, China, national culture, comparative management, intercultural competence

JEL: F23, M16

Introduction

Physical distance between two national markets is a key factor in international business theories – close distance facilitates bilateral trade, while remoteness hinders economic cooperation. However, may the impact of distance be diluted by the cooperative potential of cultural proximity? Although the paper does not dare definitively answering this question, it does examine the national culture profiles of both China and Bulgaria as pertaining to the domain of international business. The thesis states that in national culture terms China and Bulgaria are rather close than far away. This cultural proximity entails potential for fruitful bilateral cooperation, including cooperative business prospects. It is important for business people

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in both countries to realize their capacity for jointly creating a shared working culture which to provide a common ground for fertile and mutually beneficial business relationships. The paper employs a literature review and the method of unstructured interview. The desk research revolves around the contributions of Richard Gesteland who unlike most of the authorities in the cross-cultural area is not an academic but an international business practitioner with extensive experience in many parts of the world. Gesteland skillfully integrates established frameworks of cultural dimensions as devised by cross-cultural scholars, together with his own observations from the real-world intercultural business contacts. Thus he comes up with a set of four cultural divides: 1) relationship-oriented and deal-oriented cultures; 2) formal and informal cultures; 3) time-rigid and time-fluid cultures; 4) emotionally-expressive and emotionally-reserved cultures. To a considerable extent Gesteland validates cultural phenomena that are already identified and explained others rather than finds out new phenomena. Nevertheless, Gesteland proficiently renders and transposes the established cross-cultural knowledge in the realm and for the purpose of effectively doing international business.

The field research involves five unstructured interviews, based on open-ended questions only. An interview is conducted with a Chinese expatriate in Bulgaria who works in the field of higher education. Four more interviews are carried out with Bulgarian practitioners in international business who have direct exposure to business negotiations with Chinese partners. In this way, the research is primarily of exploratory nature, seeking to formulate questions rather than provide definitive answers. The secondary and primary information collected is fed into a cross-cultural analysis of both national cultures. The text below elaborates on the findings from the analytical reflections and their implications for international business practitioners.

Cross-cultural analysis

As Hofstede says "Measuring is always comparing" (Hofstede, interview). Absolute national culture profiles are hard to be nailed down. The characteristics of a national culture can be better understood when described in relation to another national culture. Cross-cultural analysis is based on the comparison. The discussion below pivots on the juxtaposition of the Chinese culture and the Bulgarian culture according to the Gesteland's framework of cultural divides (Gesteland, 2003).

Relationship orientation

Both cultures are relationship focused. However, China is strongly relationship focused while Bulgaria is moderately so. Building and maintaining meaningful relationships with Chinese counterparts is instrumental for doing international business, especially complex international business transactions (i.e. transactions, involving stage(s) of the value-added chain other than the commercial stage). It

is very difficult, almost impossible, for a foreigner to set up a joint venture with a Chinese partner without having access to that person's in-group. At the initial phases of the interaction foreign counterparts might take advantage of someone else's contacts – someone known to both partners. Someone who can serve as a reliable introducer when foreign business partners do not know each other closely enough. Notwithstanding the crucial role of the third-party 'ice-breaker', counterparts should actively participate in building their own common (sub)culture, unique to their interaction. The process of forging that kind of third culture takes time, patience and cultural sensitivity. Moreover, it should never end. Attending to relationships is a continual function and a central pillar in the Chinese business system. The effectiveness of relationship building manifests itself through the tacit permission for the foreign partner to cross the line between 'the external' and 'the internal' to the Chinese counterpart. The Chinese term for denoting that internal group is 'guanxi'. An approximate translation of guanxi into a 'Western language' might be 'a network of personal contacts', the people who one knows. However, as compared to the Western concept of network, the Chinese interpretation of guanxi implies a stronger emphasis on interdependence, mutual caring among the members of the in-group, and relationships which are organic and holistic. Guanxi also means long-term commitment to reciprocal exchange of favours, just like close friends feel free to expect and ask favours from each other. In a Chinese cultural context the know-how concept goes hand in hand with the know-who one. Moreover, the latter is often an unavoidable prerequisite for foreign partners to be allowed to realize their know-how.

As a part of the Eastern European cluster, Bulgaria is viewed as a moderately deal-focused culture. Technical competences are important but nurturing a climate of trust cannot be underestimated either. Work relationships in the office transcend into closer friendly relationships after work hours. Business lunches and dinners with foreign partners in a congenial atmosphere are an established cultural practice. Expatriate managers from Northwestern Europe perceive Bulgarians as relatively *diffuse* people, that is as not clearly separating their work and personal life (Chavdarova, 2004). Nonetheless, Bulgarians are inclined to get down to discussing business issues faster than the Chinese. The negotiation stage of foreign partners getting to know each other is crucial but it takes less time for Bulgarians than for the Chinese. Scoring higher on in-group collectivism (Javidan, House, 2001) and high-context (Hall, 2000), the Chinese require more "non-task sounding" (Graham, Sano, 1989) and information to construct a rich context of the intercultural interaction. Thus, on the basis of comparison Bulgaria is more relationship focused than many of the Western cultures but less so (respectively, more deal focused) than the Chinese culture. So, the mental programming of Bulgarians allows them to operate at a cultural advantage to Western competitors, all other things being equal. Bulgarians are in a better position to sense and adapt to the cultural expectations of their Chinese counterparts for attending to strong

interpersonal relationships. However, in spite of being a more comprehensible task, relationship catering is still a subtle task to Bulgarians.

The cultural relativity discussed above corresponds to the preferred ways of communicating in China and Bulgaria. A major priority when communicating in a Chinese intercultural context is preserving the harmony within the group. To that end the Chinese interlocutors are very careful in what they are saying and how they are conveying their messages. No one of the participating parties should feel insulted in any way. More than that, conversational partners should consciously make efforts to save their face and the face of others. The Chinese opt for a polite and roundabout manner of expressing themselves. They avoid direct statements and most of all straightforward negation because these would cause anyone involved to lose face.

Although not so indirect as the Chinese, Bulgarians are not particularly comfortable with direct communication either. Zealous statements and open criticism are often avoided in a Bulgarian cultural context. A culturally contingent business practice are small group discussions prior to a formal meeting thus reaching to a decision in advance and avoiding the need for speaking up. While for the time being the language of Chinese-Bulgarian business negotiations is still English, there are positive signs that segments of Bulgarian people are eager to study Chinese language and culture. It is worth mentioning here the efforts for promoting the Chinese language in Bulgaria of the Confucius Institute and of some schools and universities in Bulgaria (the 18th High School William Gladstone, the University of National and World Economy, Sofia University, to name a few).

Another important implication of the relationship-focused – deal-focused profile of both countries for their bilateral business relations are the somewhat varying attitudes and interpretations of the role of the written contract. The Bulgarians feel relatively more constrained by the contractual provisions. Therefore they are very circumspect about the content of the contracts they undersign. While Chinese counterparts give priority to the peculiarities and exigencies of the situation at hand. Bulgarians should tune themselves to a contextual sensing of the circumstances and be prepared for a flexible application of the written agreements. Being part of a Chinese person's guanxi entails a constant readiness for adjustments as per the current state of affairs of the Chinese partner. The latter reciprocates in relation to the contingencies, surrounding the foreign partner.

Formality

Both the Chinese culture and the Bulgarian culture are formal ones (Gesteland, 2003; Karabel'ova, 2011) . Hierarchy, status, age, formal approach in business meetings and negotiations are relatively important cultural norms in China as well as in Bulgaria. More powerful members care about their subordinates in exchange for loyalty. The paternalistic leadership style is prevalent in the traditional Chinese companies (those with market capitalization of up to $100 million). The boss is

rigorous but righteous: just like a father. Subordinates obey the orders of their superiors while at the same time, are emotionally related to them and rely on their support in dire circumstances. Family tie-ups are transposed in a Chinese organizational context wherein work relationships emulate family rapport. Whereas loyalty is a traditional Confucian value, internalized by the Chinese, in a Bulgarian organizational and business setting one is to find a somehow utilitarian interpretation of it. In that sense in bilateral Chinese Bulgarian economic relations, even if the Bulgarians appreciate formality they might expect more speed in decision making. Bulgarian businesses sometimes report frustration with the Chinese by the lack of "real progress" on work issues notwithstanding the respect they demonstrate for decorum and ceremoniousness both during and after work hours. Thus the ability of Bulgarian partners to move beyond their "collective programming of the mind" (Hofstede et al, 2010) on patience and perseverance is a clue to mutually beneficial business partnerships.

Seen as high power distance societies, status in both countries is ascribed. High-ranking individuals should be approached with a proper amount of respect and formality. As for the others, modesty is the norm. The Chinese follow 'the doctrine of the mean' as prescribed in the Confucian philosophy. Humble conduct and not standing out from the group are cultural imperatives. Young people should be even more careful to avoid showing off and speaking up unless being allowed to. On the part of Bulgarians, modesty is out of low self-esteem, attributed to a combination of historical, socio-political and economic factors.

Attitude towards time

Both cultures are moderately monochronic, that is punctuality is an important value. Business meetings usually start and end at a pre-determined time and are rarely interrupted, plans are relatively fixed, schedules - relatively stuck to, agendas – relatively strict. Although not particularly obsessed with time, both Chinese and Bulgarian businesspeople strive to follow time arrangements without major digressions. This cultural similarity prevents the occurrence of culture shock due to differing perceptions of time. The relatively close positions of both national cultures on the time continuum serves as an advantage and a prerequisite for success of bilateral business relations.

Display of emotions

China belongs to the Confucian culture cluster (Javidan, House, 2001), characterized with reticence. In its turn, Eastern European cluster, which Bulgaria is a part of, is considered to be moderately expressive of emotions. In view of paraverbal communication, the Chinese are usually soft-spoken and discuss issues in low-monotone; feel at ease with silence; and opt for conversational turn-taking. In their turn, Bulgarians speak relatively louder and sometimes might even raise

their voice to stress key points; cannot stand long pauses (e.g. four or five seconds) between spoken words; are prone to conversational overlap although interrupting others is not considered as good manners. It is worth noting that in spite of being described as emotionally restrained, the Chinese appreciate smiles and engage in smiling in numerous situations – from being happy to feeling absolutely angry, and in all the emotional states in-between these two extremes. By smiling even when baffled, the Chinese mask their embarrassment and manage to save face.

As to the nonverbal communication the bicultural comparative picture is mixed. On account of proxemics, the Chinese and Bulgarians share similar-sized space bubbles. Both cultures value staying at a relatively large distance, of 40 to 60 cm, from each other in a business situation. In view of touch behaviour Bulgarians are characterized with a moderate degree of physical contact while the Chinese are low contact people. Bulgarian business practitioners should be careful to avoid engaging in tactile communication such as shoulder-patting, elbow-grabbing, back-slapping; kissing; holding hands and even handshaking.

Differences between both cultures in the eye contact are also worth paying attention to. The Chinese feel uncomfortable with direct eye contact. Staring at your Chinese counterpart at the negotiation table may be interpreted as an act of intimidation. The gaze protocol is to restrain oneself from anything more than a fleeting eye contact, especially when interacting with high status interlocutors. For their part, the Bulgarians value moderate eye contact whenever they speak to others or others talk to them. Communication with no sufficient eye contact would be considered cold, impersonal and insulting in communicative situations, involving Bulgarians.

The appropriate use of bodily movements, such as facial expressions and hand and arm gestures, also differs in both countries. The Chinese are rather known for a 'poker face' and restrained gesticulation, while the Bulgarians are relatively more prone to employ kinesics for conveying their messages. The cultural relativity of business behaviour is often pronouncedly exhibited in body language. The same gesture might have completely different interpretation in various cultural settings. Being aware of nonverbal language differences is necessary but not sufficient for a culturally legitimate conduct in an intercultural context. A conscious self-control is indispensable for restraining oneself from nonverbal faux pas.

Conclusion

The system of international business incorporates both technical and social components. Respectively, international competence integrates both technical and behavioural competences. More often than not, and especially in the relationship-oriented markets, behavioural competences are a success factor of critical importance. Being culturally contingent, behavioural competences are factored by the scale of the cultural distance between the country markets involved in the

international business transactions. The smaller the cultural distance, the smoother the flow of the intercultural communication process. Creating and maintaining social harmony is the major priority in the communicative interactions with Chinese business partners. The paper substantiates the behavioural competitive advantage of Bulgarian business people when relating with Chinese counterparts as a result of cultural proximity notwithstanding the large physical distance between the two countries. This interpretation should not be a reason for complacency, rather it should serve as a motivator for both Bulgarian and Chinese business practitioners for delving deeper *into* and further appreciating the socio-cultural fabric of the foreign culture.

References

Chavdarova, T. 2004. Cultural encounters in business: between the Bulgarian and Western economic culture – In: P. Kabakchieva, R. Avramov (ed.), "East" – "West" cultural encounters. Entrepreneurship, Governance, Economic Knowledge. East West, 25-130.

Gesteland, R. 2003. Cross-cultural business behaviour. Copenhagen Business School Press.

Graham, J. L., Sano, Y. 1989. Smart Bargaining: Doing Business with the Japanese. New York: Harper Business

Hall, E. 2000. 'Context and meaning' in Samovar, L.A., Porter, R.E. (eds) *Intercultural Communication: a reader*. Belmont CA: Wadsworth

Hofstede, G., Hofstede, G. J., Minkov, M. 2010. Cultures and organizations: software of the mind. Intercultural cooperation and its importance for survival. McGraw Hill.

Hofstede on Culture, interview, YouTube

Javidan, M., House, R.J. (2001) 'Cultural acumen for the global manager: lessons from project GLOBE', *Organizational Dynamics*, 29 (4), pp. 289-305.

Karabel'ova, S. Values and Cultural Practices in Bulgaria. Sofia: Klassika i Stil, 2011 [in

Bulgarian].

Minkov, M. 2011. Cultural differences in a globalizing world. Emerald Group Publishing

OVERCOMING BARRIERS TO DIGITALISATION IN PERFORMING ARTS- EVIDENCE FROM A EUROPEAN PROJECT

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Abstract:

This paper summarizes the experiences of performing artists during Covid-19 in five European countries as Cyprus, Greece, Italy, Lithuania, and Portugal in the framework of DigitAct (Erasmus+) project. Based on surveys and focus groups are tested the perceptions of the barriers and challenges faced to identify areas of competencies with significant reference to digitalisation. Furthermore, this paper will make a comparison with the literature review for digitalisation in the performing art sector highlighting opportunities for the countries that participate in the DigitAct project.

Keywords: performing arts, digitalisation, barriers, training, Covid-19

JEL: O220, Z110

Introduction

Digitalisation has a significant impact on both the structure and the operations of the business model on how organisations cope with problem solving and decision making. (Carlsson, 2018) Digitalisation is the first and one of the main stages of the digital development which is marked by technology adoption and effective implementation. Digital development also includes the transformation stage (marked by internal institutional change), engagement stage (marked by changed relationships with stakeholders) and contextualisation stage (marked by increased specialisation and orientation towards public policy). (Wilson and Mergel, 2022) During the transformation stage the main component to identify is the "digital culture" of the society, which can be both driver and obstacle toward the analysis of digitalisation. It is because "digital culture" turns digital tools into

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social markers determining what is convenient, smart and therefore desirable and what is not. (Guy, 2019) To create and establish "digital culture" means to make transition from "digitalisation for preservation" to "digitalisation for promotion" in order to overcome the unbalance in online content. (Duester, 2022)

Recently, a lot of studies in different sectors discussed the ways and technologies that can quickly help to overcome the effects of the pandemic Covid-19. Some studies focused on finding the barriers to implement digital tools, others are conducting research by trying to discover the best strategies for innovative technologies to deal with the digitalisation processes. Digitalisation has become one of the critical aspects of work also for cultural professionals in performing arts during the Covid-19. The vocation of performing arts (dances, operas, musicals, plays, theatre, live music etc.) is to contribute in creative ways to developing people's cultural literacy and improving their quality of life. The performing arts have also a great influence on each national economy, comprising the occupation rate of artists, technicians, dancers, composers, directors, project managers etc. and proposing innovative products with high value (Yi et al., 2022) Pandemic has accelerated the way of technology adoption and the rate of development of digital tools in performing arts despite the inevitable highlights of the barriers faced by artists, technicians etc. (Duester, 2022)

This paper aims to summarize the experiences of performing artists during Covid-19 in five European countries as Cyprus, Greece, Italy, Lithuania, and Portugal in the framework of DigitAct (Erasmus+) project. Based on surveys and focus groups are tested the perceptions of the barriers and challenges faced to identify areas of competencies with significant reference to digitalisation. Furthermore, this paper will make a comparison with the literature review for digitalisation in the performing art sector highlighting opportunities for the countries that participate in the DigitAct project.

The paper is structured as follows: the next paragraph presents the methodology of the study within the context of the DigitAct project. The third paragraph discusses the accumulated experience in digitalisation from all project partners during Covid-19 and makes comparison with the scientific knowledge in digitalisation. Finally, a summary of conclusions and possible recommendations for the performing arts sector are mentioned.

Methodology

DigitAct is an Erasmus+ project focusing on the performing arts professionals and more precisely on both actors and technicians. The DigitAct project collects the main findings in each partner country as Cyprus, Greece, Italy, Lithuania and Portugal by extrapolating trends, peculiarities, as well as similarities with regards to the digital technologies training needs of artists and technicians operating in the performing arts sector in various locations across Europe.

The research methodology includes two phases: i.) collection of responses from a questionnaire with 16 questions and ii.) participation in focus groups. Each country participates with approximately 50 actors or technicians in the survey (divided to 50 percent female and 50 percent males). Each focus group includes up to 10 participants from each country. The goal is to collect information to identify trends and current strategies and needs for better adoption of digital tools in performing arts during and after Covid-19. The main aspects of the questionnaire test the perception of each participant (scale min 1 to max 5) for the present and future use of digital tools in performing arts, barriers for digitalisation and possible strategies to promote better the work of cultural professionals. The focus groups also discuss mainly the changes to work in performing arts during pandemic with emphasis on the role of the digital tools in performing arts and with regard to the personal familiarisation of each participant with digital tools and its desire to be trained on digital technologies.

Participation criteria includes youngest actors without or with short work experience (under 35 years old). The project has its main target group the young actors and performing arts technicians as they are the most vulnerable in the reality created during the last approximately years with COVID-19 pandemic and according to the measures taken by the local governments. Since many of them, especially those who graduated the last years (2019- 2021), might have not started work, as theatres and performing arts places were closed for several months during these years and many others might have not yet developed the necessary network to find even a role for the short periods between curfews, it is more than crucial for them to improve their digital skills both for creation and personal marketing purposes. It is important to mention that a lot of professionals participating in this survey are both actors and technicians, which is a multiple challenge for the assessment of the role of digitalisation in performing arts.

Discussion

Before discussing the results obtained from the questionnaire and focus groups in detail, it is appropriate to outline the general framework during Covid-19 in all partner countries and the place of digitalisation in the working processes at the beginning of the pandemic.

In Italy, the digitalisation in performing arts was a normal consequence of Covid-19 lockdown and its adaption became a necessity to overcome the restrictions during the pandemic. On 7 August 2012 (Italian Law 134) in the country was established the Agency for Digital Italy with the task to contribute to the promotion of digital culture, innovation and research through regional digital communities. In the last few years, several national programmes (Piano Industria 4.0, Piano Impresa 4.0, Piano Transizione 4.0) have pushed the agenda for faster and effective diffusion of the use of information and communication technologies. In Lithuania the pandemic situation allows the use of more financial funding by Lithuanian

Culture Council for virtual performance (zoom, vimeo, youtube), virtual tours, live streams via Facebook, live workshops, seminars on professional development and digital projects for theatre. In Portugal exceptional support by the Ministry of the Culture was also given for many experimental projects with innovative techniques which aimed to adapt the artistic format for online transmission through national public television, RTP play and national or municipal theatres. Delayed assistance from the institutions is characteristic of the other two partner countries, Cyprus and Greece (considered smaller performing art markets), where the concept of digitalisation in performing arts was almost unknown before Covid-19 or equal to basic level of knowledge and use.

Results of DigitAct by project country

According to the results from the questionnaire, in all partner countries the general digital knowledge of the respondents corresponds to scale 3 (good) and all participants confirm the usefulness of digital tools for performing arts during the pandemic (over 80%). More than 60 % in each partner country confirm that the present use of digital tools in performing arts is similar (mainly the use of streaming performance, digital artistic portfolio, virtual auditions, apps like BandCamp, Spotify, Fiverr, TuneCore, DistroKit, Vampr, Logik, Protool, Cubase etc.), that in the future the role of digital culture will continue to increase and, only around 30% mentioned not to use any specific digital tool during Covid-19.

In Italy during Covid-19 actors and technicians used video streaming of performance via the web and headsets and visors for the fruition of the performances. Social media exploration has a significant role for the promotion of professionals as digital tools become crucial for interactive performances. At the same time, results of the questionnaire show that the increasing level of digitalisation in performing arts is blocked by outdated copyright regulations, obsolete organisational models in cultural institutions and skills shortage of professionals. As far as possible obstacles to digitalisation in the future, the respondents from Lithuania are concerned about the lack of sustainability to support already created digital products, the lack of marketing skills from artists and cultural institutions and the lack of study for what the audience expects from digital artistic content. Respondents from Portugal also mentioned the lack of technical quality of the created cultural products, the lack of relevant examples of good practice to serve as digital reference and the lack of good organisation and promotion of digital content. In Cyprus and Greece, the respondents mentioned financial issues, the lack of control on final results as the most evident obstacles during the pandemic as well as the postponement or cancellation of cultural projects.

The results from focus groups complete the picture with possible training opportunities according to the growing interest for digitalisation in performing arts in all partner countries. All 12 participants from the Italian focus group mentioned the importance of training on all social media for actors and technicians as well as

education of their legislative issues. Lithuanian participants in the focus group (in total 6) would like to develop sharing digital responsibilities and skilled experience between cultural institutions. Portugal participants in the focus group (in total 8) put emphasis on the use of digital tools software and self-management training of cultural professionals (3D printing, audio and video processor, AutoCAD, video-mapping, montage, photoshop etc.). Upskilling in performing arts in Cyprus (18 participants in the focus group) and Greece (10 participants in the focus group) is closely linked to the participation in cooperative networks and more cross-disciplinary projects. To summarize, the results highlight the main socio economic challenges met by all partners in relation to digitalisation- lack of technical infrastructure, lack of budget and lack of skilled human resources.

Both studies carried out allow to highlight key strategies for digitalisation in the performing arts sector in all partner countries: firstly, *strategy for mapping digital competences* as development of communication skills for digital tools (familiarisation with the terminology of new digital tools, content creation on social media regarding each digital portfolio) and secondly, *strategy of digital needs training* as self-management and self-marketing of each actor or technician (readiness of self-promotion through platform or right networks, skills on stress management).

Comparison of DigitAct results with literature

Brief summary of the existing literature review for the digitalisation in the performing art sector (mainly published in 2022) allows us to confirm that the barriers outlined in the DigitAct project are common not only to the five participating countries, but also to the sector as a whole. Beyond the results of DigitAct survey (questionnaire and focus groups), however, further guidelines and themes are emerging in the literature to discuss how to overcome existing barriers with appropriate strategies for the digitalisation in performing arts.

For example, Gupta et al. (2022) identify that technological and economic and financial barriers are the most important obstacles for the development of digitalisation processes. Both groups of barriers require the need of unique, faster and cheap identification of digital tools. Technological barriers include the lack of appropriate information infrastructure, inadequate internet connectivity, lack of integration among information networks, security and privacy concerns because of the complexity of data. Financial obstacles include lack of resources, high costs of investment, unclear economic benefit of digital content. The essential strategy to overcome these barriers focuses on research, development and innovation through some innovative projects in order to improve resilience to unknown-unknown like pandemic Covid-19. Wilson and Mergel (2022) also confirm the role of technological and financial barriers for the digitalisation processes (or set together as structural barriers). Simply adopting digital tools for overcoming technical and financial barriers appears insufficient to facilitate the structural and

cultural change in each organisation. Ferrari et al. (2022) mentioned that drivers facilitating digitalisation must be divided into two groups: i.) technical drivers with availability of technology and specialisation in digital tools and ii.) regulatory-institutional drivers which include economic incentives as funding programmes, incentives for educational support, training programmes, technical mentoring, support in education with digital innovation centers. The best strategies require the implementation of a *network strategy* which includes two main components: i.) building of cross-functional teams or organisational connections and ii.) professional capacity development in digital tools, training, expertise and skills in project management. Carlsson (2018) adds that the transfer of accumulated expertise and digital coaching will become very strategic for the transformation of the digital knowledge from tacit to explicit.

Brooks and Patel (2022) argue some main themes in performing arts during Covid-19 as: a) *loss of work*, including reduction in time spent, conducting, directing, teaching or mentoring, promoting, composing etc.; b) *financial impact*, including loss of income, loss of funding and support, loss of additional economic advantages as reduction of travel costs, rehearsal venue costs etc., loss of audience as consequence of reduced demand; c) *psychological well being*, including impact of financial losses on mental health as well as concerns about the personal future as performing actor and even doubt about the future of the whole performing arts industry, low working motivation and disconnection from others; d) *social connections*, including isolation from creative communities and loss of in-person interaction. Possible strategies to overcome these obstacles due to digitalisation in performing arts include different kind of collaboration, as: i) maintaining of creative identity regardless the use of digital tools; ii) seeking new avenues from entrepreneurship and networks to build; iii) participating in voluntary work and learning new things (the use of different foreign languages is crucial for the fast promotion of digital content in performing arts).

Studying how actively to incorporate business model innovation strategies in performing arts, McDonald and al. (2021) discover that technological advance has had a profound impact on live performing arts during the pandemic. Technological innovations, and changes in consumer preferences, combining to cuts in funding and enhanced competition, are considered conditions that threaten the existence of some cultural organisations in performing arts which are in delay with digitalisation processes. Findings of Yi et al. (2022) suggest that technological innovations and marketing communications during pandemic require a prevention-focused approach to study, in order to lower negative judgment and resistance of the audience in performing arts. For the sustainable growth of the performing arts industry, it is imperative as a strategy *to expand audience size* in order to suppress the tension from long working processes, possible high prices and unpredictability of the performance quality.

Conclusions and recommendations

Digitalisation in performing arts during Covid-19 has changed the access to arts for the audience and the international position of the actors with different locations and different ethnicities. To some extent, the digitalisation process was a natural response to decentralize the working process in the sector by eliminating the barriers created in local context and by updating the professional capacity in targeting new or specific audiences during the pandemic Covid-19. Digitalisation process in performing arts engages through social media and streaming platforms with a wider and non-traditional audience, which is highly impactful. (Shaughnessg et al., 2022)

The survey results of DigitAct (Erasmus+) project confirm the readiness of actors and technicians from Italy, Lithuania, Portugal, Cyprus and Greece to improve their digital skills in post-Covid times and to enhance their existing digital networks with new partners. Digitalisation allowed an open-minded experience to all partners and further exchange of cultural products during Covid-19. Digital tools helped actors and technicians from all partner countries to find opportunities for increasing and improving production using especially live streaming and professional apps as self-marketing tools. Post Covid-19 adapting in performing arts is in strong correlation with the changing perceptions of the importance in digital cultural context and with the wider inclusion of hybrid creative models in performing arts. Online models of performance have already recognized how the arts can reach out beyond the normative and physical spaces of theaters and concert halls. Following these guidelines to overcome barriers to digitalisation in performing arts, the positive engagement in the arts sustains education and wellbeing within the whole community context.

The comparison between the obtained DigitAct results and the literature review clearly points out some key recommendations for the performing arts sector. Firstly, it is crucial to have sustainable national support in terms of financial funding for "digital culture" regardless of the market size. Secondly, the increasing competency of actors and technicians is fundamental for dealing with high-range digital platforms. Thirdly, the rising presence in the universities of digital education and training in performing arts will have a positive influence on unemployment rate, unpaid or low-paid jobs in the sector during Covid-19.

References

Brooks, S.K. and Patel, S. S. (2022), "Challenges and opportunities experienced by performing artists during Covid-19 lockdown: scoping review", Social sciences and Humanities open, Vol. 6, p. 100297, https://doi.org/10.1016/j.ssaho.2022.100297

Carlsson, Ch. (2018), "Decision analytics-key to digitalisation", Information sciences, Vol. 460-461, pp. 424-438, https://dx.doi.org/10.1016/j.ins.2017.08.087

Duester, E. (2022), "The geopolitical and socioeconomic factors of digitization in Vietnam: technology adoption in the art and cultural sector during the Covid-19 pandemic", Data and Information management Vol.6, p.100012, https://doi.org/10.1016/j.dim.2022.100012

Ferrari, A., Bacco, M., Gaber, K., Jedlitschka, A., Hess, S., Kaipainen, J., Koltsida, P., Toli, E., Brunori, G. (2022), "Drivers, barriers and impacts of digitalisation in rural areas from the viewpoint of experts", Information and Software technology, Vol.145, p.106816, https://doi.org/10.1016/j.infsof.2021.1016816

Gupta, H., Jadav, A.K., Kusi-Sarpoug, S., Khan, S.A., Sharma, S.C. (2022), "Strategies to overcome barriers to innovative digitalisation technologies for supply chain logistics resilience during pandemic", Technology in Society, Vol. 69, p.101970, https://doi.org/10.1016/j.techsoc.2022.101970

Guy, J.S. (2019), "Digital technology, digital culture and the metric/non metric distinction", Technological forecasting and social change, Vol. 145, pp. 55-61, https://doi.org/10.1016/j.techfore2019.05.005

McDonald, R.E., Masselli, J.J. and Chanda, B. (2021), "Nonprofit business model innovation as a response to existential environmental threats: performing arts in the United States", Journal of Business research, Vol. 125, pp. 750-761, https://doi.org/10.1016/j.jbusres.2019.12.022

Shaughnessg, C., Perkins, R., Spiro, N., Waddell, G., Campbell, A., Williamon, A. (2022), "The future of the cultural workforce: perspectives from early career arts professionals on the challenges and future of the cultural industries in the context of Covid-19", Social sciences and Humanities open, Vol. 6, p.100296, https://doi.org/10.1016/j.ssaho.2022.100296

Tangi, L., Janssen, M., Benedetti, M. and Noci, G. (2020), "Barriers and drivers of digital transformation in public organizations: Results from a survey in the Netherlands", in G. V. Pereira, M. Janssen, H. L. Lindgren, M. P. R. Bolívar, H. J. Scholl and A. Zuiderwijk (Eds.), Vol. 122219. Electronic government. EGOV 2020. Lecture notes in computer science (pp. 42–56). Cham: Springer. https://doi.org/10.1007/978-3-030- 57599-1_4.

Yi, J., Lee, Y., Suh, J., Kim, S.H. (2022), "Psychological determinants of non-attendees' resistance toward performing arts", Journal of Business research, Vol. 149, pp. 690-699, https://doi.org/10.1016/j.jbusres.2022.05.043

Wilson, Ch. and Mergel, I. (2022), "Overcoming barriers to digital government: mapping the strategies of digital champions", Government Information Quarterly, Vol. 39, p. 101681, https://doi.org/10.1016/j.giq2022.101681

ACCELERATING CONSUMER ADOPTION OF AR TECHNOLOGIES AS A RESULT OF THE COVID -19 CRISIS

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Abstract

The current report, relying on literature review, tries to shed light on a still not enough explored phenomena – the influence of Covid -19 on consumer behaviour in general and on the consumer adoption process and the rate of adoption of products. The main research question lies in the domain of the acceleration of the adoption – to what extend it is possible and feasible to aid the adoption rate of new products and services namely by the means of augmented reality (AR) and to what extend has the Covid - 19 pandemic facilitated or hindered this process. The report is based on publicly available information.

Key words: Marketing, consumer behaviour, adoption forces.

JEL: M30, M31, D21

Introduction

The current paper is a result of a participation of the author in a research project[2]. Some of the data are driven from the outcomes of the project, while other data could be considered as a continuation of the project findings. The main objective of the paper is, relying on literature review, to shed light on a still not enough explored phenomena – the influence of Covid -19 on consumer behaviour in general and on the consumer adoption process and the rate of adoption. The main research question lies in the domain of the acceleration of the adoption – to what extend it is possible and feasible to aid the adoption rate of new products and services namely by the means of augmented reality (AR) and to what extend has the Covid - 19 pandemic facilitated or hindered this process.

The basic methodology approaches could be summarized as follows: literature review, analyses, synthesis, observations and other scientific methods.

What is more, the report examines marketing in the field of consumer behaviour and the contemporary approaches to the explored phenomena and proposes a different angle be used in order to boost adoption process, enhance the level

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of acceleration, create better customer interaction in the post Covid-19 digital marketing environment.

1. Consumer Behaviour, Covid -19 and the AR technologies[3]

The Covid-19 pandemic has had a profound impact on the way we live, work, and interact with one another. The crisis has forced many individuals and organizations to adopt new technologies and practices to adapt to the changing circumstances. Augmented Reality (AR) technologies have emerged as one of the most promising tools for enabling remote collaboration, communication, and education. AR technologies overlay digital information onto the real world, enhancing the user's perception of reality and enabling new forms of interaction with the physical environment**.**

AR and Consumer Behaviour

Augmented Reality (AR) is a rapidly evolving technology that has the potential to transform the way consumers interact with products and services. Based on literature review and the preliminary determined criteria the main, but not all, areas of influence of the AR on consumer behaviour could be outlined in the following areas:

• Consumer Perception

Several studies have explored the impact of AR technology on consumer perception. Lee and Kim (2019) reached to a conclusion that AR technology positively affected consumers' perception of product usefulness, product attractiveness, and overall product evaluation. Similarly, a study by Chen and Chiu (2020) found that AR technology positively affected consumers' perceived usefulness, perceived ease of use, and purchase intention. Huang et al. (2019) found that AR enhances the perceived value of a product, leading to increased satisfaction and purchase intention. Similarly, a study by Huang et al. (2020) found that AR can improve the perceived quality of a product, leading to increased customer satisfaction.

• Consumer Engagement

AR technology has also been claimed to increase consumer engagement with products and services. Kim and Lee (2019) state AR technology increased consumers' willingness to explore products and services in a retail setting. Similarly, Yen and Lu (2021) found that AR technology increased consumers' engagement and emotional response to a fashion brand. Grewal et al. (2019) state that AR enhances the emotional connection between the customer and the product, leading to increased customer engagement. A study by Gao et al. (2020) reveals that AR

[3] To conduct this literature review, articles were sourced from electronic databases such as Google Scholar, JSTOR, and ScienceDirect. The search terms used were "COVID-19" AND "consumer behavior." The articles were selected based on their relevance to the topic, their publication date, and their source.

can provide a unique and immersive shopping experience, leading to higher levels of engagement and satisfaction.

• Purchase Behavior

The impact of AR technology on purchase behavior has not been left out of the attention of the researchers. Jung and Lee (2018) found that AR technology increased consumers' purchase intention and willingness to pay for products. Similar ideas are defended by Lee and Kim (2019), namely that AR technology increased consumers' purchase intention and actual purchase behavior

• Brand Image

AR technology can also impact brand image. According to Kim and Lee (2019) AR technology positively influenced consumers' perceptions of brand innovation and sophistication. Yen and Lu (2021) argue that that AR technology positively impacted brand image and consumer perception of brand quality.

• Customer Experience

AR technology can also enhance the customer experience. According to Bougherara et al. (2020) AR technology positively impacted the customer experience in a furniture retail setting, while Yen and Lu (2021) provide evidence that AR technology improved the customer experience in a fashion retail setting.

The literature suggests that AR technology has a positive impact on consumer behavior. AR technology can influence consumer perception, increase consumer engagement, impact purchase behavior, enhance brand image, and improve the customer experience. The findings suggest that businesses can benefit from integrating AR technology into their marketing strategies to increase consumer engagement, improve brand image, and ultimately drive sales

The rate of adoption

Augmented Reality (AR) technology has emerged as a promising new technology that has the potential to transform the way consumers interact with products and services. However, the rate of adoption of AR technology among consumers has been relatively slow. Based on the literature review and the experience of the author in the field of marketing management in the following lines outline the ways in which businesses can accelerate the rate of adoption of AR technology in consumer behavior.

Ways to Accelerate the Rate of Adoption via AR Technology:

• Demonstrate the Benefits:

One of the key ways to accelerate the rate of adoption of AR technology is to demonstrate its benefits to consumers. Businesses can use AR to create immersive experiences that showcase the benefits of their products or services. For example, a furniture company can use AR to show customers how a particular piece of furniture would look in their home

• Simplify the User Experience:

Another way to accelerate the rate of adoption of AR technology is to simplify the user experience. AR applications should be easy to use and intuitive, requiring

minimal technical knowledge or expertise. Businesses can also provide tutorials or instructional videos to help users get started.

• Leverage Social Influence:

Social influence is a powerful factor that can accelerate the rate of adoption of AR technology. Businesses can leverage social media platforms to create buzz around their AR applications and encourage users to share their experiences with others. Influencers can also be used to promote AR applications and increase their reach.

• Use Gamification:

Gamification is a technique that can be used to make AR applications more engaging and increase the rate of adoption. Businesses can use AR to create interactive games that encourage users to engage with their products or services. For example, a cosmetics company can use AR to create a virtual makeup try-on game.

• Provide Incentives:

Providing incentives is another way to accelerate the rate of adoption of AR technology. Businesses can offer discounts or other incentives to users who use their AR applications. This can help to encourage users to try AR and increase the rate of adoption.

AR technology has the potential to transform the way consumers interact with products and services. To accelerate the rate of adoption of AR technology, businesses need to demonstrate the benefits, simplify the user experience, leverage social influence, use gamification, and provide incentives. By adopting these strategies, businesses can increase the rate of adoption of AR technology and gain a competitive advantage in the marketplace.

2. Interdisciplinary approaches to consumer behaviour and the explored phenomena

The Kano model of customer satisfaction and AR

The Kano model has been widely used in consumer behavior research to understand the relationship between product features and customer satisfaction. A study by Matzler et al. (2015) found that the Kano model can be used to identify the most important product features for customers and to design products that meet their needs. Lee et al. (2018) claim that the Kano model can be used to identify the most important features of mobile apps and to design apps that meet the needs of customers.

AR has also been found to have a positive impact on customer trust , According to Lee et al. (2019) AR enhances the perceived transparency of a business, leading to increased trust. AR can increase customer trust by providing a more immersive and realistic view of a product Hsiao et al. (2019).AR technology is claimed to have a positive impact on customer satisfaction by enhancing customer engagement,

perception, loyalty, and trust. Businesses that incorporate AR technology into their customer experience strategy may be able to improve customer satisfaction and gain a competitive advantage in the marketplace. Further research is needed to explore the specific mechanisms through which AR impacts customer satisfaction and to identify best practices for incorporating AR into a business's customer experience strategy.

About the trends

As stated before, The COVID-19 pandemic has significantly impacted consumer behavior, leading to changes in the way consumers shop, interact with brands, and make purchasing decisions. This section aims to review the literature on the changes in consumer behavior as a result of the COVID-19 pandemic.

• Shift to Online Shopping:

The pandemic has led to a significant shift towards online shopping. A study by McKinsey & Company (2020) provides information that online shopping has increased by 10% to 20% across categories, with grocery and household essentials experiencing the highest growth. The study also found that consumers are likely to continue shopping online even after the pandemic subsides due to several reasons:

• Increased Focus on Health and Safety:

The pandemic has led to an increased focus on health and safety among consumers. A study by Nielsen (2020) found that consumers are prioritizing health and hygiene in their purchasing decisions, with products that offer health and wellness benefits experiencing increased demand. The study also found that consumers are looking for brands that prioritize safety measures and transparent communication.

• Decrease in Discretionary Spending:

The pandemic has led to a decrease in discretionary spending among consumers. A study by the National Bureau of Economic Research (2020) found that consumers are cutting back on non-essential spending, such as dining out and travel, and are instead focusing on essential items.

• Increase in Brand Loyalty:

The pandemic has also led to an increase in brand loyalty among consumers. A study by Accenture (2021) informs that consumers are more likely to stick with brands that they trust and are familiar with during the pandemic, and also that consumers are looking for brands that offer personalized experiences and prioritize customer service.

• Rise of Sustainability:

The pandemic has led to a rise in sustainability among consumers. Accoring to the Boston Consulting Group (2021) consumers are more likely to prioritize sustainability in their purchasing decisions, with eco-friendly products experiencing increased demand. The study reveals another important shift - consumers are looking for brands that prioritize sustainability and offer transparent communication on their environmental impact.

The COVID-19 pandemic has significantly impacted consumer behavior, leading to changes in shopping habits, increased focus on health and safety, decrease in discretionary spending, increase in brand loyalty, and rise of sustainability. The findings suggest that businesses need to adapt to these changes to remain competitive and meet the evolving needs of consumers. Businesses need to focus on building trust and transparency, offering personalized experiences, and prioritizing sustainability to succeed in the post-pandemic era.

Conclusion

In conclusion, the COVID-19 crisis has accelerated the adoption of Augmented Reality (AR) technologies among consumers, as it has forced them to adapt to new ways of interacting with the world. AR has provided a means for individuals to engage in virtual experiences that mimic real-world environments and overcome the limitations of social distancing and lockdowns. This has led to an increase in the usage of AR technologies in various sectors such as retail, education, and healthcare.

AR can enhance the efficiency and effectiveness of interactions with consumers providing an immersive experience that makes remote interaction more engaging and productive., AR can enhance the customer experience by providing a more interactive and engaging medium.

Furthermore, the COVID-19 crisis has also driven the adoption of AR technologies in the retail sector. With the closure of physical stores, retailers have turned to AR technologies to provide an immersive and engaging online shopping experience. AR-powered virtual try-ons and product visualization have enabled customers to make informed decisions and improved the overall online shopping experience and enhance the rate of adoption.

However, there are still challenges that need to be addressed to ensure the widespread adoption of AR technologies. These include the need for greater standardization and interoperability, ensuring data privacy and security, and addressing the digital divide to ensure equitable access to AR technologies. The COVID-19 crisis has been a catalyst for the adoption of AR technologies among consumers. AR has provided a means for individuals to interact with the world in new and innovative ways and has opened up new opportunities for businesses in various sectors. The acceleration of AR adoption as a result of the pandemic is likely to continue, and it will be interesting to see how this technology evolves in the years to come.

List of references

Best, R.J. (2016). Market – Based Management. Pearson Education
Evans, Joel R. Berman, B., (2009) Marketing in the 21st Century, Online Edition

Juan-Antonio, M.-J. e. (2010). Case Studies as Practical Teaching in the New Marketing Courses. American Journal of Business Education, 33-38.
Olivares, S. (2018). Business Graduate Skills: Competency-Based Model. IGI Global.
.Renee, N. A. (2017). Contemporary Teaching Strategies:Effectively Engaging Millennials Across Effectively Engaging Millennials Across.American Customer Satisfaction Index, 2019
Bonetti, F., Warnaby, G., Quinn, L. (2018). Augmented Reality and Virtual Reality in Physical and Online Retailing: A Review, Synthesis and Research Agenda. In: Jung, T., tom Dieck, M. (eds) Augmented Reality and Virtual Reality. Progress in IS. Springer, Cham. https://doi.org/10.1007/978-3-319-64027-3_9
Riar, M., Xi, N., Korbel, J.J., Zarnekow, R. and Hamari, J. (2023), "Using augmented reality for shopping: a framework for AR induced consumer behavior, literature review and future agenda", Internet Research, Vol. 33 No. 1, pp. 242-279. https://doi.org/10.1108/INTR-08-2021-0611
Kazmi SHA, Ahmed RR, Soomro KA, Hashem E AR, Akhtar H, Parmar V. Role of Augmented Reality in Changing Consumer Behavior and Decision Making: Case of Pakistan. Sustainability. 2021; 13(24):14064. https://doi.org/10.3390/su132414064
Perannagari, K.T. and Chakrabarti, S. (2020), "Factors influencing acceptance of augmented reality in retail: insights from thematic analysis", International Journal of Retail & Distribution Management, Vol. 48 No. 1, pp. 18-34.
Jarhult, W., & Kamande, S. (2013). Reaching the Mass Market of the Base of the Pyramid : Using the five A's concept.
https://www.cxoanalysis.com/augmented-virtual-reality-reaching-full-bloom/
https://www.theacsi.org/about-acsi/key-acsi-findings
http://didit-extensive-reading.blogspot.com/2017/01/title-and-identity-holistic-approach-to.html
https://www.stephenperse.com/blog/?pid=5&nid=45&storyid=4728
https://www.bcg.com/

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ANALYSIS OF FACTORS FOR INNOVATION ACTIVITY OF COMPANIES IN THE SOUTH-EAST AND SOUTH-WEST REGIONS OF BULGARIA

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Abstract

The innovation capabilities of companies are affected by numerous factors that can act as both drivers and blockers. The research presents the state of innovation activities of companies in the Southeastern and Southwestern regions of Bulgaria. The main goal is to analyze some factors influencing their innovation potential and activity, and on this basis, to formulate specific conclusions and recommendations. The work uses data from a survey conducted with 151 companies from both regions. The results show insufficient innovation activity of companies in both regions, especially in the southeastern region.

Keywords: innovation activity, factors for innovation, innovation capabilities, innovation barriers

JEL: O31, L53

Introduction[3]

The European Innovation Scoreboard 2022 (EIS 2022) states that, based on their average performance (relative to the EU in 2022), member states fall into four different performance groups - Innovation Leaders with innovation performance well above the EU average, Strong Innovators with performance above the EU average, Moderate Innovators - with innovation performance below the EU average and Emerging Innovators - well below the EU average. Bulgaria falls into the last group with performance at 45.2% of the EU average. Performance is below the average of the Emerging Innovators (50.0%). Regardless of the fact that the results compared to 2015 have improved by 1.6%-points at 9.9%-points for EU, the gap to the EU is becoming larger.

In the profile of Bulgaria in the EIS 2022, the following are indicated as relative weaknesses: Lifelong learning, Government support for business R&D, Resource

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productivity, Innovation expenditures per employee, Enterprises providing ICT training. A strong decrease in the results since 2015 was also reported regarding: Design applications, Enterprises providing ICT training and Environment-related technologies.

Another problem with innovations in Bulgaria is their uneven development in the individual statistical regions of the country. The natural explanation is that this is due to the difference in the degree of economic development, but this is a determinant of the quality of life of the people there. (Ivanova, 2019).

The present study is limited within the companies from the Southeastern (S.E.) and the Southwestern (S.W.) regions of Bulgaria, among which a survey was conducted. Only a part of the data from the survey is presented and discussed in the work, considering the limited volume. The main objective of the research is to analyze some factors affecting the innovation capabilities and activity of the enterprises from the two regions.

As a result of the analysis of the empirical data in the study, conclusions about the current state of the innovation activity and capabilities of the studied companies are expected to be formulated. Some recommendations for the development of the innovation potential of the enterprises from the mentioned regions are also expected to be made.

Innovation activity and potential of organizations - factors, approaches to measurement, analysis and assessment

The ability of the national economy to develop on the basis of new knowledge and technological progress is determined by the level of innovation activity of the organizations in it. Innovation activity is among the most important activities of modern organizations and has a decisive role for their success.

The potential and activities of companies to organize, implement and manage innovation are influenced by multiple factors with multidirectional action. In the literature, most authors (Georgieva, 2016, p. 53; Stankova, 2019, p. 45, Panteleeva, 2013) assume that when carrying out innovation activity by companies, there are factors and conditions of the external and internal environment that can support and stimulate or inhibit the innovation process.

In this regard, Stankova, (2019) presents Francis's (2003) classification of innovation capability drivers. It is useful since it is detailed and defines eighteen dimensions of innovation capabilities, each of which can be viewed in the role of both an stimulator and a blocker. The dimensions are grouped into six areas – Management, Capabilities, Culture, Learning, Structure and Processes, Decision Making.

This bidirectionality of the possible impact of the factors makes it particularly important to promptly identify and categorize them - as driving forces or as barriers to the implementation of innovations in the organization.

As factors with the strongest positive impact, Georgieva (2016, p.53) indicates: interest of the management staff; combining research and development activities with market research and production; availability of personnel with narrow specialization; cooperation with customers/suppliers, with other companies, with higher education institutions, with scientific research institutes; use of consulting services, etc. In examining their influence, especially internal factors, the status of the firm in terms of size, stage of development, markets, management experience and practices should also be considered.

Depending on their power of impact in descending order, the following are listed as hindering factors - barriers: lack of appropriate funding sources; funds available for research and development are too few; too much cost of innovation activity; too long a payback period; too many risks; deficiencies in the quality of own research and development activity; insufficient information about markets; lack of opportunity to cooperate; insufficient information about modern technologies, etc. (Georgieva, 2016, p. 54)

A more detailed classification of barriers to innovation implementation is proposed by Panteleeva (2013). Like the majority of researchers, she divides them into two groups - internal and external. The former depend to a large extent on the organization, and it can influence their transformation into innovation stimulators. To the group of internal barriers, the author includes: information, personnel, organizational, psychological and financial barriers. The second group covers the barriers that arise from the external organizational-economic environment for the company. Here are classified: national legislation and standards, consumer barriers.

The analysis of the innovation potential of the organizations is as important as the factors influencing the innovation activity, because it shows its readiness to implement innovations and achieve the innovation goals set. One of the possible approaches to researching the organization‘s potential for innovation is by measuring and evaluating its financial, intellectual, scientific-research, production, management, information and marketing potentials. (Stankova, 2019, p. 41).

For the collection and analysis of information on innovation potential, Georgieva (2016, p. 66) suggests two approaches:

- A direct approach, where the object of research is the innovation activity of the company as a whole.
- Indirect approach – the implementation of individual projects, assessed at the expert level as the most significant for the company‘s activity, are analyzed.

Of interest is the publication by Björkdahl, J. and Börjesson, S. (2012) devoted to approaches for evaluating the innovation capabilities of companies. Referring to Colarelli O’Connor (2008), the authors point out that, in order to develop innovation capabilities, firms must apply systems thinking and a methodical approach to every part of the system. Colarelli O’Connor (2008) describes “the capabilities for innovation as consisting of seven elements: organisational structure; mechanisms for interfacing with the mainstream organisation; exploratory processes; skills and

talent development; governance and decision making mechanisms; culture and leadership. These elements, she argues, are interdependent".

In summary, Björkdahl, J. and Börjesson, S. (2012, p.174) make a finding that many researchers would probably agree with, namely: "The problem with the capability literature as a whole is that it is too abstract, and does not provide much information on what firms need to develop in order to increase innovation output, or how to assess how good or bad they are at innovation." Connecting theory and practice in their research Björkdahl, J. and Börjesson, S. (2012) present an alternative a firm relevant framework for capabilities for innovation in large firms and the subsequent tool for assessing these capabilities.

The framework includes eight dimensions: Strategy for innovation, Prioritisation, Culture, Idea management, External environment and linkages, Implementation, Systems and decision rules, Organisational context and learning. For the practical application of the framework, the authors develop a tool to be used to assess innovation capabilities. The tool consists of a web-based questionnaire containing a number of statements regarding each of the eight dimensions in the framework. The statements refer to respondents' assessments and perceptions and cover dimensions related to the firm's innovation capabilities.

It should be noted that due to the uncertainty and to a large extent the elusiveness of the problems regarding the innovation activity and capabilities of the companies, the application of tools of this type, including questionnaires, interviews, surveys, is appropriate for use in practice. In this line of thinking, in order to evaluate the innovativeness of organizations, it is necessary to use a complex of criteria.

Based on the theoretical statements on the issue under consideration, it is appropriate to achieve the set goal to use the direct approach to evaluate the innovation activity of the companies as a whole. As a tool for gathering information, the research used a survey conducted by interviewing companies from the two regions. In order to evaluate the innovative activity and potential of the organizations, it is necessary to use a complex of criteria. Due to the limited volume, the publication presents and discusses the results of only part of the survey data, respectively only part of the criteria, namely regarding: investment volume and number of personnel engaged in R&D; process innovations; collaboration in innovation activities; factors for innovation activity in enterprises, as well as information about the development phase of the companies and the markets in which they sell their products.

Brief description of the sample

The data from the survey, which is considered in the paper, is the result of direct standardized interviews conducted with respondents from 151 enterprises with and without innovation activity. Among the respondents, companies from the service sector predominate (45.1%), followed by those operating in agriculture, forestry, fisheries, manufacturing, mining industry (29.8%) and some in the construction sector

(23.8%). The survey presents equal micro, small, medium and large organizations. The interview contains twelve information blocks with closed questions. The data was collected between January and December, 2020. The geographical location includes S.W. as well as S.E. region[4]. Table 1 presents summary statistics for the respondents.

Table 1. Summary statistics of the sample

	Southwestern region (S.W.)	**Southeastern region (S.E.)**	**Sample's average**
Sector			
A_ Agriculture, forestry and fishing	10.5%	13.3%	11.9%
B_ Mining industry	1.3%	1.3%	1.3%
C_ Manufacturing	18.4%	14.7%	16.6%
F_ Construction	23.7%	24.0%	23.8%
Services (trade, repair, transport, warehousing, post office, hotel, restaurant, dissemination of information, healthcare, education, social work, etc.)	46,1%	44%	45.1%
S_ Other activities	0%	2.7%	1.3%
Company's size (number of employees)			
Micro (0-9 employees)	36.8%	34.7%	35.8%
Small (10-49 employees)	32.9%	33.3%	33.1%
Medium and large (50+ employees)	30.3%	32.0%	31.1%
Innovation activity of the company (by sample)			
Innovative (with R&D or innovation)	52.6%	52.0%	52.3%
Other (without R&D or innovation)	47.4%	48.0%	47.7%
Amount of investments in R&D in 2019 if any (thousands BGN)			
Average	20 606	47 429	32 527
Number of persons involved in R&D			
Nobody	5.0%	48.7%	26.6%
One person	37.5%	23.1%	30.4%
Two persons	27.5%	5.1%	16.5%
More than three persons	30.0%	23.1%	26.6%
The company's development phase			
Start-up – getting seed funding and getting into the market are the main concerns	1.3%	2.7%	2%
Growth – the company actively seeks and engages in expansion opportunities	31.6%	24.0%	27.8%
Maturity - managers often consider the company and themselves to be successful, respected	56.6%	60%	58.3%
Decline / Transitional – demand for traditional products will be reduced, prompting management to consider strategies to ensure company survival	10.5%	13.3%	11.9%

Source: The data is from a survey conducted under the scientific project titled IRISI, financed by the Bulgarian National Science Fund

[4] The following regions were covered by the survey the city of Sofia, Sofia region, Pernik, Kyustendil, Blagoevgrad, Burgas, Sliven, Yambol, and Stara Zagora.

Analysis of empirical survey data relevant to the study

The analysis of the data obtained from the survey is aimed at reporting and comparing the current situation regarding the innovation activity and capabilities of the organizations in the two regions and factors that affect them. Attention is focused on reviewing and analyzing those sections of the survey that provide information on:

– volume of investments in R&D;

The average investment volume in S.E. region is more than twice than that of S.W. region. (Table 1) It is noticeable that in S.W. region 67.5% of the companies indicated R&D expenses on an annual basis up to BGN 20,000, while in S.E. the share of companies in this cost range is 43.6%. The significant difference is in larger investments over BGN 100,000, which in S.E. region comprise 10.3% of the surveyed firms, with 2.5% in S.W. The reverse trend is observed for small-volume investments, which are assumed to belong to SMEs, with the proportion being 50% of firms in S.W. region to 25.7% in S.E. region.

– number of personnel engaged in R&D;

The data for S.W. region shows a relatively even distribution between companies with one, two, three and more employees engaged in R&D and only 5% without staff with these functions. The picture is completely different in S.E. region. 48.7% of the respondents indicate that they do not have personnel engaged in R&D, and at the other end of the spectrum – 23.1% have three or more specialists working in this direction. This partly explains the difference in R&D investments in the two regions.

– development phase of the enterprise at the time of the survey;

As can be seen from the data in Table 1, the majority of companies refer to the maturity phase, which implies confidence in decisions and abilities to manage changes, promote learning and introduce innovations. The share of firms in the decline/transition phase is greater in S.E. relative to S. W. region, which could be a stimulus for innovation activity and search for survival opportunities.

– markets for the realization of the products of the enterprises;

In both regions, the regional markets dominate in the distribution of the companies‘ products. Next in weight is the national market, where 55.3% of respondents from S.W. region sold their products and 30.7% from S.E. region did as well. There is a significant difference between regions in sales to markets in other countries, where 35.5% of companies from S.W. region declared participation, compared to 11.9% for those from S.E. region.

– product innovations in the last 2 years (2018-2019)

In S.W. region 42.1% of the companies offered new or significantly improved products and 44.7% such services. Most of them were introduced after their competitors’. The picture in S.E. region is much more negative. About 70% of the surveyed companies have not implemented any innovations in the products and/

or services they offer on the market. For the majority of other companies, product innovation is more of a novelty only for themselves.

– process innovations in the activity during the last 2 years (2018-2019);

The data shows a very similar picture to that described above for product innovation. On this metric, companies in S.W. region show better results compared to S.E. New or significantly improved production methods have been introduced by 44.7% of the surveyed companies from S.W. region, against 34.7% in S.E. Disturbing is the fact that about 70% of the businesses in S.E. region have not innovated in the support activities for the processes, in the methods of logistics, delivery or distribution of their products. In this regard, the results of the respondent companies from S.W. region are not much better and are in the range of around 57-59%.

– collaboration in innovation activities during the last 2 years (2018-2019);

In this part of the survey, information about cooperation and interaction with other organizations, institutions, customers and suppliers is collected in order to implement innovation activities. The results are similar and far from good in both regions. 34.2% of the firms in S.W. region and 32% from S.E. region have implemented some type of innovation collaboration. A closer look at the data allows a more accurate comparison between the two regions. Companies from both groups indicate dominant cooperation with companies from the country. But not a small number of those surveyed from S.W. region (about 38%) have partnered with enterprises with their activities from other countries, while in the other group the result is only 4.2% and that only in Europe. There is not much difference between regions in terms of their cooperation on innovation activities with suppliers of equipment and materials, with customers from the state and municipalities, as well as with competitors from the same sector. The opposite is the situation regarding cooperation with consultants or business incubators, higher education institutions, research institutes. The results show a double demand for cooperation with the indicated partners from the companies in S.E. region compared to those from S.W.

– factors for innovation activity in enterprises;

In this part of the survey, information was collected on how valid individual factors for innovation activity are for specific enterprises. The survey is on seven factors, and respondents were given the option to rate on a 5-point scale or to refrain from answering. Factors included in the survey are as follows:

1. Focus on the client - answers to the questions are sought regarding: understanding the client‘s needs, clarity of goals for achieving client satisfaction and its measurement. The responses of respondents from both regions are comparable. To the first two questions, the positive answers (rather yes and definitely yes) are about 90%. In terms of measuring customer satisfaction, the results differ, with positive responses averaging around 68%.

2. Competitive orientation, accounted for by three indicators - the speed of information submission by sales employees about competitors; the speed of response to competitors‘ actions; the discussion of competitive strategies by the enterprise‘s management. On all observed indicators, the positive answers of respondents from S.W. region are nearly double than those in S.E. region.
3. Training commitments - takes into account how important the level of knowledge and training of employees is to the enterprise. According to the three investigated indicators, a preponderance of positive responses was observed in S.W. region. The management‘s attitude towards the employees‘ ability to learn is perceived as a key competitive advantage, as an investment rather than an expense by 71.1% of the surveyed firms by S.W. region and at 53.7% in S.E. But still, employee training is definitely a top priority for only 25.3% of the companies in S.E. region.
4. Shared vision – examines the extent to which employees are perceived as partners and to what extent the company‘s management is distributed across levels, functions and departments. The share of positive answers in both regions prevails. The difference is in the more categorical rejection of the possibility of partnership and sharing the company‘s development direction with the employees in S.E. region.
5. Openness to ideas - the attitudes of the management of enterprises to encourage their employees to think outside the box and work on innovations are taken into account, as well as how highly original ideas are valued. The results show that in S.E. region, the negative attitudes are definitely more pronounced compared to the other region. 36% of respondents from S.E. region do not think that managers encourage unconventional ideas with a score of 7.9% in S.W. region. The result regarding the promotion of innovation work is similar. At the same time, 66.7% of the companies from S.E region give a positive answer to the statement „Original ideas are highly valued“, and only 8% have negative answers, which speaks rather of an uncertain attitude to these problems.
6. Entrepreneurial orientation – taking risks, carrying out strategic planning activities and identifying new opportunities are explored. The results obtained in both regions are comparable with a small preponderance of positive responses in S.W. region in terms of opening up new opportunities for businesses.
7. Strategic focus on innovation – the results consider the extent to which challenges to the existing way of doing business, providing new products/ services to customers or changes in the industry are central to the strategy. Respondents in both regions consider the provision of new products for their customers to be the most important for the strategy (60.3% on average).

Next in importance are changes in the industry with an average of 55% positive responses.

The data obtained from the survey, which is not presented and analyzed in the present paper, also includes information on: business and marketing innovations in the activity; changes focused on the existing business model; general management processes and practices; the environment in which the enterprise operates and for other important indicators of the innovation activity and potential of the companies from the two regions.

Conclusions

Based on the analysis of the presented data from the survey and the basic theoretical statements on the issue, some general conclusions and recommendations can be formulated regarding the innovation activity of enterprises in the Southwestern and Southeastern region.

- Investments for R&D are a major factor for the innovative activity of companies. The comparative analysis of the data shows that by average value of the volume of investments S.E. region exceeds twice the S.W. region. But there is also a difference in the distribution profile of investments according to their size. The S.E. region is dominated by large investments, while in S.W. region the smaller ones prevail. The lack of sufficient funds could be a barrier to innovation for SMEs in S.E. region.
- The number of personnel engaged in R&D is indicative of the innovation potential of companies. In S.W. region, the distribution of the number of employees engaged in these activities corresponds to the distribution of the shares of small, medium and large companies. 48.7% of enterprises in S.E. region have no employees engaged in R&D, which is a barrier to the implementation of innovation activities.
- The realization of the products of the enterprises outside the regional and national markets is a prerequisite for the acquisition of new knowledge and experience and an important criterion for evaluating the results of the innovation activity. An advantage in this direction is observed in the companies from S.W. region.
- Product innovations are the main measure when evaluating the innovative activity of enterprises. According to this criterion, the lag of the companies from S.E. region is serious. The data show that 70% of the surveyed companies have not implemented any innovations in the products and/or services they offer on the market.
- Process innovations are expected to lead to higher production volume, lower costs, higher quality and, respectively, more satisfied customers. The research data shows better results when introducing new or improved production methods in the enterprises of S.W. region. But in terms of

supporting processes, logistics, supply and distribution, the results are not good, being particularly worrying for the state of S.E. region companies.

- Cooperation in innovation activity is a basis for the implementation of open innovation by organizations, which would have a favorable impact on the development, especially of SMEs. The comparative analysis of the data for the two observed regions shows that an average of 33% of the surveyed companies have established cooperation with other enterprises and organizations, which can be assessed as insufficient. A good sign and incentive for innovation activity is the pronounced more active cooperation of enterprises from S.E. region with consultants or business incubators, higher education institutions, research institutes. In this regard, the recommendation that could be made to the enterprises is to focus on the application of open innovation, insofar as the regulatory framework creates conditions for this. Clusters, incubators, technology parks could be useful in this direction.
- Assessing the influence of factors on innovation activity is key to the success of innovation in the enterprise. The aspiration should be for them to become a driving force, not a barrier to innovation activity. The results obtained from the survey show that the companies have realized the importance of the customer taking a central role. Focusing on the customer is a driving factor for innovation activity. Factors of entrepreneurial orientation and strategic focus on innovation can also be attributed to the favorable factors for companies from both regions. To a certain extent, this could also be accepted for staff training commitments, but with some conditionality for companies from S.E. region.
- Competitive orientation as a factor for innovation activity emerges as one of the barriers for enterprises from S.E. region and an incentive to those from S.W. region. The results regarding the factors „Shared vision“ and „Openness to ideas“ also show that they act more like barriers for firms from S.E. region.

The general conclusion that emerges is that the results of the study of the innovation activity of the enterprises of the two regions show a remarkable lag in S.E. region compared to S.W. region, for which there are a number of reasons of state and local character.

The present study does not claim to be comprehensive due to the impossibility to present a more complete and detailed analysis of all the data collected during the survey on the innovation activity and potential of the enterprises from the observed regions. It can be supplemented and further developed, based on the analysis of other empirical data obtained during the survey of the enterprises.

References

Георгиева, Т., 2016. Оценка на иновационния мениджмънт на организацията, (Georgieva, T., 2016. Otsenka na inovatsionniya menidzhmant na organizatsiyata), available at:
https://www.researchgate.net/publication/317168144_Ocenka_na_inovacionnia_menidzmnt_na_organizaciata (accessed 20 September 2022)

Иванова, Р., 2019. Управленски аспекти на отворените иновации и среда за приложение в България, Варна, Изд. „Наука и икономика, ИУ – Варна. (Ivanova, R., 2019. Upravlenski aspekti na otvorenite inovatsii I sreda za prilozhenie v Balgariya, Izd. "Nauka I ikonomika", IU – Varna)

Пантелеева, И., 2013. Управление на иновациите в индустриалното предприятие, АИ „Д. Ценов", Свищов, (Panteleeva, I., 2013. Upravlenie na inovazhiite v industrialnoto predpriyatie, AI "D. Zhenov", Svishtov)

Станкова, Л., 2019. Изследване на бариерите пред малките и средни предприятия в България за внедряване на иновации, София, Изд. Neofeedback. (Stankova, L., 2019. Izsledvane na barierite pred malkite I sredni predpriyatiya v Balgariya za vnedryavane na inovazhii, Sofiya, Izd. Neofeedback)

Björkdahl, J. and Börjesson, S. (2012) 'Assessing firm capabilities for innovation', Int. J. Knowledge Management Studies, Vol. 5, Nos. 1/2, pp.171–184, available at:
https://www.researchgate.net/profile/Joakim-Bjoerkdahl/publication/264439638_Assessing_firm_capabilities_for_innovation/links/599d8d8e0f7e9b892bb3e08d/Assessing-firm-capabilities-for-innovation.pdf (accessed 15 September 2022)

Colarelli O'Connor, G. (2008) 'Major innovation as a dynamic capability: a systems approach', Journal of Product Innovation Management, Vol. 25, No. 4, pp.313–330.

European Innovation Scoreboard 2022, European Commission, Luxembourg: Publications Office of the European Union, 2022, DOI: 10.27777/309907

Francis, D. (2003). Innovation Capability Audit, The Pfeiffer Library Volume 12, 3rd Ed., John Wiley & Sons, Inc., p. 248-263

CONTINUING TRAINING OF BULGARIAN MANAGERS AND ENTREPRENEURS

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Abstract:

Vocation training of managers has a positive impact on profitability, productivity, and staff retention. Moreover, it makes managers aware of the significance of learning for employees' satisfaction and motivation. *The present paper focuses on determinants of company's investments in continuing training of managers/entrepreneurs. The empirical analysis is based on a survey of Bulgarian companies located in the southeastern and southwestern part of the country. The results highlight the role of internal environment for involvement in management training. The likelihood for training is higher for larger companies and also for those with R&D and innovations. The focus on human resources development as well as the learning-oriented culture is important. Additionally, the output implies that the lack of trainers with expertise corresponding to the specific company needs is a major determinant of underinvestments in staff training in Bulgaria. These results have practical implications for the government policy for stimulating the firm investments in lifelong learning.*

Key words: lifelong learning, continuing vocational training, management training, Bulgarian management

JEL: J24, M53, C1

Introduction

The theories of economic growth see human capital as a key factor for long-run economic growth. The human capital stock of an individual includes not only his/her educational attainment but also informal education, professional training and experience (Neycheva, 2016; Yorgova, 2018). Many countries all over the world has been reporting an increase of the aggregate human capital stock, mostly because of the rising average educational attainment of the population. In Bulgaria in 2019, 78% of the population has completed upper secondary or higher education. This is higher than the average EU level (75%). Nonetheless, regarding involvement in lifelong learning, the country remains far below the upper tier. In 2015,

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slightly above 26% of employees participated in continuing vocational education and training (CVET) courses in Bulgaria, while that number for the EU is 40.8%, according to Eurostat. This is the fourth lowest level after Greece (18.5%), Romania (21.3%) and Lithuania (25.6%). Moreover, only 42.2% of the Bulgarian enterprises provide continuing vocational training. Across the EU-28 that percentage is 72.6%.

In this regard, the current paper focuses on management education and training in Bulgaria. It discusses outcomes of an explorative study aiming at examining the major factors and obstacles which the companies face regarding their investments in CVET of managers/owners. The empirical results are based on a survey of 151 companies operating in the southeastern and the southwestern part of the country. The structure of the paper is as follows. The next section presents the theoretical background of investments in continuing vocational education and training. Then, the methodology of the study and descriptive statistics of the enterprises being surveyed is presented in brief. The fourth section illuminates the output of the descriptive analysis and the multilevel regression which was carried out. Discussion and concluding remarks are given in the last section.

Theoretical framework of firm's investments in CVET

Training activities increase productivity, efficiency, and competitiveness at both company and national level. In case of rational behaviour, training would be performed only if the expected benefits (for example productivity gains) outweigh the training costs. In a perfectly competitive labor market, the workers participating in different forms of training would earn a higher wage corresponding to the marginal product increase (Becker, 1964). Employers do not have an incentive to invest in training for general skills because the latter are useful for all employers if the employees decide to switch the company. Such training would be financed rather by the workers willing to accept a lower remuneration during the training period. The enterprise would reap the gains of specific training only if the employees do not benefit from their higher productivity and wage if they change the company (Cedefop, 2015). If worker abilities are heterogeneous and information about the value of training is imperfect, the general training would be rewarded more by the current employer than by its competitors. The former would pay a higher wage to retain high-ability workers, while the low-qualified ones would be free to leave (Brunello and Wruuck, 2020). Additionally, enterprises would finance general training if the wages are lower than the revenue increases generated by higher productivity due to training (Backes-Gellner and Mure, 2005).

The theory of human capital combined with the task-based approach (Mohr et al., 2016) could explain the differences in training by occupation. Investing in CVET of employees performing routine tasks seems unattractive as such tasks might progressively be replaced by computer technologies. Moreover, routine and repetitive activities are less likely to require new knowledge. Thus, the companies

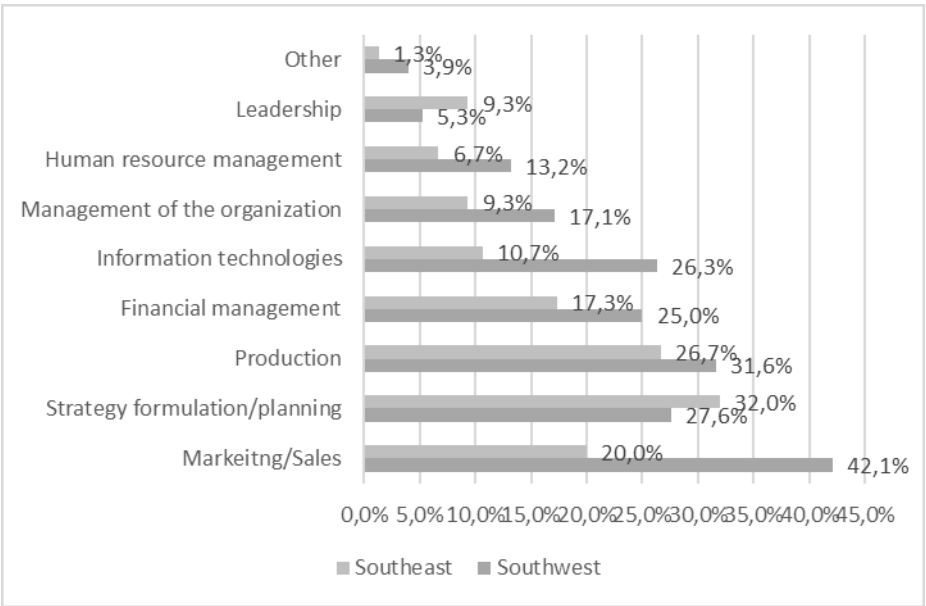
are more prone to provide training to people who perform non-routine tasks such as the managerial staff. An alternative explanation is given by the knowledge-based view which exploits the resource-based theory (Barney, 1991). The firm is considered a unique set of resources aiming at maximizing its value. Knowledge is the most strategically important asset. An enterprise could achieve efficiency gains by coordinating the efforts of different individuals possessing specific knowledge (Grant, 1996). The continuous acquisition of knowledge is necessitated by the dynamic market conditions which result from technological advances, changing consumer needs or competitive pressure. It is the primary task of the manager to coordinate this newly acquired knowledge.

Methodology of the study and empirical results

The involvement of Bulgarian companies in management contiunign education and training is estimated on the basis of a field survey. The sample size – 151 companies – is 0.08% of the total of number of companies in the two regions being studied – the southeast as well as the southwest of Bulgaria. The data was collected in January 2020 by direct structured interviews with managers/owners at the respondent's workplace – one person per enterprise.The questionnaire includes 341 items divided into twelve sections. A special part investigates the issues related to participation in formal management education and training. The majority (67%) are micro- or small enterprises with less than 50 employees. The main activity is concentrated in the field of Construction (23.8%), Trade, repair of motor vehicles and motorcycles (18.5%), and Manufacturing (16.6%).

The descriptive analysis of the results show that, on average, more than 45% of the companies claim that they have never turned to management training or managerial consulting. This share is about 55% for the companies in the southeast and 33% for the remaining ones. Only 4% of the respondents rely on long-term contracts and partnerships in the field of life-long learning. Figure 1 describes the distribution of the enterprises by the field of training.

Nearly 37% of the respondents do not recognize employees' capability of self-learning as a key competitive advantage. Moreover, less than 1/3rd (30.5%) see staff training rather as a cost than an investment. For only a bit more than 1/4th of the interviewed persons training is a priority and a factor for innovation activity of the enterprise. The positive attitude toward vocational training of personnel as well as the incentive to invest in its qualification is more strongly expressed in the more developed southwest region. These results imply a lack of understanding of the gains which CVET might bring to the company and a lack of awareness of its importance as a key source of cutting-edge knowledge in the contemporary business world of rapid changes.



Source: author's calculations

Figure 1. Distribution of Bulgarian enterprises by field of management training

To investigate the major determinants of company's participation in management vocational training we utilize a descriptive analysis as well as multilevel regression analysis. The output is displayed in the next section. Table 1 sheds light on the major obstacles, which the companies face regarding their investments in management CVET. The descriptive results are presented by region.

Table 1. Major obstacles for management training

Obstacle[1]	Southwest	Southeast	Total
Lack of relevant services in the region	31,6%	16,0%	23,8%
Lack of time for using such services	23,7%	21,3%	22,5%
High prices	38,2%	28,0%	33,1%
Insufficient information for such services	18,4%	8,0%	13,2%
The providers cannot fully meet the specific needs of the SME	31,6%	17,3%	24,5%
Fear of leakage of confidential information about the company or its products	19,7%	8,0%	13,9%
Other	0,0%	13,3%	6,6%

[1] More than one answer is allowed

Source: author's calculations

It is evident that the results differ by location. As it is expected and recognized in the literature as well, high prices, and lack of time and relevant services in the region matter (see, for example Coetzer and Perry, 2008; Walker et al., 2007). Along with that, the awareness that the training providers cannot respond to the specific company needs seems to be of a major importance, particularly in the southwest where this is the second ranked barrier. Additionally, it is worth noting that about 1/5th of the companies in the same region has mentioned the fear of leakage of confidential information about the company or its products – an aspect which is not well developed in the relevant studies.

Table 2. Results of regression analysis

Parameter	Estimate	Std. Error	t	Sig.
Intercept	1,590***	,257	6,186	0,000
universities	-3,855***	1,435	-2,688	0,008
priority on staff training	0,397**	0,156	2,541	0,012
technology shifts	0,104	0,155	0,668	0,500
R&D and innovations	0,348**	0,142	2,441	0,016
company's size	0,373**	0,146	2,545	0,012
inability to respond to specific needs	0,277*	0,154	1,796	0,075
information leakages	0,162	0,190	0,854	0,395
HRD strategy and practices	0,453***	0,169	2,679	0,008

****, **, * Significance at 0.01, 0.05 and 0.10 level, respectively*

Source: author's calculations

The next research question is about the factors determining the participation in management training. Taking into consideration the literature in the field, they could be classified into two main groups: factors related to the company itself, i.e. company-specific factors, and factors related to the industry in which that company operates i.e. industry or market-specific factors. To test which group has a bigger impact on the investments in training, we apply a multilevel regression. Such a model allows for the data to be split into groups in which the relation between the dependent variable y and its predictors x_i varies. Here, we expect that the factors' significance would vary by region.

In the regression being executed (table 2), all variables are binominal in nature. The dependent variable is equal to 1 if the company has provided at least once training of its managers/owners. The list of factor variables includes the existence of universities in the region (*universities*), fast changing technology environment (*technology shifts*), priority given to staff education and training (*priority on staff*

training), existence of R&D activity or innovations (*R&D and innovations*), the size of the company (*company's size*), a lack of capabilities for response to the specific company's needs (*inability to respond to specific needs*), fear of confidential company information leakages (*information leakages*) as well as an existence of HRD strategy and practices (*HRD strategy and practices*).

The positively correlated statistically significant variables (at the 5% level) are HRD strategy and practices, learning-oriented culture and priority given to training, the bigger company size, and orientation towards research and innovations. It is interesting to note that variable *universities* has a negative statistically significant sign at the 1% level. This fully corresponds with the results for inability of the training providers to tackle the specific company's needs of training. The latter is significant at the 10% level here and is underlined by table 1 also. A likely reason might be the lack of strong linkages between the academic and the business sector in the country. Yet, more research is needed in this regard.

Conclusion

According to the new EU target, released in February 2021, the recommended participation rate in adult education and training during the 12 months prior to the survey which should be reached by 2025, is at least 47% (EC, 2021). Yet, that goal to be effectively fulfilled, more should be known about companies' incentives to provide vocational training. Here, we focus on Bulgaria's experience in management vocational training, specifically, since it is a country with one of the lowest lifelong learning participation rates across Europe.

The empirical results highlight the role of internal business environment for the management training activity. The likelihood for training is higher for the larger companies and also for those involved in R&D. The larger number of employees as well as the existence of HR management strategy which gives priority to employee learning, also matter. It appears that the major obstacle to investments in training is the inability of the trainers to satisfy the company's needs of specific training. In light of the results, the study has important practical implications. Being responsible for the knowledge diffusion across the firm, the managers themselves need to develop their qualification and recognize the importance of adult lifelong learning. The qualification of trainers is also a key factor. They should permanently upgrade their expertise in order to be able to satisfy the demand for state-of-the art developments, knowledge or skills. In our survey, every second respondent (54%) has placed an emphasis on the relevant experience/expertise of the providers of education or training. It means that the role of the national educational system, especially higher education as a main supplier of training services, is of a great importance. As well, government and regional bodies should provide financial and non-financial stimulus to the enterprises, especially the small ones, to invest in education as they are less prone to participate in training initiatives. Urgent efforts in this regard is needed in regions with low investments in CVET.

References

Backes-Gellner, U., Mure, J. (2005), "The Skill-weights approach on firm specific human capital: empirical results for Germany. Working Papers 0056, University of Zurich, Institute for Strategy and Business Economics (ISU).

Barney, J. (1991), "Firms resources and sustained competitive advantage", *Journal of Management*, Vol. 17, N. 1, p. 99-120, https://doi.org/10.1177/014920639101700108.

Becker, G. (1964), "Human Capital: A Theoretical and Empirical Analysis with Special Reference to Education", Columbia University Press, New York.

Brunello, G., Wruuck, P. (2020), "Employer provided training in Europe: determinants and obstacles". IZA DP No. 12981. https://www.iza.org/publications/dp/12981/employer-provided-training-in-europe-determinants-and-obstacles.

Cedefop (2015), "Job-related adult learning and continuing vocational training in Europe: a statistical picture", Research paper N48, Luxembourg: Publications Office of the European Union.

EC (2021), "Adult education and training in Europe: building inclusive pathways to skills and qualifications", Eurydice Report, Luxembourg.

Coetzer, A., Perry, M. (2008), "Factors influencing employee learning in small business", Education+Training, Vol 50 No. 8/9, pp. 648-660.

Grant, R (1996), "Towards a knowledge-based view of the firm", *Strategic Management Journal*, Vol. 17, pp. 109-122.

Mohr, S., Troltsch, K., Gerhards, C. (2016), "Job tasks and the participation of low-skilled employees in employer-provided continuing training in Germany", *Journal of Education and Work*, Vol. 29, No. 5, pp. 562-583, doi: 10.1080/13639080.2015.1024640.

Neycheva, M. (2016), "Secondary vs. higher education for growth: the case of three countries with different human's capital structure and quality" Quality and Quantity, vol. 50(6), p. 2367-2393.

Yorgova Y. (2018), "Human capital as prerequisite for the competitiveness of the outsourcing industry – the Bulgarian experience", Proceedings of the International Scientific Conference "Eastern European Studies: Economics, Education and Law", vol. I, BFU & Odesa Institute of Trade and Economics, Ukraine, p. 27-29.

Walker, E., Redmond, J., Webster, B., Le Clus, M. (2007), "Small business owners: too busy to train?", Journal of Small Business and Enterprise Development, Vol 14 No. 2, pp. 294-306.

EUROPEAN UNION AND WELFARE ECONOMICS – REASONED THROUGH SOME PAPERS OF SIR ANGUS DEATON

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Abstract:

In this report, a comparison is made between the classical paradigm of welfare economics and its application in the European Union, based on the understanding of the Nobel laureate in Economic Sciences – Sir Angus Deaton. The report discusses the challenges facing the institutional establishment of the EU, positioned on the principles of federalism without the EU being a federal state. In practice, the „fiscal federalism" for building the US welfare economy is currently not possible to be implemented by and through the institutions of EU without changing the two main treaties – the Treaty on EU /TEU/ and the Treaty on the Functioning of the EU /TFEU/.

Key words: welfare economics, inequalities, poverty, consumption, economic development, EU economic policies

JEL Classification: D02, D60

Introduction

It was almost 10 years ago, when I was asked to professionally translate into Bulgarian language: *The Precariat – the New Dangerous Class* [1], a book of the British professor Guy Standing. Going through the pages – reading and translating, I was perplexed by the in-depth analysis and global overview of the problem of rising global inequalities and worsening living conditions in contrary to the classic paradigms of welfare economics. Since forth, I keep a professional eye over the British School of Economics Thought and their specific interpretations of the global economics and welfare economics, in particular. On the other hand, being influenced by the course of the global events and complex international economic relations, I delved with greater academic awareness into the EU institutional establishment and EU economic structures and liaisons of economic interactions. And, EU - being a "sui generis" per se, I had to deepen my knowledge and understanding into the economic mechanics of the US federal state, in order to compare and explain sustainability and promotion of welfare economics in EU

and US. Hence, it naturally came to my professional focus to familiarize myself with some of the papers of Sir Angus Deaton and reason over some challenging issues of building and maintaining welfare politics into EU, being the main US partner with synchronized formation of stakeholders, institutions, and values on the European continent. Having accrued some critical thinking over the EU policies in the recent two programming periods /2007-2013 and 2014- 2020/, I genuinely believe now that welfare economics in EU shall be pillared into three main areas: (1) reshaping the legal establishment and mechanics of EU institutions into single federal jurisdiction and network of structures; (2) introducing greater monetary solidarity over social bills; and (3) rethinking the project-based approach for emergency and humanitarian actions into real EU federal monetary transfers.

Theoretical Review

There is no doubt among modern economists that the first break-through research, which Sir Angus Deaton co-authored with J. Muellbauer, was "*An Almost Ideal Demand System*" [2]. In this paper they deliver a sophisticated approach to optimize consumer behavior of economic agents, opting to purchase different commodities. This approach is handy, particularly in solving consumer choices for products, which become available in a certain economy due to international trade to level-up the standard of living and create greater welfare options in one economy. Pivoting this economic reasoning into the EU single market as a nest of liberties and freedoms, one could easily stand to assume that "almost ideal" is not "ideal", per se, situation. There will always be some limitations to the perfect market reality – and in the case with the EU these limitations refer to consumer regulations, standards of production, import levies, quotas and other trade barriers. The legal environment of business in different EU countries do not subdue to a single EU federal jurisdiction, as it is the case with the US, but economic policies and business actions are harmonized and coordinated by political stake-holders. This creates marginal realism and market differences, disparities, and gaps into consumption behavior and standards of living of EU nations; this contradicts to the EU values and principles, and greater inequalities arise among EU nations. The common benefit: "single EU citizenship" stands apart from the real markets and consumer abilities of working, industrial, political, and free-lancing communities in the EU.

Short-run and long run costs and benefits differ widely among EU economies, while in the US

– the federal state is deemed to intervene with all possible legal, economic, banking, financing, and other measures and policies to deliver greater economic integrity and social cohesion within the states. The underlying principles of EU federalism create indicators – which do not consist of capability of matching with the similar indicators used by the US federal state. Some EU countries do not use Euro, others do; some are not in Schengen Area, others are; some are members

of the OECD, some are not; also, some are considered "periphery", others – "the core", and so on, so forth divisions and splits.

The epoch of thinking about EU in two dimensions: "before and after Lisbon" – is over. There shall be redesigned another "almost ideal system" to fulfill the realities of the present day. In particular, consumption patterns within EU are measured through the Harmonized Index of Consumer Prices /HICP/ to check for the inflation rates, as primary observation and comparative purposes. However, an in-depth analysis in the EU HICP-index may reveal curious consumer behavior patterns from Finland to Greece and from Portugal to Estonia. At first glance, this may seem a question of computed statistics, but – in practice – this relates not only to consumption preferences of an EU nation, but also to a life-cycle model of consumption. And Deaton asked the question about consistency as early as 1987: "Is the evidence consistent with the theory?" [3]. Furthermore, in his recent lecture in 2021 at Panmure House in Edinburgh, Scotland, UK – the only residence of Adam Smith – which is still used today for economic and social debates – Deaton delivered strong explanation on inequality, utilizing the Gini Coefficient as a verifiable economic measure to illustrate how things get worsened in the federal state of the United States as an economic superpower [4]. Also, in this very same lecture he presented the situation in the UK, which was worse than that in the US, bearing in mind that the UK exited EU on Jan. 1st, 2021.

According to Deaton inequality is a serious threat. He declared this in his numerous findings and also most notably in his 2015 Nobel speech [5], where he really worried about inequalities.

Global inequalities, inequalities in the US and the EU may endanger in the long-run the economic growth in the globe and over the Atlantic, and trigger worrisome processes of devastating poverty. Hence, precarious thinking shall not anchor welfare economics to combat the problem of "minimum standards", particularly in the EU; there shall be gearing up notion of welfare economics to reach certain "average" levels, comparable to the US averages, or at least to the OECD averages.

It is obvious that transformation processes in the world and on the European continent require employment of new approaches to defend democracies and humanitarian values as core indicators of civilized cohabitation of nations in historically charged regions.

Methodology

The two legal pillars of the EU institutional establishment and functioning, at present are the Treaty on European Union /TEU/ and the Treaty of Functioning of the European Union /TFEU/ [6]. The competences of the EU are designed as "exclusive competencies", which are exercised by the institutions of EU in the form of single policies in different areas, which are mandatory for all EU member states to execute; "shared competences", which form the coordinated policies

among the national governments of the EU member states and EU institutions; and "supporting competences" in different fields; also, there is a class of "special competences", which primarily relate to assisting different countries to shape their economic and social policies. Having in mind this fundamental legal pivot of the EU, it is quite complex to compare the EU legal order with the US constitutional legal order. In addition, EU institutions are not empowered to solve economic and social issues in different EU member states by exclusive competencies, which contrast to the federal power of the executive branch of the US. Researching the legality of the two systems in relation to how to solve economic and social challenges brings another issue at the table – the federal transfers of the US federal state and the project-based policies of EU institutions and coordinated actions to form core economic actions and create economic growth.

Legal gaps of the two systems delineate economic differences, per se, and it is absolutely

necessary to comprehend that US welfare system is totally different by nature from the EU welfare system, as their economic roots are nurtured by different legal considerations. This is why, it is reasonable to research the reasons for capital formation and economic growth through welfare economics, and more specifically – the income and social inequalities within EU in comparison to the US. A limitation to this approach, as it was explained – are the legal systems of the US and EU, as they create different behavior patterns in economic agents.

One milestone book of Deaton referring to the origins of inequalities illustrates the idea that the countries in Europe and North America can be taken as a stand-out example in comparison to other countries in the world in terms of global income inequality. He declares the following: *"It is often claimed that globalization has made the world more unequal, that while the rich have been presented with new opportunities for getting richer, the poor of the world have gained little. These claims have a ring of plausibility. Those of us who are fortunate enough to live in Europe or North America have all of the benefits of the new, interconnected world. At the same time, it is hard to see what good globalization does to the citizens of a poor landlocked country with a poorly educated and unhealthy population"* [7]. Also, in this very same lecture he presented the situation in the UK, which was worse than that in the US, bearing in mind that the UK exited EU on Jan. 1st, 2021.

Results

At present, there are 27 EU member states with a population of 450 million people; also, there are 9 Outer-Most Regions (OMR) of the EU, which comply to the EU legal basis with a population of approximately 2,7 million people; and there are 25 Overseas Countries and Territories (OCT), which are not EU members, but have special relations with the EU [8]. The US consists of 50 states, the Washington D.C., and some Dependant Areas with a population of 335 million people, approximately. The economic development of the US fosters

emergence and sustaining large corporations with powerful global influence, while the EU economy consists mainly of family businesses – small and medium-sized companies. In addition, the EU economy is boosted by few big economies, which contribute significantly to create common budget policies, while the smaller economies do not have the industrial and human capital powers to stay abreast the tech and industrial waves. Also, the US recognizes the economic interest and US citizenship as single federal policy, while at the EU this is much dependent on the social and cultural forces producing political factors of mixed scale and scope of intervention. In the US, there is consistent federal "ideology" to drive industrialization forward, based on sustainable economic development models, fostering consumption, while in the EU industrialization and economic development policies are "shared competences" between the EU institutions and national governments, being influenced by the political perceptions and attitudes of culturally diverse societies.

Hence, the standard British viewpoint, as being "non-European" and claiming to maintain

economic relations within EU, but not political cohesion – created the image of the "special member" of EU, which exited the Union last year and untied the British economic relations, as they were institutionally stapled by the EU institutions. Speaking of the British political influence over the economic paradigm, it is worth recalling that this is special lineage of prominent British economists among who is Sir Angus Deaton. The forefather in this lineage is Sir James Meade – a Nobel prize winner in 1977 for his significant contributions in developing the theory of international trade and international capital movements; he influenced much Sir Richard Stone – also a Nobel prize winner in 1984, who on his turn influenced his PhD students, who later became noble men: Sir James Mirrlees – Nobel laureate in 1996 and Sir Angus Deaton – Nobel prize winner in 2015. These four prominent persons could be generally recognized as neo-Keynesians.

Thus, in principle, the neo-Keynesians promote economic development by strong fiscal policy

– in the US: the "fiscal federalism" and single monetary policy, which is conducted by the FED in the US for all US states and dependent areas. In contrast, the EU economy consists of 27 countries, of which only 19 are using the Euro as a single currency, governed by the European Central Bank; and the budget formation of the EU and its institutions has its cap for a term of 7 years, called "programming periods" under the Multiannual Financial Framework /MFF/, approved by the EU institutions.

To illustrate the huge difference, the US federal budget for 2022 approximates at $ 6 trillion, while the EU budget for the same year approximates at € 310 billion – commitment and payment appropriations combined [10]. From this point of view, it is understandable why the British economy split comparatively quickly from the EU economy, as the Brits have always preserved their British pound

during the EU membership and their British fiscal policy, mimicking the mighty US federal and monetary policy decisions.

Observing the tremendous difference in the budgets, it is important to note that decision- making through market pricing and real market consumption are among the two tools of the US- British way of thinking about the capitalism, whilst in the EU – the institutional approach is rather ubiquitous under the conditions of political harmony and agreement of political stake- holders. In addition, the question about ownership transfers is very sensitive to the US-British capitalism, while the EU "exclusive competences" search for institutional involvement in disbursement of EU funds and implementations of projects. Thus, ownership issues appear in the EU economy next to the deregulation and globalization issues of modern economies and social systems. And this is the third important point, which refers to how to deal and speed commitment and appropriation payments, as well as any collective funds, when there are emergency situations within the EU, or needed for any special cause to aid.

Conclusions

This report is deemed to shed light on how to promote successful implementation of welfare economics within EU-wide economy and feature economic growth of diverse social dimensions. This is a very sensitive issue, particularly in times of severe economic crisis, energy deficits, and sky-rocketing inflation all over the world and within the EU. These circumstances opened the floor to ask not whether, but how fast the EU shall turn into a cohesive federal state and create real federal transfer programs to bridging the social gaps among EU members in times of peace and emergencies. Furthermore, this inevitably pertains to how future expansion of the EU will be designed to let newcomer-states to get full membership and its related benefits.

All this being said, necessitates taking the crucial step – to transform the TEU and TFEU as soon as possible, in order to comfort quickly the candidates to join the EU, and to create "almost ideal" economic and social systems for the benefits of all EU citizens.

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Bibliography

Standing G. (2013), *The Precariat – The New Dangerous Class*, In Bulgarian, translation in Bulgarian: Atanas Vladikov, Publisher: Law and Labor, Sofia, ISBN: 978-954-608- 2039

Deaton A., J. Muellbauer (1980), *An Almost Ideal Demand System,* The American Economic Review, Vol.70, No.3, pp. 312–326, https://assets.aeaweb.org/asset-server/journals/aer/top20/70.3.312-326.pdf, last visited: Sept., 17, 2022

Deaton A. (1987), *Life-cycle Models of Consumption: Is the Evidence Consistent with the Theory?* in Truman Bewley, ed., Advances in econometrics: Fifth World Congress, Vol. 2, New York. Cambridge University Press. 1221–48

Deaton A. (2021), *Technology, Inequality and Social Esteem,* Adam Smith Lecture Series, delivered May 26, 2021, https://www.panmurehouse.org/media/mfal2zfn/adam- smith-lecture-series_-professor-sir-angus-deaton-transcript-2021.pdf, last visited: Sept., 09, 2022

Deaton A. (2015), *Measuring and Understanding Behavior, Welfare, and Poverty,* Noble Prize Lecture, delivered Dec. 8, 2015, https://www.nobelprize.org/uploads/2018/06/deaton-lecture.pdf, last visited: Sept., 12, 2022

EU Treaties (2012), *Consolidated versions of the Treaty on The European Union and the Treaty on the Functioning of the European Union*, Official Journal C 326 , 26/10/2012 P. 0001 – 0390, https://eur-lex.europa.eu/legal- content/EN/TXT/HTML/?uri=CELEX:12012M/TXT&from=EN, last visited: Sept., 08, 2022

Deaton A. (2013), *The Great Escape*. *Health, Wealth, and the Origin of Inequality*, Princeton University Press, p. 202, ISBN: 978-0-691-15354-4

Association of Overseas Countries and Territories of the European Union, https://www.overseas-association.eu, last visited: Sept., 12, 2022

The White House, Office of Management and Budget (2021) *Budget of the US Government. Fiscal Year 2022*, https://www.whitehouse.gov/wp- content/uploads/2021/05/budget_fy22.pdf, p. 42, Table S-1, Budget Totals, last visited: Sept., 12, 2022

European Parliament News (2021), *EU Budget for 2022*, https://www.europarl.europa.eu/news/en/press-room/20211115IPR17306/eu-budget-2022-deal-investing-more-for-a-strong-recovery/, last visited: Sept., 05, 2022

COMPETITIVENESS OF BULGARIAN ECONOMY – COMPARISON WITH OTHER MEMBER-STATES OF THE EUROPEAN UNION

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Abstract

The development of a country (economic and social) is one of the key issues in modern society. For this reason, it is an object of increased research interest - with different research goals and objectives, as well as with a different methodology used for this research. One of the categories often used in modern economic life is competitiveness. It is the focus of the present study, which has as its main objective the analysis, assessment and comparison of the competitiveness with which the Bulgarian economy functions in the context of its membership in the European Union.

Keywords: competitiveness, Bulgarian economy, comparative analysis, European Union

JEL: F15; F43; P51

Introduction

In the world of constant development and complication of economic systems, and their functioning in the conditions of globalization, the timely assessment of the state of these economies is increasingly important. The present study focuses on the analysis and assessment of the national economic system in the context of its membership in the European Union. This focus also predetermines the ***research object***: the national socio-economic system of Bulgaria. The ***subject of the research*** is the competitiveness with which the Bulgarian economy functions from its position once, as a complex system and second time, as an element of a higher system. For this purpose, indicators were used that provide a partial assessment of the state of competitiveness and efficiency with which the Bulgarian economy functions, and also provide the opportunity to carry out a comparative analysis with the other member-states of the European Union and with the average levels of these indicators for the community as a whole.

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Exposition

The economic and social development of a country can be measured and assessed in different ways (using different methodologies for analysis). At the basis of this is the multifaceted nature of national economic systems, respectively the multitude and different aspects in which they can be characterized. In modern society, in which the idea of sustainable development is strongly advocated, there is no way to carry out any wide-ranging analysis of the behavior of a country without covering all three manifestations - economic, social and ecological. For this reason, it is necessary to choose an economic category that can cover all the mentioned aspects as much as possible.

For a long period, the competitiveness (as an economic and social category) is proved as one of the most adequate and objective measures for the level of economic development and the efficiency of this development of a country.

Literature review

The literature review shows that although its long "life", still there is no one single definition that is able to characterize and define the concept of competitiveness. This concept can be presented by numerous characteristics, depending on the scientific field and level of the system that the concept is addressed to – firm competitiveness, regional competitiveness, industrial competitiveness, national competitiveness.

According to the European Commission and World Economic Forum, the competitiveness can be measured according to the degree to which a country or region produces goods and services that satisfy the demands of the market and increases its GDP per capita (Blandinières, F. et al., 2017, p.23). This definition directly reflects the economic aspect of competitiveness, but its depth analysis gives reason to claim that, in an indirect way, this economic competitiveness also leads to an increase in the quality of the living standards of individuals in the country - i.e. the social aspect is also covered.

As a category directly related to competitiveness, efficiency should also be brought out. It is directly related to the way the national economy uses its resources natural resources, human resources, and capital (WEF, 2005, p. 50). Within the framework of the present study, the categories of efficiency and competitiveness are considered in their interdependence, based on the idea that it is not possible for a national economic system to be competitive if it does not function effectively.

Today, in addition to the basic ideas about competitiveness, two important aspects of competitiveness should be outlined, which are very often underestimated and remain outside the scope of its research. First, it is about the need to examine and study the national economy of a country in its quality as an element of a higher system, which is the integration community of the European Union. Despite the sufficiently long period during which the idea of a single community exists, as

noted by Ivanov (Ivanov, 2014), the necessary transition to the development of a single regional policy of the European Union has not yet been achieved. And the need for this type of coordination is present, because otherwise it is not possible to achieve a competitive functioning of the integration community, regardless of the fact that some of its economies are highly competitive. For this reason, the thesis that because sustainability concerns increased for developed and developing countries, more recently, the definition of international competitiveness was expanded to include the ability of a country to reach goals beyond the gross domestic product (Aiginger et al., 2013; Costanza et al., 2009; Fleurbaey, 2009; Fleurbaey & Blanchet, 2013; Jones & Klenow, 2016) is promoted.

The other direction, in which researches related to competitiveness (from the standpoint of the national economic system) are rarely carried out, is the industry one. Although at present there is still a lack of a clear definition to characterize industry competitiveness, it is clear to researchers in the field that the competitiveness on the industry level is strongly related to productivity and trade. (Blandinières, F. et al., 2017, p.18) In addition, from there it directly affects the level of national competitiveness.

It is what has been stated in the presentation so far that is used as a starting point for the implementation of the present research - to build the methodology of the research, starting from its logic, the necessary information and the specific indicators through which it will be carried out.

Methodology

Logic of the study

The basis of the methodology of the present research is the understanding of the systemic nature of economic objects at all management levels. On the one hand, it is about the systemic nature of national economies, in which the functioning of each individual element (industry) determines the results of the functioning of the national economy as a whole. On the other hand, the Bulgarian national economic system should be analyzed and evaluated as an element of a higher system, such as the integration community of the European Union.

As already stated, there are many metrics and methodologies that can be used to study competitiveness. And although they cover a large part of the specifics of the category, there is one major drawback. Namely, that the approaches to the study of national competitiveness considered so far focus primarily on the final results of the functioning of these systems. And much more important remains in the background: the causes (processes and phenomena) that condition (presuppose) these results.

This is also the main reason that led to the choice of research logic, subject to the use of the Input-output model, the creator of which was the Nobel laureate Vasiliy Leontief. Although it has undergone a long-term evolution caused by the

changes and complexity of national economies worldwide, its basic logic remains unchanged. One of the indisputable advantages of the model is rooted in it - the possibility to examine at the same moment in time the economic, social and ecological state of an economic system (regional, national or supra-national).

The three aspects of sustainable development are presented through the individual elements of the model, and are also the result of the interaction between these elements (derived indicators).

Data

The main aspects considered in the present study are economic and social. The ecological aspect cannot be fully covered, due to the insufficient amount of information provided by the member states of the European Union for the construction of the symmetrical input-output tables. Information for each country covers the period 2010-2020, and economic systems are represented through a 19-industry structure. The analyzed data are published by Eurostat in their absolute values and in comparable prices. A necessary clarification is the presence of the United Kingdom as a member of the European Union, which is caused by the fact that its departure takes place only in 2020.

Indicators

The indicators used in the study aim to reveal in depth the processes taking place in the Bulgarian economy. For this reason, part of them examines and compares its industry performance.

The determinant of the direct cost matrix (E-A)

This indicator characterizes the efficiency, respectively the competitiveness, with which a national economic system functions. Based on the information about the costs of resources from each industry of the national economy, with which the gross output by industry is created, the matrix of direct costs A, with dimension [N x N], is constructed. The formula used to calculate the coefficients aij of the matrix e:

$$a_{ij} = \frac{x_{ij}}{X_j}$$, where:

a_{ij} – direct cost of a resource created in industry i required to create a unit of total output in industry j.

x_{ij} – volume of the resource created in industry i and provided to industry j to produce the total volume of output of industry j.

X_j – volume of total output created in industry j.

This matrix undergoes a process of further transformation, subtracting it from the identity matrix E to take the form (E-A). By finding the determinant of the newly obtained matrix (E-A), one can examine how efficiently the industries function as a whole, i.e. the national economic system. The theoretical limits in which the

determinant can vary are 0-1, and the closer to 1 the result of an economy, the more efficient (competitive) it is.

Value added, created by a unit total product of the national economy (based on the information for the industries)

The indicator aims to assess how competitively the industries of the national economy function based on the value added that they create. Perceiving the value added as a kind of "profit for the economy", a requirement for it should be constant and increase over time.

Results and discussion

The results obtained during the implementation of the research should be perceived as partially characterizing the state of the Bulgarian national socio-economic system. In order to give a general assessment of the level of its competitiveness, it is necessary to cover a much wider range of indicators. Based on the indicators selected in the present study, the following results, respectively conclusions, are available, presented in the following statement.

Results of the study of the determinant of the direct cost matrix (E-A)

The study on the determinant of the matrix of direct costs shows that in some of the countries studied there is a decline in the efficiency measured by the indicator. The drop in efficiency, assessed through the matrix of direct costs (E-A) should also be perceived as a signal of a deteriorating state of competitiveness with which the respective economy functions.

As can be seen from the data presented in **Table 1**, the behavior of the European Union economies is not constant, but is accompanied by numerous peaks and troughs. In the presented data, the years characterized by a decline in efficiency are marked in yellow.

Table 1: Determinant of the direct cost matrix (E-A) for the member-states of the European Union for period 2010-2020

	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Austria	0,0608	0,0683	0,0691	0,0729	0,0598	0,0609	0,0615	0,0520	0,0586	0,0579	0,0544
Belgium	0,1182	0,0835	0,0837	0,1283	0,1313	0,1179	0,1181	0,1197	0,1197	0,1147	0,1140
Bulgaria	0,1542	0,1637	0,1743	0,1846	0,1678	0,1667	0,1899	0,1874	0,1803	0,1757	0,1877
Croatia	0,2561	0,2193	0,2182	0,2289	0,2128	0,2259	0,2364	0,2450	0,2386	0,2330	0,2591
Cyprus	0,2207	0,2487	0,2534	0,2595	0,2570	0,1806	0,1676	0,1636	0,1575	0,1366	0,1575
Czech	0,0833	0,0785	0,0757	0,0687	0,0768	0,0739	0,0792	0,0746	0,0728	0,0753	0,0904
Denmark	0,2700	0,2710	0,2624	0,2625	0,2667	0,2605	0,2512	0,2435	0,2408	0,2451	0,2495
Estonia	0,1658	0,1775	0,1828	0,1883	0,2083	0,1951	0,2038	0,2009	0,1943	0,1965	0,1972
Finland	0,2159	0,2153	0,2079	0,2019	0,1921	0,1853	0,1810	0,1804	0,1626	0,1537	0,1499

France	0,0743	0,0770	0,0812	0,0834	0,0854	0,0850	0,0783	0,0794	0,0783	0,0799	0,0813
Germany	0,0993	0,0961	0,0962	0,1008	0,0980	0,1015	0,1002	0,0981	0,0966	0,0963	0,0946
Greece	0,2863	0,2845	0,2770	0,2684	0,2714	0,2729	0,2833	0,2879	0,2818	0,2820	0,3008
Hungary	0,2736	0,2813	0,2947	0,3005	0,2998	0,2980	0,2817	0,2767	0,2617	0,2728	0,2866
Ireland	0,1741	0,1807	0,1451	0,1262	0,1405	0,1641	0,1761	0,1706	0,2044	0,2044	0,1888
Italy	0,0834	0,0809	0,0817	0,0835	0,0783	0,0778	0,0814	0,0809	0,0833	0,0820	0,0848
Latvia	0,0863	0,0872	0,0965	0,0444	0,0510	0,0574	0,0657	0,0674	0,0628	0,0681	0,0693
Lithuania	0,1692	0,1915	0,1994	0,3077	0,2996	0,2922	0,2884	0,2913	0,2812	0,2691	0,2567
Luxembourg	0,1545	0,1636	0,1464	0,1398	0,1407	0,1373	0,1361	0,1441	0,1428	0,1208	0,1133
Malta	0,1805	0,1523	0,1465	0,1455	0,1296	0,1349	0,1370	0,1237	0,1144	0,1139	0,1026
Netherlands	0,1508	0,1413	0,1412	0,1458	0,1364	0,1685	0,1628	0,1597	0,1603	0,1600	0,1627
Poland	0,1380	0,1380	0,1387	0,1287	0,1342	0,1342	0,1317	0,1336	0,1294	0,1294	0,1321
Portugal	0,0564	0,0538	0,0539	0,0575	0,0625	0,0631	0,0655	0,0558	0,0558	0,0576	0,0534
Romania	0,2322	0,2516	0,2192	0,2531	0,2676	0,2873	0,3041	0,3169	0,3129	0,3108	0,3247
Slovakia	0,0823	0,0730	0,0797	0,0893	0,0830	0,0574	0,0532	0,0389	0,0347	0,0379	0,0423
Slovenia	0,1418	0,1519	0,1395	0,1410	0,1480	0,1444	0,1479	0,1472	0,1474	0,1538	0,1526
Spain	0,0932	0,0983	0,0983	0,0952	0,0925	0,0978	0,1102	0,1086	0,1062	0,1028	0,0981
Sweden	0,2549	0,2531	0,2523	0,1540	0,0616	0,1795	0,1768	0,1779	0,1774	0,1784	0,1722
UK	0,0639	0,0675	0,0665	0,0642	0,0592	0,0592	0,0599	0,0563	0,0569	0,0519	0,0449

Source: Author's calculations, based on the information, provided by Eurostat

Of course, it is not possible to formulate conclusions based solely on the information about the absolute values of the studied indicator. Therefore, this information is further examined to trace the overall development trend of the determinant of direct cost matrix (E-A). Based on the calculation of the growth rates based on the previous year and the calculation of their geometric mean value, the member states of the European Union are grouped into two main groups. A group of countries that are decreasing their efficiency and competitiveness and a group of countries that are increasing their efficiency and competitiveness. (**see Table 2**)

Table 2: Groups of countries based on the change of their efficiency and competitiveness (geometric mean of changes base on the previous year) for the period 2010-2020

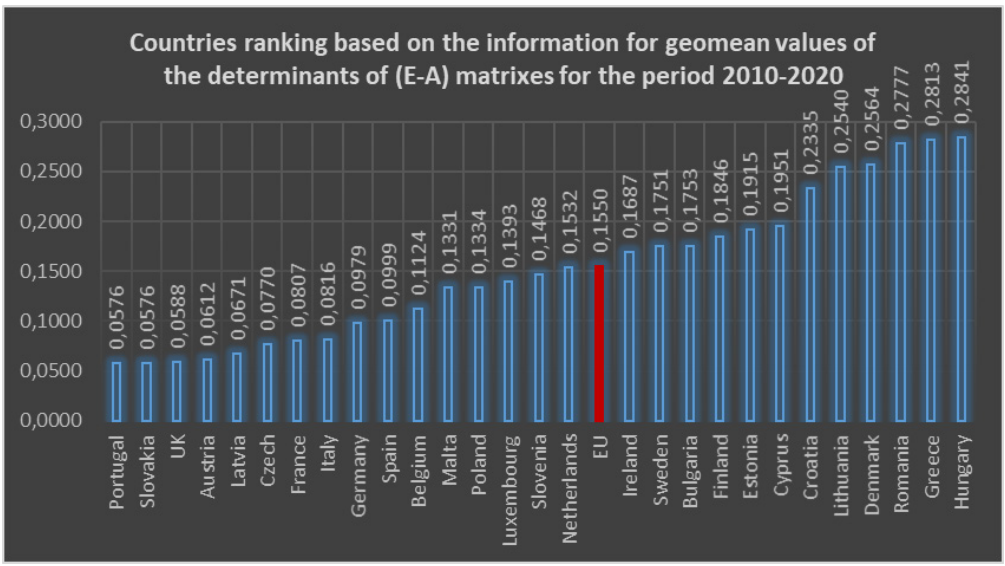
Countries that reduce their efficiency and competitiveness		**Countries that increase their efficiency and competitiveness**	
Slovakia (-6,45%)	Latvia (-2,18%)	Lithuania (4,26%)	Netherlands (0,76%)
Malta (-5,49%)	Austria (-1,10%)	Romania (3,41%)	Slovenia (0,73%)
Sweden (-3,85%)	Denmark (-0,79%)	Bulgaria (1,99%)	Spain (0,52%)
Finland (-3,58%)	Portugal (-0,55%)	Estonia (1,75%)	Greece (0,50%)
UK (-3,46%)	Germany (-0,48%)	France (0,90%)	Hungary (0,46%)
Cyprus (-3,32%)	Poland (-0,43%)	Czech (0,83%)	Italy (0,17%)
Luxembourg (-3,06%)	Belgium (-0,36%)	Ireland (0,82%)	Croatia (0,12%)

Source: Author's calculations, based on the information, provided by Eurostat

The data shows that the negative trend is most clearly expressed in the economies of Slovakia (average change of -6.45%); Malta (average change of -5.49%) and Sweden (average change of -3.58%). At the same time, improvement in efficiency was most seriously expressed in Lithuania (average change by 4.26%); Romania (average change of 3.41%) and Bulgaria (average change of 1.99%).

The final comparison in the field of assessment of Bulgarian competitiveness within the European Union, based on the determinant of the matrix (E-A) is using the information for the geometric mean values of the indicator, calculated for the period 2010-2020. The information is presented in **Figure 1,** where the ranking of the countries can be seen as well as their position compared to the mean value for the European Union.

As can be seen from the figure, Bulgaria operates with values higher than the average for the European Union and ahead of a large part of developed countries (eg Austria, France, Italy, Germany and Belgium). At the same time, however, the economies of countries defined as such in a stage of development function with much higher levels of efficiency. The most appropriate example of this is Romania - the country that was accepted into the European Union at the same time as Bulgaria.



Source: Author's figure, based on author's calculations

Figure 1: Geometric mean values of the determinants of (E-A) matrixes for the countries in EU (mean value for the period 2010-2020)

These basic calculations, assuming the hypothesis of constancy of the factors in the external and internal environments for the economies, can be used to implement a simplified form of forecast for the future state of the economies - their efficiency and competitiveness. If it is assumed that the economies are managed in the same way in the future (the same management logic), preserving the already existing trend, then by 2030 Romania will be the most efficiently functioning economy in the European Union. The determinant of the matrix (E-A) for the Bulgarian economy would continue to have values higher than the average for the integration community, and Slovakia would be the country with the lowest degrees of efficiency and competitiveness.

Results of the study of the value added, created by a unit total product of the national economy (based on the information for the industries)

In an economic aspect, the indicator characterizing the final useful result of the functioning of an economic system - the value added it creates - is of interest. The nature of the study and the individual specifics of the countries under study exclude the possibility of using the absolute and/or share values of the "value added" category as a direct measure of competitiveness and efficiency.

Due to the large volume of information related to the study of this indicator, in the following presentation, summarized data for Bulgaria will be presented, as well as the main conclusions from the comparison with the other member states of the European Union. **Table 3** presents geometrically averaged values for the value

added that is created by industries of the economy from a unit of their production in the period 2010-2020, and their visual presentation is made through **Figure 2.** According to the data, the highest efficiency in the Bulgarian economy works industry Education, where 1 total output generates 0.8040. Decomposing this same unit, the remainder of 0.1960 units is material production costs and taxes less subsidies on products.

At the same time, with low levels of efficiency leading to an understated potential for competitiveness, the Construction industry operates with average values of the value added created by 1 total output in the amount of 0.2304, respectively costs and additional payments in the amount of 0.7696. Here, of course, an important clarification should be made related to the nature of the activities falling into the two mentioned industries, as well as the products they create. Economically justified are the higher costs (aimed primarily at materials) in those industries that are related to the creation of a product of a material nature, in contrast to those industries that provide services.

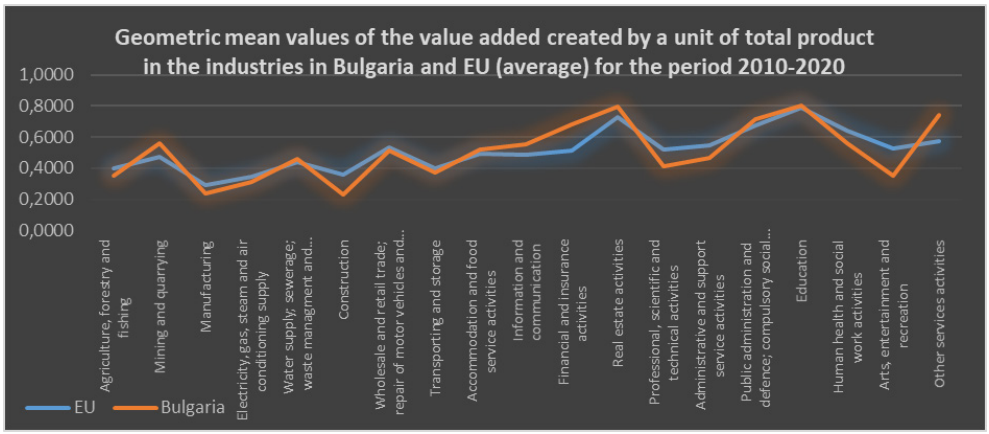
For this reason, an analysis of the general trend in the behavior of the industries of the Bulgarian economy will be carried out.

Table 3: Geometric mean values of the value added created by a unit of total product in the industries in Bulgaria and EU (average) for the period 2010-2020

Industries	EU	Bulgaria
Agriculture, forestry and fishing	0,3969	0,3518
Mining and quarrying	0,4701	0,5592
Manufacturing	0,2896	0,2394
Electricity, gas, steam and air conditioning supply	0,3445	0,3090
Water supply; sewerage; waste management and remediation activities	0,4358	0,4618
Construction	0,3559	0,2304
Wholesale and retail trade; repair of motor vehicles and motorcycles	0,5338	0,5106
Transporting and storage	0,3963	0,3746
Accommodation and food service activities	0,4932	0,5227
Information and communication	0,4834	0,5515
Financial and insurance activities	0,5121	0,6814
Real estate activities	0,7287	0,7986
Professional, scientific and technical activities	0,5221	0,4092
Administrative and support service activities	0,5484	0,4680
Public administration and defence; compulsory social security	0,6727	0,7164
Education	0,7860	0,8040
Human health and social work activities	0,6388	0,5601
Arts, entertainment and recreation	0,5234	0,3529
Other services activities	0,5722	0,7434

Source: Author's calculations, based on the information, provided by Eurostat

As can be seen from **Figure 2**, there are industries of the Bulgarian economy that function with average values higher than those for the integration community as a whole. Such industries are Mining and quarrying; Water supply, sewage, waste management and remediation activities; Accommodation and food service activities; Information and Communication; Financial and insurance activities; Real estate activities; Public administration and defense; Education, and Other service activities.



Source: Author's figure, based on author's calculations

Figure 2: Geometric mean values of the value added created by a unit of total product in the industries in Bulgaria and EU (average) for the period 2010-2020

The analysis of the full volume of data provides an opportunity to assess the place of the industries of the Bulgarian economy in the general performance of all the economies of the European Union. The conclusions that could be highlighted are that, traditionally, Bulgarian industries rank in the middle (below and above the average values for the EU) in a kind of ranking. Exceptions are the Construction, and Human health and social work activities industries, where the Bulgarian performance is the most ineffective, as well as the Financial and insurance activities, and Other services activities industries.

As already stated, apart from the study of the absolute values and their geometric means, the general development trends of the industries of the Bulgarian economy are of interest, as well as how they fit into the general trends characteristic of the European Union. For this purpose, the annual rates of change of the value added created by a unit of total production by industry compared to the previous year were first examined. The obtained information was used to find the geometric average rates of change in the indicator by industry for Bulgaria and generalized average values for the European Union. The obtained information is presented in **Table 4.**

Table 4: Geometric mean rate of change in the volume of value added created by a unit of production by industry for the Bulgarian economy and the averaged data for the EU

Industries	EU	Bulgaria
Agriculture, forestry and fishing	-3,12%	-1,59%
Mining and quarrying	-3,59%	1,52%
Manufacturing	0,56%	2,13%
Electricity, gas, steam and air conditioning supply	-0,82%	-2,05%
Water supply; sewerage; waste managment and remediation activities	-0,18%	0,87%
Construction	0,04%	-2,98%
Wholesale and retail trade; repair of motor vehicles and motorcycles	0,45%	0,83%
Transporting and storage	-0,21%	0,59%
Accommodation and food service activities	0,47%	0,45%
Information and communication	0,11%	1,55%
Financial and insurance activities	-0,59%	-1,42%
Real estate activities	0,22%	-0,08%
Professional, scientific and technical activities	-0,06%	-0,41%
Administrative and support service activities	0,46%	2,17%
Public administration and defence; compulsory social security	0,05%	0,31%
Education	-0,03%	0,34%
Human health and social work activities	0,09%	0,37%
Arts, entertainment and recreation	0,17%	1,52%
Other services activities	0,14%	0,58%

Source: Author's calculations, based on the information, provided by Eurostat

As for Bulgaria, six of the economic industries in the country work inefficiently (therefore with low competitiveness). These are those industries where there is a downward trend (the negative values in the table) in the amount of value added created by a unit of total production. It is noteworthy that, with the exception of the Construction and Real estate activities industries, a similar negative trend is emerging in the average values characterizing the European Union.

At the same time, in some industries of the Bulgarian economy there is a better performance compared to the European average - lower degrees of decline in efficiency (Agriculture, forestry and fishing), increasing efficiency compared to decreasing for the community (Mining and quarrying; Water supply, sewerage...; Transporting and storing; Education), as well as higher rates of increase in efficiency compared to integration (Manufacturing; Wholesale and retail trade; Information and communication; Administrative and support service activities; Art, entertainment and recreation).

Conclusion

The carried out partial research on the competitiveness with which the Bulgarian economy functions, showed the existence of a positive trend in the development of the state. Of course, general conclusions cannot be drawn based solely on the evaluation of several aspects of the country's development. However, several conclusions could be drawn.

First conclusion: Bulgaria's economy, assessed through the determinant of the matrix of direct costs (E-A), shows a tendency towards increasing efficiency and competitiveness.

Second conclusion: The geometric mean rates of change of the determinant for Bulgaria, as well as its geometric mean absolute value, are higher than the average values that characterize the European Union.

Third conclusion: The research on the competitiveness and efficiency of the industries of the Bulgarian economy shows that there is a higher efficiency in those industries related to the provision of services compared to those that create a product of a material nature. A similar trend is observed in a large part of the member states of the European Union.

Fourth conclusion: In part of the traditional economic industries, there is a decline in efficiency, measured by the value added created by a unit of total output. As for the rest of the industries, there is a slow increase in efficiency and competitiveness.

Fifth conclusion: The Bulgarian economic system, assessed through the selected indicators, shows better results than those of some of the developed economies (Austria, France, Germany, etc.).

Sixth conclusion: Bulgaria fails to achieve the results and pace of development of the economy of Romania, despite the close socio-economic results that characterized both countries upon their accession to the European Union.

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References

Aiginger, K., Bärenthaler-Sieber, S., & Vogel, J. (2013). Competitiveness under New Perspectives (Working Paper No. 44). WWWforEurope Working Paper. https://www.econstor.eu/handle/10419/125699

Blandinières, F. et al. (2017) Measuring Competitiveness, Report for the Directorate-General for Internal Market, Industry, Entrepreneurship and SMEs, European Commission, within the Framework Service Contract "Studies in the Area of European Competitiveness"

Costanza, R., Hart, M., Talberth, J., & Posner, S. (2009). Beyond GDP: The Need for New Measures of Progress. The Pardee Papers. https://pdxscholar.library.pdx.edu/iss_pub/11

Fleurbaey, M. (2009). Beyond GDP: The Quest for a Measure of Social Welfare. Journal of Economic Literature, 47(4), 1029–1075. https://doi.org/10.1257/jel.47.4.1029

Fleurbaey, M., & Blanchet, D. (2013). Beyond GDP: Measuring welfare and assessing sustainability. Oxford University Press

Jones, C. I., & Klenow, P. J. (2016). Beyond GDP? Welfare across Countries and Time. American Economic Review, 106(9), 2426–2457. https://doi.org/10.1257/aer.20110236

Ivanov, Ch., (2014) Development and Improvement of Regional Policy of the European Union, Business Research, Issue 1, ISSN: 2367-9247

WEF (2005). The global competitiveness report 2004-2005 (M. E. Porter, K. Schwab, X. Sala-i Martin, & A. López-Claros, Eds.). Palgrave Macmillan

STRUCTURAL CHANGES AND CONVERGENT PROCESSES OF EMPLOYMENT IN BULGARIA AND ROMANIA

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Abstract:

The report analyzes the structure and convergent processes of employment in the Bulgarian and Romanian economies for the period 2000-2020, and examines the dynamics of relative shares and rates of change for the respective period. In order to quantitatively measure the degree of convergence/divergence, a divergence index and a difference index were calculated, comparisons with other EU countries with similar characteristics were used, and some possible explanations and consequences of the structural changes that took place were also derived. Overall, the results show a slow process of convergence of the sectoral structure of employment of the Bulgarian and Romanian economies with that of the Eurozone, which continues throughout the period, regardless of some specifics before and after the global recession.

Keywords: economic structure, employment structure, structural convergence, sigma convergence, divergence index

JEL: E24, F02, L16, O47

Introduction

Structural changes and convergent processes in the sphere of employment are an important part of the analysis of convergence processes, as one can look for the presence of convergence on multiple indicators characterizing the labor market in an economy. Such an analysis can be used as a complement to nominal and real convergence and serve as further evidence regarding the preparedness of an economy to enter the Eurozone and adopt the single European currency. Furthermore, structural convergence is a factor in real convergence. According to (Costello, et al. 2019) structural convergence contributes to nominal and real convergence in the euro area. For this purpose, the presence of structural convergence is taken into account through the application of sigma convergent analysis regarding the relative share of employed persons and man-hours worked per economic sectors.

Along with monitoring progress in achieving nominal and real convergence, structural convergence should also be monitored, as it is relevant to achieving

synchronization of business cycles for a group of countries and can serve as an indicator of the general level of economic development (Angeloni, 2005).

In a number of studies, evidence has been provided for the influence of structural similarities within the European Union (Beck, 2013) on the synchronization of business cycles (Imbs, 2000), (Imbs, 2014) and for mitigating the asymmetric impact of shocks on economies.

It has been shown that the distribution of employment and structural changes by sector is an important point for the structural analysis and convergence of any economy. Therefore, in this report we will try to trace the emerging trends in this area in the period 2000-2020 for Bulgaria and Romania. By means of such an analysis, the structural similarities and differences in employment can be established, as well as their dynamics for the Bulgarian and Romanian economies in relation to the countries of the Eurozone, and to determine whether they are decreasing or increasing relative to each other. Increasing similarity in the structure of employment is one of the many conditions for the full integration of these economies into the Eurozone.

Employed persons (Gospodinova, 2021) and the time worked by them per sector are often used as structural indicators in research, along with GDP and gross added value. Based on this particular indicator, a number of researchers such as (Doyle & O'Leary, 1999); (Wacziarg, 2004); (Höhenberger & Schmiedeberg, 2008); (Naveed & Ahmad, 2016) etc. measure structural changes in economies and bring them out as one of the conditions for achieving structural convergence. One of the first authors of the concept of structural convergence (Wacziarg, 2004) relates it precisely to the similarities of the sectoral structure of economies, measured by the bilateral correlation of the sectoral structure of the workforce.

Structural convergence occurs when there is a convergence over time of the economic structure between two or more countries. For this to happen, it is necessary to have structural changes in these economies. Not all structural changes lead to convergent processes, as both the direction and the type of changes matter. Structural differences in basic economic indicators have a significant impact on the degree of resilience of economies to external and internal shocks, as well as on their growth potential.

Attention to structural convergence is increasing as it has been shown to influence the synchronization of business cycles and also to reduce the asymmetric impact of shocks on the economy. This is of particular importance for such a community as the EU and, in particular, the monetary union within it, and it is also an additional assessment of the preparedness of the Bulgarian and Romanian economies to accept the single European currency.

The purpose of the report is to outline the trends in the structural changes of employment in the economic sectors of Bulgaria, Romania and the Eurozone in the period 2000-2020, as well as to point out the similarities and differences between them based on these indicators. This is important, because the reduction

of the differences between Bulgaria and Romania in relation to the Eurozone is one of the conditions for their integration into the Monetary Union and one of the necessary evaluations of the preparedness of these economies to join the Eurozone.

In the analysis of employment in this report, the indicators employed persons and man-hours worked are used. Man-hours worked has a higher informative value than persons employed, as it takes into account also the part-time employed and the self-employed, but we will nevertheless use both indicators in order to see if this will actually distort the trends, or they will be valid for both indicators in general.

The analysis covers the period from 2000 to 2020. It is long enough to follow the situation before the accession of Bulgaria and Romania to the EU, and also to take into account the changes in employment that occurred after that.

With regard to the sectoral structure of the economy, the dominant view is that the economy is developed if the share of the service sector is predominant, and that of agriculture holds the smallest possible share in production and employment (Chenery & Taylor, 1968).

In Bulgaria and Romania structural changes begin well before the countries join the EU. Following their membership, these changes continue and naturally reach the moment when the distribution of labor resources within them per economic sectors correspond to the respective characteristic of developed economies, namely the share of employed in the service sector prevail, followed by industry and agriculture. These changes are of essential importance for their structural convergence and for their successful integration into the Eurozone, since at the beginning of the period under review, large differences are observed for Bulgaria and Romania compared to the Eurozone in terms of the relative share of employment in the economic sectors. This holds true for the initial year of their EU membership as well.

Table 1: Relative share of the employed in agriculture in Bulgaria, Romania and the Eurozone

Years	Bulgaria	Romania	The Eurozone
2000	24,09	44,90	4,66
2001	23,90	44,33	4,53
2002	23,74	35,59	4,42
2003	22,88	36,95	4,31
2004	22,13	33,62	4,14
2005	21,24	33,95	4,01
2006	20,28	32,23	3,87
2007	19,42	31,67	3,69

2008	19,31	31,07	3,56
2009	19,65	31,30	3,55
2010	19,71	32,31	3,54
2011	19,56	30,19	3,48
2012	18,88	30,65	3,45
2013	19,18	30,24	3,42
2014	19,41	29,28	3,39
2015	18,83	26,40	3,33
2016	18,05	23,84	3,27
2017	18,86	23,35	3,21
2018	17,73	23,30	3,15
2019	16,89	22,29	3,03
2020	17,26	21,44	3,01

Source: author's calculations based on Eurostat database

In the agricultural sector, there are significant differences in the relative shares of the Eurozone and countries such as Bulgaria and Romania, where the share of people employed in this sector is quite high. And although in Bulgaria and Romania the relative share decreases with each subsequent year, it is still quite high compared to that of the Eurozone - for Bulgaria more than 5 times, for Romania more than 7 times. For the Eurozone, this share is persistently low - around 3-4% for the studied period, while for Bulgaria and Romania it is steadily decreasing, but still at high levels.

In absolute value, the difference in the relative shares is very large - for Bulgaria 14.25%, and for Romania - 18.43%. For Bulgaria, for the entire period considered, the share decreases from 24.09% to 17.26%, i.e. by nearly 7%, and for Romania the decrease is even greater, but the share, too, is much larger - from 44.9% to 21.44%, i.e. nearly 23.5% reduction.

During the entire period in consideration, Bulgaria has a characteristic economic structure of employment typical of developed economies - with the largest share of those employed in the service sector, followed by industry, and finally with the smallest share is the agriculture, forestry and fisheries sector. For the considered period, there are significant structural changes in the country, starting even before the beginning of the period under review and before the accession of Bulgaria to the EU, which, however, are overdue compared to the old member states. Along with the achievement of nominal and real convergence, these structural changes are also important for the country‘s integration into the Eurozone.

When comparing the relative shares of employed persons per economic activities at the beginning and end of the considered period, significant differences are noticeable.

In the sectors of agriculture, forestry and fisheries and in industry, the shares are higher than in the euro area, both at the beginning and at the end of the considered period, while in the services sector and in construction the trend is opposite.

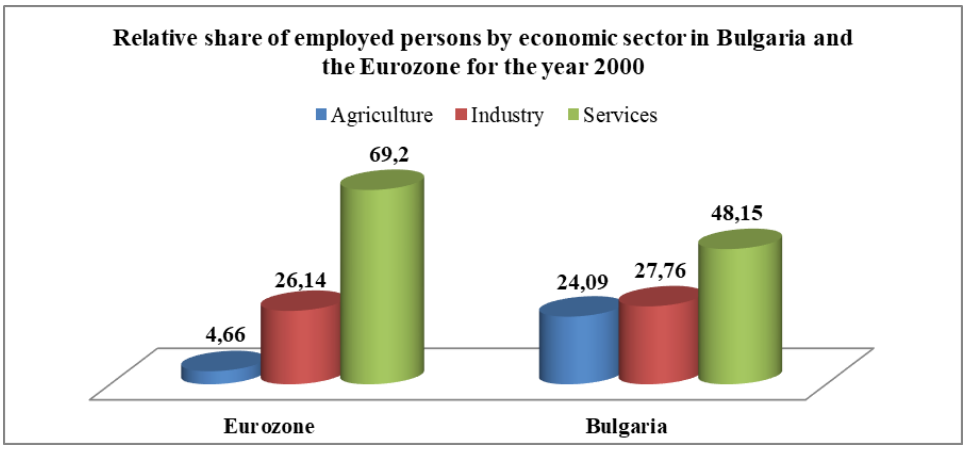

Figure 1. Relative share of employed persons by economic sector in Bulgaria and the Eurozone for the year 2000

Source: author's calculations based on Eurostat database

The biggest differences in the relative shares of employed persons are for agriculture - at the beginning of the period - 19.43%, at the end of the period - 14.25% and for services - at the beginning of the period - 21.05%, at the end of the period – 18.72% (fig. 1 and 2). Data for the industry sector, including construction, show a high degree of convergence of relative shares with those of the euro area, while for the other two sectors the degree is lower.

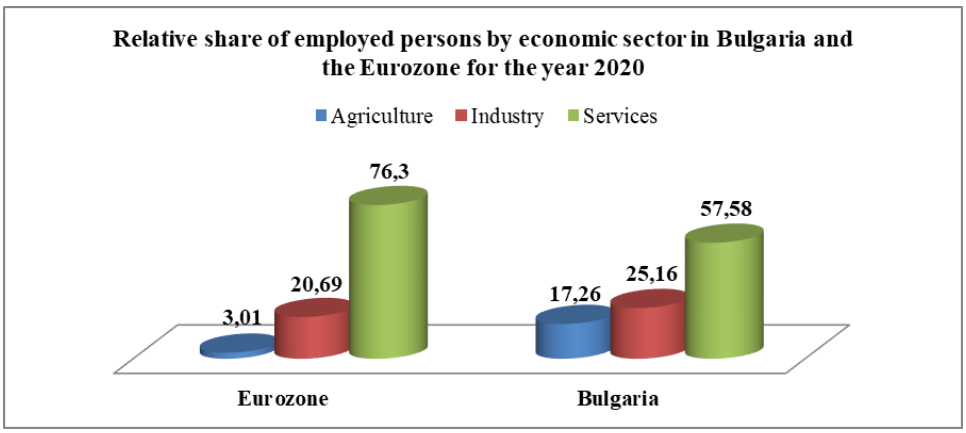

Figure 2. Relative share of employed persons by economic sector in Bulgaria and the Eurozone for 2020

Source: author's calculations based on Eurostat database

Compared to the beginning of the period, employment in Bulgaria is growing, both in terms of employed persons and man-hours worked. The rate of change of employed persons in our country is lower than that of the Eurozone, but the opposite is true for man-hours worked. What's more, for the period considered, Bulgaria recorded the highest growth rate of man-hours worked – 4.26%, compared to all other observed countries. In Latvia and Romania, compared to the year 2000, there is a decline, both in employed persons and in man-hours worked, and in Romania the declines are over 20%.

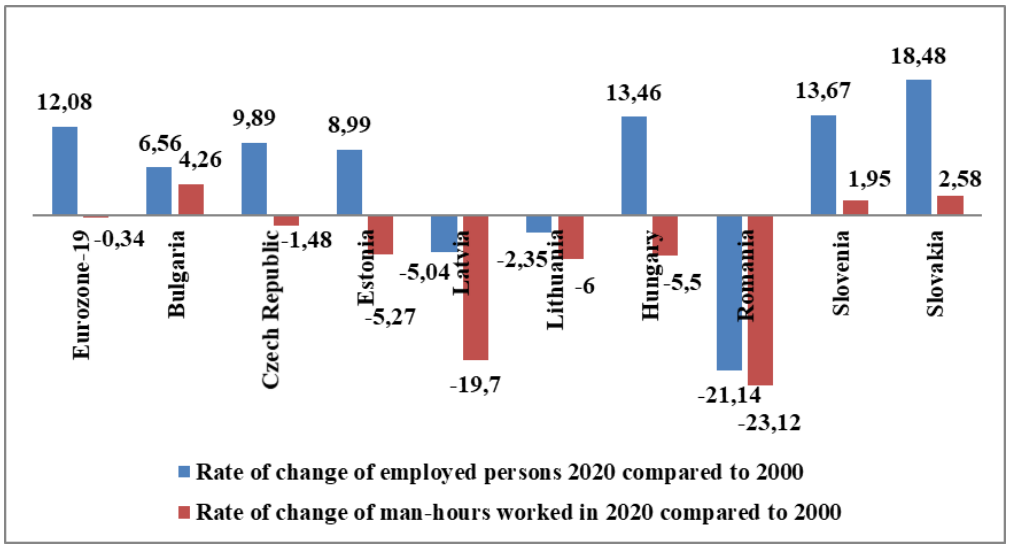

Figure 3. Employed persons, man-hours worked and their rates of change in CEE and Eurozone countries

Source: author's calculations based on Eurostat database

The reported trend for Bulgaria compared to the beginning of 2000 is not typical for the entire period under consideration. In the years of the global crisis, and in 2018, there were declines in these indicators, and if we look at the indicators for 2020 compared to 2019, we can see that there is also a decline, which is mainly due to the Covid crisis. The declines in the years after the global economic crisis on these indicators cannot yet be compensated and reach their pre-crisis values. This is because the labor market recovery process is much longer. There is also an additional delay due to the crisis that has occurred in recent years as a result of the corona virus. Lithuania, Latvia and Slovenia are also in Bulgaria's position, while the Czech Republic, Estonia, Hungary, Romania and Slovakia have managed to reach and surpass this indicator in terms of value.

Table 2: Employed persons in the countries during the global economic crisis and at the end of the period considered

Countries	2008	2009	2019	2020
Eurozone - 19 countries	153 926,87	151 035,41	160 842,09	158 378,22
Bulgaria	3 814,65	3 749,30	3 533,58	3 451,74
Czech Republic	5 204,08	5 110,10	5 430,34	5 340,17
Estonia	642,10	576,60	655,60	637,90
Latvia	4 856,36	4 829,00	4 691,10	4 633,23
Lithuania	1 055,07	903,72	898,06	877,08
Hungary	1 427,64	1 318,45	1 388,54	1 366,79
Romania	4 052,19	3 975,63	4 715,24	4 669,79
Slovenia	9 359,13	9 017,12	8 649,50	8 494,90
Slovakia	1 000,53	984,07	1 045,94	1 039,78

Source: author's calculations based on Eurostat database

For the period under review, similar structural changes were also observed in man-hours worked by sector. In 2020, there is an increase in the relative share of man-hours worked in the services sector, both in the Eurozone and in Bulgaria and Romania, and a corresponding decrease in the indicator in the other two sectors - industry and agriculture compared to 2000. In 2020, for the Eurozone, compared to Bulgaria and Romania, a higher share of man-hours worked in the services sector and a lower share for the other two sectors is observed.

Table 3: Relative share of man-hours worked by economic sector for Bulgaria, Romania and the Eurozone in 2000 and 2020

	Agriculture		Industry		Services	
	2000	2020	2000	2020	2000	2020
Eurozone	6,28	4,30	27,17	21,9	66,55	73,80
Bulgaria	21,10	15,7	28,54	25,93	50,36	58,37
Romania	42,17	17,5	28,06	31,08	29,77	51,42

Source: author's calculations based on Eurostat database

At the beginning of the period, the relative share of man-hours worked for agriculture was significantly higher: for Bulgaria - 21.1%, for Romania - 42.17%, that of the Eurozone - 6.28%. For 20 years, the rate of its reduction and convergence to that of the Eurozone is lower for Bulgaria and significantly higher for Romania. This trend gives ground to claim that there is rather a divergent process for the two economies as compared to the average level for the Eurozone in this sector.

Using the following formula, an estimate can be made of the years needed to reach the average level in the relative share of man-hours worked by sector specific to the euro area.

$$\text{Years of Convergence} = \frac{RSE_{EZ} - RSE_X{}^{t1}}{\sqrt[n]{\frac{RSE_X{}^{t1}}{RSE_X{}^{t0}}} .100 - 100} \quad (1)$$

where $RSE_X{}^{t1}$ is the relative share for the respective country at the end of the considered period t_1, $RSE_X\ t_0$ is the relative share for the respective country at the beginning of the considered period t_0, and RSE_{EZ} is the relative share for the Eurozone at the end of the period, $n=t_1 - t_0$.

The denominator of this formula shows the average annual rate of change in the relative share of the considered indicator and thanks to it, the years needed to achieve convergence are established. Specifically for the man-hours worked by sector for Bulgaria and Romania, the calculated values of the years that are needed are as follows (see table 4).

Table 4: Years of convergence in terms of man-hours worked for Bulgaria and Romania by sector

	Bulgaria			**Romania**		
	Agriculture	**Industry**	**Services**	**Agriculture**	**Industry**	**Services**
Years of convergence	7,77~8	8,4	20,85	3	18	8

Source: author's calculations

On average, more than 12 years are needed for Bulgaria to reach the values of the Eurozone, and for Romania, since the rates of change are greater there, and for the three sectors, the years are less - nearly 10 years.

In order to establish more precisely the structural convergence between Bulgaria, Romania and the Eurozone, we will apply the index of divergence (I_{DIV}) and the index of dissimilarity (I_{DISSIM}). The divergence index was originally introduced by Krugman (1993), and then in a modified version it was used in a number of other studies (Percoco et. al. (2005), Stattev, Raleva (2006), Kallioras, Petrakos, (2011), etc.). With the help of these indices, the differences between two countries on certain indicators are measured, and the greater their absolute value, the greater the deviations. They are widely used to establish structural differences, and according to (Von Hagen & Traistaru, 2006) structural convergence is best calculated by a dissimilarity index. The indicated indices are calculated according to the following formulas:

Divergence index $$I_{DIV} = -\Sigma \frac{(RSE_x - RSE_{EZ})^2}{RSE_{EZ}} \quad (2)$$

Dissimilarity index $$I_{DISSIM} = -\Sigma \left| RSE_x - RSE_{EZ} \right| \quad (3)$$

where RSE_X is the relative share for the respective country and RSE_{EZ} is the relative share for the Eurozone.

Table 5: Divergence index for Bulgaria and Romania by sector compared to the Eurozone

	Agriculture		Industry		Services	
	2000	**2020**	**2000**	**2020**	**2000**	**2020**
Bulgaria	-5,57	-7,03	-0,0504	-0,034	-0,059	-0,044
Romania	-32,66	-9,42	-0,0011	-0,176	-0,553	-0,092

Source: author's calculations based on Eurostat database

What is noticeable for the period under review is the higher relative share of employment in Bulgaria and Romania compared to that of the Eurozone, which is valid both at the beginning and at the end of the period under review and is indicative of the absence of convergence with respect to this indicator for both countries. It should be noted that the differences are smaller for Bulgaria and larger for Romania.

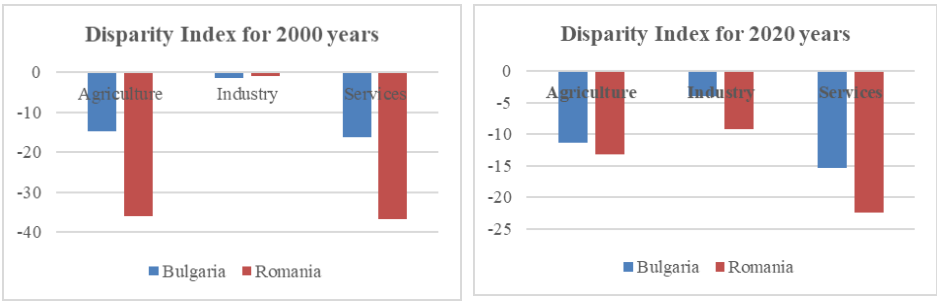

Figure 4. Disparity Index for 2000 and 2020 years for Bulgaria and Romania

Source: author's calculations based on Eurostat database

Only in the services sector there is an increase in the relative share of employment, both for Bulgaria and Romania, and for the Eurozone as a whole. The growth rate of the relative share of employment in this sector is the highest for Romania, followed by Bulgaria and the Eurozone. These trends suggest the presence of minor convergent processes.

Table 6: Rates of change in the relative share of employment by sector

	Rate of change of the relative share of employment 2020/2000 in:		
	Agriculture	**Industry**	**Services**
Eurozone	-31,5	-19,4	10,9
Bulgaria	-25,6	-9,15	15,9
Romania	-58,5	10,8	72,7

Source: author's calculations based on Eurostat database

Another characteristic of the structural changes in the service sector is that here the highest absolute differences between the shares of the employed in Bulgaria and Romania compared to those in the Eurozone are reported throughout the entire period under review.

Conclusions

The presented data show that throughout the period the relative shares of both employed persons and man-hours worked do not show significant dynamics for Bulgaria and Romania, and for this reason there are no significant convergent processes on these indicators for both countries compared to the Eurozone, which hinders the structural convergence, and hence the real and nominal convergence. The results ultimately show a slow process of convergence of the sectoral structure of employment for the Bulgarian and Romanian economies with that of the Eurozone. This process continues throughout the considered period, regardless of some specifics before and after the global recession.

Under these conditions, the convergence of the studied economies will depend on their internal growth drivers and on the elimination of their structural weaknesses, which is not necessarily related to differences in the sectoral structure, but rather to the efficiency of individual sectors and their competitiveness.

Appropriate policies are still being sought to speed up the convergence between the countries, highlighting the main obstacles, structural problems and challenges facing the Bulgarian and Romanian economies that prevent convergence. Accordingly, the study of structural convergence according to a number of indicators can serve as a good basis for developing and implementing a policy to accelerate convergence and integration processes in the EU. A number of economic shocks caused by the dynamics of the business cycle, by natural phenomena or by the Covid 19 pandemic lead to a decrease in socio-economic convergence and show the lack of adequate mechanisms for recovery and development. The analysis made leads us to the conclusion that the implemented general economic policy does not significantly support the convergence of these indicators for the Bulgarian and Romanian economies. This is because it ignores the specifics of

these two economies, the traditions and natural conditions in them, and focuses more on club convergence within the Eurozone. A major factor for the instability of the convergence of these two economies is that the heterogeneity between the countries is not taken into account in the community policy, while mechanisms that further deepen the differences are used instead. The same can be said about the European and national policies carried out via the European structural and cohesion funds, which did not significantly support convergence and did not have a sufficiently effective influence in this direction.

References

Gospodinova, S. (2021). The service sector and the restructuring of the Bulgarian economy, Varna, vol. 11, Knowledge and Business, 219 p.

Angeloni, Ignazio and Flad, Michael and Mongelli, Francesco Paolo, Economic and Monetary Integration of the New Member States: Helping to Chart the Route (September 2005). ECB Occasional Paper No. 36, Available at SSRN: https://ssrn.com/abstract=807409 or http://dx.doi.org/10.2139/ssrn.807409

Beck, K. (2013). Structural Similarity as a Determinant of Business Cycle Synchronization in the European Union: A Robust Analysis. RESEARCH IN ECONOMICS AND BUSINESS: CENTRAL AND EASTERN EUROPE, Vol. 5, Issue 2, pp. 31-54.

Chenery, H.B. & Taylor, L.J. (1968). Development Patterns among Countries and over time. Review of Economics and Statistics, 50, pp. 391-416. http://doi.org/10.2307/1926806

Costelo, D., Eriksgard, A. and Hallet, M. (2019). Germany and France: The case for structural convergence in the euro area, VOX CEPR Policy Portal. http://voxeu.org/article/germany-and-france-case-structural-convergence-euro-area

Doyle & O'Leary (1999),"The role of structural change in labour productivity convergence among European Union countries: 1970-1990", Journal of Economic Studies, Vol. 26 Issue 2 p. 106 – 122. Available from: https://www.researchgate.net/publication/46546384_The_role_of_structural_change_in_labour_productivity_convergence_among_European_Union_countries_1970-1990 [accessed Jul 05 2022].

Höhenberger N. & Schmiedeberg, C. (2008). Structural Convergence of European Countries, center for European. Governance and economic development research, discussion papers. No. 75, July. CeGE Discussion Paper, Retreived from: https://www.econstor.eu/handle/10419/32002

Imbs, J. (2000). Sectors and the OECD Business Cycle. CEPR Discussion Papers № 2473.

Imbs, J. (2014). "Structural Change in the OECD: Some Facts," Université Paris Panthéon-Sorbonne (Post-Print and Working Papers) hal-00970512, HAL.

Krugman, P. (1993) “Lessons of Massachusetts for EMU”, in F. Torres and F. Giavazzi (eds.) Adjustment and Growth in the European Monetary Union, Cambridge: Cambridge University Press., p. 241-260.

Naveed, A. & Ahmad, N. (2016). Labour productivity convergence and structural changes: simultaneous analysis at country, regional and industry levels, *Journal of Economic Structures,* Vol. 5, p. 1-17.

Percoco et. al. (2005). Structural Convergence of the National Economies of Europe, MPRA Paper No. 1380, posted 07. November 2007, p. 25. https://www.researchgate.net/deref/http%3A%2F%2Fmpra.ub.uni-muenchen.de%2F1380%2F

Petrakos, G., Kallioras, D., Anagnostou, A. (2011). Regional convergence and growth in Europe: understanding patterns and determinants - European Urban and Regional Studies, Volume 18, Issue 4, p. 375-391.

Statev S. & Raleva, S. (2006). Bulgarian GDP structures – convergence with the EU, South-Eastern Europe Journal of Economics, 2, p. 193-207.

Von Hagen, J. & Traistaru, I. (2006). Macroeconomic Adjustment in the New EU Member States. Working Paper, Center for European Integration Studies, University of Bonn.

Wacziarg, R. (2004). Structural convergence. Manuscript, Stanford University, CDDRL Working Paper No 8. Retrieved from http://cddrl.fsi.stanford.edu/.

https://ec.europa.eu/eurostat

EXPORT-ORIENTED SMES IN DYNAMIC INTERNATIONAL CONDITIONS: KEY ASPECTS

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Abstract

International markets offer different possibilities to small and medium enterprises (SMEs) as well as require careful preparation. This paper strives to bridge theory and practice when it comes to informed decision-making for export. The focus is on important obligations and opportunities that the management should be aware of as they adjust their strategies and approaches for the diverse conditions across national borders. Emphasis is placed on the importance of gaining better understating of three concepts that have high practical value, while targeting foreign markets. This contribution can be thought-provoking in the context of the research of SMEs as well as of export.

Key words: European Union, small and medium enterprises, tariffs, quotas

JEL: F, M

Introduction

Exporting has raised concerns for many companies in recent years as it requires taking into consideration the factors of the business environment (on the national level and across borders) and the specifics of the firm. Key developments on the international markets following the spread of Covid-19 have exposed the vulnerability of some business entities, engaged in international affairs, in particular small and medium enterprises.

Amidst the consequences of the pandemic and the changes in the macroeconomic indicators (UN 2020, WTO 2020, 2021, UNDESA 2021), there are indications that export-oriented small and medium enterprises (SMEs) need guidance. During the work for Project NI 8/2020 focused on the digitalization and internationalization of Bulgarian SMEs, companies have raised questions about current challenges and the need for support. Part of their concerns are linked to the new framework after Brexit. Fundamental queries have been expressed about tariffs

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and quotas. There are analyses that explored in advance different scenarios about the commercial relations between the EU and UK (such as Dhingra, Ottaviano & Sampson (2017), Lydgate, Rollo & Wilkinson (2016), however as the Trade and Cooperation Agreement (TCA) between the European Union and the United Kingdom of Great Britain and Northern Ireland has entered into force, more research is needed with reference to the concrete parameters of the signed deal and its application in practice.

The goal of this paper is to explore important issues for export-oriented SMEs and enhance clarity for the applicable obligations. To fulfil this objective, the following tasks are set. The first is to review significant aspects about tariffs in international trade in the context of the different options. The second is to discuss quotas and their potential influence. The third task is to elaborate on the specifics of the rules of origin, impacting trade flows, and the consequences for small firms. The methodological approach of this paper includes the review of the documents that set the rules for export after Brexit along with literature analysis. The focus is on the Trade and Cooperation Agreement (TCA) between the European Union and the United Kingdom of Great Britain and Northern Ireland, structured in 7 parts and annexes and encompassing several hundred pages.

The thesis highlights that there are trade-facilitating aspects of the TCA that are favourable for exporters and importers on both sides of the English channel, but there are also differences compared to full participation in the EU internal market, for which companies should prepare and accordingly adapt their strategies.

Key limitations of the study must be mentioned. The focus is on trade with goods, not services, as they have distinct features. The macroeconomic effects of the withdrawal of the European integration model are left beyond the scope of this paper. The influence on the structure and volume of the overall trade flows between the EU and UK will not be discussed, as it requires data that is still limited.

It should be said that Brexit is not the only factor for the commerce between the enterprises on both sides of the English Channel. The spread of the COVID-19, the economic situation in different sectors, the conclusion of trade agreements with third parties, the changes in the consumer preferences are relevant in this respect, but they will not be analysed.

The practical significance of this study is mainly restricted to the small and medium enterprises, interested in the trade between the EU and UK. It might be useful to some expend to EU firms reflecting on trading with partners from non-EU states, especially if they are governed by similar provisions, by increasing awareness about export requirements.

These limitations are justifiable by the need to provide targeted guidance to the business, especially smaller entities with scarce assets in the pandemic conditions and possibly narrow expertise in foreign commercial affairs.

Such analysis could be beneficial for SMEs, especially if they lack knowledge in international economic relations. It highlights main obligations and opportunities

that companies have as they adapt their strategies for the new international conditions.

Provisions concerning tariffs and quotas

Tariffs and quotas are powerful instruments for international trade policies, from which the EU and the UK have refrained in the TCA, as long as the preconditions are met. Thus the basic framework for trade resembles the situation prior to the withdrawal, at least with relevance to those two parameters. This was not the only option, discussed since the referendum (Hix (2018), Holmes, Rollo, & Winters (2016), Lydgate, Rollo, & Wilkinson (2016), Sampson (2017), O'Neill (2018). The deliberations in different fora for the consequences of the withdrawal of the internal market included diverse scenarios: leaving without a preferential agreement, the possibility of implementing WTO rules, a multitude of bilateral agreements, UK joining the European Economic Area or forms of arrangements between the EU and UK with varying provisions in terms of trade with goods and services. Dhingra, Ottaviano, Sampson and Reenen (2016) analyse the consequences of Brexit for UK trade and distinguish between "optimistic" and "pessimistic" scenarios, in which EU member states and the UK lose income after Brexit. Dhingra et al (2016, p.12) highlight that after including "the long-run effects of Brexit on productivity, the decline in income increases to between 6.3% and 9.5% (about £4,200 to £6,400 per household per year)".

The provisions of the TCA can facilitate trade, compared to other scenarios without trade agreement. It is significant because of the volume and value of the trade between UK and EU in the past decades. It is particularly helpful for small and medium enterprises, as it provides clarity compared to the uncertainty prior to the final decision.

The deal between the EU and UK for tariff-free trade is a strategic factor, promoting trade across the English Channel and reducing the negative effects of Brexit for exporters and importers. Another essential aspect is that the TCA excludes quantity restrictions for trade in goods. A few remarks need to be made. The subject has been discussed by different authors for many years (for example Hoshino, E., van Putten, I., Pascoe, S., & Vieira, S. (2020), Pouliot, S., & Larue, B. (2012), Hansen, J., & Sala, D. (2013), Nilsson, L. (2011), Mittal, S. (2018), Hillen, J. (2019). Although quotas are not linked to direct payment of fees, they can have detrimental effect for trade that is even more difficult to overcome. If there have been some restrictions on the quantities, it could hamper exports. When tariffs are imposed, they still leave the option for increasing efficiency in the production and counterbalancing the additional costs. It will require time for adaptation and constructive management solutions, but there is at least the chance for companies to take actions and tackle the unfavourable conditions. When quotas are imposed, hardly anything could be done. Applying the rule "first come, first served" could have burdened disproportionately some exporters and industries.

It is interesting to explore the specifics that accompany the provisions for tariff-free trade and no quantity restrictions, compared to the rules applicable to the EU internal market, as there are indications that trade flows are changing with reference to the new legal framework. According to a survey of BCC (2021), 49% of enterprises exporting goods have challenges in adjusting to the new rules after the TCA has entered into force.

Proof of origin

The preferential conditions for trade between the EU and UK (namely the lack of tariffs and quotas) from 2021 is subject to compliance with the so called "rules of origin". It is where the matter begins to look more complex for EU-UK commerce for three reasons. First, complexity is increased because the requirements are different for numerous types of goods and the allowed percentages vary. Second, with reference to the international value chains - it could mean that those companies that have been more successful in developing global value chains, now might be in a less advantageous position, as they could face challenges to qualify according to the rules of origin. Third, all companies need to make a few steps to determine whether they can fulfil the requirements and then to actually take advantage of the preferential treatment. This is particularly difficult for smaller enterprises, which have limited resources.

The significance of the rules of origin in international commerce has long been analysed. Taking a multidisciplinary perspective, Inama (2009) gives an overview with reference to the WTO Agreement on Rules of Origin. Brenton and Manchin (2003) analyse the role of rules of origin within EU trade agreements, highlighting the impact upon patterns of trade. Using an augmented gravity model, Augier, Gasiorek and Lai Tong (2005) conclude that such rules in free trade agreements (FTAs) have greater impact on intermediate than manufacturing goods. Jitsuya (2021) analyses the standardization of complex and diversified preferential rules of origin.

Beyond the impact for trade flows in general, the practical implications for companies are essential. The assessment of the goods for the preferential treatment distinguishes between several scenarios, from goods that are produced exclusively in the territory of one country (for example minerals) through substantially transformed goods to minimal changes. The requirements are sector specific, which on the one hand allows for diversified approach and the stimulation of specific production processes, on the other raises some questions about the classification of goods within certain categories.

After the Trade and Cooperation Agreement between the EU and UK, therefore, enterprises can take advantage of the commerce-facilitating aspects of the TCA and need to modify accordingly their approach, possibly also their division of labour across different countries within and outside of the EU.

Conclusion

The main findings of this study highlight that the new framework for trade that has been negotiated between the EU and UK provides firms with enhanced options for commerce, compared to third parties or other possible scenarios, but is still less favourable than the participation in the internal market. The EU small and medium enterprises exporting to or importing from the UK can take advantage of the new provisions, but they also need to adjust their strategies to the changes in the international environment, influenced by Brexit amidst COVID-19 and other impact factors. Therefore, the results of the study allow to confirm the thesis.

The practical implications for the business mean that it can use the preferential treatment for trade between the EU and UK, but this is not unconditional. Enterprises need to be aware of the rules of origin to check if they qualify for tariff-free trade and no-quantity restrictions and file the appropriate documentation.

The practice-oriented approach in this paper supports enhancing clarity about tariffs and quotas for small and medium enterprises from the EU and the UK. The main findings contribute towards solving some of their challenges, associated with the new phase of the economic relations between the EU and UK, and answer key questions for their rights and obligations after the Trade and Cooperation Agreement is in force.

Considering the precision needed to export goods, small and medium enterprises need to devote more time and be aware of more aspects than before. If firms have prior experience in the trade with third countries, it will be easier for them in comparison to those who have only exported to and from EU member states. But even in such more favourable cases, companies needs to fine-tune their strategic goals and tasks as well as to reflect carefully on new possibilities and obligations. The paper could be thought-provoking not only in the context of SMEs, but also for all with interest in international economic relations.

References

Augier, P., Gasiorek, M., & Lai Tong, C. (2005). The impact of rules of origin on trade flows. Economic Policy, 20(43), 568-624.

BCC (2021) British Chambers of Commerce Survey on Brexit, Publisher: British Chamber of Commerce, https://www.britishchambers.org.uk/news/2021/02/bcc-brexit-survey-half-of-uk-exporters-report-difficulties-adapting-to-changes-relating-to-eu-uk-goods-trade

Brenton, P., & Manchin, M. (2003). Making EU trade agreements work: the role of rules of origin. World Economy, 26(5), 755-769.

Dhingra, S., Ottaviano, G. I., Sampson, T., & Reenen, J. V. (2016). The consequences of Brexit for UK trade and living standards. Publisher: Centre for Economic Performance, LSE

Dhingra, S., Ottaviano, G., & Sampson, T. (2017). A hitch-hiker's guide to post-Brexit trade negotiations: options and principles. Oxford Review of Economic Policy, 33(suppl_1), S22-S30.
Hansen, J., & Sala, D. (2013). On the equivalence of tariffs and quotas for customs unions. Discussion Papers on Business and Economics, (11).
Hillen, J. (2019). Market integration and market efficiency under seasonal tariff rate quotas. Journal of Agricultural Economics, 70(3), 859-873.
Hix, S. (2018) Brexit: where is the EU–UK relationship heading? Journal of Common Market Studies, 56, 11. ISSN 0021-9886
Holmes, P., Rollo, J., & Winters, L. A. (2016). Negotiating the UK's post-Brexit trade arrangements. National Institute Economic Review, 238, R22-R30.
Hoshino, E., van Putten, I., Pascoe, S., & Vieira, S. (2020). Individual transferable quotas in achieving multiple objectives of fisheries management. Marine Policy, 113, 103744.
Inama, S. (2009). Rules of origin in international trade. Cambridge University Press.
Jitsuya, H. (2021). Standardization of Complex and Diversified Preferential Rules of Origin. Journal of World Trade, 55(4).
Lydgate, E. B., Rollo, J., & Wilkinson, R. (2016). The UK trade landscape after Brexit. Royal Institute of International Affairs, Chatham House.
Mittal, S. (2018). International trade barriers. International Journal of Research and Analytical Reviews (IJRAR), 5(4), 541-547.
Nilsson, L. (2011). Principles of EU Imports, Tariffs, and Tariff Regimes. Journal of World Trade, 45(4).
O'Neill, A. (2018). After Brexit: Future trade relations between the UK and the European Union. In ERA Forum, Vol. 18, No. 4, pp. 547-579. Springer Berlin Heidelberg.
Pouliot, S., & Larue, B. (2012). Import sensitive products and perverse tariff-rate quota liberalization. Canadian Journal of Economics/Revue canadienne d'économique, 45(3), 903-924.
Trade and Cooperation Agreement between the European Union and the European Atomic Energy Community, of the One Part, and the United Kingdom of Great Britain and Northern Ireland, of the Other Part, OJ L 444, 31.12.2020, p. 14–1462
Trade and Cooperation Agreement between the European Union and the European Atomic Energy Community, of the one part, and the United Kingdom of Great Britain and Northern Ireland, of the other part. OJ L 149, 30.4.2021, p. 10–2539
UN (2020) World Economic Situation And Prospects: September 2020 Briefing, No. 141 https://www.un.org/development/desa/dpad/publication/world-economic-situation-and-prospects-september-2020-briefing-no-141
UNDESA (2021) World Economic Situation and Prospects 2021, Publisher: UN, ISBN: 9789210054980

World Trade Organization (WTO) (2020) World Trade Statistical Review 2020, Publisher: WTO, ISBN: 9287050325
World Trade Organization (WTO) (2021) World Trade Statistical Review 2021, Publisher: WTO, ISBN: 978-92-870-5148-6

PROCESS AND PRODUCT INNOVATIONS AS MARKETING STRATEGY TOOLS OF ORGANIZATIONS

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Abstract

In the last few decades, the world industry has witnessed a turbulent development due to new technologies, leading even to the creation of new types of entrepreneurship. The purpose of this report is to discover the importance of innovative activities as an element of the organization's marketing strategy for successful and sustainable development. The report provides a brief literature review of the main concepts applied in practice in the organization: innovation, product innovation and process innovation. In addition to clarifying the meaning of these concepts, the author also aims to highlight the effect of adding value to already existing products or services in order to improve company productivity and competitiveness. Based on a survey conducted on 150 enterprises in South-Eastern Bulgaria, the research seeks to shed light on what is the attitude of management towards the process and product innovation base and the degree of their positive impact on the strategic company on the innovation focus process.

Key words: marketing strategy, innovation process, product innovation

JEL: M11

Introduction

The issues related to the various possibilities for increasing the efficiency of the enterprises, their diversification and the possibilities of achieving uniqueness in relation to the produced goods and services are particularly relevant these days in relation to all spheres of industry. According to the concept - project Law on Innovations (2022)[1] (Art. 1, Para. 4) in Bulgaria, innovations have a strategic importance for ensuring intelligent growth of the economy; increasing the competitiveness of enterprises; overcoming the negative consequences of climate change, resource scarcity and demographic changes; ensuring and developing effective links between education, science and business to meet the needs of society; job creation. There (Art. 1, paragraph 2) innovation is defines as "the introduction into use of some new or significantly improved product (goods or service) or production process, of a new marketing method or of a new organizational method in

[1] https://www.mi.government.bg/files/useruploads/files/vop/inovation.pdf

commercial practice, the organization of workplaces or external connections that create market advantages and thereby increase the competitiveness of companies", and (Art. 1, paragraph (3)) defines that innovations are product, process (production), marketing and organizational, related to the activity of the national innovation system, including innovative enterprises, small start-ups, innovative clusters, technology parks, business incubators for innovative enterprises, etc., and with the use of highly qualified personnel.

Literature review

For decades, the topic of innovations has excited a number of individuals who study them from a scientific point of view and, at the same time, the dynamics of economic processes and require their close connection with the problems of innovative and entrepreneurial activity of enterprises. A number of leading researchers, representatives of the major innovation schools, namely Oxford, Harvard, Stanford, with authors: Joseph Schumpeter, Peter Drucker, Peter Zemsky, Clayton Christensen, Paul Geroski and others explore the way in which the concepts of innovation and entrepreneurship are interpreted by the perceived in the postmodern era. In the mid-20th century, the Austrian economist Joseph Schumpeter coined the term "creative destruction", referring to the idea of small businesses born from the bottom of the market that create cheaper, faster, more efficient new products, services, processes and business models that threaten large corporations. At the basis of his economic theory is the idea of innovation. And the practice of innovation is called entrepreneurship. In his highly politicized theory, Schumpeter is highly focused on economics as a struggle between economic systems and political ideologies. Where he declares that only "innovation produces prosperity", which is the solution to the struggle for supremacy between the ideologies of capitalism and communism, and the exhaustion of capitalism. Capitalism's unique advantages of productivity and growth are the result of "creative destruction" following the path of these two essential drivers of technological progress. Schumpeter defines that "the creation of innovations is the only function that is fundamental in history". (Schumpeter, 1942)

Paul Geroski (Geroski, 2003) and Clayton Christensen (Christensen,1997) consider that no technology is disruptive itself, first, because of the way it develops (evolves) and second, because it is its application in a certain way, combined with a number of organizational and market factors, that determine the degree, in which the emergence of new technologies can have a disruptively creative effect. According to Peter F. Drucker (Drucker, 1954), a business should have one primary purpose and that is: "to create a customer" and to accomplish this through the core functions of innovation and marketing. In this way, by using innovations and competencies (skills and knowledge in both technical systems and management systems) of the organization together with innovation processes, companies could

reach new or different market opportunities that, if successful in the market, would bring enormous value to the company.

Marketing refers to this process of innovation as the "bypass attack strategy", which is an offensive marketing strategy where the competitor is simply bypassed. Such an approach is very different compared to a direct attack on the competitor (the "enemy"). With him, direct competition is absent, as the company strives to swim in a "blue ocean" - entering an unexplored market space and looking for radical diversification through a completely new product. A classic example of a bypass attack is the competition between Apple's iPod and Sony's Walkman. The iPod simply bypassed the market leader, the popular Walkman cassette player, by offering consumers a completely different technology-based music listening product that stored music in digital MP3 format. A bypass marketing strategy is suitable for smaller companies competing with much larger and stronger opponents, but it is not easy to execute. To be implemented effectively, it requires major diversification or sensitive innovation, which in turn may require significant investment

Schumpeter (Schumpeter, 1949) defines several directions in which companies can develop innovative activity: Generation of new or improved products; Introduction of a new production process; Development of a new sales market; Development of a new supply market; Reorganization and/or restructuring of the company. The definition of innovation clearly distinguishes innovation from minor changes in production creation and/or delivery of products in the form of product line extensions, addition of service components or product differentiation. Innovations are not only related to production areas, but there are other areas and activities that can be innovated, and for the purposes of this report and in view of the results based on a survey conducted on 150 enterprises in South-Eastern Bulgaria, we will consider the attitude of product and process innovations in the activity of small and medium-sized enterprises.

Product and process innovation definitions

Product innovation and process innovation are regularly present on the market, these days, being part of an approach to innovation that is based on its objective.

Product innovation

Product innovation is the introduction of a good or service that is new or significantly improved in terms of its properties or ways of use. This includes significant improvements in technical characteristics, components and materials, in embedded software, in the degree of ease of use or in any other functional characteristics. Product innovations can use new knowledge or technology, or they can be based on new concepts of use or new combinations of already existing knowledge or technology. The term "product" is used to refer to both goods and

services. The concept of "product innovation" includes the introduction into use of both new goods and services, as well as the realization of significant improvements in the functional or user characteristics of already existing goods and services (Rainey, 2006). This is where the introduction of marketing innovation is applied, which is used to satisfy customer needs and develop a competitive advantage through differentiation: Desired product features and design, size, usability, quality, time, price, cost savings/additional revenue in other words, it is the implementation of a new marketing method involving significant changes in product or packaging design, product positioning, product promotion or pricing (Boege, 2009).

Process innovation

Process innovation is the implementation of a new or significantly improved way of producing or delivering the product. This includes significant changes in technology, production equipment and/or software. Process innovations may aim to reduce the cost price or supply costs of production, increase the quality of production or the production or delivery of new or significantly improved products. Process methods include the technological procedures, equipment and software applied in the production of goods or services. Examples of new production methods include the installation of new automated equipment on a production line or the computerization of design and construction work. Supply methods are related to the company's logistics and bring together the equipment, software and technologies used in the supply of raw materials, internal supply and the supply of finished products. Examples of new delivery methods include the implementation of accountability in the handling of goods using a barcode or an active radio frequency vehicle tracking system.[2] Process innovation involves new or significantly improved methods of creating and providing services. Significant changes in the equipment and software used by service-oriented firms or in the procedures and technologies for providing services to the user can be listed here. Examples in this regard include the implementation of tracking equipment using the GPS navigation system in transport services, the adoption of a new reservation system in a travel agency, or the development of new project management technologies in a consulting firm. Process innovation also includes new or significantly improved techniques, equipment, and software that are used in ancillary activities such as procurement, accounting, computing, maintenance, and maintenance (Differential, 2020). The implementation of a new or significantly improved information and communication technology (ICT) is a production innovation if it is aimed at increasing the efficiency and/or quality of the company's auxiliary activity. (Eris, Saatoglu, 2006)

[2] https://stats.oecd.org/glossary/detail.asp?ID=6870

Marketing innovation

Marketing innovation is the implementation of a new method of marketing, including significant changes in the design or packaging of the product, its storage, advertising in the market or in determining its selling price. Marketing innovations are aimed at better satisfying the needs of the consumer, opening new markets or conquering new positions for the company's products in its market in order to increase the volume of sales. A distinguishing feature of marketing innovation compared to other changes in the marketing toolkit is the implementation of a marketing method that has never been used by the company in question before. This change must be part of a new marketing concept or strategy representing a significant advance over the firm's previous marketing methods. The new method can either be independently developed by the company implementing the innovation, or it can be borrowed from other companies or organizations. New marketing methods can be implemented both in relation to new and existing production. The concept of "marketing innovation" includes significant changes in the design of the product, which is part of a new concept for the marketing of that product. Changes in product design in this case relate to changes in form and appearance that do not change the functional or user characteristics of that product. They also include changes to the packaging of products, including food products, beverages and detergents, for which packaging is one of the most important components of appearance. An example of a marketing innovation in design is a significant change in the design of a set of furniture to update the appearance of that furniture and increase its appeal. Design innovation can also consist of significant changes in the shape, appearance or taste of food or beverages – such as the introduction of a new aroma or flavor – in order to win over a new consumer segment. An example of a marketing innovation in packaging is the use of a radically new bottle design for some lotion, which is supposed to give the product an original look and attract a new group of buyers.

Results from survey

The results were acquired due to a survey on "Innovation Activity of Companies in The South-East of Bulgaria." 150 organizations (target groups) were examined. These were companies with or without innovation activity from the Southwest region /the districts of Sofia city, Sofia region, Pernik, Kyustendil and Blagoevgrad/ and Southeast region / the districts of Burgas, Stara Zagora, Sliven and Yambol/. The interviews were conducted using the direct standardized interview method at the respondent's workplace.

Regarding the questions related to the innovative nature of the business, the company reflects their innovation activity in terms of innovation in these products, respectively services in Figure 1. The diagram in Figure 1 introduces the proportional division of the enterprises according to the respondents in relation to

enterprises introduced/did not introduce a) product innovations – new or significantly improved products b) service innovations – new or significantly improved services. The data shows that approximately 35% of enterprises are implementing new products or services.

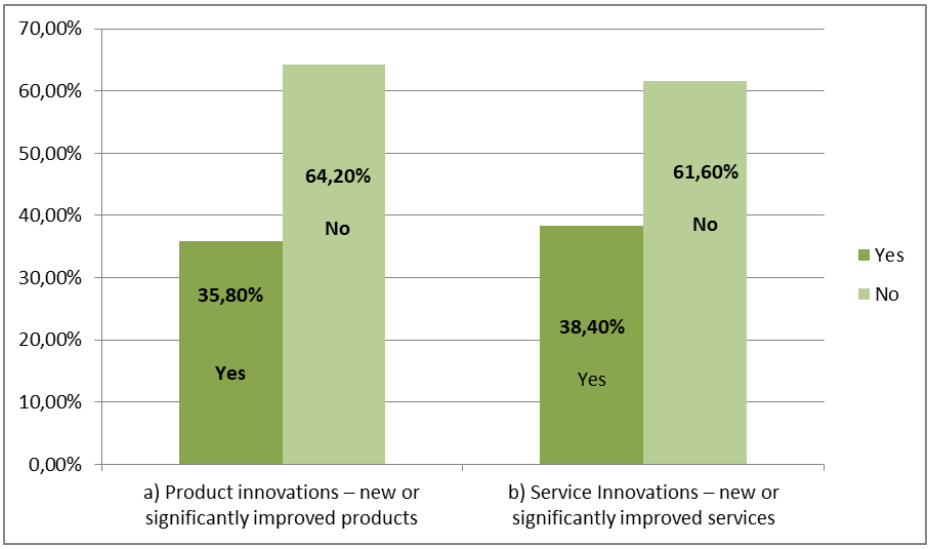


Figure 1 Percentage of enterprises introduced/did not introduce a) Product innovations – new or significantly improved products b) Service Innovations – new or significantly improved services.

Regarding the questions concerning process innovations, the companies reflect their innovation activity in terms of innovation in several situations in Figure 2. The diagram in Figure2 introduces the proportional division of the enterprises according to the respondents in relation to enterprises introduced/did not introduce a) New or significantly improved methods in the main activity (production) of products/services b) New or significantly improved support activities for your processes and c) New or significantly improved methods of logistics, delivery or distribution of your products/services. The data shows that between 35% and 38% of enterprises has already adopted at least three different instruments for implementing process innovations.

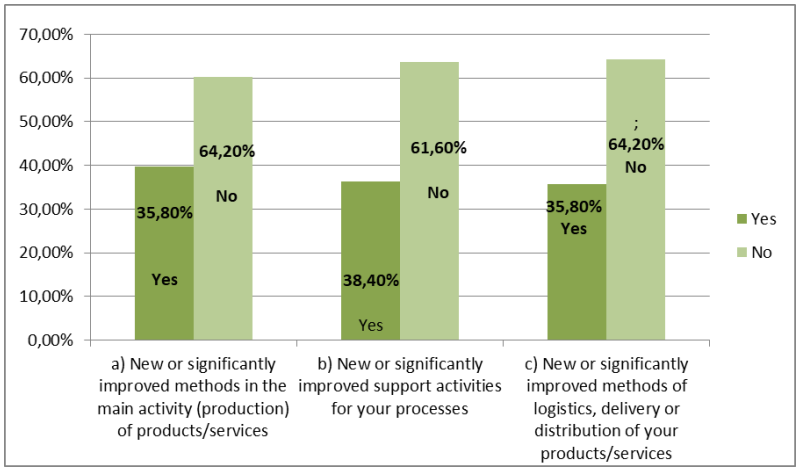
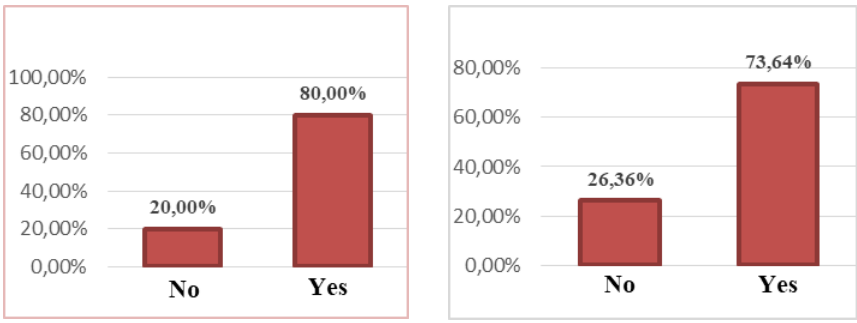


Figure 2. Percentage of enterprises introduced/did not introduce a) New or significantly improved methods in the main activity (production) of products/services b) New or significantly improved support activities for processes and c) New or significantly improved methods of logistics, delivery or distribution of products/services

In terms of marketing innovation, seven groups of factors were examined including: Entrepreneurial orientation; Shared vision; Openness to ideas; Competitive orientation; Focus on the customer; Commitment to learning; Strategic focus on innovation. The results pointing the respondent's' opinion on the influence of a relevant factor are rated with the five-point Likert scale (1 is "Definitely no" and the highest - "Definitely yes").

Concerning questionnaire, two of four questions determine at what extend marketing innovations have been introduced in the enterprise in the last two years, respectively: changes in the design and packaging of a product or service (q6.1.A), new methods and techniques for product promotion (q6.1.B). The questions suggest data obtained within a dichotomous nominal scale.



a) b)

Figure 3. Percentage of enterprises introduced / did not introduce innovations a) in the design and packaging of a product or service; b) new methods and techniques for product promotion

The diagram in Fig. 3 a) presents the proportional division of the enterprises according to the respondents in relation to the innovations introduction in the product / service design and packaging. It shows that about 20% of enterprises have not introduced such innovations. The diagram in Fig. 3 b) presents the relative share of enterprises that have introduced new methods and techniques for product promotion in the last two years, and it shows that these are about 74% of the enterprises in the sample (Ruseva, Neycheva and Nikolova, 2022).

Table1. Factors on marketing innovations in the activity

Strategic focus on innovation	• q9.7.19. Traditions in doing business as a basis for strategy; • **q9.7.20. Providing new products / services to customers;** • q9.7.21. Industry change.	• 5 • 5 • 5

For the purpose of this report, we will use the indicator that has a direct relationship with product innovation; (Table 1). There is a very high association (Nikolova, E., V. Jecheva, A. Toshkov, 2021) between it and the following two factors: q9.7.20. Providing new products/services to customers and q9.7.21. Industry change. Again, the factors q9.7.20 and q9.7.21 turn out significant factors for enterprises when they introduce new methods for market positioning of products or entering new sales channels. When enterprises introduce new methods for pricing goods or services, the important factor turns out q9.7.21. Industry change. It could be assumed there's no dominant factor, determining this marketing innovation in surveyed SMEs, but a set of factors, influencing innovation process.

Conclusion

According to the data from the survey conducted in 150 enterprises, it is clear that, although timidly and with not firmly stated positions regarding product and process innovations, enterprises are aware of the need for these innovations and that this would give a positive impact on their activity. Although not presented in this report, the study shows that these organizations have an established partnership with other companies and the educational institution, which is an indicator of establishing a practice in innovation. Undoubtedly, these indicators will acquire new values, as organizations fully realize the positive effect of their introduction.

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References

Christensen, M. C. (1997) The innovator`s dilemma, Harvard Business School Press, 179 p.

David.L.Rainey, (2006).Product innovation: Leading changes through Integrated Product Development, Combridge University Press.P:3.

Differential, (2020, March 20). Three types of innovation: Product, process, and business model., avaible st https://www.differential.com/posts/the-3-types-of-innovation-product-process-business-

model/ (accessed on 20 September 2022)

Drucker, P (1954). The practice of management. New York: Harper and Row Publishers.

"A bypass attack marketing strategy", Hristov, T., available at https://www.novavizia.com/marketingova-strategiya-za-obhodna-ataka/ (accessed on 10 September 2022)

Engin Deniz Eris, Omur Yasar Saatioglu, A system Look For Technological Innovation: Firm Based Perspective. European and Mediterranean Conference on Information System (EMCIC), 2006, July 6-7. 2006. Costa Blanca, Alicante, Spain.

Geroski, P. (2003) The Evolution of New Markets, Oxford University Press, 240 p.

Robert. S. Boege. An innovation Bestiary, Measuring U.S innovation in an Era of policy incoherence, Economic Discountinuty and opportunity, Workshop on Science, Technology, Engineering and Mathematics (STEM) Enterprise: Measures for innovation and Competitiveness. October: 21, 2009

Ruseva, V., M. Neycheva, E. Nikolova, Is Company's Commitment to Learning a Factor for Marketing Innovations?, ICERI2022 Proceedings, 2022, , ISSN: 2340-1095

Nikolova, E., V. Jecheva, A. Toshkov, 2021, "Factors in introducing marketing innovations in the activity of the companies from the South Bulgaria", Savremenni upravlenski praktiki XI - BSU, Inteligentna Spcializatsia v desetiletieto na svarazanostta I avtomatizaciata, p. 131-136

Schumpeter, J. Capitalism, Socialism and Democracy. New York and London, 1942, p. 132.

Schumpeter,J.,A., The Theory of Economic Development, An Inquiry into Profits, Capital, Credit, Interest, and the Business Cycle, 1949, p 37

https://stats.oecd.org/glossary/detail.asp?ID=6870

https://www.mi.government.bg/files/useruploads/files/vop/inovation.pdf

ARTIFICIAL INTELLIGENCE, ECONOMIC GROWTH AND THE END OF THE FREE MARKET

Chief Ass. Prof. Miroslav Kamdzhalov PhD[1]

Abstract:

Artificial Intelligence occupies the minds of scholars, researchers and curios people. In the economic context, there are numerous topics concerning Artificial Intelligence to think about. Implementation of such disruptive technology will presumably increase economic growth as a whole. Looking at the details, we cannot conclude unambiguously that this will happen in a proper manner. This article will try to look beyond the current development of artificial intelligence applications. These days, we use more and more of them. There are numerous fields of applications of Artificial Intelligence such as natural language processing, machine learning, problem-solving, uncertain knowledge, robotics, etc. Meanwhile, our world still does not have the full-fledged Artificial Intelligence, one who can substitute man. When this happens, there will be a completely different society with new economic and social policies. This study attempts to figure out what could be the probable outcomes of Artificial Intelligence on economic theory and practice. In order to achieve this, content analysis, induction, and deduction have been applied.

Keywords: Artificial Intelligence, Economic growth, Economic freedom

JEL: O33, P4, M54

Introduction

Artificial Intelligence (AI) has the potential to be fully incorporated in and to transform our world completely in the near future. At present, it already has applications in almost every aspect of human life: economics, healthcare, ecological preservation and restoration, security, education, communication and many others. Whether that change will occur for the better, if at all, by facilitating further economic and societal growth, is up to us.

Before that can happen, significant obstacles must be overcome. Various aspects of human life must be considered in the context of the growth and advancement of AI. Scientists and politicians are concerned about moral issues, employment, and social communication. Questions arise regarding concepts such as justice as a moral category, the inviolability of one's personal life, transparency, and accountability.

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AI is capable of making rapid yet precise decisions in areas such as the healthcare sector, but simultaneously, will it be able to replace the multifariousness of human judgment and be morally complex enough to compete with the human intellect? In this context, morality, accountability, and ethical decision-making are being challenged in novel and unprecedented ways.

As a tool, AI is capable of significantly enhancing the abilities of individuals with an already developed set of skills. It can provide people with the opportunity for accelerated learning as well as the ability to more effectively process increasingly complicated and varying data. In turn, being literate in regards to the subjects of media and IT is now considered a basic skill, one just as important as one's technical skills. Certain cultural issues in the face of complete implementation of AI also come to light, like the loss of nuance characteristic of human language and expression in the context of natural language processing or apprehension about the issue of ownership in regards to art.

Never before in history has humanity been confronted with the difficult task of simultaneously resolving two intertwining cases, one technological and the other sociological. Man has always had to change his living environment to accommodate new technologies, but in the case of Artificial Intelligence, we have a completely different problem to solve, namely the role of Homo sapiens in this fundamental change.

That is why it is critical that experts and scholars from all fields of science and human activity participate in this process. When it comes to the advancement of AI, a multidisciplinary approach is more important than ever.

In our days, where algorithms are increasingly governing human action, there is a need to overtly and carefully consider their impact on society. As Satra (2020) pointed out in this regard there are few considerations to take into account "a) whether we as a societies wish to allow the various forms of algorithmic governance and b) how such forms of governance lead to a need to discuss fundamental political institutions and arrangements".

The primary goal of this article is to draw attention to the implications of artificial intelligence on economic policies and governance.

Artificial Intelligence and its implication

Artificial Intelligence is an increasingly discussed and researched topic in our days. Academic papers focused on AI have increased nine times since 1996. In comparison, computer science papers have increased six times since 1996 (Furman, 2018). If we look at the Google Scholar numbers, we can see that artificial intelligence papers amass citations more than any other research topic (Nature Index, 2021). The influence of the topic is enormous and manages to catch the attention of a continuously widening community of scholars and researchers. It provokes passionate scientific discourse. Evidently, Artificial Intelligence has the potential for research and development. What is more, as a topic, which concerns

the human being more than ever before, it deserves special attention in order to be well and soberly discussed.

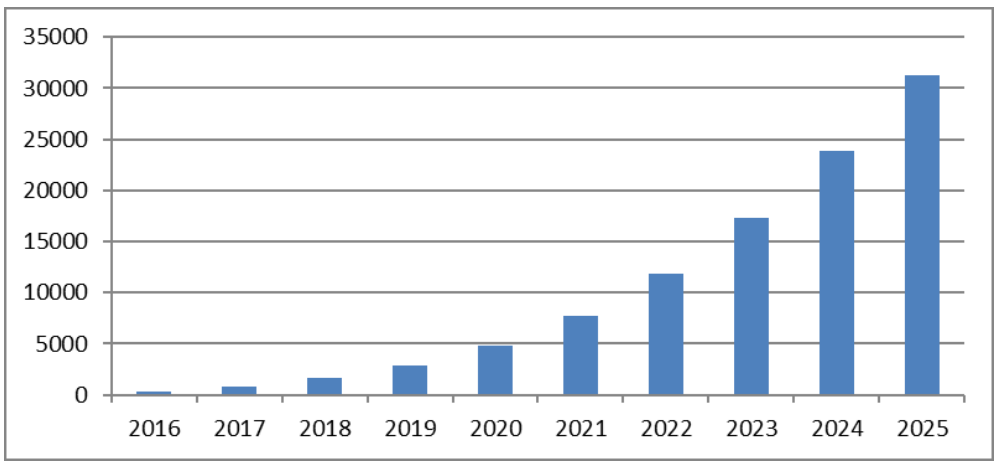
In this sense, we shall focus on how AI affects all aspects of human existence, including the economic, social, educational, and so forth.

AI has been around for decades. Recently gained significant new capabilities thanks to computing power. And, while it has enormous potential in a wide range of applications, it also has risks (De Felice et al., 2022).

According to Kruger (2020), AI can and should be integrated into the ongoing political process of constructing our common world. Artificial intelligence should be allowed to contribute to our world's advancement. Because the distinction between human and non-human is unsustainable, the role of AI in collective construction may become less problematic, if not normal, in the future. The deconstruction of the opposition between the common world and the common good, as well as the highlighting of AI's potential contribution in this regard, is an important implication of this argument.

Why we are so concerned with the idea of AI development? Is there doubt in someone to deal persistently with the developments around Artificial Intelligence? A visualized answer we can find in figure 1. The economic factors trigger the interest in and eagerness to develop AI. The actual and future turnover with enterprise applications in the field of Artificial Intelligence speaks for itself.

Figure 1. Forecast of turnover with enterprise applications in the field of Artificial Intelligence, worldwide from 2016 to 2025 (in US-$ million).



Source (Kreutzer and Sirrenberg, 2020)

As is seen on Fig.1 the economic impact of AI is tremendous. The exponential increase in the future assumes economic growth, if we ratiocinate in classical terms

of political economy. That economic growth is a result of AI-increased productivity. But is that enough to conclude that the implementation of Artificial Intelligence will be socially beneficial? An argument could be made that we cannot assume that this disruptive technology will automatically result in social development.

This article will try to look beyond the current development of Artificial Intelligence applications. In our days, we use more and more of them. There are numerous fields of applications of AI such as natural language processing, machine learning, problem-solving, uncertain knowledge, robotics, etc.

For instance, a deep neural network, as a type of machine learning, can be harnessed to provide stock exchange forecasts. Effective actions on the stock exchange are connected with a careful analysis of all events happening in the market. Forecasting is the basis of exchange trade. In order to make the forecasting as reliable as possible, and make the forecasts well-grounded, traders use exchange analysis (Vasyaeva et al, 209).

Predicting personality traits is a function of additional applications. They fall under the category of text comprehension and natural language processing. There are several options to create models that can disclose user personality using data from a personal profile thanks to the advancement of machine learning techniques and the expansion of the amount of social media data that is available (Stankevich et al, 2019). Since social media makes data collection considerably simpler and more efficient, it is a good tool for studying human psychology and behavior. By examining text, photographs, videos, and audio content that people upload on social networks, a variety of techniques are utilized in this process to identify personality traits. Having such a chance gives you a huge competitive advantage.

The global economic effect created by Artificial Intelligence applications, according to a research (McKinsey, 2018) until 2030 will be considerable. About 70% of all companies will incorporate at least one type of AI technology at that time. Almost half of all large enterprises will be full-fledged AI entities.

In the core of the Industry 4.0 stands Artificial Intelligence. According to a summarised survey (Kreutzer and Sirrenberg, 2020) of 418 Chief Manufacturing Officers, there are lot of advantages to using AI applications, namely:

- Continuous, independent optimization of production processes on the basis of time and cost
- High flexibility in production
- Increase in productivity through automation and reduction of employee deployment
- Reduction of warehousing costs through automated ordering processes as well as through a consumption-based supply of components and raw materials and through optimized delivery processes of the finished products.
- Production of single pieces and small batches at the cost of mass production

Apparently, AI allows the circular economy to flourish. A research provided by Ellen MacArthur Foundation (2019) concluded as much. AI technologies can

unlock three high potential circular economy possibilities: a) design products, components and materials; b) operate circular business models and c) optimise infrastructure to ensure product and material flow. According to a Chinese study (Zhao et al, 2022), AI is a critical issue in achieving sustainable and green economic growth.

Some authors (Abdulov, 2020) find a correlation between AI and crisis-avoidance in the capitalist economy. To overcome the global crisis, a proactive Artificial Intelligence system that develops a dynamic system of intersectoral balance, implying an effective relationship between planning entities, is required. The development of this system entails reflecting on the impact of objective economic laws. These measures of incorporating AI into the strategic planning system will allow the national economy to develop crisis-free reproduction, whereas a policy of quantitative easing or other incentive measures will lead to relative overaccumulation of capital in the real sector, inflation of financially speculative bubbles, and so on.

A vital aspect of advancing Artificial Intelligence is the collection of huge amounts of data. Those who have the capabilities to collect and process such vast quantities of information will lead the AI race. In order to "educate" an Artificial Intelligence one needs a bulk of data. Presumably, the ones who have access to such treasures of data are big countries and technology giants. If we consider this as a truth, what is going to happen with the free market economy and competition?

A free market is characterized by a mix of entrepreneurial initiative and competition. Entrepreneurship is founded on a viable idea and a risk taken during its execution. The accessibility of information during this activity is critical for managerial decision-making. On the one hand, Artificial Intelligence offers tremendous opportunities in this direction, but on the other, it eliminates the opportunity to take entrepreneurial risk, as well as the entrepreneur's unsupported data-driven sense of success.

New social paradigm and economic order in an AI context

The philosophical basis of AI is in the field of cognitive science, which is not concerned with the economic, political, and cultural constructs of production, distribution, consumption, etc. economic parameters. The technological nature of AI challenges the very essence of any economic, social, and political system. Starting from these conclusions, the technological algorithms of AI create significant strategic disruptions and changes in the actual processes of economic systems.

There are lot of different understandings of Artificial Intelligence. Some authors use the more common term – Artificial Intelligence, others – General Artificial Intelligence or Machine Superintelligence. Each term has distinct meaning, from contemporary applications, explored above, to more sophisticated understanding

of AI as comprehensive substitution of man. In this part of the article the kind of AI, which has the power to surpass human level of intelligence will be considered.

According to Jack Schwartz (1987), if Artificial Intelligence can be created, there is little reason to believe that initial successes will not quickly lead to the development of Artificial Superintelligence capable of exploring significant mathematical, scientific, or engineering alternatives at a rate far exceeding human ability. It can generate plans and put them into action at breakneck speed. Since man's near monopoly on all higher forms of intelligence has been one of the most fundamental facts of human existence throughout the history of this planet, such developments would undoubtedly result in a new economics, sociology, and history.

In the context of "singularity" (Kurzweil, 2006), humanity will face tremendous changes and challenges in everyday life. When the machines turn into self-improvement mode, every new generation of AI will appear exponentially faster. Human Level Artificial Intelligence, as it is called by Nils Nilsson (2010), was the goal of the founders and early researchers.

To what extent will technology replace humans? All curious people are preoccupied with this. The answer to this question is currently ambiguous. Nonetheless, we can try to reason about it. Few studies have attempted to assess the impact of technology on the labor market. One such study (Webb, 2020) assesses occupational exposure to various technologies, software and robots, and Artificial Intelligence. The author emphasizes that AI is likely to affect occupations and thus workers in very different ways than software and robots. High-skill occupations are the most vulnerable to Artificial Intelligence, while low-skill occupations are the most vulnerable to robots and middle-skill occupations are the most vulnerable to software. Furthermore, unlike previous technologies, AI is much more likely to affect highly educated and older workers. The goodwill and intentions of stakeholders and corporate leaders are probably not enough to shape policies to help workers adapt to AI-induced changes in employment (Varma, 2022). It is also not certain that countries have the capacity to cope with the growing impacts of AI on employment. Education and training are the solution to the adverse effects of AI and automation on work. Investment in human capital development must be given constant attention.

The human brain contains 85-100 billion neurons. This limitation is imposed by evolutionary constraints on brain capacity and metabolism. Machine intelligence, on the other hand, may make use of scalable computational resources (Muehlhauser and Salamon, 2012). Scalable computing power, rapid information processing, and other factors give the impression that machines can defeat humans. If self-improving machine intelligence spreads through artificial intelligence, everything in our social and economic lives will change (AI).

Without becoming overly conservative or Stone-Age-minded, we should consider a few concerns about promoting Information Technology (IT). Shoshana Zuboff (2019) defines a term born of the rising power of IT behemoths. She refers

to “surveillance capitalism” as the unilateral claim of human experience as free raw material for translation into behavioral data. Some of this information is used to improve products or services. The vast majority of the same information is declared a proprietary behavioral surplus, fed into advanced manufacturing processes known as “machine intelligence,” and manufactured into prediction products that predict what you will do now, sooner, and later.

Surveillance capitalism is, in essence, a new type of capitalism. It shrinks and suppresses entrepreneurship, and thus the free market economy, in conjunction with other contemporary phenomena such as “financialization.” Freedom and the free market are essential for society, according to neoclassical economics. Every market participant acts in accordance with his or her own free will, based on the knowledge and courage that he or she possesses. This is accompanied by a reasonable amount of uncertainty. The last point is the entrepreneur’s allure. Profit and loss are inextricably linked. Risk is an essential component of success.

Artificial Intelligence provides a competitive advantage in forecasting market components. When information is properly processed, it becomes knowledge. This is an undeniable fact. However, to what extent do we as a society want to relinquish control of such an asset to machines? If this is the path that the world will take in the future, we will also require new economics.

There is still no clear political vision for the digital era that supports democratic values, principles, and governance from the United States or other liberal democracies throughout the world. On the other side, China has created and used digital technology as a state to support its authoritarian system (Zuboff, 2021). It is quite concerning that the Chinese government is involved in investments that are either directly or indirectly tied to having access to dual-use technologies. China’s influence in politics and the economy is steadily growing as a result of this effort. The struggle for hegemony surrounding this particular disruptive technology and China’s burgeoning influence in the global economy are factors contributing to tensions between China and other nations (Feijoo et al, 2021). Furthermore, the European Union is falling behind in the overall race in this rivalry while the United States is attempting to address China’s AI challenge (McKinnon, 2021). In its current battle to safeguard people’s privacy, Europe is falling behind in the AI race (e.g., the General Data Protection Regulation). The development of AI and privacy protection is contentious issues.

AI and its technological singularity create a digital divide based on access to technological knowledge and infrastructure. As a result, it has the potential to exacerbate existing societal schisms and class conflicts. In such a volatile and demanding environment, it is critical to comprehend, explain, and apply emerging technologies for human development and social welfare. This is only possible by developing policies to protect labor, privacy, trade, and liability, as well as to mitigate the effects of AI on employment, inequality, and competition under capitalism (Walton and Nayak, 2021).

Conclusions

AI undoubtedly plays a crucial role for humans. It fuels overall prosperity and economic progress. This is accomplished through raising production and enhancing cost effectiveness. The economy and society's tectonic plates are also shifting.

The primary means of production are land, capital, and labor, as early political economists taught us. We need to reinterpret these concepts in the age of artificial superintelligence, especially the last one. Who does the work if the machine takes the place of the man?

Capitalism is no longer what it once was, with its free market, free market participants, and self-regulating entities. Even now, the free market is showing signs of growing imbalances. As was said above, AI operates on a vast scale with a wealth of data. This gives disproportionate advantages to the big players in the economic terrain. Those who have access to big data will dictate the economic rules. There is not enough time between this situation and oligopoly.

Humanity must be prepared to meet such a challenge when fully functional Artificial Intelligence becomes a reality. This society will have new economic and social policies. Further studies should be conducted to better theorize such concerns.

References

Abdulov, R. (2020), Artificial Intelligence as an Important Factor of Sustainable and Crisis-Free Economic Growth, Procedia Computer Science, Volume 169, Pages 468-472. https://doi.org/10.1016/j.procs.2020.02.223;

De Felice, F., Petrrilo, A., De Luca, C., Baffo, I. (2022), Artificial Intelligence or Augmented Intelligence? Impact on our lives, rights and ethics, Procedia Computer Science, Volume 200, Pages 1846–1856. https://doi.org/10.1016/j.procs.2022.01.385;

Ellen MacArthur Foundation (2019), Artificial intelligence and the circular economy - AI as a tool to accelerate the transition;

Feijoo, C., Kwon, Y., Bauer, J., Bohlin, E., Howell, B., Jain, R., Potgieter, P., Vu, K., Whalley, J. Xia, J. (2020), Harnessing artificial intelligence (AI) to increase wellbeing for all: The case for a new technology diplomacy. Telecommunications Policy 44;

Furman, J., Seamans, R. (2018), AI and the Economy. Available at SSRN: https://ssrn.com/abstract=3186591;

Kreutzer, R., Sirrenberg, M. (2020), Understanding Artificial Intelligence: Fundamentals, Use Cases and Methods for a Corporate AI Journey. Springer Nature Switzerland AG;

Kruger, J. (2020), Nature, Culture, AI and the Common Good – Considering AI's Place in Bruno Latour's Politics of Nature. Gerber, A. (Ed.) SACAIR 2020, CCIS 1342, pp. 21–33. Springer Nature Switzerland AG;

Kurzweil, R. (2006), The Singularity is Near: When Humans Transcend Biology. Penguin Books;
McKinnon, J. (2021), Senate Approves $250 Billion Bill to Boost Tech Research, The Wall Street Journal. Available at: https://www.wsj.com/articles/senate-approves-250-billion-bill-to-boost-tech-research-11623192584;
McKinsey (2018), Notes from the AI frontier, Modelling the Impact of AI on the world economy. San Francisco;
Muehlhauser, L., Salamon, A. (2012), Intelligence Explosion: Evidence and Import. Eden, A., Søraker, J., Moor, J., Steinhart, E. (Eds) Singularity Hypotheses: A Scientific and Phi-losophical Assessment, Berlin: Springer;
Nature Index. (2021), Available at: https://www.natureindex.com/news-blog/google-scholar-reveals-most-influential-papers-research-citations-twenty-twenty;
Nilsson, N. (2010), The Quest for Artificial Intelligence: A History of Ideas and Achievements. Cambridge University Press;
Satra, H. (2020), A shallow defence of a technocracy of artificial intelligence: Examining the political harms of algorithmic governance in the domain of government. Technology in Society 62;
Schwartz, J. (1987), Limits of Artificial Intelligence. Shapiro, S., Eckroth, D. (Eds.) Ency-clopaedia of Artificial Intelligence 1:488–503. New York: John Wiley & Sons;
Stankevich, M., Latyshev, A., Kiselnikova, N., Smirnov, I. (2019), Predicting Personality Traits from Social Network Profiles. Kuznetsov, S., Panov, A. (Eds.) RCAI 2019, CCIS 1093, pp. 59 - 69. Springer Nature Switzerland AG;
Varma, A. (2022), Human Resource Management Review, https://doi.org/10.1016/j.hrmr.2022.100923;
Vasyaeva, T., Martynenko, T., Khmilovyi, S., Andrievskaya, N. (2019), Stock Prices Forecasting with LSTM Networks. Kuznetsov, S., Panov, A. (Eds.) RCAI 2019, CCIS 1093, pp. 59 - 69. Springer Nature Switzerland AG;
Walton, N., Nayak, B. (2021), Rethinking of Marxist perspectives on big data, artificial intelligence (AI) and capitalist economic development, Technological Forecasting & Social Change 166, 120576. https://doi.org/10.1016/j.techfore.2021.120576;
Webb, M. (2020), The Impact of Artificial Intelligence on the Labor Market. Stanford University;
Zhao, P, Gao, Y., Sun, X. (2022). How does artificial intelligence affect green economic growth?—Evidence from China, Science of The Total Environment, Volume 834, 155306. https://doi.org/10.1016/j.scitotenv.2022.155306;
Zuboff, S. (2019), The age of surveillance capitalism: the fight for a human future at the new frontier of power. PublicAffairs;
Zuboff, S. (2021), The Coup We Are Not Talking About. The New York Times https://www.nytimes.com/2021/01/29/opinion/sunday/facebook-surveillance-society-technology.html.

THE EUROPEAN LABOUR MARKET IN THE TECHNOLOGICAL ERA

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Abstract

The global climatic changes and the reindustrialization of the European economy in the technological XXI century construct a cause-effect chain which starts and ends with education and science: digitalization and robotization – structural economic reforms - imbalance in the labour market – professional qualification and competence – transfer of science and innovations in the applied economy – lifelong learning.

The ambitious aim of the ecologically-oriented European Union is to achieve a carbon neutral economy by the year 2050. In the process of Green and Digital Transformation innovative industrial productions will be opened with the integration of digital and ecological technologies. The segments of the labour market change. The professional realization in the education, science and information and communication technologies increases, and the one in the industrial and agricultural decreases. The deficit of engineering human capital (educated and competent workforce) reaches record levels on the labour market.

The focus of the study is on the education and science in the context of the Green and Digital Transformation of the European Economy. The long term aim of the research is the sustainable professional balance on the labour market.

The topic concerning the European labour market is developed on the base of the modern multidisciplinary method of scientific research. The educational policies in the Victorian industrialization of the economy and the analogous present day reindustrialization are compared in the analysis and interpretation of the results of the study.

Key words: digitalization, ecological technology, green transformation, innovation, science, education, structural transformation

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Introduction

The XXI century called "ecological", "digital" or "technological" is defined by the intellectual and reindustrial revolution. This expertise is adequate to the current social-economic processes in a global scale. The Internet communication and the English language as a *lingua franca* (universal language for the business and the

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academic community) construct a network society. It is closely associated with the world knowledge-based economy.

The delocalization of the mass production has been developed for decades from the West European industrial countries into Asia (China) and in the post-socialist countries (including Bulgaria). Innovative industries are established in parallel with the integration of digital technologies.

New job positions are opened in the automated production. They require engineering knowledge and competence. A critical deficit of high technological human capital is created on the European labour market.

The research is with a focus on the education and science in the context of the *Green and Digital Transformation of the European Economy.* The key aim is a sustainable professional and demographic balance on the labour market with a long term horizon.

The topic is developed on the basis of the modern multidisciplinary method of scientific research. The educational policies in the Victorian industrialization of the economy and the analogous present day reindustrialization are compared in the analysis and interpretation of the results of the study.

The social dimensions of the industrialization of the economy in the Victorian Age

The Industrial revolution in the economy symbolizes *The Victorian Age* (1837-1901). The English author Charlotte Bronte describes in detail the dramatic events during the introduction of high productive machines in the wool textile industry. The workers in Yorkshire, North Eastern England rebel against the technical progress which has taken their "daily bread".

The patriarchal educational system is a basic mechanism of the Victorian social policy. The access of women to professional qualification, and respectively to the labour market, is limited on purpose. Only boys have the privilege to choose a profession, and to study at colleges. The Victorian girls are prepared to be just housewives at girls' boarding schools, which are popular in Europe at that time, or at home.

It is not only the patriarchal educational system that prepares the women for their marginal role in both the family and society. The Church also aims at: "There, as elsewhere, the CHURCH strove to bring up her children robust in body, feeble in soul, fat, ruddy, hale, joyous, ignorant, unthinking, unquestioning" (Bronte, Ch., 1993, p.116).

The plot line in Charlotte Bronte's novels focuses on the idea that the education is the basic factor for the social status of women. That is why, the main heroine suffers that she has no profession:

"There were times when I would have given my right hand to possess the treasures he ascribed to me…Oh! Why did nobody undertake to make me clever while I was young enough to learn…" (Bronte, Ch., 1993, p.332).

The Victorian men keep the creative professions to themselves. Charlotte Bronte herself writes a letter to the poet Southey. She asks for a piece of advice if to dedicate herself to the literary art. He replies that this field is not for women, and advises her to concentrate her efforts on household duties (Gaskell, E., 1975, p.173).

Charlotte Bronte's father, who is a priest, advises her in a similar way. She does not follow the patriarchal pieces of advice, and continues writing, yet by using male literary alias.

The Victorian industrialization of the economy defines the social transformation which continues up to this day. The postindustrial European society is established which is distinguished by a mass participation of women in the professional employment, e.g. in the labour market.

Complicated and interdependent social relations are formed in the participation of both women and men in the paid and unpaid labour. The marriage institution is devaluated. Both young women and men prefer the professional career to the family values. That is why, the West European researcher Kimmel asks for:

"After the great social transformation of the XX century when the women participate in the labour market, there should be a social transformation of the XXI century – return of the men to the family" (Mihova, G., 2007, p.109).

The labour dumping in the European economic environment

The feminization of the professional qualification generates mass unemployment, which in turn, provokes the labour migration of the Europeans all over the world. The natural population growth in Western Europe decreases in the post-industrial age.

The migration of both women and men in an active economic age reflects on the demographic processes. An age imbalance is established on the labour market. The strategic social policy of the *European Union* is to continue the activity of the elderly generation through an improvement of the health care and the pension reform.

The post-socialist countries, including Bulgaria, join in the West European processes a few decades later. The Eastern and Central European countries carry out the structural economic reforms in the transition period to market economy. New jobs are not found in the delay of the reindustrialization and the employment decreases:

"The unemployment in the period 1989-2000 in Bulgaria is 34,3%. In comparison in Romania this point is 17 %, and in the Czech Republic – only 4%" (Nikolova, M., 2015, p.23).

The unemployment catalyzes the social migration of Bulgarians which is usually a one-way destination to Western Europe. The expansion of the EU provokes a new wave of emigrants. The educational migration increases together with the labour one, too. Each year thousands of students study at foreign universities, and often do not go back to our country after their graduation.

The labour-social practice and numerous studies show that the Bulgarian immigrants in the industrially developed West European countries usually make a compromise with their professional qualification and competence. The employers prefer the low paid human resources from Eastern Europe who realize dumping on the labour market. The Eastern Europeans accept positions in the office hierarchy for which a university educational degree is not required. The post-socialist immigrants work mainly in the field of services – hotel and restaurant management, social and health care.

The depopulation due to labour migration changes the age structure of the human resources in our country. The relative share of the population over 55 is higher in comparison to the mean percent in the EU:

"In 2016 this point in Bulgaria is 31%, in Italy it is higher – 34%, Greece – 33%, Germany – 32%" (Rangelova, R., 2017, p.54-59).

The emigration of Bulgarians in the common *European Economic Area* transforms the professional structure of the workforce. The quantity of the human capital decreases. The share of the low educated and uneducated human resources increases, especially among the minorities.

The process of reindustrialization of the applied economy in Europe is developed at the background of the demographic crisis. The professional imbalance on the labour market deepens. The women with university education who outnumber men in the European countries are the "silent reserves" (the current economic inactive population):

"The tendency is the percent of both women and men who choose the profession *Mathematics, Information and Communication Technologies and Technical Sciences* to become equal in the coming years" (MLSP, 2015, p.65).

The digital transformation of the economy is directly connected to the solution of the global climatic problems. The strategic document *Green Pact of the European Union*, accepted in 2019, is an effective answer to the ecological challenges.

The automation presupposes structural economic reforms. The fast developing industrial countries introduce innovative productions with the integration of top achievements in the digital and ecological technologies.

Large scale structural transformation of the European economy

The climatic changes and the reindustrialization of the European economy in the technological XXI century construct a cause-effect chain which starts and ends with education and science: digitalization and robotization – structural economic reforms – imbalance on the labour market – professional qualification

and competence – transfer of science and education in the applied economy – lifelong learning.

The creative human intellect invents the computer and the robot. The humanoid machine carries out routine and repetitive operations. The functions of the employees are limited to maintenance and monitoring of the automated systems. The digitalization and robotization of the economy require high technological knowledge and skills. The deficit of engineering human capital increases to record levels on the labour market.

The European Union aims at becoming the world leader in a new sustainable model of economic development. The concept of the circle economy dates back to the 60s of the XX century. In 2018 the EU accepts *The Framework Directive* for the decrease of waste. The unused transport means, the batteries and the plastic packages are utilized through recycling by turning them into raw materials. The industrial symbiosis is part of the solution for a clean environment.

The Finnish government invests part of the subsidies in the *National Plan for Recovery and Sustainability for a Circle Economy* in tune with *The European Directive*. The aim is to achieve zero leftovers in nature through symbiosis between the different industries in the country.

The ambitious cause of the ecologically oriented European Union is a carbon neutral economy by the year 2050. The decarbonization of the industry corresponds to the Strategic vision of the European energy policy: from coal raw materials, through natural gas and nuclear power stations, to renewable energy sources (RES) and green hydrogen. It should be pointed out, that the European countries do not reach a consensus concerning the taxology of the energy sphere. Both France and Bulgaria plan to build new nuclear power stations. At the same time Germany and Austria close their last nuclear power stations.

A paradigm for successful reforms in the energy sphere is the municipality of Ruhr. The closing of the coal electric power stations started in the 60s in Germany. The ecological energy transition is financed by the *Coal Commission for the Transition and the Municipalities in the Region* and the social and non-governmental organizations. Ruhr turns from the biggest producer of coal and steel into a *Centre for Scientific Research and Development Activity*. Today, the digital and ecological infrastructure in the German municipality attracts human resources with a modern professional profile.

The German company *Aurubis* has developed a project for the production of green hydrogen in response to the hydrogen strategy of the EU for climate neutrality. Roland Harings, executive director of *Aurubis* tells about the innovative ecological technology:

"We have started a pilot project for the use of hydrogen in the production of anodes at our plant in Hamburg. We have discussed constructing a big network with other enterprises which produce steel and aluminum in Hamburg. We are

going to use the wind energy from the North Sea for the electrolysis" (Harings, R., 2021, p. 40-41).

The transport vehicles are responsible for one third of the carbon emissions in the atmosphere. The multinational companies today invest in the production of electric cars and batteries. The car giants *Volkswagen* and *Tesla* compete also in the revolutionary introduction of the automation and the electronic mobility.

The production powers of the microelectronics are concentrated in South East Asia. The European countries work mainly on the design and the size of the chip which is implemented in the production of electric cars. The new strategy of the EU is to invest also in the production of microelectronics. The aim is to limit the dependence of the local car industry on the risk deliveries of chips.

The scale of the Bulgarian economy does not have a potential for investments in an integrated innovative production with a high added value. Bulgaria participates in the *Green and Digital Transformation of the European Economy* with expert high technological human capital and scientific research infrastructure. The first super computer in Eastern Europe is installed at the *National Centre for High Scientific Achievements in Digital and Ecological Technologies* at *Sofia Tech Park* in 2021.

Historically speaking, the Bulgarian society has traditions in the production of electronics. The modern industry also falls "victim" to the structural reforms in the transition period to market economy. Today the country is enlisted in the tendencies of the dynamic sphere through the scientific research on micro and nanoelectronics. A cluster *Microelectronics and Industrial Electronic Systems* functions at the *Micro Nano Lab* at *Sofia Tech Park.* The financial instrument for the development of the electronic engineering is the Fund *Scientific Research, Innovations and Digitalization for an Intelligent Transformation* at the *National Plan for Recovery and Sustainability.*

The structural reforms of the European economy have social dimensions, too. The deficit of high technological engineering human resources at *The Common European Economic Area* reflects on the professional employment, and respectively on the labour market.

The reindustrialization of the economy changes the professional employment

The digitalization and the robotization of the applied economy transform the professions and the education. The tendency is to continue developing the mathematical, engineering and software sciences. The introduction of new technologies, industrial robots and robotic complexes in the automated production expands the role of the professions connected with the innovations, the artificial intellect and the data analysis. The jobs outside the network, e.g. outside the information and communication technologies, such as production, customer service and deliveries, lose the sign of prestige.

The reindustrialization reflects on the social-economic status of the human resources (health insurance, social security and others). The number of people on a part time work (PTW) and telecommuting increases. The labour-social practice shows that the PTW marginalizes labour. The employed in PTW do not receive a number of social insurance payments. The employers do not invest in their professional qualification and requalification. The labour rights of the employed in telecommuting are violated. The employed in home office do not have defined working hours. The new term "right of switch off" from the distance working environment becomes more and more popular.

The automation of the applied economy changes the segments of the labour market. The perspective is to increase the vacant jobs in the field of education and science, the digital technologies, the health care and the social activities.

The social policy of the EU is with a vision to a full employment and better jobs for all. The professional qualification and requalification of the employees in the process of structural transformation of the economy is supported by the *Fund for a Just Transition* in *The European Recovery and Sustainability Plan*. Historically speaking, the Europeans usually change their professions with new ones which are with complementary or closer profiles.

The global digital and robotized economy replaces the strength of the muscles with the coefficient of emotional intelligence. The critical thinking and cognitive flexibility, inherent only in the human intellect, define the code of the mobile applications and the artificial intellect. The top scientific achievements in mechatronics and clean technologies change the professional profile of the human capital.

The modern challenges are the future professions of the human resources. The education and science are the strategic decisions of the social-labour problems, connected with the *Green and Digital Transformation of the European Economy*.

From professional qualification to competence

Today the social concept "competence" is more and more used. The professional qualification does not personify the abilities of the human resources that are realized in the process of labour. The employers use the competence for the evaluation of knowledge, skills and the behavior of the applicants for a job. The tendency is to identify the personal achievements of the employed through their competence.

The sociology of labour distinguishes professional qualification in the sense of a diploma for an educational degree from competence. According to the definition of Raymond Vatie competence is "the successful unifier of knowledge, skills and the will" (Kergoat, D., 2003, p.81).

The open digital space on a global scale is the modern challenge facing the educational system. The Bulgarian government adapts its educational policies to the world tendencies. A big range of projects have been developed in order to synchronize the national reforms with the European ones.

The National Plan for Recovery and Sustainability also includes the modernization of the school education. The transformation is with a focus on the establishment of STEM centres (sciences, technologies, engineering sciences, mathematics). The whole education process changes with the shared educational areas. The teachers and students' skills to integrate the new technologies in the education are acquired in a modern digital environment.

An example of the use of the digital technologies in the school education is the innovative model in Plovdiv. Each and every teacher and student at the municipal schools has a laptop connected to the cloud.

The decarbonization and the digitalization of the economy form a critical deficit of high technological engineering human resources. The companies, especially the technological ones, change the priorities in their management, by realizing collaboration with the educational institutions. Ana Marie Vilamovska, PhD in applied economy, tells about the collaboration between the *Ministry of Education and Science* and *the Bulgarian Outsourcing Association*:

"The educational programme *IT Companies at School and Teachers at IT Companies* is for the establishment of key competences. The indication topics defined by the companies are: cloud technologies, Internet security, development of products, consumer experience. The aim of the programme is to increase the students' interest in the technical professions" (Vilamovska, A., 2019, p. 96-97).

The economic growth is based on the new digital and ecological technologies. *The European Union* as a whole is scarce in natural energy resources (natural gas, coal, petrol). That is why, the European countries participate in the international competition with innovations.

Projects for innovations in the decarbonization and digitalization of the economy are developed all over the world. *The European Union* aims at outrunning, and not catching up, with the industrially developed economies in the world.

The transfer of science and innovations in the applied economy

The cause of the European university education is to adapt to the demands of the *Green and Digital Transformation of the Economy*. The academic community transforms the fundamental clean science into applied research for this aim. The results from them are commercialized. Start-ups are established through the transfer of the innovations in the applied economy, e.g. the so- called technostarters.

The new programme *Horizon Europe (2021-2027)* concerns scientific research and innovations. The investments are with a focus on the sophistication of the scientific infrastructure and the expansion of the participation of the academic community and business in the scientific and development activity. The priorities of *Horizon Europe* are: support of the young scientists, a subsidy of projects for top achievements in innovations and engineering of the automated production and ecological technologies and establishment of a common *European Scientific Research Area*.

The tendency is to boost the collaboration between the industry and the university education. A product of the partnership between the machine building and the academic institutions is the established hub for engineering decisions and innovations at the *Technical University* in Gabrovo, Bulgaria. The scientific infrastructure includes several laboratory complexes. Industrial and experimental scientific research is done there in the fields of the intelligent mechatronic systems, the energy-saving and clean technologies, big data analysis, cyber security, etc.

The Bulgarian government transposes the European educational directives through the *National Road Map for Scientific Infrastructure* (2020-2027). It foresees a reduction of the fragmentation of the university education. The legislative framework of the programme is the draft law of the *Ministry of Education and Science* from 2022 for the encouragement of the collaboration between the universities. A common education is foreseen for the students in the professions which have a decisive role for the social -economic development of the country. A statute of project PhD students is introduced. The aim of the acquisition of the scientific degree PhD through work on a project is to expand the scientific activity for the development of the innovative economy.

The innovations and the engineering of the automated production constantly change the work environment. Countries and economic subjects which do not invest in human capital could be current, but do not have competitive advantages in the future.

Lifelong learning

Today the routine in the professional employment remains in the past. The modernization of the digital platforms corresponds to the methodic adaptation of both qualification and competence. Professor Martin Carney writes about the education during the whole active professional life:

"The changes in the labour environment require considerable investments in the education both of the adults and the children. The digitalization of the economy is connected with the lifelong learning of the employed in labour. They should prepare their children for a future quality workforce at the same time" (Stoyanova, K., 2008, p.24).

The main prerequisite for an effective qualification is the establishment of a system for career consulting. Multiple approaches to education are applied in the international labour-social practice. They differ both in their form and content, depending on the social interests. The professional consulting in France, Switzerland and Poland is by psychology, in the USA and Canada – by sociology, and in Bulgaria, Germany and The Netherlands – by sociology, economy and the law (Ertelt, B., 2003, p.54-58).

An example for consulting in the lifelong learning of the workforce is the programme *Studying Regions* which is financed by the *European Social Fund*. The organizations offering education are connected through the establishment of a

network with the consumers of this service – the social offices, the labour services, the economic subjects and the individuals.

According to the German professor Bernd – Joachim Ertelt the post-graduate qualification for experts on consulting and intermediary at *The University of National and World Economy*, Sofia and *The Economic University*, Varna:

"It is distinguished by the exceptional model for preparation of professional consultants for the countries from Southern and Eastern Europe" (Ertelt, B., 2003, p.54-58).

In 2001 *The European Commission* accepted a *Memorandum for Lifelong Study*. The document contains the views and aims for the turning of the European society into the most competitive and most dynamic in the world, constructed on the knowledge-based economy.

Conclusion

Education and science are the point of intersection between the social, economic and ecological issues, connected with the labour market in the technological era. The large scale structural transformations of the European economy define the focus and cause of the scientific study. The basic plot line of the topic is the professional qualification and competence of the human resources in the context of the green and digital economy.

The climatic changes are the global challenge of the digital XXI century. The ambitious cause of the ecologically oriented *European Union* is the achievement of carbon neutral economy by the year 2050. The decarbonization requires the establishment of an ecological infrastructure for the production of renewable energy sources and green hydrogen. The industrially developed countries introduce innovative productions with the integration of top achievements in the digital and ecological technologies. Bulgaria participates in the *Green and digital transition of the European economy* with high technological human capital and scientific research infrastructure.

The *European Union* is the third economic power in the world after China and USA. The intelligent growth and competition are based on the innovations and the digital ecological technologies. That is why, in the new seven year period (2021-2027) the European countries increase their investments in the green and digital economy. The programme *Horizon Europe* is a key financial mechanism for scientific research in the innovations.

The new digital and ecological technologies form the critical deficit of qualified and competent engineering human resources. The reforming of the school education is an effective decision for the overcoming of the professional imbalance on the labour market. STEM centres which integrate the new technologies in the education are established for this purpose. Both teachers and students acquire digital skills in the shared modern space.

The deficit of IT employees deepens the collaboration of the business with the educational institutions. In view to that, the academic community prepares human resources whose competence is adequate to the new digital economic environment.

The modern academic institutions are distinguished by their historical archetypes mainly by the applied scientific research and the commercialization of the know-how. Through the transfer of the science in the industry the so called "open innovations" are established. The new mission of the academic communities is to adapt both the education and science to the digital and ecological technologies.

The Internet communications and the English language form the global scientific environment. The multinational teams work on megaprojects for innovations with a vision to the decarbonization and the digitalization of the economy. The tendency is to increase the necessity of synergic intellect, due to the introduction of top scientific achievements for the solution of the world climate crisis.

The digital technologies constantly change the labour environment. The modernization of the digital platforms corresponds to the methodic sophistication of the professional qualification and competence of the human resources. That is why, the educational policy of the *European Union* stimulates the lifelong learning. The *European Commission* accepts a *Memorandum* in 2001 for this aim. The views and targets for the conversion of the European society into the most competitive and dynamic in the world, constructed on the knowledge-based economy are elaborately described in the document.

The global digital transformation of the economy drastically changes the labour market. The tendency is to increase the vacant jobs in the field of education and science, digital technologies, health care and social activities.

The topic concerning the European labour market is studied on the basis of two and more scientific and technological disciplines which complement each other, e.g. through the application of the modern multidisciplinary method. It should be pointed out, however, that in the West European universities the multidisciplinary method replaces the monodisciplinary one in the 60s of the past century. Today the estimation of the scientific product includes more criteria – social necessity, profitability of the input technologies and ecological standard of the digitalization and the robotization of the applied economy. That is why, the perspective is to increase the popularity, and respectively, to apply the multidisciplinary scientific research.

In conclusion, it should be pointed out, that both education and science are the strategic solution to the social-labour problems, connected with the decarbonization and digitalization of the economy. Both the professional qualification and competence are decisive factors for the intelligent growth of the economy and the improvement of the social-economic status of the population.

Bibliography

Bronte, Ch. (1993), Villette, Wordsworth Editions Limited, London

Ertelt, B. (2003), Lifelong Consulting in the Profession – International Perspectives, University Publishing House – UNWE, Sofia

Gaskell, El. (1975), The Life of Charlotte Bronte, Penguin English Library, London

Harings, R. (2021), Sun over Pirdop, Capital Journal, number 26, Sofia, pp. 40-41

Kergoat, D. (2007), Working Hours, Work Conditions, Demographic Behaviour, Academic Publishing House „Prof. Marin Drinov", Sofia

Mihova, G. (2007), Working Hours, Work Conditions, Demographic Behaviour, Academic Publishing House „Prof. Marin Drinov", Sofia

Ministry of Labour and Social Policy (MLSP) and Centre for Economic Development. (2015), Equality of Both Women and Men in Decision -Taking in the Economy, Sofia

Nikolova, M. (2015), Social -demographic Consequences from the Status of Women on the Labour Market in Bulgaria in the Beginning of the XXI Century, Academic Publishing House „Prof. Marin Drinov", Sofia

Rangelova, R., Panushev, Em., Hubenova, T., Hristova, I., Bobeva, D. (2017), The Bulgarian Economy Ten Years in the European Union, Sofia

Stoyanova, K., Kirova, A. (2008), Gender Inequality in Both the Paid and Unpaid Labour in Bulgaria, Academic Publishing House „Prof. Marin Drinov", Sofia

Tsakova, Tsv. (2019), The Construction of Feminine Identity in Charlotte Bronte's Novels, PhD Thesis, New Bulgarian University, Sofia

Vilamovska, A. (2019), The Teacher Enters the Companies. Manager Journal, number 3, Sofia, pp.96-97

THE ROLE OF THE EUROPEAN UNION AS A FACTOR FOR SECURITY, STABILITY AND PROSPERITY OF THE BALKAN COUNTRIES

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Abstract:

The report „The role of the European Union as a factor in the security, stability and prosperity of the Balkan countries" presents an in-depth analysis of how the foreign policy priorities and the domestic political situation in the countries of the Western Balkans are changing through the harmonization of local legislation and policies with the aim of rapprochement and achieving of full membership in the European Union. After years of war caused by ethnic conflicts in the 1990s in Yugoslavia, to date the countries of the region have focused on covering pan-European norms and values, namely political stability, civil security and economic growth, so that one day to be able to join the big European family and take advantage of all the advantages that membership in the European Union would provide them - more security, more financial resources, more opportunities for development, etc.

Key words: European Union, Balkans, Stability, Prosperity, Security, EU Candidate and Potential countries, EU Member Countries.

JEL: F50, F59, F60, F63, H55, H56, N40, N44.

For decades, the countries defined geographically as the Western Balkans, namely, the Republic of Croatia, the Republic of Serbia, the Republic of North Macedonia, the Republic of Albania, the Republic of Montenegro, the Federation of Bosnia and Herzegovina and the Republic of Kosovo (partially recognised by the international community) have been in the process of transformation. The war in the former Federal people's Republic of Yugoslavia in the nineties of the last century and the subsequent fractional breakup led to the need to implement many reforms in the political and economic spectrum, as well as to change the priorities in the geostrategic orientation of the newly formed states in the Western Balkans (only the Republic of Albania was an independent country). All these countries have chosen the path to membership of the European Union and have, to varying degrees, advanced their European integration. Montenegro has been negotiating

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accession since 2012, Serbia since 2014 and Albania and North Macedonia from 2022. As for Bosnia and Herzegovina and Kosovo, they are one step behind in the accession process, having signed an association agreement with the EU, and this makes them official candidates for membership in the community and potential future negotiators.

The EU's role in the security of the Western Balkans

As I mentioned above, after a decade of interethnic confrontation and war on the territory of the now former Federal People's Republic of Yugoslavia, part of the Western Balkans has led to a prolonged uncertainty in the whole region. Thousands of lives and destinies have been irretrievably affected, and these countries themselves understand the importance of establishing a lasting ethnic peace that allows them to live a better and more successful life within the community of European countries that have joined full membership of the EU. During its long existence since the end of World War II, the EU has built numerous structures and interconnections between individual states, peoples and communities and has become the largest and most significant Union on a global scale, whether in terms of political or economic power. The area for the free movement of people, goods and capital within the community (Schengen Agreement) leads to the interconnection and interaction of multiple security structures in the EU, such as border control, customs, police and judicial structures, starting to work together at a supranational level and performing a prevention function against international organised crime operating within the EU. It is for this reason that the accession of the Western Balkan countries will contribute to some extent to their internal as well as external security.

The EU's role in the stability of the Western Balkans

To date, there has been some stability and peace in the Balkans, but whether it is sustainable is difficult to say, although most Western Balkan countries are already members of NATO, a military alliance that guarantees their security internationally. In this region, however, it is very easy to arise even a new ethnic or religious conflict dividing the population. The European Union is the guarantor of democracy and democratic-minded societies today, which are distinct from totalitarianism, and the accession of a country to this family would contribute to its sustainable stability and development. The countries of the Western Balkans are also making efforts to establish a lasting and sustainable democracy in them, and their future accession to the Union will contribute to its long-term establishment.

The EU's role in the prosperity of the Western Balkans

It is clear to everyone that the EU member states are among the most economically developed in the world. The EU members France, Germany and Italy participate in the G7 (the group of the strongest economies in the world together with the UK (a former member of the EU) and can be said to be among the most economically prosperous in the world. This success would be unthinkable or difficult to achieve if they were not part of the European Economic Area (EEA), which provides free access for businesses to foreign markets within the community. The transfer of goods is free from state charges (duty) and this fact greatly facilitates commercial activity within the EU. With the future accession of the Western Balkan countries, the doors of new markets, potentially undeveloped to the end, will open for business and this will lead to the realization of new opportunities, both in the old member states of the Union and in the newly accepted countries of the Western Balkans. In addition to all that has been said so far, the EU has a policy of solidarity towards poorer member states, allocating billions of euros of funds through multiple programs in different sectors of national importance, such as agriculture, environment, regional development, transport and infrastructure, human resources, science and education, etc. This fact would certainly be essential for the Western Balkan countries, which are vastly less developed and experiencing economic difficulties. This is another reason for these countries to strive for EU membership.

I. STATE AND DYNAMICS OF THE EUROPEAN INTEGRATION PROCESS IN THE WESTERN BALKANS

The accession of the Western Balkan countries to the EU is a complex, multi-faceted and lengthy process in which countries must meet certain criteria.

1. Criteria for accession to the EU from Copenhagen

In 1993, in Danish capital Copenhagen, the general requirements that a candidate country must meet in order to start the process of accession to the European Union have been adopted. They must have a durable and sustainable democracy that guarantees human rights and protects minority groups. The existence of a functioning market economy is also a fundamental requirement for EU membership, and last but not least, the future member states are obliged to adopt and implement the European legislation in force at supranational level by applying the European directives. Their institutional capacity at national level must be improved to meet European standards. The candidate countries accept the obligation to align their policy (mainly external) and economy (through the monetary union and the euro area) with that of the EU.

The three Copenhagen criteria are:

- stability of institutions, guaranteeing democracy, the rule of Law, Human Rights, Respect and protection of minorities;
- a functioning market economy and the ability to cope with competitive pressures and market forces within the EU;
- ability to fulfill the obligations of membership, including capacity to effectively implement the rules, standards and policies that make up the legislation of the European Union, as well as to adhere to the objectives of political, economic and monetary union.

[European Union. (2022). Accession criteria Copenhagen]

After decades of political instability caused by the post-totalitarian regime in the former Yugoslavia and the subsequent interethnic war, today the Western Balkan countries are at a different stage in EU accession negotiations, each of them coping at a different pace, but driven by their common goal of achieving lasting peace and economic prosperity in the Western Balkans, they recognize the European Union as a factor that would provide them with more security, stability and prosperity in their countries.

The European Union undertakes to speed up and transform the process of negotiations for the accession of the countries of the Western Balkans in a way that makes it more transparent and predictable for both countries. Individual candidate countries from the region will also be judged on their individual achievements. [European Council. (2021). EU enlargement policy]

2. Progress of the individual countries of the Western Balkans, EU candidate member states) - *The Republic of Serbia, The Republic of North Macedonia, The Republic of Albania, the Republic of Montenegro, the Federation of Bosnia and Herzegovina and the Republic of Kosovo.*

• *Republic Of Serbia:*

Serbia has been in de facto accession negotiations with the Union since 2014. To date, Serbia has opened 22 of the 35 negotiating chapters and closed 2 of them.

The country is perhaps one of the most important factors for security, stability and prosperity in the Western Balkans region.

Negotiations with the European Union are constantly on the ebb and flow, and there are whole periods of time in which they are practically at an absolute standstill, caused by the impossibility of understanding and mutual compromise on the issue of Kosovo's independence mainly. The Serbian state categorically refuses to hold any negotiations on the status of this newly proclaimed Republic, which also aspires to EU membership, as an independent state, but not recognized by Serbia, the Russian Federation and many other international institutions. Another stumbling block in the negotiation process is the close political and economic relations that the state maintains with Russia. Nowadays, the EU could not tolerate such dependencies, especially after the annexation of the Crimean Peninsula in

2014 by Russia and the subsequent military offensive in eastern Ukraine (with the goal of its incorporation into the Russian Federation). This escalated into a war between the two countries from the beginning of 2022 and led to the practical freezing of all EU-Russia relations, through the imposition of numerous economic and political sanctions against the occupying power.

• *Republic of North Macedonia and Republic of Albania:*

These two Western Balkan countries launched in 2022 the EU accession negotiations. For years, the unresolved issue of the name of the current Republic of North Macedonia with the long-standing and old member of the EU Greece has proved to be a deterrent to progress on the way to EU membership. The former Yugoslav Republic of Macedonia (FYROM) as recognized by the international community (UN) until the signing of the Prespa agreement (Treaty of Prespa) in 2018 with Greece and managed to find an acceptable solution in the dispute over the constitutional name and thus to persuade Greece to lift the veto imposed on the official name, deterring the integration process at the level of the "Council of the EU". Later, in 2020. again, the two Western Balkan countries did not start accession negotiations with the EU, as another veto was triggered against the Republic of North Macedonia, this time imposed in the "Council of the EU" by the Republic Of Bulgaria in connection with the failure of the "Treaty of friendship, good neighborliness and Cooperation" signed between the two countries, entered into force from 2018. This long delay in the European integration process has even led to the consideration of dividing the European path into the two Western Balkan states, in such a way that the Republic of Albania will no longer be prevented from starting accession negotiations with the Union. After the EU's intervention at the political level and a guarantee of the commitments made by North Macedonia, the negotiations with the two countries finally started and this is another example of how the community can be a factor for the security, stability and prosperity of the Western Balkan countries.

Republic of Albania, like the other countries of the Western Balkans, is experiencing its political and economic catharsis, after decades of international isolation in a closed totalitarian society, which preceded the global changes and the fall of the „Iron Curtain", in the already distant 1989.

Until ten years ago, it should not be forgotten that citizens of all the Western Balkan countries needed Schengen visas in their international passports to travel to the European Union, and this fact sharply reduced cultural exchange, both between themselves and with the member states of the community. The country, like Montenegro, has access to the Adriatic Sea and this makes it an important geostrategic player in the region and a partner of the EU.

• *Republic of Montenegro*

Montenegro seceded from the Federation with Serbia in a referendum in 2006. The country has been in de facto accession negotiations with the EU since 2012. The negotiation process seems to be going hard and slow with a certain speed

amplitude in time, as it has been going on for more than ten years, time enough for other Balkan countries (for example Bulgaria and Romania) to join the EU. During this period, the country also joined the North Atlantic alliance (NATO), an action that shows a clear desire to align itself with the pro-Western societies whose citizens are part of the European Union. Montenegro's security, stability and prosperity are at a relatively satisfactory level and its future membership in the community can be expected to be realised in the coming years. To date, Montenegro has opened all 35 negotiating chapters and closed three of them. The country is also an important geostrategic partner of the EU with access to the Adriatic Sea.

• *The Federation of Bosnia and Herzegovina*

The war in the former Yugoslavia lasted the longest in Bosnia and Herzegovina. The federation, made up of Bosniaks, Croats and Serbs, has a complex governance structure. Years after the end of the war, there are still contradictions that are holding back the European way. The citizens of Bosnia and Herzegovina of Serbian origin are united in Republika Srpska (distinct from the state Republic of Serbia), within the federation, and are fighting at national level with the other two ethnic groups (Bosniaks and Croats) for independence and more rights and power in government. These disturbances impede the process of EU integration of Bosnia and Herzegovina into Euro-Atlantic structures and place it among the lagging countries in the integration process.

The countries of Eastern Europe, such as Moldova and Ukraine, were ahead of it on the path to EU membership, and although they later declared their desire to join the Union, they now have candidate status.

However, the process of European integration has not stopped in 2022 either. The Commission proposes to the Council of the EU to grant the same status to Bosnia and Herzegovina.

• *Republic Of Kosovo*

Kosovo's EU accession process is moving at a relatively slow pace, given the fact that it was formed in 2017. The country continues to negotiate with Serbia for its independence. Approximately 111 of the 193 member states of the United Nations (UN) and 22 of the 27 EU member states recognize Kosovo as an independent state. Given the fact that the Republic of Serbia is also negotiating membership, it can be said here that the EU appears to some extent in the role of a "mediator" in the process of European integration of the two Western Balkan countries. In both Bosnia and Herzegovina and Kosovo, interethnic conflict has in the past created obstacles to successful European integration. To date, the state, supported by the international community and the EU, is seeking to stabilise the established order and security, as well as to achieve the necessary stability that would open the way to EU membership as a potential candidate member of the community.

3. Republic of Croatia - a good example of successful European integration

The Republic of Croatia was the last member that joined the European Union in 2013. Despite this fact, the country managed to overtake member states longer than 2007 in a decade. like Bulgaria and Romania. The European integration process for the country's accession to the Schengen area and the euro area is going at a faster pace than the aforementioned countries. Expected, in the country the single European currency (euro) will become a legal tender from the beginning of 2023, and a little later the border and customs of the country will be abolished. And the Schengen agreement will cover the first country in the Western Balkans.

Here is another example of how EU member states develop at different rates, whether economically and/or politically, their level of the European integration is different, and in most cases depends on themselves. This fact should stimulate the Western Balkan countries, which are making efforts to reform their political systems in such a way as to meet the standards of EU membership, by speeding up the process of European integration to lead to their more recent admission as full members of the Union.

II. A NEW APPROACH TO EU ACCESSION NEGOTIATIONS – CLUSTERS, GROUPING THE NEGOTIATING CHAPTERS

This new approach to the negotiating framework was proposed by the European Commission (EC) in 2020 and it aims mainly to inject new energy into the negotiation process for EU membership of the Western Balkan countries.

The clusters will improve the negotiation process by bringing more dynamism to their leadership by both EU and negotiating countries. Technically, after the opening of a cluster group, the EU candidate countries will simultaneously negotiate all the chapters included in them. Moreover, the clusters will also introduce better consistency and systematization in the accession process.

Confirmation of what has been said are the words from 2020 of the Commissioner for Neighborhood Affairs and Enlargement, Oliver Varhei, who states: "The enlargement of the European Union to the Western Balkans is a top priority for the Commission. We work in three directions...A more reliable process; A more dynamic process; A more predictable process". [European Commission. (2020). A more reliable, dynamic, predictable and political EU accession process]

The clusters are divided into six categories, each of which includes the following 35 negotiating chapters:

- **Main topics**
  Chapter 23 – „judicial system and fundamental rights"; Chapter 24 – „justice, freedom and security"; economic criteria; functioning of Democratic Institutions; Reform of Public Administration; Chapter 5 – „procurement"; Chapter 18 – „Statistics"; Chapter 32 - „financial control".

- **Internal market**
  Chapter 1 – „free movement of goods“; Chapter 2 – „free movement of workers“; Chapter 3 – „right of establishment and freedom to provide services“; Chapter 4 – „free movement of Capital“; Chapter 6 – „Company Law“; Chapter 7 – „intellectual property law“; Chapter 8 – „competition policy“; Chapter 9 – „Financial Services“; Chapter 28 – „Consumer Protection and health“.
- **Competitiveness and inclusive growth**
  Chapter 10 – „Information Society and media“; Chapter 16 – „Taxation“; Chapter 17 – „economic and monetary policy“; Chapter 19 – „Social Policy and employment“; Chapter 20 – „Enterprise Policy and industrial policy“; Chapter 25 – „Science and research“; Chapter 26 – „education and culture“; Chapter 29 - „customs union“.
- **Green agenda and sustainable connectivity**
  Chapter 14 – „Transport Policy“; Chapter 15 – „energy“; chapter 21 – „trans-European networks“; Chapter 27 - „environment and climate change“.
- **Resources, agriculture and cohesion**
  Chapter 11 – „Agriculture and Rural Development“; Chapter 12 – „Food Safety, veterinary and phytosanitary policy“; Chapter 13 – „Fisheries“; Chapter 22 – „regional policy and coordination of structural instruments“; Chapter 33 - „financial and budgetary provisions“.
- **External relations**
  Chapter 30 - „Foreign Relations“; Chapter 31 - „foreign and security and defence policy“.

The negotiations on Chapter 34“ institutions „and Chapter 35“ other issues „ shall be carried out according to an individual action plan.

In conclusion, we can conclude that the process of accession and acceptance of new members to the Community is mutually beneficial, both for the European Union and for the newly joined countries themselves.

On the one hand, through their membership in the EU, the new members get more security at the national and international level and the world organizations (UN, G-7, G-20, OECD, etc.) see them as countries with permanently established democracy and stability in their economic development. Member States, and in particular EU citizens, gain access to billions of euros earmarked for distribution under various European programs and cohesion funds, designed to equalize living standards and reduce inequality between poor and rich Member States, as well as equal access to the single European market, the right to work, travel without borders and countless other privileges that would be unthinkable if they were not members of the EU.

On the other hand, the benefit for the European Union itself is expressed in the fact that by expanding its territory with newly admitted countries, new economic

opportunities are opened up for businesses, getting the opportunity to operate in new perspective markets within the Union, taking advantage of the common European legislation that refers to the gradual unification of work standards and exemption from customs duties.

From a political point of view, the weight that the EU acquires internationally is also increasing, with the member states now able to speak with one voice before the international community, such as their influence in world organizations (UN, G-7, G-20, OECD, etc.) gets stronger.

Last but not least, the Community is enriched in its diversity of different ethnicities, cultures and customs, etc.

References:

European Commission. (2020). A more reliable, dynamic, predictable and political EU accession process, available at: https://ec.europa.eu/commission/presscorner/detail/bg/IP_20_181, (accessed 12 September 2022)

European Council. (2021). EU enlargement policy, available at: https://www.consilium.europa.eu/bg/policies/enlargement/#Balkans, (accessed 10 September 2022)

European Union. (2022). Accession criteria Copenhagen, available at: https://eur-lex.europa.eu/legal-content/BG/TXT/?uri=LEGISSUM:accession_criteria_copenhague, (accessed 15 September 2022)

DEVELOPMENT OF WINE TOURISM DESTINATIONS TO SUPPORT THE REPOSITIONING OF BULGARIA'S TOURISM PRODUCT

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Abstract

The past three years proved to be an exceptional challenge for the development of tourism in Bulgaria. The years-long problems in the sector combined with the new global situation forced all countries involved in this economic field to realize the need to take active measures to reposition Bulgaria's tourism product. One of the possibilities for differentiating the portfolio of tourist destination Bulgaria is through the development and promotion of local destinations for wine tourism. The present study aims to characterize the possibilities for wine tourism destinations' development in support of the repositioning of Bulgaria's tourism product. The research object is the local wine destinations, and the subject – their importance in the repositioning of the national tourism product.

Key words: wine tourism, repositioning, experience economy, tourism product

JEL: L83, M31

Introduction

World Tourism Day is celebrated every year on September 27. This year, the theme under which the celebrations are organized is "Rethinking Tourism". This choice by the World Tourism Organization is largely due to the new conditions to which tourism must adapt and the changes that are inevitable for any tourism destination.

The past three years proved to be an exceptional challenge for the development of tourism in Bulgaria. The years-long problems in the sector combined with the new global situation forced all countries involved in this economic field to realize the need to take active measures to reposition Bulgaria's tourism product. One of the possibilities for differentiating the portfolio of tourist destination Bulgaria is through the development and promotion of local destinations for wine tourism. The present study aims to characterize the possibilities for wine tourism destinations' development in support of the repositioning of Bulgaria's tourism product. The

research object is the local wine destinations, and the subject – their importance in the repositioning of the national tourism product.

The author's thesis is closely related to the purpose of the study. It supports the understanding that, through the development of local wine tourism destinations, tangible changes are being made to Bulgaria's tourist product in the form of new tourist experiences. They provide the required basis for repositioning its product on the European tourist market.

Achieving the set aim is related to the solution of several tasks, among which:

- Review of the scientific literature to reveal the characteristics of wine tourism and its product;
- Analysis of opportunities for conducting wine tourism in Bulgaria;
- Formation of guidelines for using the potential of the Bulgarian wine tourism product on the European market.

Methodology

Standard scientific methods were used, including theoretical research, comparative analysis, expert evaluation, synthesis, induction, deduction, and others, to achieve the aim of the present study. The role of the used methodological apparatus is related to outlining the basic scientific understandings directly related to the researched problem; analyzing the current state of local wine destinations; and a study of the possibilities for the development of Bulgarian wine tourism concerning the European market.

Literature review

The total tourism product is the most significant element of the tourism destination's marketing mix. It is usually the first element of the mix to be formulated so that the rest of them are defined later. This is why it is no coincidence that destination marketing specialists focus most of their efforts on it. This concept describes the experiences and benefits for tourists who consumed tangible and intangible goods during their visit or stay in a tourism destination. It consists of a complex structure of logically interconnected goods and services that influence the overall experience of the tourist in the destination and his memories of the experience during the stay. The constituent elements of the total tourism product have three dimensions: attractiveness, amenities and convenience (Marinov, 2022). Perceiving the total tourist product as a set of the mentioned elements is a reason to believe that it can be affected and adjusted to the needs and willingness of the target group of tourists, i.e. a destination may offer different products to different visitors.

The product elements of the tourism destination are distinguished by different quality characteristics, which are not constant but change over time. This way, both the experiences and the satisfaction of the tourists are changed. Thus, passing

through the various stages of its life cycle, the tourist destination can begin to function inefficiently (Georgieva, 2018). That can be a consequence of both internal and external preconditions. In these cases, the destination management could resort to marketing means to hinder this negative trend.

Repositioning takes a leading place among these means. It generally represents a new (in a new manner) positioning of a good, service, product, brand, company or destination. Tourism destinations in their multiplicity and diversity recently are forced to tangibly distinguish themselves from each other in order to continue to be attractive to tourists on the one hand and to generate income on the other (Bozhinova, et al., 2019). That necessitates determining on what basis this "differentiation" (repositioning) between destinations will take place because their competitiveness depends not only on the fact that the destination and its products are not just different, but unique.

When choosing a repositioning strategy appropriate for the destination two main variables can be affected. One of them is the target market, and the second is the tourist product itself. Depending on which element is changed, there are 4 main strategies (see Table 1).

The first strategy is repositioning through the image. It works only on the image, without changing the product and the target market.

The second strategy is product repositioning. In this case, only the product changes and the target market remain the same. The change that occurs in the product is expressed in a change in its functional characteristics, distinguishing it from its direct competitors, and aims to meet the needs of consumers in the target markets.

Table 1: Repositioning strategies

	Same product	**Different product**
Same target market	Image repositioning	Product repositioning
Different target market	Intangible repositioning	Tangible repositioning

Source: (Andonov, 2014)

The third possibility is intangible repositioning. With this strategy, the product is preserved in its current form and it is oriented towards new market segments.

The fourth strategy is tangible repositioning, also known as total repositioning. It involves changes in both variables – product and target market. It is usually used when entering a new market with a highly modified product of a new price class. The higher price is justified by the highly advocated innovations in the tourist product or the uniqueness of the tourist experiences.

"The experience economy" is an approach with wide practical significance, gradually gaining popularity in scientific circles as well. In it, the goods and services

that consumers purchase bring them added value, as they provide additional benefits in the form of certain experiences. Through it, experiences become a competitive factor for the development of the economy, the tourism destination or the specific business venture (Ivanova, 2021). The experience economy allows tourism organizations to utilize the feelings and emotions of consumers, differentiating the goods and services offered from those of competitors. It is based on creativity, technology and innovation, which is why it is widely used in creating new experiences for users of various industries, including tourism, allowing them to be an active party during their holiday or travel.

An excellent basis for establishing the economy of experiences in the field of tourism is provided by its specialized forms, also known as alternative tourism. It can be defined as "a set of sustainable tourism forms and practices that are aimed at satisfying the individual interests and needs of tourists, as well as at preserving local nature and culture" (Dicheva & Kovacheva, 2014). The development of tourist products based on specialized forms of tourism creates conditions for improving and diversifying the tourist stay in the destination. Alternative tourism enables the tourism destination to develop its full potential by using its diversity of resources according to tourist preferences (Nikolova & Pavlov, 2021). It is intrinsic to the active promotion and care of the development of additional and specific attractions as well as infrastructure based on local resources while supporting them (Penerliev, 2017). Through the specialized forms of tourism and the attractive experiences they provide, contemporary competition between tourist destinations takes place (Kaleychev, 2020). This reinforces the need for the implementation and application of innovative approaches in their implementation.

One of the many varieties of alternative tourism is wine tourism, also called enotourism. The connection between wine and outdoor recreation has been defined differently by different researchers. Part of the disagreement is due to the very interpretation of the term "wine". While some authors interpret it in a broader plan, as referring to the entire wine-growing cycle, others associate it only with the specific tasting and consumption of wine (Markov, 2009). From the point of view of tourism destination management, wine tourism is aimed at visiting places and events related to wine production and providing an opportunity to familiarize tourists with the characteristic features of the wine-growing region, as well as the organization of tasting and the purchase of wine directly from the manufacturer (Bozhinova & Pavlov, 2017). During the specially organized wine tours, tourists get to know the taste qualities of the wine, get information about its content and possible culinary combinations, about the way of growing the vines, about the technology of wine production and ageing of the wine. This specialized form of tourism by its very nature allows it to be combined with others such as eco, rural, culinary, cultural, festival, hunting and other tourism. These combinations also predetermine the many types of wine tours that are prevalent (Terziyska, 2018): standard, wine-cultural, wine-culinary, luxury, responsible, transport-specific,

active (adventure), innovative, connoisseur, nature and spa. The reason for this is that modern tourism destinations must provide the experience sought by tourists and present new, hitherto unknown aspects of the destination to be evaluated as bringing them additional benefits in terms of experiences.

Results and discussion

Bulgarian Wine Map

The development of specialized forms of tourism in Bulgaria is not a new phenomenon. The Tourism Act of 2013 aims to create conditions for the development of alternative types of tourism - cultural, health, spa and wellness, rural, eco, congress, children and youth, adventure, sports, hunting, golf and others. One of the reasons is the apparent seasonality of this economic branch at that time and the need to direct tourists to destinations outside the active season. The products of the specialized forms of tourism are presented as products with potential in the National Strategy for Sustainable Development of Tourism in the Republic of Bulgaria 2014-2030, as they satisfy the needs of modern tourists for new experiences and knowledge.

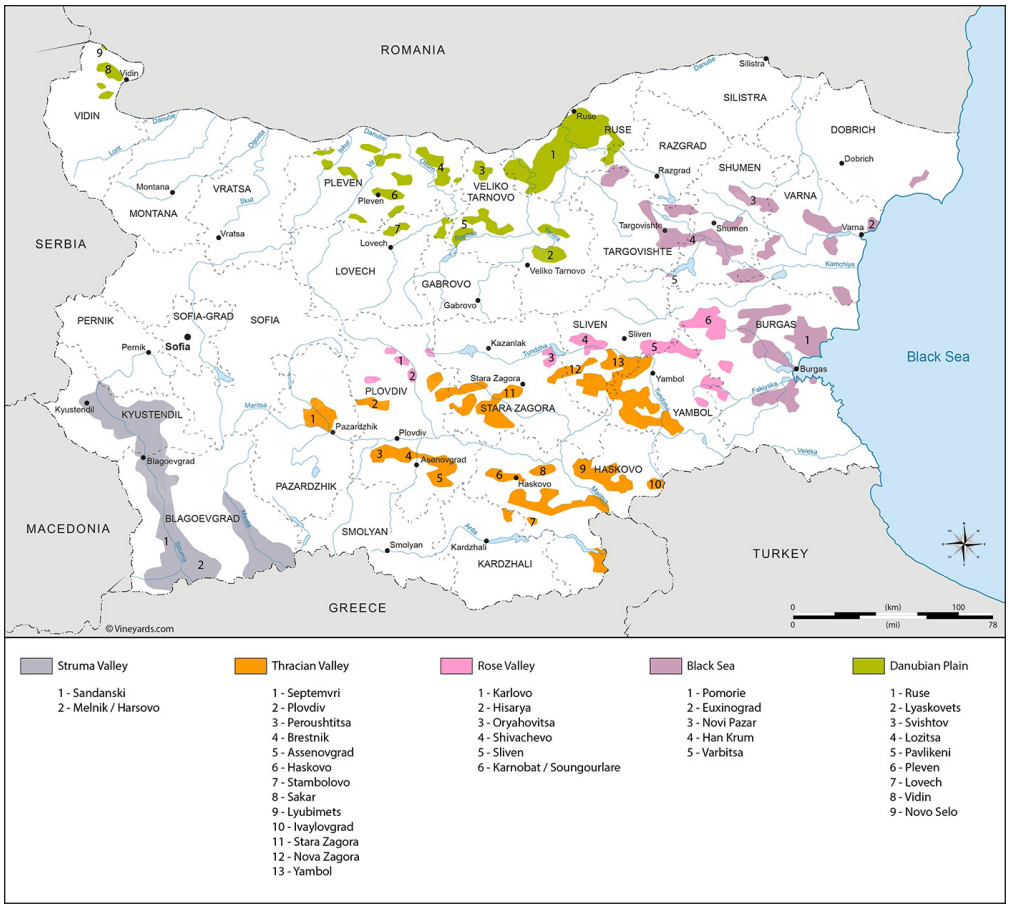
As a specialized form of tourism, wine tourism in Bulgaria is gaining more and more popularity among both local and foreign tourists, which determines the important role it serves in the country's product portfolio. The destination is distinguished by long-standing winemaking traditions, typical and recognizable high-quality wines and regular international recognition for the quality of local wine products.

Due to the numerous micro-destinations for wine tourism on the territory of Bulgaria, the wine map of the country is extremely varied. There are a significant number of clusters, routes, regions, etc., which are intended for admirers of this tourist product. Three wine clusters have been created – the Ancient Route of Thracian Wine, the Route of Orpheus and the Route of Dionysius, uniting wine producers, representatives of the tourism industry, and public and non-government organizations interested in the development of Bulgarian wine tourism. Nine national routes are also outlined (WINET, 2020):

- The Bdin Road
- The Strymon Road
- The Ancient Thracian Wine Road
- The Orpheus Road
- The Dionysius Road
- The Aether Road
- The Hemus Road
- The Madara Road
- and The Odessos Road.

However, they are not widely advertised, they are not visually represented on the map of the country, and they are even missing from the content of the official advertising materials for wine tourism in Bulgaria, distributed by the Ministry of Tourism. Information about them in the platforms for national wine tourism opportunities is limited.

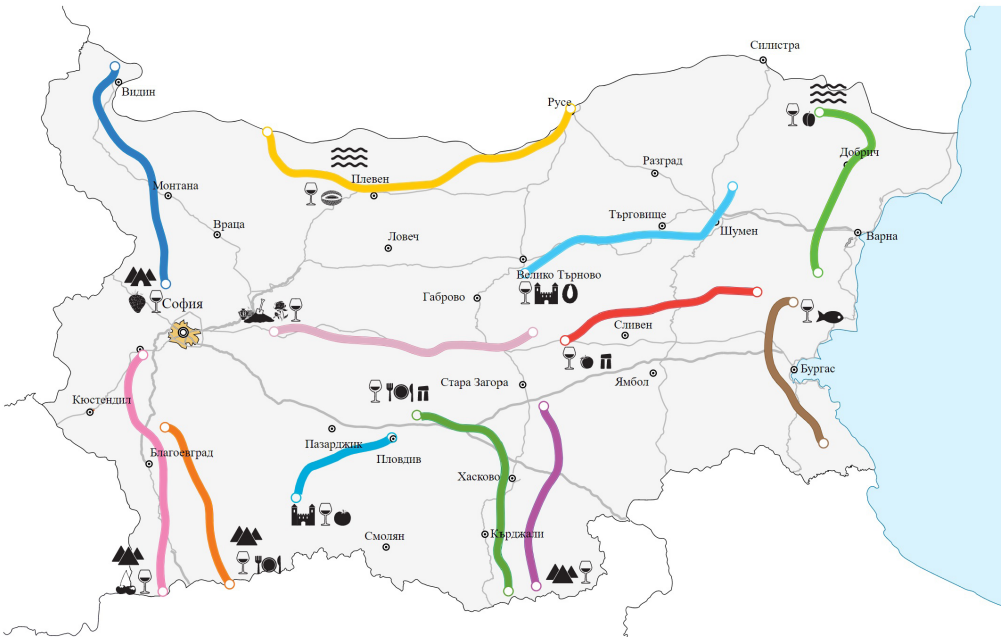
The agro-ecological and socio-economic potential of tourism destination Bulgaria is a prerequisite for the identification of its five wine regions: Northern (Danubian Plain), Eastern (Black Sea), Sub-Balkan (Rose Valley), Southern (Thracian Valley) and South-Western (Struma Valley). Their location and main centers are presented in Figure 1. This is the most preferred option by tour operators and travel agents for grouping the Bulgarian wine destinations, since the tourist places are grouped depending on the territorial proximity and the characteristics of the local viticulture. At the same time the representatives of the tourist business have the opportunity to apply an individual approach in the creation of the specific tourist product.



Source: (Vineyards.com The Vineyard Explorer, n.d.)

Figure 1: Map of Bulgarian Wine Regions

One of the most popular initiatives of the Ministry of Tourism is the selection of twelve routes with destinations for wine and culinary tourism, part of the "Share Bulgaria" project. Visually, they are presented in Figure 2. Through them, the destination product Bulgaria aims to reach not only wine lovers but also those looking for a more complete culinary experience, thus providing them with a higher added value. A separate advertising brochure is dedicated to them, presented in the country's official tourist portal (Ministry of Tourism of the Republic of Bulgaria, 2020).



Source: (Ministry of Tourism, n.d.)

Figure 2: Map of Bulgarian Wine Destinations

From what has been stated so far, it can be concluded that destination Bulgaria has many resources for offering a product based on wine tourism. More and more interested parties are realizing the great potential of this tourist activity, which can support both traditional tourism in Bulgaria and local viticulture and wine production. This is evident from the clearly stated aspiration to unite the interested parties in the creation of a total tourism product, distinctive to a given territory.

Bulgarian wine tourism position in the European market

The development of Bulgarian wine tourism is difficult to trace. There is a lack of statistical information on the number of tourists who have purchased such a product, how many visitors have visited local wine destinations, what their revenues are, etc. According to the opinions of experts in the sector (Capital,

2022), it can be concluded that this specialized form is developing successfully, and interest in it is growing, but there is still room for improvement to offer a more attractive and better-quality tourist product.

When offering a wine tourism product, wine producers play a leading role. However, recent studies (Dimitrova, 2021) show that a part of them remain unaware of the role of tastings in the market positioning of their products and the current interest of tourists in more exciting experiences during the holiday.

Although some studies identify the construction and modernization of infra- and superstructure as a factor of less importance for the development of wine tourism (Zheleva & Stoykova, 2021), most experts in this field emphasize that it is of particular importance for attracting foreign tourists and keeping them for more than a day in the destination (Capital, 2022).

Typically, wine tourism is practiced during the cooler months, mainly in autumn and winter, as an attempt to overcome the seasonality of traditional tourism. Thanks to the combination of this specialized form of tourism with others (e.g. event or cultural), there are already excellent examples of the year-round possibilities of wine tourism. Such an example is the Wine Fest "South Sakar 4x4" initiative. It includes specially organized thematic events for each season on the territory of one of the more and more local wineries in the Sakar Mountains, united under the common regional brand "Sakar Wines". The last event for 2022 ("Winter among the wines – fabulous stories from Sakar") is scheduled for December 3 and is dedicated not only to wine but also to authentic holiday customs and delicious food. Each of the events organized so far has its theme and provides additional experiences for tourists, interpreted in the titles themselves: "Spring among the vines", "Summer above things – jazz and wine in Sakar" and "Autumn of the Star – vintage at the crossroads". This is a concrete example of the modern approach to marketing tourist products and destinations (Tsvetanova, 2018), where their positioning or repositioning is based on thematically organized events. These activities are of leading importance for promoting the identity and strengthening the image of the tourism destination.

Increasingly noticeable internationally is the trend of increased interest in destinations that are unknown to tourists until now, due to the depersonalization of popular destinations and the increasing competition between them. The trend for easy replaceability of tourism destinations is also increasing, which leads to a search, not a prerequisite, for new approaches to attract and retain the attention of tourists (Marchevski, et al., 2022). These conditions favor the development of alternative tourism in our country, and wine in particular. By promoting the development and diversification of the regional tourism product, the competitiveness of the enterprises employed in the sector can be increased and the created market niche can be occupied.

Encouraging the development of regional wine tourism and its product on the domestic and international market should be a leading task of the national tourism

policy. In countries such as Spain (López-Sanz, et al., 2021), successfully offering such a specialized product, this public support is expressed in the promotion of tourist routes and complementary thematic events, the organization of local and international wine forums, the adoption of legal regulations relating to both sectors (agriculture and tourism) and others.

Wine tourism is particularly interesting with its active-passive nature. It offers excellent opportunities to "passively" involve tourists in recreational activities (for example, watching the individual steps of winemaking). Interest in similar forms of "slow" tourism is constantly growing both in Bulgaria and abroad. At the same time, visitors have the opportunity to take an active part in unique experiences such as grape picking and crushing of grapes according to an authentic Bulgarian custom for the production of grape juice. Thus, the tourist product can be adapted to the specific interests of the target group of tourists.

The modern tourist is increasingly looking for a complex tourist product that not only offers him something new, different and unique but also provokes his curiosity by affecting all his senses and perceptions (Lulcheva, 2020). This tourist behavior opens the market niche for the development of wine tourism. However, its filling depends on achieving a balance in the triad "motivation of tourists – image of the destination – satisfaction with the tourist product".

For the successful repositioning of Bulgaria's products through wine tourism, the cooperation of tourist intermediaries is also necessary. Despite their knowledge of the new trends in tourism and the profile of the incoming tourist, they do not demonstrate knowledge of the opportunities of Bulgaria as a wine destination. The number of tour operators that offer such a specialized product is limited, however, it is created by their time-proven business partners. In a survey conducted (Wine Tour Maker, 2021), over a third of surveyed travel agents rated the quality of wines and cellar experience as very good, but noted that they encountered difficulties in communicating with cellars when booking services. About 25% of them believe that our country is gaining more and more popularity with this specialized product, because of the very good quality of the wines, and despite the unsatisfactory quality of tourist services and limited tourist advertising. Among the recommendations addressed to the compilers of a wine tourism product are: partnership with other wineries in the region; organization of thematic events; pairing the wine with traditional foods of the region during the tastings; reception of smaller tourist groups; presentation of wine production attractively and creatively; more aggressive advertising and others.

Conclusion

The present study confirms the author's thesis that, through the development of local wine tourism destinations, tangible changes are being made to Bulgaria's tourist product in the form of new tourist experiences, which provides the necessary basis for the repositioning of its product on the European tourist market. However,

it is necessary to conduct a comprehensive study on the development of wine tourism in Bulgaria, and the collected data would serve to form the necessary state tourism policy in the field of enotourism.

The modern wine list of Bulgaria is extremely diverse. The destination has the required tourism resources, which are interpreted in multiple wine clusters, routes, destinations and regions. Unfortunately, however, their potential is still not fully utilized. Global and European trends confirm the upward trend in the development of wine tourism worldwide due to increased interest from tourists seeking new and exciting experiences. There is a place for Bulgaria in this market, but how significant it will depend on the marketing and management of the destination.

Acknowledgement

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References

Andonov, S., 2014. Marketingovo pozicionirane. 1st ред. Sofia: Iztok - Zapad.

Bozhinova, M. и др., 2019. MODERN DIMENSIONS OF THE MANAGEMENT OF TOURIST DESTINATION BULGARIA. "Scientific research" Almanac, Том 27, pp. 7-38.

Bozhinova, M. & Pavlov, P., 2017. Organizatsia na alternativnia turizam. 1st ред. Svishtov: AI Tsenov.

Capital, 2022. Capital: Wine & Tourism, Sofia: Capital.

Dicheva, M. & Kovacheva, S., 2014. BEST PRACTICES FOR ALTERNATIVE TOURISM SERVICES IN BULGARIA. Vilnius, Vilnius Gediminas Technical University.

Dimitrova, G., 2021. Competitive Advantages of the Bulgarian Wine Sector. Stara Zagora, SHS Web Conf.

Georgieva, K., 2018. REPOSITIONING TOURISM DESTINATION BULGARIA BYINNOVATIONS IN THE TOURISM PRODUCT. Varna, Nauka i Ikonomika IU - Varna.

Ivanova, P., 2021. Event Tourism Development in Bulgaria: Key Factors and Main Goals. Economic Studies (Ikonomicheski Izsledvania), 30(1), pp. 168-191.

Kaleychev, S., 2020. Luxury Tourism as a Prerequisite for the Development of Specialized Types of Tourism in the Tourist Regions of Bulgaria. Sofia, UNWE.

López-Sanz, J. M., Penelas-Leguía, A., Gutiérrez-Rodríguez, P. & Cuesta-Valiño, P., 2021. Rural Tourism and the Sustainable Development Goals. A Study of the Variables That Most Influence the Behavior of the Tourist. Frontiers in Psychology, Volume 12, pp. 1-14.

Lulcheva, I., 2020. ANALYSIS OF THE STATE OF CULINARY TOURISM IN BULGARIA. Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development, 20(1), pp. 309-314.

Marchevski, I., Grigorova, V., Yordanov, R. & Neykova, K., 2022. BENEFIT SEGMENTATION OF BULGARIAN TOURIST. "Scientific research" Almanac, Том 30, pp. 42-74.

Marinov, S. P., 2022. THE PRODUCT IN THE MARKETING MIX OF THE TOURISM DESTINATION. Eastern Academic Journal, Issue 1, pp. 1-8.

Markov, I., 2009. Vinen turizam: sashtnost i osnovni formi na proyavlenie. Bulgaria, balgarite i Evropa - mit, istoria, savremie, 3(1), pp. 464-470.

Ministry of Tourism of the Republic of Bulgaria, 2020. Wine Tours in Bulgaria. [Online] Available at: https://bulgariatravel.org/wp-content/uploads/2021/09/Wine-tours-in-Bulgaria-MT_bulgariatravel_ENG.pdf [Accessed 19 September 2022].

Ministry of Tourism, н.д. Destinations for wine and culinary tourism. [Онлайн] Available at: https://www.tourism.government.bg/bg/pages/destinacii-za-vinen-turizum [Отваряно на 20 September 2022].

Nikolova, M. & Pavlov, P., 2021. INTERCONNECTION AND INTERDEPENDENCE OF KEY ECONOMIC SECTORS - AGRICULTURE AND TOURISM IN THE CONDITIONS OF A PANDEMIC CRISIS. Scientific Papers Series Management, Economic Engineering in Agriculture and Rural Development, 21(4), pp. 387-396.

Penerliev, M., 2017. Alternative tourism in Bulgaria – general characteristics. Espaço e Economia, 10(5).

Terziyska, I., 2018. Wine Tour Design – Global Trends and Local Expressions. Tourism and Hospitality Management, 24(2), pp. 387-400.

Tsvetanova, E., 2018. DESTINATION MARKETING ACTIVITIES FOR SUSTAINABLE URBAN DEVELOPMENT (FOLLOWING THE EXAMPLE OF THE TOWN OF PLEVEN). Journal of Thermal Engineering, 4(4), pp. 2117-2126.

Vineyards.com The Vineyard Explorer, n.d. Bulgaria Wine Map. [Online] Available at: https://vineyards.com/wine-map/bulgaria [Accessed 28 September 2022].

Wine Tour Maker, 2021. Vineniyat turizam v Bulgaria prez pogleda na turoperatori i organizatori na sabitia. [Онлайн] Available at: https://winetourmaker.com/wine-tourism-in-bulgaria-touroperators/ [Отваряно на 26 September 2022].

WINET, 2020. CBC Black Sea. [Online] Available at: https://blacksea-cbc.net/wp-content/uploads/2020/02/BSB638_WINET_Study-on-the-wine-sector-in-Bulgaria_EN.pdf [Accessed 25 September 2022].

Zheleva, V. & Stoykova, B., 2021. CONDITION AND DEVELOPMENT TRENDS OF WINE TOURISM IN BULGARIA (THE EXAMPLE OF FESTIVALS OF WINE AND FOLKLORE HERITAGE). Trakia Journal of Sciences, Volume 4, pp. 356-364.

GOLD INVESTMENTS – REGRESSION ANALYSIS OF THE GOLD PRICE OVER A CERTAIN PERIOD

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Abstract

The global development of the monetary and financial system has evolved over different historical periods. Increasingly, the subject of discussions among economic subjects are the ways to increase their financial well-being through investments in the financial markets. One of the most preferred ways to preserve and increase the financial wealth of individuals is investments in precious metals, in this case – gold, which are realized in specialized financial markets for raw materials. In this regard, the subject of discussions and analyzes in the present development is gold, as an element of the financial markets and a way of investing, and the subject is emphasized on regression analyzes related to its price values and author's forecasts for future periods.

Ключови думи: gold, investments, precious metals, regression analysis

JEL: G10, G15

Introduction

One of the most significant phenomena of the economic world is money in all its forms. They have changed over the various historical periods, with the main goal being to preserve and store their value and protect against inflation. Among the most preferred ways to increase the financial well-being of economic entities is investing in precious metals, including gold. In an age of digitization and technological upsurge, these trade operations are realized in specialized financial markets. The scientific development aims to track the price of gold over a period and predict its future price over a period through regression analyses.

Investments in precious metals

During the periods of its evolution, humanity passes through a long and complex stage of development. In the process of asserting his leadership in a numerous and hostile world and at the same time aiming at communication, man creates a unique and universal medium of exchange. Money as a financial instrument in different

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historical periods has changed. Economic agents have been looking for ways not only to preserve the value of their financial well-being, but also to increase it. This demand is tied to the desire to be protected from inflation risk. Such a form of money exists and is used to this day – gold, as a precious metal, possesses these qualities, which is why it is preferred for investments.

The basis of the investment activities is the idea of rational management of the financial resources of economic entities that are looking for ways to achieve a profitable and promising way to increase their income. This drive is embedded in human self-awareness and can be defined as the drive to succeed. Investment, as a concept, is broad-spectrum and has multiple meanings and manifestations. In an economic aspect, it is an action related to the investment of financial capital with the desired end result of return and future expected profit.

The economy is based on multiple investments that have risk. Any purchase of assets is economic because after a certain time the asset is expected to bring profitability in the form of profit. The investment process is a set of activities related to:

- analysis of possible risks;
- securing the necessary cash capital for the activity/investment;
- selection of investment asset and research of alternative markets for investment trading;
- a strategy based on risk minimization and profit forecasting.

Trading activities for the purpose of purchase and sale are carried out on financial markets specially created for the purpose, on which financial activities are carried out on the exchange of:

- securities (stocks and bonds);
- goods (precious metals, including gold, silver, platinum), etc.

In economic terms, financial markets have important functions, because through them:

- the prices of the offered assets are determined and the liquidity of the assets is maintained;
- lending is implemented;
- the risk is regulated, by which possible losses of financial resources are minimized;
- cash flow control is realized in real time. (Петров, 2022)

The 21st century offers economic agents numerous opportunities for investment and increasing monetary well-being, but most of them are high-risk. Of course, risk always exists, and investors are aware of that. Hedging and speculating are primary means of increasing investment. Hedging aims to reduce the risk of losses, while speculating aims to buy and sell a financial asset/raw materials in order to make a profit.

In ancient times, the precious metal gold was used as a means of payment and predates modern fiat money. Gold as money has maintained its liquidity and price value over the years, reaching today. The evolution of the monetary system and, in particular, the investment operations in precious metals are carried out on specially created financial markets for raw materials that are digitized.

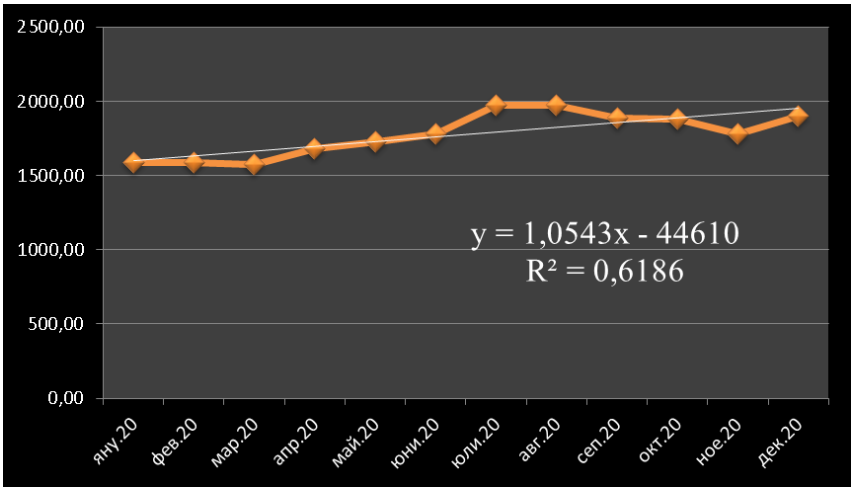
Gold, as a representative of the precious metals, is traded in the financial markets and its value is influenced by many factors related to supply and demand, namely:

- the world economic situation - it can be assumed that changes in the international economic conjuncture would have an impact on the demand for the precious metal;
- US dollar (USD) – it is accepted to denominate gold with this currency unit, i.e. when the price of a unit of USD goes down, the price of a unit of gold rises and vice versa;
- geopolitical changes - when the economic situation changes and declines, the price of gold rises as a result of its greater demand. (Петров, 2022)

Investing in precious metals creates security of value as these metals retain their convertibility in both national and international financial markets. It is important to distinguish between the types of gold investments. The gold offered in the jewelry stores is about twice the price value compared to the gold offered in the financial markets. This price difference is expressed in compensation for the artisanal labor in the manufacture of the jewelry and the accompanying trade costs. Through the trade in precious metals, an investment activity is realized with a profit expected by the economic subjects.

Regression analysis of the price value of gold for a certain period and forecast for a future period

Over time, the price of gold and ways to trade for profit have changed. To date, this precious metal is considered one of the most stable, maintaining relatively stable price values. In view of this, the author chooses an analysis based on a regression method to study the factors price and period, through which to look for the interrelationship between them. The general researched period is from 01.2020 to 12.2022, with the periods organized by years, and in the last period 01.01.2022 – 12.2022, a four-month forecast analysis is set.

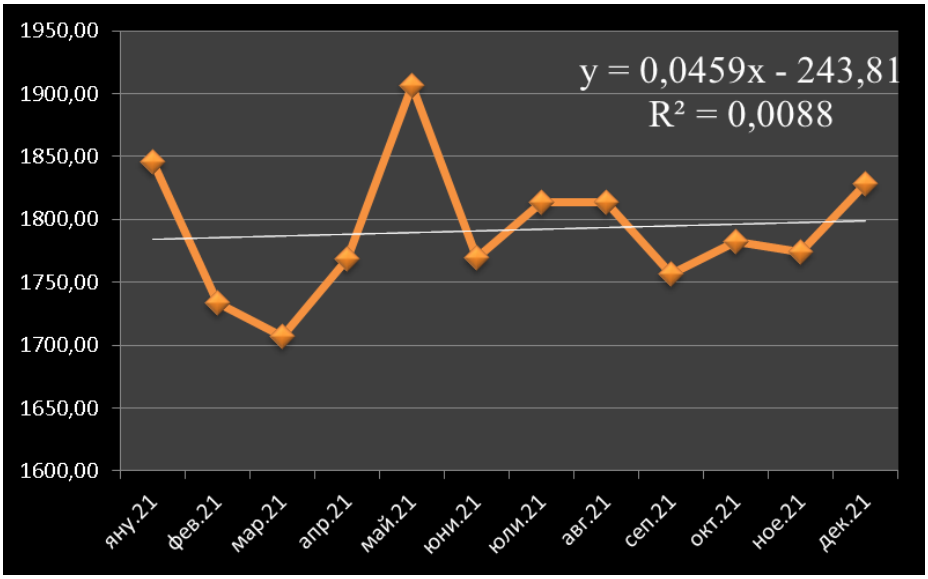


Source: investing.com and own calculations

Figure 1. Regression analysis of the price of gold for the period 01.2020 – 12.2020

Analysis of the above graph-regression period shows that for the reported time period from 01.2020 to 12.2020, the lowest price was for 1 XAU in the month of 03.2020, which was traded for USD 1 571.05, as can be seen from ***fig. 1*****,** the price of gold is rising at a constant and stable rate. The price of the precious metal was the highest in 07.2020, when it reached a value of USD 1 974.69 and showed an increase in price by nearly 25% compared to that recorded in 03.2020.

The author's study of the coefficient of determinant (R^2) for the period from 01.2020 to 12.2020 ***(fig.1)*** shows a value of 0.6186, which indicates that the research factor time has a moderate weight (about 62%) on the price of gold. Therefore, this is a reason to argue that the price per unit of gold is also influenced by other factors. Among the possible factors that can affect the increase in the price per ounce of gold are supply and demand factors, geopolitical changes at the supranational level. A chronological overview indicates that the increase in the price of XAU may also be the result of the 2020 pandemic that has occurred internationally, which has changed the geopolitical conjuncture. There are many claims that COVID-19 has negatively affected the economy on a global scale, with the resulting recession being comparable to that of World War II. (TheWorldBank, 2022) According to the same electronic document, the recession is expected to lead to a decline in investment, a decrease in investment capital of economic agents and their financial well-being, an increase in unemployment, etc. The last quarters of 2020 also saw a drop in the price of gold by nearly 19% compared to the same period of the previous year 2019. (3ENews, 2020)



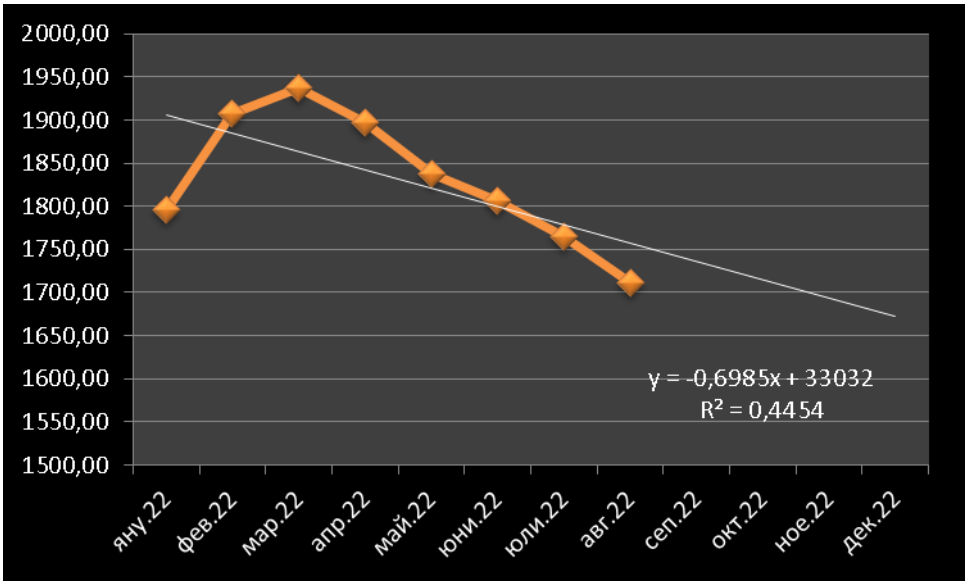
Source: investing.com and own calculations

Figure 2. Regression analysis of the price of gold for the period 01.2021 – 12.2021

Fig. 2 graphically presents a regression analysis of the price of gold for the period from 01.2021 – 12.2021, precessed by a graph clearly expressing multiple price amplitude changes in the values per ounce of gold. It can be seen from ***fig. 2*** shows a downward trend in the price of a unit of XAU against the USD. In the researched year 2021, the lowest value for 1 XAU was in 03.2021, when it was traded for USD 1 707.01 and the highest in 05.2021 – USD 1 906.36. It can be seen that during the period 01.2021 - 12.2021, the price varied in close values, and in 12.2021 it reached a relatively average value of USD 1 828.39 per unit of the precious metal – gold.

Similarly to the previous period, it is important for the research to analyze the coefficient of determination (R^2), which is 0.0088. This percentage value is expressed in 0.1% and is the basis for the author's statement that the time factor does not affect the price per ounce of gold. A chronological analysis of the past year 2021 points to hypotheses that the COVID crisis and the increased inflation expectedly led to a decline in the financial well-being of economic entities and this is probably the reason for maintaining a moderately low value of the price of gold in the first quarter of 2021.

The world's adjustment to the "new changes" as well as other factors may also be the basis for the charted increases in the price of gold per ounce in the coming months. Despite global geo-economic and political changes, investors do not lose interest in gold as an instrument for attracting financial capital, which once again shows its resilience and liquidity in times of recession and rising inflation.



Source: investing.com and own calculations

Figure 3. Regression analysis of the price of gold for the period 01.2022-08.2022 and trends for the period until 31.12.2022.

In the scientific development, the time period from 01.2022 to 08.2022 was also studied, and for the current year 2022, a forecast trend until the end of the year was specially developed. From the graphical regression analysis for the period of 01.2022 – 08.2022, it can be seen that the highest price of gold was in the month of 03.2022, when a unit of the precious metal was traded on international stock exchanges for USD 1 937.23. It can be seen from the graph that the price per ounce is decreasing as in 08.2022 USD 1 710.70. In order to predict the future value, the author has put in the regression analysis of the scientific development and a trend line describing the future value per ounce of gold for the period until December 2022. Based on the information in ***fig. 3***, the author's hypothesis is also formed that the price of gold as a precious investment metal is expected to fall analogously to the trend line.

Regarding the regression coefficient (R^2) for the studied time period is 0.4454, which is 45% and the time factor can be argued to have a moderate effect on the price of gold. Of course, the author does not exclude the influence of factors that are not included in the model, among which can be not only the COVID pandemic and rising inflation, but also the military operation in Ukraine, etc.

Regardless of the geopolitical and economic changes at the national and global level, the author's interpretation of the price of gold points to a systematic analysis of its price values for the period 2020-2022, namely:

- in January 2020, a unit of gold was traded on the international financial market for USD 1 589.81, and at the end of the reporting period, August 2022, it was USD 1 710.70. This shows that regardless of changes in supply and demand and investor interest, the price of the precious metal continues to be a preferred means of payment and trade;
- the studied coefficient of determination (R2) is different during different time periods (2020-2022), which points to the author‘s hypothesis that the time factor does not have a strong influence on the value of gold as an investment instrument. Perhaps the unexplored factor related to inflation and prices of basic goods and services, an increase in the price of the dollar against major currencies can have a stronger impact on the price of gold because it is affected by supply and demand. (Money.bg, 2022) Therefore, a reduced demand for investment by economic agents will lead to a reduced demand for gold and lower its value.

Conclusion and recommendations

The investment market is complex and dynamic, involving many relevant decisions. In a world of global changes, a global financial crisis and the impoverishment of the finances and savings of economic agents, they are increasingly looking for ways to preserve their well-being through investments in gold and other precious metals. Despite the prominent price amplitudes, gold continues to maintain stable values without sharp increases and decreases in values, but the trend outlined in the research is towards maintaining a lower price per ounce against the dollar. As can be seen from the above, many other factors also influence the price values.

In view of the above, I make an author‘s recommendation aimed at the interested persons and researchers in this field that in the future, factors related to inflation, dollar price, the COVID pandemic and socio-psychological attitudes of economic agents, etc., which would be useful for this field, should be researched.

Bibliography

3ENews. (29 10 2020 г.). *Търсенето на злато в света е спаднало с 19% заради коронавирусната пандемия*. Изтеглено на 29 10 2020 г. от 3E News: https://3e-news.net/bg/a/view/15329/tyrseneto-na-zlato-v-sveta-e-spadnalo-s-19-zaradi-koronavirusnata-pandemija

Money.bg. (14 07 2022 г.). *Търсенето на злато спада под натиска на растящия долар*. Изтеглено на 14 07 2022 г. от Money.bg: https://money.bg/finance/tarseneto-na-zlato-spada-pod-natiska-na-rastyashtiya-dolar.html

TheWorldBank. (2022, 06 08). *COVID-19 изправя световната икономика пред най-тежката рецесия от Втората световна война насам*. Retrieved 06 08, 2022, from The World Bank: https://www.worldbank.org/bg/news/press-

release/2020/06/08/covid-19-to-plunge-global-economy-into-worst-recession-since-world-war-ii

Петров, Б. (2022, 07 01). *Финансови пазари: Какво представляват и как да търгувате на тях?* Retrieved 07 01, 2022, from Admiral Markets: https://admiralmarkets.com/bg/education/articles/trading-instruments/finansovi-pazari

CREATIVE ACCOUNTING TECHNIQUES, METHODS FOR DETECTION AND PREVENTION

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ABSTRACT

This paper aims to investigate the most widely used techniques for creative accounting, methods for detection of those techniques and ways of prevention of such practices. The focus of this paper will be on the earnings manipulation. Comparative analysis will be carried out to identify the most widely used methods of detection of such practices in order to facilitate users in detecting those practices. In today's global business environment, the competition is increasing on a daily basis and every company is pushed to present its' financial figures in a favorable way, so it looks good in the eyes of the clients, investors, vendors, banks and other stakeholders. This is the reason why more and more managers are looking for alternative ways to present company's financial information even though it could not be the most appropriate way. We will investigate the most reliable methods to detect creative accounting techniques and the role of auditors in detecting such practices will be discussed too. Recommendations are given how to deal with the problem of creative accounting. Methods used in this study are the deductive reasoning, abstract reasoning and literature analysis.

Keywords: creative accounting, accounting manipulation, detection, prevention

Introduction

The term "creative accounting" is not new for accounting literature and practice. The pervasive character of this phenomenon is documented by Ian Griffiths (1986) who stipulated that "Every company in the country is fiddling its profits. Every set of published accounts is based on books which have been gently cooked or completely roasted. The figures which are fed twice a year to the investing public have all been changed to protect the guilty. It is the biggest con trick since the Trojan Horse". The numerous accounting scandals in the last century brought huge number of questions to our attention such as: how creative accounting practices could be decreased, what are the methods and techniques to detect such practices and what is the role of regulatory bodies to combat the problem? There is no specific answer to those 3 questions as the dimensions of creative accounting are numerous and every single aspect needs specific analysis. However, as a response to the numerous accounting

scandals around the world, a lot of countries took measures against creativity in accounting. Those measures are directed mainly to combat accounting fraud, but in order accounting fraud to occur, creative accounting is being used for a large period of time. There is a wide consent around the accounting community that creative accounting is prerequisite for accounting fraud and usually managers engage in fraudulent activities when they use up all options for creative usage of accounting standards and regulations. The IASB (International Accounting Standards Board) and the U.S. Securities and Exchange Commission (SEC) are the bodies designing, approving, implementing, optimizing and releasing new accounting standards respectively in Europe and US. In a retrospective analysis, as a response to the numerous cases of creative accounting and fraud, could be established the issue and release of new standards and amendments to existing ones. There is a certain advance in the area of limiting such practices but still significant number of loopholes in accounting regulations exist and managers are tempted to take advantage of this.

1. Which are the most widely used techniques for creative acoounting?

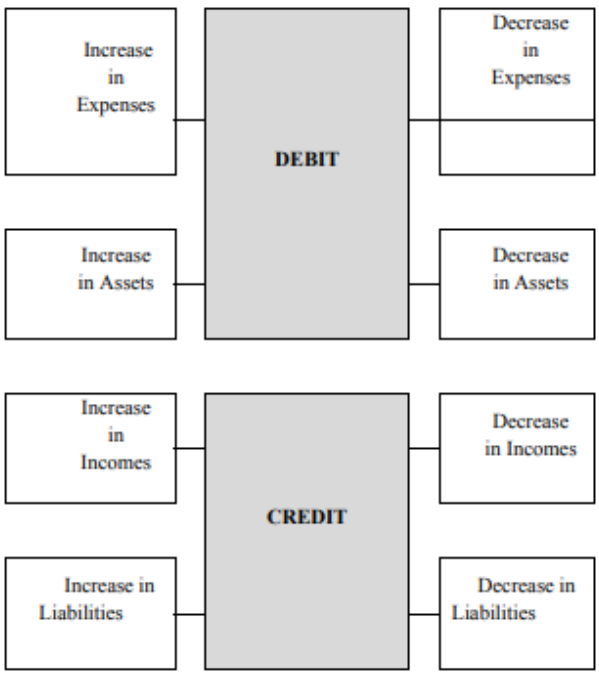
If we dedicate a whole dissertation to this question, we still will be unable to provide an exhaustive answer as the creative accounting techniques are numerous and of different type. Furthermore, in each and every accounting standard from IFRS and US GAAP we can spot loopholes, vulnerabilities, imperfections and significant number of possibilities for manipulation could be identified. This is the reason we will pay attention only to the basic and most widely used techniques known in the literature and practice so far. In this paper, we make clear differentiation between creative accounting and accounting fraud so as creative accounting include manipulations implemented within the regulatory framework and not violating the related legislation and accounting standards, while accounting fraud goes much beyond those regulations and standards. Having these in mind, we will analyze only techniques for manipulation which are not illegal and don't violate any standards and rules. Cosmin (2010) argues that tangible assets, goodwill, depreciation, inventories, provisions and construction contracts are the basic items subject to manipulation. We tend to agree with this assertion as the literature shows that fixed assets take major portion of accounting manipulations. For example, the management is free to choose depreciation method based on which the benefits of the asset will be consumed. However, depending on which method will be chosen (linear, declining balance or sum-of-the-years' digits) there will be different effect on the bottom line of the company`s income statement. On the other side, Jones (2011) divides the creative accounting practices in five main groups:

- **Income increase** – this strategy in turn involves five sub-groups: recognition of sales before they've been realized; augmentation of interest income; include the non-operating profit in the profit from operating activities, presenting loans as sales and manipulation of swaps.

– **Expense reduction** - this strategy involves eight sub-groups: manipulation of provisions; tax reduction; big bath accounting and unrestrained one-year write-downs; reduce expenses and augment assets; closing inventory increase; capitalize expenses; increase of fixed assets' useful lives and make higher provisions for bad debts.
– **Assets augmentation** – this strategy involves four main sub-groups: increase in the goodwill; increase in brands and other intangibles; revaluation of fixed assets so that the fair value is increased; manipulations implemented by using mark-to-market method.
– **Liabilities diminishment** – this strategy involves two main sub-groups: off-balance sheet financing and reclassification of debt to equity.
– **Increase in operating cash flows** – this strategy involves two main sub-groups: increase in the operating cash inflows and decrease in the operating cash outflows.

In **Figure 1**, Shah, Butt and Tariq (2011) present a simplified model for understanding the creative accounting techniques based on double entry system. They argue that all techniques of creative accounting circle around the selection of inadequate account to book certain item. The process is described as not debiting/crediting the correct account with the correct amount.

Figure 1 – Double entry system:



Adapted from Shah, Butt and Tariq (2011)

2. Methods for detection

It is the accrual-based models which are most widely used by researchers to detect accounting manipulation. Sun and Rath (2010) point out that studies on creative accounting are based mainly on accruals estimation. The term "earnings management" is being used as those manipulations are focused mainly on earnings. As earnings management is a component of the creative accounting, we will use it as a proxy for accounting manipulation which is focused on the earnings only (creative accounting includes manipulations of all components of financial statements – balance sheet, income statement, statement of cash flows, statement for changes in equity and explanatory notes). Healy (1985) was the first one to establish that discretionary accruals can be used for detection of earnings management. He points out that discretionary accruals are those that are subject to manipulation, while non-discretionary accruals are the expected portion of total accruals over which managers cannot exercise influence. According to his model, discretionary accruals are derived by scaling total accruals by lagged total assets in specific year so the expected value of non-discretionary accruals is zero. Healy (1985) discovered that managers used discretionary accruals to increase their bonuses. Most methods for detection of earnings management in the literature are based on discretionary accruals. According to the literature, the most popular six models for detection of earnings management are The Healy Model; DeAngelo Model; The Jones Model; The modified Jones Model; The Industry Model and The Beneish Model.

2.1. The Healey Model (1985)

As mentioned earlier, the Healy (1985) model was the first one to establish that discretionary accruals should be used as a proxy for earnings management. His model assumes that discretionary accruals should be equal to zero. The model stipulates that every company having discretionary accruals different from zero implements practices of earnings management. When company has discretionary accruals less than zero, this is indication for increased income and vice-versa – when discretionary accruals are above zero, the income is decreased. The model is illustrated with the following formula:

$$NDA_{\tau} = \frac{\sum_t TA_t}{T} \qquad (1)$$

Where:

NDA_{τ} = estimation of non-discretionary accruals;
TA = total accruals scaled by lagged total assets;
t = 1, 2,…T is an year index of the year involved in the period of estimation
τ = indication for the year in the event period.

2.2. DeAngelo Model (1986)

The model assumes that non-discretionary accruals follow a random walk process. DeAngelo (1986) is testing the hypothesis where publicly traded company is being transformed to a non-public one and the company is trying the devalue its shares using earnings management techniques so that managers could redeem them back at a much lower price. The model is using the total accruals for the previous year $(TA_{\tau-1})$ scaled by lagged total assets as a proxy for non-discretionary accruals:

$$NDA_{\tau} = \frac{TA_{\tau-1}}{A_{\tau-2}} \tag{2}$$

Where:

NDA_{τ} = non-discretionary accruals at period t;

$TA_{\tau-1}$ = total accruals for period $\tau - 1$;

$A_{\tau-2}$ = total assets in period $\tau - 2$.

2.3. The Jones Model (1991)

Jones (1991) assumes that the changes in revenue lead to changes in working capital which in turn lead to changes in accruals. On the other hand, the depreciation of fixed assets will lead to decrease in accruals. As a result, Jones suggests the following method for deriving the non-discretionary accruals:

$$NDA_{\tau} = \alpha_1(1/A_{\tau-1}) + \alpha_2(\Delta REV_{\tau}) + \alpha_3(PPE_{\tau}) \tag{3}$$

Where:

ΔREV_t = change in sales revenue for period τ scaled by lagged total assets for period $\tau - 1$;

PPE_t = total amount of fixed assets for period τ scaled by lagged total assets for period $\tau - 1$;

$A_{\tau-1}$ = total assets for period $\tau - 1$;

$\alpha_1, \alpha_2 \text{ and } \alpha_3$ = company specific indicators.

Dechow et al (1995) argue that major drawback of this model is that revenue accruals are made only on non-discretionary basis which means that they haven't been increased or decreased by managerial discretion. As a result, if managers select to implement solely increased or decreased levels of revenue accruals, the model will not detect this manipulation attempt. Jones (1991) recognizes this limitation of his model.

2.4. Modified Jones Model (1995)

As a result of the limitations found out in the initial Jones model, Dechow et al (1995) suggested a modification where sales revenue is modified with the changes in account receivables:

$$NDA_t = a_1\left(\frac{1}{A_{t-1}}\right) + a_2(\Delta REV_t - \Delta REC_t) + a_3(PPE_t) \quad (4)$$

Where:

ΔREV_t = change of sales revenue for period t scaled by lagged total assets for period $t-1$;

ΔREC_t = change of account receivables for period t scaled by lagged total assets for period $t-1$;

PPE_t = fixed assets for the current period scaled by lagged total assets for period $t-1$

A_{t-1} = lagged total assets for period $t-1$;

a_1, a_2, a_3 = company specific indicators.

This modification suggested by Dechow et al (1995) is considered the most effective for detecting earnings management nevertheless it also has its limitations. For example, the modified Jones Model assumes that all changes in accounts receivable are result from earnings manipulations, however, objectively, this is not possible.

2.5. The Industry Model

The Industry Model was developed by Dechow and Sloan (1991). Its major assumption is that earnings management is also dependable on the industry in which the company is operating. The Industry Model is disproving the notion that non-discretionary accruals stay constant over time. The model also assumes that the variations in the determinants of the non-discretionary accruals are equivalent in the companies operating in the same industry. The following regression is applied in order to derive the non-discretionary accruals:

$$NDA_\tau = \gamma_1 + \gamma_2 median_I(TA_\tau), \quad (5)$$

Where:

$median_i(TA_\tau)$ = the mean value of total accruals scaled by lagged total assets for all companies in the same industry.

2.6. The Beneish Model (1999)

Beneish (1999) suggests a mathematical model using 8 coefficients to establish if a company is using earnings management techniques. Those coefficients are taken from the financial statements of a company. The so called "M-SCORE" model involves the following indices:

- ***DSRI (Days Sales in Receivables Index)*** – this index may reveal manipulation techniques for increasing profit when a large increase of receivable days is derived. It is calculated using the following formula:

$$DSRI = \frac{\frac{Accounts\ Receivable_t}{Sales_t}}{\frac{Accounts\ Receivable_{t-1}}{Sales_{t-1}}} \quad (6)$$

Where:

$Accounts\ Receivable_t Accounts\ Receivable_{t-1}$ = accounts receivable for period t and $t-1$;

$Sales_t$ / $Sales_{t-1}$= sales revenue for period t and $t-1$

- ***GMI (Gross Margin Index)*** – when the index is low, this is a signal for negative perspectives for the firm and motivates manages to increase profits. It is calculated using the following formula:

$$GM = \frac{Rev - COGS}{Rev} \quad (7)$$

Where:

Rev = sales revenue;

$COGS$ = cost of good sold.

- ***AQI (Asset Quality Index)*** – the index is showing the relation of the long-term assets (different from PPE) to all assets between current and previous year. Increase in long-term assets (different from PPE) is indication for increased cost deferral to boost profit. It is calculated with the following formula:

$$AQI = \frac{1 - \frac{Current\ assets_t + PPE_t}{A_t}}{\frac{Current\ assets_{t-1} + PPE_{t-1}}{A_{t-1}}} \quad (8)$$

Where:

$Current\ assets$ = short-term assets;

PPE_t = property, plant and equipment for year t (current year);

A = total assets.

- ***SGI (Sales Growth Index)*** – companies with a high rate of increase of this index are striving to keep it high in future periods to respond to the expectations of investors. The following formula is used for calculation of this ratio:

$$SGI = \frac{Sales_t}{Sales_{t-1}} \quad (9)$$

Where:

Sales t = sales revenue for period t (current period);

$Sales_{t-1}$ = sales revenue for period $t-1$ (previous period).

- ***SGAI (Sales, General and Administrative Expenses Index)*** – this ratio measures the relation between cost of sales, operational and administrative expenses for the current as opposed to the previous period.
- ***DEPI (Depreciation Index)*** – this ratio shows the relation between depreciation expenses for the current as opposed to the prior period. If the result is higher than 1, this is an indication of augmentation asset's useful lives or changed in depreciation method aiming to reduce expenditure.
- ***LVGI (Leverage Index)*** – this ratio indicates changes in financial leverage. An increase in the ratio could be an incentive to manipulate profits in order to comply with debt covenants. It is calculated with the following formula:

$$LVGI = \frac{D_t/A_t}{D_{t-1}/A_{t-1}} \quad (10)$$

Where:

D = total amount of debt;

A = total assets.

- ***TATA (Total Accruals to Total Assets)*** – index showing the relation between accruals and assets. For establishment of accruals, Beneish (1995) is using changed in working capital, decreased with cash and cash equivalents and depreciation. This is based on the assumption that only short-term accruals can be manipulated by managerial discretion:

$$\text{TATA} = \frac{Working\ capital - Cash - Depreciation}{\text{A}} \quad (11)$$

Where:

Working capital is calculated as a difference between short-term assets and short- term liabilities.

After calculation of all those ratios, they are all integrated in one single model - the so called "M-SCORE" model of Beneish (1995). It assumes that if the M-SCORE is higher than -1.78, there is a high probability for earnings management:

$$M = -4.84 + 0.92 * DSRI + 0.528 * GMI + 0.404 * AQI + 0.892 * SG + 0.115 \quad (12)$$

$$* DEPI - 0.172 * SGAI + 4.679 * TATA - 0.327 * LVGI$$

3. Methods for prevention

Some studies (Actingcolleges, 2021) imply that internal control mechanisms in the company should be improved by dividing duties of the managers in implementation of those mechanisms. Significant role is given to the independent audit committee where always should there be someone with distinctive accounting expertise and audit background responsible to deal with external auditors. Dontigney (2017) suggests four main steps important in prevention process: segregating functions, create an ethical environment in the company, following formal policies and sanctions, and the role of external auditors.

- **Segregating functions** – this approach recommends the company to have an internal accountant responsible for daily transactions oversight, while a certified public accountant (CPA) is assigned for control bank transactions and prepare financial reports every month. Something similar is implemented in bigger companies where financial statements are reviewed by members of different departments so that no possibility is for manipulation by separate individuals is admitted.
- **Create an ethical environment in the company** – when managers don't stick to any ethical standards this behavior is transferred to employees. And vise-versa – when managers and chief executives follow ethical behavior, the same model is assumed by the rest of the employees of the company.
- **Following formal policies and sanctions –** formal rules against creative accounting serve as a protection against such practices on three levels: first, new employees are made aware from the very beginning that the company is not tolerating unethical behavior; second, formal rules and policies serve as an instrument for correcting behavior of employees who are not taking into consideration such rules and penalties; third – employee implementing creative accounting after receiving less severe punishments may be dismissed based on this behavior.
- **Role of external auditors –** the author points out that external audit cannot always detect creative accounting, but auditors with extensive experience and solid expertise can be more diligent and detect such practices easily. Knowing that the company is subject to a mandatory external audit process, some managers deter from implementing creative accounting practices.

Benkel, Mather and Ramsay (2006) argue that the agency problem caused numerous incentives for earnings management. The agency problem represents the division of functions between management bodies and owners of corporation. Authors cite Sloan (2001) who argues that agency problem occurs where managers are acting in their own interest, but not for the interest of the shareholders. As a result, corporate controls were boosted in a way that managers start to act in shareholders' interest (to maximize shareholder wealth). Therefore, the shareholders have crucial role for maintaining strong internal governance system and reduce these agency issues. The study of Benkel, Mather and Ramsay (2006) find out the higher the

number of independent directors in the board and in audit committee, the reduced levels of earnings management. Thus, it can be concluded that overcoming the agency problem and delegation of major duties to executive directors such as oversight of corporate controls, ensuring the independency of directors in the board and maintaining strong internal governance system are critical factors to prevent managers to indulge in earnings management practices. On the other hand, Owojori and Asaolu (2009) point out that statutory audit is not playing the role it should otherwise play – to discover creative accounting practices and fraud in the financial statements. For this reason, they accentuate on role of the so called "forensic accountant". This type of person as opposed to the traditional accountant is supposed to have investigative role in the organization and is trained to analyze deeply the financial reports of a company by collecting evidence and utilizing his broad accounting, auditing, and controlling knowledge to reveal and resolve disputes and when necessary to assist in legal proceedings. Usually, the forensic accountant is external to the company and is assigned by a public body to analyze specific company's financial reports when there are suspicions for creativity or fraud. Other researchers (Remenaric, Kenfelja and Miloc, 2018) argue that as a response to the numerous accounting scandals in the world, a number of measures need to be implemented, some of which include:

- Limiting the use of estimates and increase in the consistency of application of accounting methods. The authors assert that this relates to newly issued accounting standards, while we argue that this needs to be done also by optimization of the current ones.
- Focus and accent on the role of the internal and external audit in the process of revealing and reporting unjustified estimates and intercepting accounting manipulations.
- Change of the audit company (the one performing the audit) from one financial year to another.
- Independent directors to be hired in the management board and independent auditors to be assigned to the audit committee.
- Setting up efficient corporate governance controls.
- Development and effectiveness in the usage of whistle blowing policy.
- Constantly make employees acquainted with the ethics code.
- Paying specific attention of setting up and execution of forensic accounting.
- Familiarize investors with the practices of creative accounting.
- Consistent application of punishments by national authorities.

4. Conclusions and recommendations

This study investigated the most widely used techniques for creative accounting, reliable methods to detect those techniques and up to date measures to be implemented to reduce them. Of course, we don't pretend that our analysis is exhaustive, so we suggest additional explorations on the topic to create basis for

regulatory bodies and companies to take the necessary measures against creative accounting. As a summary to the most widely used techniques to manipulate financial statements we can point out the possibility for estimation and discretion when managers are valuating items. Such techniques include but are not limited to income increase, expense reduction, assets augmentation, liabilities diminishment and increase in operating cash flows as suggested by Jones (2011). However, playing with depreciation methods and fixed assets' useful lives are also at the forefront of accounting game. Furthermore, the bigger the number of methods for valuation, the bigger the possibilities for creative accounting.

Also, we keep the notion that the Modified Jones Model (1991) is the most reliable method to detect earnings management, but also, we encourage users of financial statements and other interested parties to decide upon the appropriateness of every model in the context and specifics of every company and business. For example, some companies could not have disclosed data allowing the usage of one model, so the users of financial reports need to select alternative one which is more suitable and fits to the specifics of the respective company. This could be a model different from the listed ones in section 2 in this paper. Also, we encourage further research of the already regarded models as well as on new ones which are not explored in this research.

In the spirit of accounting standards, managers should stick to the ethical code of professional accountants and use accounting methods which serve the "true and fair view" notion, not their own interest. We keep the statement that until there are numerous alternative methods for valuation in accounting standards, the accountants will continue to use them for their own purposes. This is the reason some of those methods need to be excluded from the standards so more conservative approach is assumed in the development of new accounting standards or optimizing the existing ones. Another way to achieve consistency among financial statements is the full synchronization of all accounting standards around the world. We realize this is a slow and difficult process but paving the way to it is the future of accounting profession in terms of reliability, consistency, and ethics.

REFERENCES:

Actingcolleges.org, 2021. How do you identify and prevent creative accounting? Available at: https://actingcollegeses.com/library/acting-questions/read/127824-how-do-you-identify-and-prevent-creative-accounting, (Accessed 01.06.2022).

Beneish, M. D., (1999), The Detection of Earnings Manipulation, Financial Analysts Journal, 55(5), 24-36.

Benkel, M., Mather, P. and Ramsay, A. 2006. The association between corporate governance and earnings management: the role of independent directors. Corporate Ownership & Control, 3(4), pp 65-75.

Cosmin, L. 2010. A census of creative accounting techniques. Available at: https://core.ac.uk/download/pdf/6386833.pdf (Accessed 03.05.2022).

DeAngelo, L. E., 1986. Accounting numbers as market valuation substitutes: A study of management buyouts of public stockholders. Accounting Review, 61 (3), 400-420.

Dechow, P. and Sloan, R., 1991. Executive incentives and the horizon problem: An empirical investigation. Journal of Accounting and Economics, 14, pp. 54-89.

Dechow, P., Sloan, R., and Sweeney, A., 1995. Detecting Earnings Management. The Accounting Review, 70 (2), pp. 193-225.

Dontigney, E. 2017. How to Prevent Creative Accounting. Bizfluent. Available at: https://bizfluent.com/how-4450645-prevent-creative-accounting.html, (Accessed 27.07.2022).

Griffiths, I., 1986. Creative Accounting: How to Make Your Profits What You Want Them to Be. Pan Macmillan; 1st Edition.

Healy, P. M., 1985. The effect of bonus schemes on accounting decisions. Journal of accounting and economics, 7 (1–3), pp 85-107.

Jones, J., 1991. Earnings Management during Import Relief Investigations, Journal of Accounting Research, 29 (2), pp. 193-228. Available at: https://www.jstor.org/stable/2491047 (Accessed 22.06.2022).

Jones, M., 2011. Chapter 4: Methods of Creative Accounting and Fraud. In M. Jones (ed.). Creative Accounting, Fraud and International Accounting Scandals (1st ed., pp. 43-68), England: John Wiley&Sons Ltd, The Atrium, Southern Gate, Chichester.

Owojori, A. and Asaolu, T. 2009. The Role of Forensic Accounting in Solving the Vexed Problem of Corporate World. European Journal of Scientific Research, ISSN 1450-216X, 29 (2), pp.183-187.

Remenaric, Miloc, I., and B., Kenfelja, I. 2017. Creative accounting – motives, techniques and possibilities of prevention. Ekonomski vjesnik/Econviews, 31 (1), pp. 193-199.

Shah, S., Butt, S. and Tariq, Y. 2011. Use or Abuse of Creative Accounting Techniques. International Journal of Trade, Economics and Finance, 2 (6), pp. 531-536.

Sun, L. and Rath, S., 2010. Earnings Management Research: A Review of Contemporary Research Methods. Global Review of Accounting and Finance, 1 (1), pp. 121 – 135.

CREATIVE ACCOUNTING AND ACCOUNTING FRAUD – DIFFERENCES AND SIMILARITIES

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Abstract

In today's global, dynamic, and turbulent business environment, the most prominent imperative for companies is to present their financial figures to look good in the eyes of the wide public. This is the reason that increasing number of managers indulge in accounting manipulation. However, accounting manipulation consists of two major types – creative accounting (which operates within the regulatory framework but outside the ethical standards) and accounting fraud which means manipulation stretching out of the regulatory framework and in most cases involves illegal activities. The borderline between these two terms is very tight and it is difficult even for the auditors to detect such practices if they are masterfully concealed. The main purpose of this paper is to define both terms, clarify where is the borderline between them and explore the major differences and similarities. The most prominent accounting scandals in the last century were caused by accounting fraud and this led to catastrophic consequences not only to the companies involved but also to whole sectors and economies. That's why it is vital to explore the topic of those two phenomena, provide solutions to overcome them and recommendations for subsequent research to find ways to reduce such practices in the future.

Keywords: *accounts manipulation, creative accounting, accounting fraud*

JEL Classifications: *M41, M42, M48, M49*

Introduction

In today's turbulent, vibrant, and unpredictable business environment, constantly challenged with changing policies, unstable political situation in many countries around the world, global pandemics and military conflicts, an imperative for businesses become the need to present favorable and good-looking financial position of companies. These circumstances prompt increased number of managers and executive directors to indulge in accounting practices which are on the edge of the permitted. Furthermore, we witness large number of managers going even beyond of what is allowed and very often violate the laws, accounting standards and financial regulations. In the first case, when the managers are acting on the edge, but within the legislative

framework we talk about creative accounting practices which are not illegal, but in most cases are against the spirit of the ethical traditions and norms. In the second case where managers step out of the legislative framework, we talk about accounting fraud, which is usually found by audit inspections, or detected by users of financial statements. Accounting fraud is proved after legal proceedings and usually a court needs to pronounce a verdict. This is the reason why increased awareness needs to be raised about those two phenomena and differentiation between them needs to be done. In this paper, we will explore various opinions, statements and pronouncements of multiple authors and scientists to put light on the differences and similarities of those terms and provide hints how to detect at least one of them (usually, when we find creative accounting practices used in one company this is a red light that accounting fraud could also exist). Historically, creative accounting and accounting fraud are not new phenomena in the world's business environment. We've been witnesses of numerous accounting scandals in the last century, each of them leading to improved legislative setting aiming to reduce such practices in the future. In spite of the increased measures to tackle the issue however, up to now those practices are still widely used and there isn't final solution how to bring them to minimum.

1. Major characteristics of creative accounting and reasons behind its implementation

1.1. Overview and historical background

Historically, the term creative accounting is not a new one although it wasn't used under the same name in anticity. Manipulative practices are noticed 500 years backwards. Balaciu, Bogdan and Vladu (2009) underline that manipulating accounting figures is first described by Luca Paciolo in his book De Arithmetica. This proves the statement that the desire of making financial figures look appealing or vice-versa is as old as 500 years as mentioned above. The authors illustrate the so called "cover-up" technique where double entry bookkeeping technique was implemented. The transactions were reflected in main and subsidiary books and the Venetian traders recorded them using ink and quill-pen. In cases where discrepancies were found, a common practice was to spill the inkwell over those books in order to destroy those entries and make them invalid.

Nowadays, numerous authors and explorers are defining the term creative accounting as it is a prominent topic in the last few decades, even in the last century. The major accounting scandals in the last decades started with usage of creative accounting practices which later evolved into accounting fraud. Numerous terms have been used in literature such as "window dressing", "cooking the books", "aggressive accounting", "earnings management", "income smoothing", "accounts manipulation", etc. Irrespectively how it is called, usually it has one and the same idea, namely, unethical representation of financial information in companies' financial statements, in most cases making figures look favorable, in order to

mislead investors, clients, bank institutions, government and other stakeholders and users of financial information. As mentioned earlier, this kind of manipulation is not fraudulent and do not violate the law and the related accounting standards, but it stays against the spirit of those standards and contradicts the ethical principles of professional accountants. Shah (1998) confirms our assertion defining creative accounting as a process in which managers take advantage of the deficiencies and loopholes in accounting standards to present financial wellbeing in front of the wide public. In spite of the fact that some authors state that creative accounting could be used also in a positive way to increase transparency and the notion of "true and fair view", the majority of the accounting society supports the opinion that it is used mainly to gain short-term advantage in front of the competitors, despite it could have devastating consequences on the long run.

1.2. Reasons for creative accounting

Remenarić, Mijoc and Kenfelja (2017) summarize the reasons for creative accounting implementation in six major groups: gaining personal advantages, competition in the market, attracting new investors, augmenting or keeping the level of capital, turnover of bad debts and surpassing analysts' forecasts regarding future company performance. Of course, these are only part of the motives to use accounting manipulation practices. Cugova and Cug (2020) supplement the aforementioned incentives adding that personal motives involve managers trying to reach certain company targets in order to be eligible for performance-based bonuses. Also, maintaining good financial picture of the company is helping to keep their position or could ensure their promotion. The authors accentuate on the valuation problems as the International Accounting Standards allow value measurements of significant groups of assets. The pressure from investors and the impact of business environment are also important factors prompting companies' management to indulge in creative accounting practices. The aforementioned list of incentives is not exhaustive, but at least it provides main idea of what is the reason behind the wide-spread creative accounting practices. Numerous studies proved that the reasons for implementation of creative accounting and accounting fraud are the same. The difference is only how those manipulations are implemented.

2. Major characteristics of accounting fraud and reasons behind its implementation

2.1. Overview and major characteristics

Nickolas (2022) defines accounting fraud as a conscious creation of falsified view of the financial appearance of a company with the purpose to mislead investors and shareholders. Typical examples of such manipulations include artificial increase in revenue, not reflecting expenses in accounting reports and misrepresenting liabilities and assets. The author accentuates on the fact that accounting fraud is illegal

manipulation of companies' accounts in order to create impression of good financial health. Rezaee (2002) highlights two major concepts of financial statement fraud. The first one is given by the Association of Certified Fraud Examiners, and it describes accounting fraud as aforethought, purposive misrepresentation or exclusion of important information or disclosure of misleading accounting data which when considered with all the information made available, would cause the user of financial statements alter his opinion and discernment. The second one is provided by the Treadway Commission report which states that accounting fraud is referred to as deliberate and incautious action conducted by fraudulent statement or misstatement of financial data which is resulting in materially deceptive financial statements. Kassem (2012) points out that all definitions of fraud will differ slightly country by country, but all aspects of fraud include the facts that fraud is violating the law and the regulatory framework. He underlines that fraud is defined also as deliberate contortion of financial statements and other records by individuals interior or exterior to authority with the purpose to hide embezzlement of assets or in other words – for gain. If we analyze in detail the incentives for implementation of accounting fraud practices in the financial statements, we will establish that they do not differentiate significantly with the incentives for usage of creative accounting practices.

3. Comparative analysis of creative accounting and accounting fraud

Perols and Lougee (2011) are examining the relationship between creative accounting and accounting fraud pointing out that companies can either manipulate their financial statements by implementing creative accounting techniques using discretionary accruals or by executing fraudulent activities. However, accruals have the trend to reverse over time and the aftereffects of those reversals need to be dealt with which is prompting managers to engage in illegal actions to make up for those reversals. Usually, managers start engaging themselves in fraud when all possibilities for creative accounting have been exhausted, especially when creative accounting is being implemented in few consecutive years. Therefore, linear relationship is evident in those two phenomena – the existing of the first one (creative accounting) is most cases is prerequisite for occurrence of the second one (accounting fraud). Typical example of departure from creative accounting framework and arrival to the fraudulent financial reporting is the case with Enron. Newman (2007) stipulates that initially, Enron was acting within the framework of Financial Accounting Standard 140 - *Sales Recognition*. For this purpose, so called "Special Purpose Entities" (SPE) were used which are existing as separate partnerships different from the main company (in our case Enron) and are not included in consolidation with the main company. They were used to reduce the risk for investors in terms of the assets and liabilities invested in the SPE so that the benefit of the investors to be dependable solely on what is happening with those assets and liabilities only in the SPE. Enron was using one of the possibilities *FAS 140* was permitting – namely to sell one of SPE's assets. On the other hand,

the same asset owned by the SPE was acquired using a borrowing that represents 97% of the asset's value and 3% equity issue, thus complying with the requirement set out by *FAS 140*, 3% of the purchase to be done with own funds. In the same time, Enron was bearing the risk to repay the loan withdrawn by the SPE by issuing the so called "total return swap" and other financial instruments thus keeping the substantial risks and benefits associated with the ownership of that asset. Until that moment Enron was acting within the framework of *FAS 14*. The next actions are those that brought the company outside of the legal financial reporting. The company started to record as sales the aforementioned assets transferred to the SPE thus incorrectly increasing the sales revenue in its financial statements. Furthermore, the cash flows generated from the assets transferred to SPE were presented as cash flows from operating activities which significantly impacted this item in financial reports. Another way to manipulate earnings was to revalue the assets owned by the SPE by significantly increasing their value for the purpose of profit optimization after selling the assets as suggested by Newman (2007). This is a typical example from the practice how the biggest accounting scandal from the last century started from using creative accounting practices within the legal framework and ended up in committing illegal financial reporting.

On the other hand, a lot of similarities are noticed in the incentives for engagement in creative accounting and fraud. Doesn't matter if companies use creative accounting practices or accounting fraud, the inducements for implementation of one of those activities (regardless which one) are basically the same.

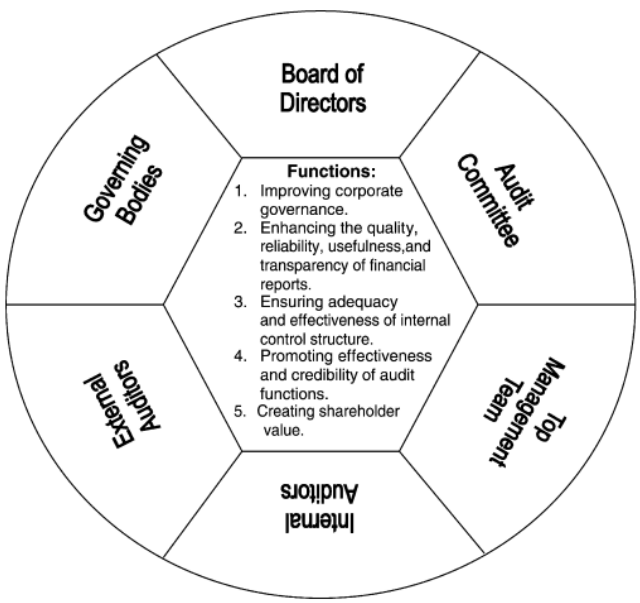
Major differences in implementing creative accounting and fraud involve how those two phenomena are being used. Czakowska (2020) for example, argues that creative accounting is practiced mainly by judgement in financial reporting which is allowed by the financial standards and permits managers to use discretion in determining fixed assets' useful lives, pension benefit liabilities, provisions, and all items subject to subjectivity and estimation. The judgement relates also to the possibility the managers to select amongst divergent accounting methods allowed by the applicable accounting standards for initial recognition, subsequent measurement of assets and liabilities, defining useful lives and depreciation method for group of assets and all other methods and techniques applicable for all items presented in financial statements. This possibility for selection of divergent approaches to measure items provides the creativity in financial reporting. The reason is that most of the companies are taking advantage of those opportunities by choosing not the most appropriate method, but the most convenient one so that the information presented in the financial statements looks appealing to users. On the other hand, accounting fraud is relying on different approaches in distorting financial data such as falsification, distortion or concealment of material records, documentation, or business transactions (Rezaee, 2005). Beaver (2022) supplements the types of fraudulent reporting by adding some basic approaches such as: overstating revenue, recognition of fictitious revenue and sales, concealment of liabilities or obligations, improper or

inadequate disclosures, falsifying expense and misappropriations. All of these are related with falsifications and fraudulent activities which go well beyond the legislative framework and the applicable accounting standards. Creative accounting, as opposed to the fraudulent reporting, consists only of legal actions stretching solely to the borders of the legal framework and applicable accounting standards.

4. Responses to and measures against creative accounting and fraudalent reporting

As a response to the huge number of accounting scandals in the last century, numerous legislative proposals and acts have been released and came into force to tackle the issue. Jan (2018) underlines that some of the most prominent measures enforced to protect users of financial statements include Sarbanes-Oxley Act adopted by the U.S. Congress as a result of the Enron financial scandal and the Statement on Auditing Standards (SAS) No. 99, *Consideration of Fraud in Financial Statements,* adopted by the American Institute for Certified Public Accountants (AICPA). Rezaee (2005) accentuates on the importance of corporate governance in reducing the creative accounting techniques and fraud. He argues, as shown in **Figure 1**, that in corporate governance board of directors, audit committee, top management team, internal auditors, external auditors and governing bodies are involved all of which play vital role in ensuring adequate and quality reporting process and reliable financial statements.

Figure 1: Corporate governance and its functions



Adapted from Rezaee (2005)

Conclusions and recommendations

As analyzed in previous sections, the major similarities in creative accounting and accounting fraud are the incentives prompting companies to engage in such activities, the pressure of the highly competitive business environment and the increased demands of the capital markets. The main contributions of this study are grouped in six main sections:

- Major differences and similarities were identified between creative accounting and accounting fraud and guidelines were provided how to differentiate between those two phenomena.
- Linear correlation between creative accounting and accounting fraud was identified by literature analysis and a case study of the biggest accounting scandal in the last century – the one with the company Enron. It was proved that when managers are using creative accounting techniques in few consecutive years, it is highly possible that at certain period they start engaging in accounting fraud (usually when they use up all possible options for creative accounting).
- Based on the literature analysis, it was concluded that the incentives for implementation of creative accounting and accounting fraud are the same. The difference is in the types of manipulations implemented as a result of those incentives.
- This study examined the relationship between creative accounting and accounting fraud in a broad sense, but further research is required to define specific borderlines.
- Despite of the numerous legal proposals and acts enforced as a result of the latest accounting scandals in US and other countries, the problem of using creative accounting and accounting fraud was not still resolved. Additional actions are required by legislative bodies in order to limit the implementation of such practices to minimum.
- Further research on this topic will be a basis for development of new legislative proposals, release of new accounting standards and optimization of the current ones. As accounting to a big extent is based on estimation, it will be difficult to fully eliminate those practices, but the regulative bodies should strive to find the balance between possibility for discretion and strict stipulations in accounting acts. This will bring the accounting process to a new level in contemporary world.

REFERENCES:

Balaciu, D., Bogdan, V. and Vladu, A., 2009. A brief review of creative accounting literature and its consequences in practice. Annales Universitatis Apulensis Series Oeconomica, 11(1), 2009, Available at: https://core.ac.uk/download/pdf/6481349.pdf (Accessed 18.07.2022).

Beaver, S., 2022. Financial Statement Fraud: Detection & Prevention. Oracle NetSuite. Available at: https://www.netsuite.com/portal/resource/articles/accounting/financial-statement-fraud.shtml (Accessed 22.07.2022).

Cugova, A. and Cug, J., 2020. Motivation for the use of creative accounting techniques in the conditions of the globalized business environment. SHS Web of Conferences 74, 01004 (2020). Globalization and its Socio-Economic Consequences 2019. Available at: https://pdfs.semanticscholar.org/5d67/65a1e423e7548ee9ddcbc94f6fab0e4997f1.pdf?_ga=2.221172696.1356364275.1660053115-85485396.1655541805 (Accessed 18.06.2022).

Czakowska, S., 2020. The Similarities and Differences between Earnings Management and Fraud. Zesz. Nauk. UEK, 4 (988), pp. 103–115.

Jan, C., 2018. An Effective Financial Statements Fraud Detection Model for the Sustainable Development of Financial Markets: Evidence from Taiwan. Available at: https://www.mdpi.com/2071-1050/10/2/513 (Accessed 27.06.2022).

Kassem, R., 2012. Earnings Management and Financial Reporting Fraud: Can External Auditors Spot the Difference? American Journal of Business and Management, Vol. 1, No. 1, 2012, 30-33.

Miloc, I., Remenaric, B., Kenfelja, I., 2017. Creative accounting – motives, techniques and possibilities of prevention. Ekonomski vjesnik/Econviews, 31 (1), pp. 193-199.

Newman, N., 2007. Enron and the Special Purpose Entities - Use or Abuse - The Real Problem - The Real Focus. Texas A&M University School of Law. Available at: https://scholar.smu.edu/cgi/viewcontent.cgi?article=1268&context=lbra, (Accessed 17.05.2022).

Nickoilas, S., 2022. What Is Accounting Fraud? Investopedia. Available at: https://www.investopedia.com/ask/answers/032715/what-accounting-fraud.asp (Accessed 17.06.2022).

Perols, J. and Lougee, B., 2011. The relation between earnings management and financial statement fraud. Advances in Accounting, incorporating Advances in International Accounting, 27, pp. 39–53.

Rezaee, Z., 2002. Financial Statement Fraud: Prevention and detection. John Wiley & Sons, Inc.

Rezaee, Z., 2005. Causes, consequences, and deterrence of financial statement fraud. Critical Perspectives on Accounting, 16, pp. 277–298.

Shah, A. K. (1988), "Exploring the influences and constrains of Creative Accounting in the UK", European Accounting Review, 7 (1), pp. 83-104.

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