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STUDIA SIECI UNIWERSYTETÓW POGRANICZA

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pod redakcją  
Jarosława Matwiejuka

Tom 6



Białystok 2022



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*Redakcja*

Redaktor naczelny: dr hab. Jarosław Matwiejuk, prof. UwB

Sekretarz redakcji: mgr Piotr Białas

ul. Świerkowa 20B, 15-328 Białystok

tel. 85 745 70 19

sup@uwb.edu.pl

www.sup.uwb.edu.pl

*Wydawca*

Wydawnictwo Uniwersytetu w Białymstoku

ul. Świerkowa 20B, 15-328 Białystok

tel. 85 745 71 20, 85 745 71 02, 85 745 70 59

wydawnictwo@uwb.edu.pl

wydawnictwo.uwb.edu.pl

*Druk i oprawa*

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## Anna Czech

- University of Economics in Katowice
- e-mail: anna.czech@ue.katowice.pl
- ORCID: 0000-0002-8188-3022

### THE IMPACT OF THE COVID-19 PANDEMIC ON HOUSEHOLDS' ENERGY CONSUMPTION: THE CASE OF POLAND

#### | Abstract

- *Goal* – the aim of the article is to investigate and assess the energy situation of Polish consumers aged 25–45 during the coronavirus pandemic. In particular we wish to find information concerning the response to the impact of a pandemic situation on consumer behavior in terms of energy consumption, possibilities and willingness to save energy and the ability to cover energy bills.
- *Research methodology* – the research was based on CAWI (Computer-Assisted Web Interview) methodology as a tool to assess the energy situation of respondents aged 25–45. Information on the surveyed population sample was obtained through the use of a research questionnaire filled with questions of mostly qualitative nature. Some of the questions were open-ended, which made it possible to delve into the actions and motivations taking place in households during the pandemic. The survey was conducted on a sample of 533 respondents, covering all of Poland. The study was conducted in the period October–November 2021.
- *Score/results* – the results of the study highlight the basic implications of respondents' energy consumption in the consequence of the lockdown caused by the COVID-19 pandemic. Household energy consumption implications can be understood as temporary changes and some as long-term changes. Research results show various impacts on energy consumption in households, which were assessed in two areas: standard lifestyle and work at home.
- *Originality/value* – the analysis carried out in the paper allows assessing the relationship between the impact of the COVID-19 pandemic on the scale of electricity



consumption in households. Research results can provide energy saving recommendations for consumers. In addition, the study shows aspects of social trends in household energy consumption in times of crisis such as a pandemic.

| **Keywords:** energy security, Poland, COVID-19, energy consumption, households

## 1. Introduction

One of the main problems facing the global economy has been the COVID-19 pandemic, which has negatively affected economies of many countries. Despite the global pandemic, national economies must continue to develop and social, economic and political challenges will not disappear without appropriate decisions and actions. The outbreak of the COVID-19 pandemic has also affected many industries and sectors [Quarnain et al., 2020], including the energy sector, causing changes in the electricity demand profiles of consumers. This situation has significantly influenced the energy sector, where correct forecasting of energy consumption is one of the key factors guaranteeing the stability and security of consumers' and producers' operations. The International Energy Agency (IEA) indicates that the change in energy demand in 2020 was the largest in 70 years [IEA, 2020].

The relationship between COVID-19 and the performance of energy sector in the literature is discussed in the context of the energy crisis [Brosemer et al., 2020], the increase in energy demand [Gillingham et al., 2020; Norouzi et al., 2020] and sustainable energy transformation [Kuzemko et al., 2020]. However, research into the relationship between COVID-19 and consumer energy use may offer new perspectives on changing energy needs [see: Caetano et al., 2017].

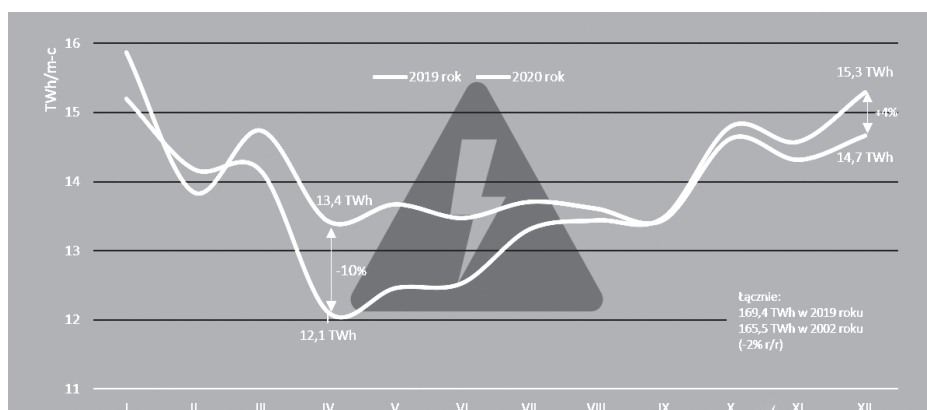
This paper analyzes the energy consumption of households in Poland during the COVID-19 pandemic. The introduction of the lockdown resulted in the confinement of energy consumers in their homes, which led to a significantly high electricity consumption in residential buildings [Bhagwati, 2020]. Therefore, there was an increase in electricity consumption in households during the lockdown, mainly due to the use of household appliances. This relationship is shown in Figure 1. Theoretically, higher electricity bills in households should stimulate energy saving [Bilal et al., 2022; Wang et al., 2018]. The increase in electricity consumption in apartments might also offset the corresponding decrease in energy consumption in trade and industry [*India's electricity...*, 2020]. There is no doubt that uninterrupted energy supplies are of paramount importance to the

inhabitants who have had to stay in their homes. Empirical research shows the correctness of the above assumptions, mostly in developing countries [Surahman et al., 2022; Azhgaliyeva et al., 2021].

The aim of the article was formulated in the above context and subject area of research. Therefore, the main goal of the article is to identify the energy situation of Polish consumers during the coronavirus pandemic. In particular, it was intended to obtain an answer to the questions concerning the impact of the pandemic situation on consumer behavior in terms of:

- energy consumption, the ability and willingness to save energy and the ability to pay energy bills,
- affecting the standard of living of people setting up their own households (age 25–45) and young families.

Figure 1. Monthly electricity consumption in Poland in 2019–2020.



Source: Polskie Sieci Energetyczne, January 2021.

This study contributes to the literature by presenting the case of Poland in identifying household energy consumption motives during the COVID-19 pandemic. It examines the impact of the pandemic on household energy consumption in relation to such areas as standard and lifestyle of energy consumers as well as motives for energy consumption/saving stemming from switching to home office. The research was done during the pandemic period, which means that the respondents were coping with the actual situation at the moment of conducting surveys. The results of the research might hopefully provide new guidance on the policies affecting the behavior of energy consumers in the area of electricity saving.

## 2. Research methodology

The implementation of goals and the verification of research hypotheses required the use of appropriate methods of analysis. The study was based on the method of direct research using a questionnaire with qualitative-type questions. Some of the questions were open-ended, which allowed us to get deeper insights into the motives of households during the pandemic.

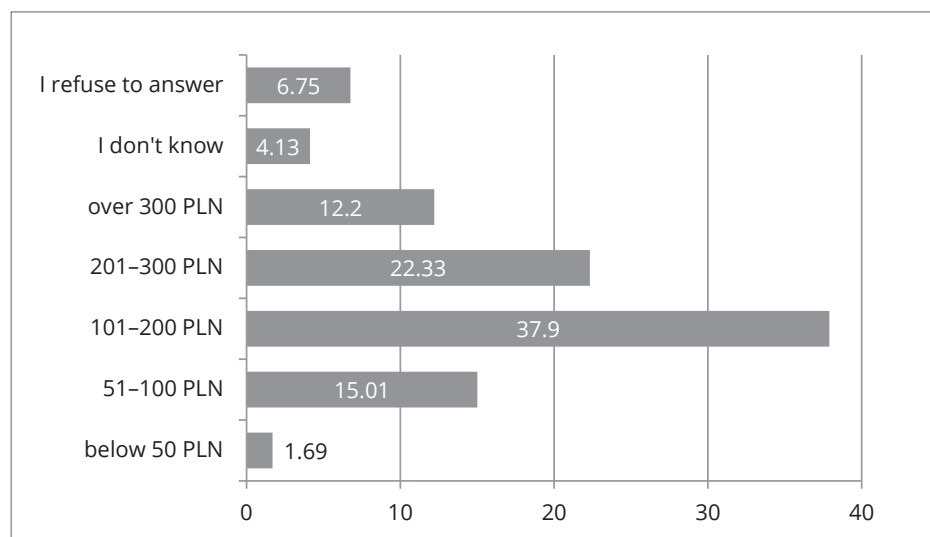
The research was carried out using the CAWI (Computer Assisted Web Interview) method, which in the then-current situation was one of the few opportunities to learn about the respondents' situation. This method enables the participation of a large group of respondents while maintaining anonymity. The survey was conducted on a sample of 533 respondents. Women constituted 60.2 percent and men 39.8 percent of the total. The respondent group consisted mostly of people with higher education (BA or MA), who constituted 55.7 percent of the total, and with secondary education – 38.8 percent. Persons with other levels of education were in minority, i.e. persons holding PhD were below 2 percent of respondents and people with primary or lower secondary education were 3.5 percent of the total.

Most of the respondents lived in the urban area – 81.6 percent, whereas only 18.1 percent came from rural areas. Taking into account the age of the respondents, the smallest share were respondents between 36 and 40 years old, i.e. 18.2 percent. The analysis of the age distribution shows that in the remaining age groups the percentage is at a similar level, i.e. about 27 percent for all groups. The number of persons in the household indicates that the largest share are households with 2, 3 or 4 persons (27.4 percent, 25.5 percent, and 24.8 percent correspondingly). Only 7.5 percent of the respondents were a single parent of a child or children. Most of the respondents (47.1 percent) indicated that the household was inhabited by children and adolescents up to 16 years of age, and students/young adults (15.2 percent). The average monthly income per capita of the respondents ranged from PLN 2,501 to PLN 5,000 (36.21 percent) and from PLN 1,501 to PLN 2,500 (23.64 percent). As many as 15 percent of the respondents indicated that the monthly income per person was up to PLN 1,500 (15.38 percent). With regard to energy usage costs, for most of respondents energy bills were between 100 and 300 PLN per month. For 12.2 percent of the surveyed they extended over 300 PLN (see Chart 1 for more details).

The study was conducted in October-November 2021. The study area covered the entire territory of Poland. The results of the research are presented in diagrams, but only a fraction of the results could be shown in a single paper. We have selected the

results linked to socio-economic factors of well-being in Poland with special attention paid to young families, which had received lots of attention from the Law and Justice government since 2015 in the form of public allowances and cultural recognition.

Chart 1. Monthly household electricity bills (% of households)



Source: author's survey.

### 3. The results

The research results are presented in two related areas, based on links between energy consumption, the ability and willingness to save energy, and the ability to cover energy bills. Firstly, the results in the area of standard of life and lifestyle<sup>1</sup> show a positive relation between the increase in energy saving and the ability to pay electricity bills. Secondly, the results obtained for energy saving and billing capacity are summarized together to indicate the changes taking place between the two needs in households significantly affected by the pandemic. Finally, the results

<sup>1</sup> Standard of life and lifestyle are two similar notions, but we decided to treat them separately. The standard of life should be understood as the degree of wealth and material comfort available to a given household. The lifestyle concerns the way in which persons in a given households live, including the interests, values and ideas supported by them. This recognition implies that households might have different motivations (materialistic or idealistic) for saving energy.

for household energy savings during the COVID-19 pandemic are summarized. This category is responsible for the comfort of living and an expected standard of life in households. The results in the area of switching to home office show a correlation between the increase in energy bills in households and working at home due to the lockdown, as well as the lack of compensation from employers for higher respondents' bills. The home office period shows increased energy saving during the pandemic, but also a return to pre-pandemic habits after lockdowns had been lifted.

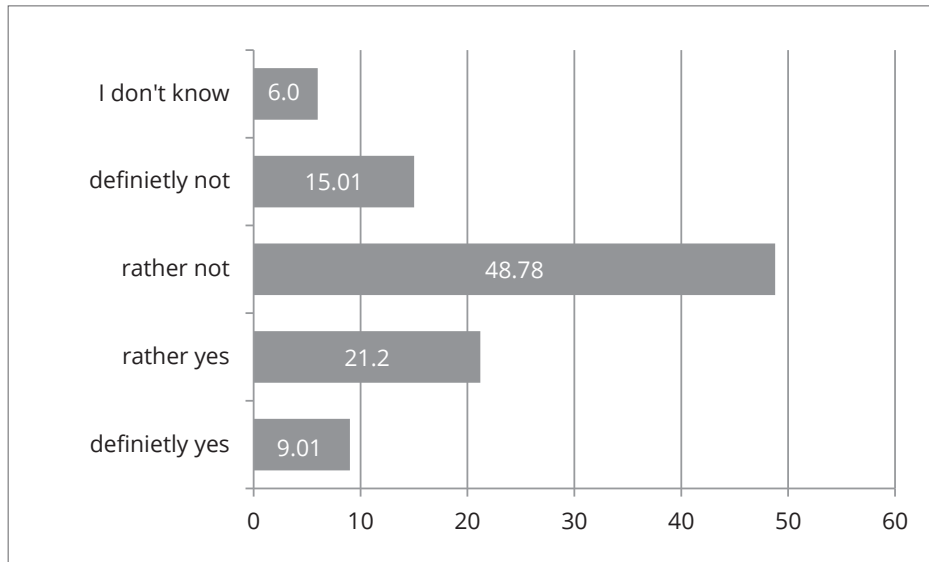
The research shows that the standard of life (or lifestyle) significantly influences household energy saving decisions. The increase in energy consumption and the increase in its prices meant that only 30 percent of respondents felt the need to save energy during the pandemic. At the same time, as many as 63 percent did not feel such a need at all (Chart 2). This fact can be interpreted in various ways, i.e. 1) most Poles are ready to pay more in energy bills to maintain their lifestyle, or 2) energy remains relatively cheap, so its price increases do not translate into budget difficulties for households. Resolving this issue will require further questionnaire research. However, what is worth noting, many respondents have already explained shortly the reasons why they were not willing to save energy:

- for 24.2 percent it would mean a reduction in the standard/comfort of their life,
- for 17 percent it would be too complicated in terms of changing their lifestyle,
- as much as 12.6 percent do not care about extensive energy consumption.

To conclude, it were socio-cultural and possibly educational reasons that overshadowed economic incentives (possibly weak incentives considering relatively low prices of energy) in making consumer decisions not to save energy.

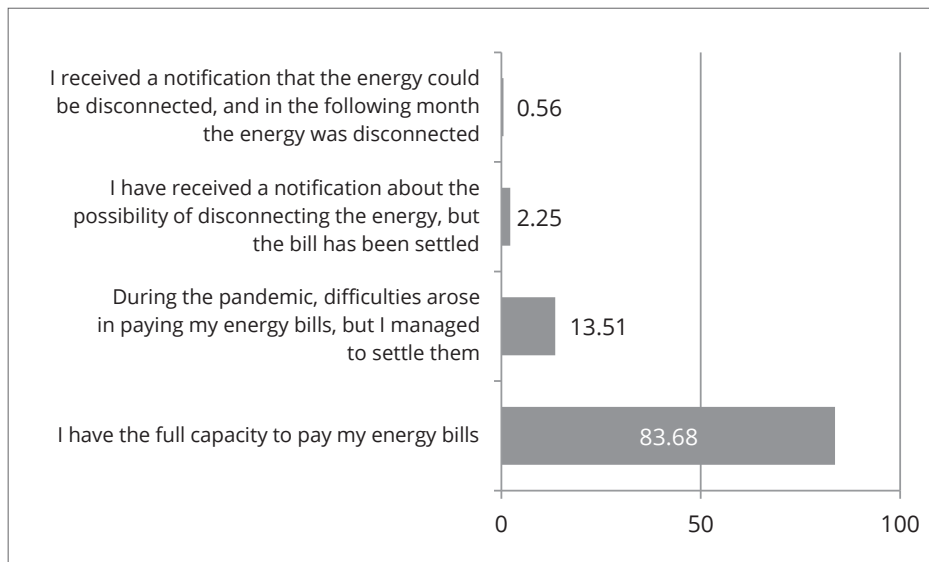
At the same time, it is worth emphasizing that as many as 83 percent of the respondents were of the opinion that they had full capacity to pay their energy bills (Chart 3). Thus, some people, convinced of their financial liquidity, still felt the rising energy costs and the need to save it. Much more important is that, especially from the point of view of public policies, as many as 16.5 percent of Poles had problems paying their energy bills during the COVID-19 pandemic. The vast majority of them finally managed to cover the electricity bill, but this proves tight household budgets and the negative impact of the pandemic on the possibility of consuming basic goods, such as electricity. Moreover, 14 percent of respondents indicated that they covered their energy bills at the expense of other necessary items, such as medicines or food. Also, as many as 61 percent of respondents receiving social benefits ("Family 500 + program", energy subsidies) considered them to be a significant facilitation in paying their energy bills.

**Chart 2.** Respondents on the need regarding saving electricity as a result of the COVID-19 pandemic (%)



Source: author's survey.

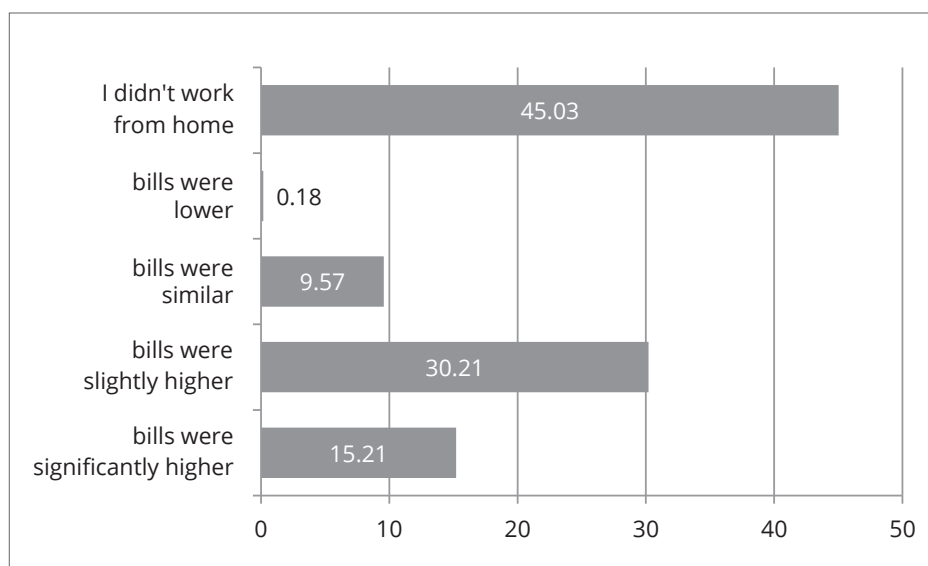
**Chart 3.** Respondents' ability to pay their energy bills from the outbreak of the pandemic to today ( percent)



Source: author's survey.

For nearly 55 percent of respondents, the pandemic meant switching to home office. Among them, as much as 82.6 percent claimed that working at home translated into higher energy bills, whereof for 27.5 percent the bills were significantly higher than before the pandemic (Chart 4). The reason for higher bills in this case was forced remote work, which required the use of computer equipment and usually constant internet access. In addition, higher electricity consumption during the lockdown period was caused by more frequent use of electrical equipment, i.e. desk lamps, coffee makers, electric kettles and stoves, etc.

Chart 4. The impact of home office during the COVID-19 pandemic on respondents' energy bills (%)

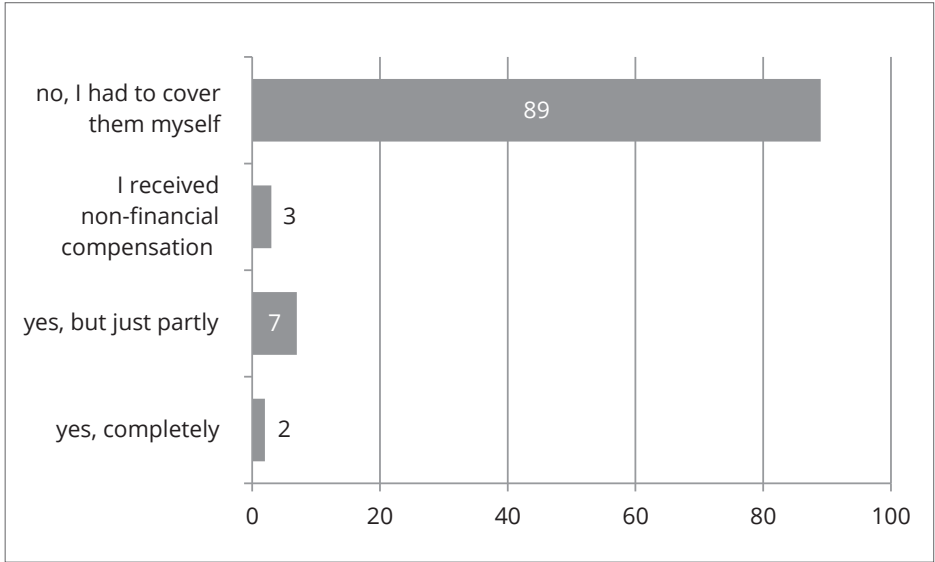


Source: author's survey.

Higher electricity bills, as indicated by 89 percent of the respondents, were not compensated by the employer. The respondents themselves had to bear the cost of higher bills. 7 percent of them received partial compensation, 3 percent indicated that they received non-financial compensation, and only 2 percent received full financial compensation from the employer (Chart 5). This suggests that employers were able to flip some operational costs on workers, who could not refuse, being afraid of losing their jobs in highly insecure times. However, this situation should require some public legislation to counterbalance stronger position of employers on labor market in times of crisis.

After the most deadly waves of the pandemic, when lockdowns had been lifted and life had returned to relative normality, the respondents faced the decision whether to continue with energy saving. However, 22 percent of them declared that their change in behavior was only temporary and returned to previous habits. Considering the fact that 12 percent of respondents claimed that they did not try to save energy, 34 percent of the surveyed households learned no lesson from the pandemic period and is not willing to save the energy. However, almost 35 percent of respondents claimed that they are trying to continue with energy saving and 33 percent adopted some (though not all) energy saving habits from lockdown period. It remains unclear for now how much of the behavior change was caused by closing home office and returning to workplaces provided by the employer and how much by permanent change of habits motivated by lower energy bills or changed lifestyle. This requires further research.

Chart 5. Employer compensation for higher energy bills of the respondents (%)

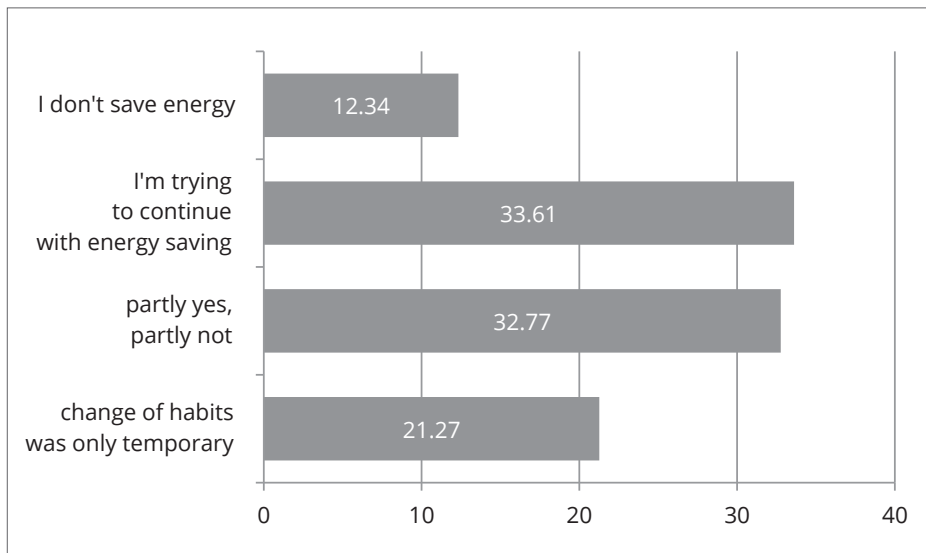


Source: author's survey.

Respondents' assessment of energy saving in the context of COVID-19 is presented in Chart 7. As many as 33 percent of respondents indicated that they use more energy than before the pandemic, of which 13 percent even compared their bills to be sure of it. Among surveyed households, slightly over 40 percent try to keep their energy consumption constant despite staying more at home.

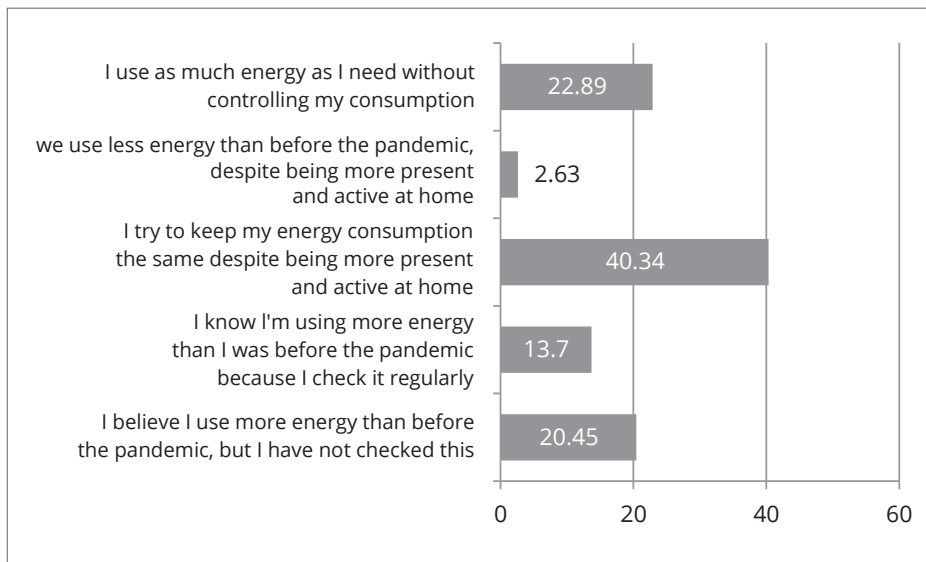


*Chart 6. Return to pre-pandemic habits of energy use after the first waves of the COVID-19 pandemic (%)*



Source: author's survey.

*Chart 7. Final statements of respondents regarding energy saving in the context of the COVID-19 pandemic (%)*



Source: author's survey.

It is worth noting that as many as 22 percent of respondents use as much energy as they need without controlling the consumption. This means that for these households, the increase in energy prices as well as the increased energy consumption in homes as a result of the lockdown does not provide incentives to save energy. This should be recognized by policy makers when designing tools and institutions that are supposed to assist in reducing energy consumption in the future.

#### 4. Conclusions

The study was conducted during the COVID-19 pandemic and focused on household energy consumption patterns. We assumed that the pandemic will have impact on energy savings patterns, billing capacity, and changing levels of energy consumption due to lockdowns and work from home.

Based on the research, the following conclusions can be drawn:

1. The COVID-19 pandemic had a limited impact on energy savings in households in Poland despite increased energy consumption and higher bills.
2. The COVID-19 pandemic confirmed the existing social divisions:
  - difficulties with paying energy bills contrasted with uncontrolled energy consumption among households,
  - employers were able to shift operational costs (i.e. energy costs) on employees, often without compensation.
3. The survey confirmed that Poles appreciate the importance of social programs (e.g. "Family 500 +") for balancing their household budget.
4. Getting used to comfort and lifestyle is a significant obstacle in motivating Poles to save energy.

The results of this study can hopefully provide guidance for energy suppliers, energy sector regulators or employers, who can influence consumer energy consumption behaviour by modifying incentives in the perspective of future possible crises, be it returning waves of pandemic and energy shortages stemming from other reasons. However, as for the Polish society, the results prompt us to assume that:

- consumption aspirations of a significant part of the society remain unmet,
- Poles are willing to bear higher energy costs to preserve their lifestyle, despite the awareness of increasing price,

- a further increase in energy prices will deepen social divisions and generate pressure to expand specific benefits with regard to subsidizing energy consumption.

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## Çağdaş Duman

- ▶ non-affiliated scientist
- ▶ e-mail: cagdasduman369@gmail.com
- ▶ ORCID: 0000-0003-3512-3070

### THE IMPACT OF THE UKRAINE CRISIS ON THE BALKANS

#### | Abstract

- ▶ *Goal* – to analyze the political, economic, military, and social effects of the Ukraine Crisis on the Balkan Geography.
- ▶ *Research methodology* – the article includes an analysis of the available literature. A comprehensive press review of the Balkan countries was made and the study was shaped by qualitative data analysis.
- ▶ *Score/results* – the conducted analysis allowed us to verify the research hypothesis positively. The Ukraine Crisis reactivated the Cold War practice within the Balkan countries and increased the polarization among the Balkan countries. In the article, it was emphasized that the ethnic and religious fault lines between the countries of the region became more visible. It has been foreseen that the uncertainty in the region will pave the way for the Kosovo Crisis to come to the fore again in the upcoming period.
- ▶ *Originality/value* – the article was performed by the author independently, without outside help. The article contains links to quotes, as well as links to legislation. In essence, the article is an overview report. In the study, it was predicted that the Ukraine Crisis could act as a lever in the enlargement process of the European Union and NATO. In addition, it was emphasized that within the framework of the 21st-century digital world order, the Ukraine Crisis may have new consequences in addition to the previous crises. Energy transformation and cryptocurrency markets are examples of this situation.

| **Keywords:** Ukraine Crisis, European Union, United States, Russia, NATO.

## 1. Introduction

Due to its geostrategic location and cosmopolitan structure, Balkan geography has a special position in the global system. As a natural consequence of this position, it has been the field of application of the policies implemented by global powers throughout history. During the Cold War, while the countries in the region were divided between the USA and the Soviet Union, this practice came to the fore once again with the outbreak of the Ukraine Crisis. As a result of Russia's military intervention in Ukraine, some countries in the region approached the European Union and NATO when the Serbian Autonomous Region in Bosnia Herzegovina and Serbia showed a diplomatic stance in favor of Russia. The possibility that Russia and the NATO alliance, the two largest nuclear powers in the world, will enter into a conventional war with each other can have devastating consequences. Therefore, for this reason, the orientation of the parties to such a war is very unlikely among the available options. The USA's declaration that it will not fight directly with Russia and the current developments in the region increase the possibilities of the parties in the Ukraine Crisis to make new political moves in the Balkan geography in the upcoming period. This crisis, which is expected to last for a long time, will have consequences in the Balkan geography in the short term that will shake the balance in the region in terms of politics, economy, military, and society.

## 2. Political impacts

The psychological superiority that Russia has achieved in the field of the Ukraine Crisis also shows its effects on the Balkan geography. The Ukraine Crisis had a deepening impact on the current political polarization in the Balkan countries. Albania and Kosovo, which have had close relations with the USA throughout history, followed a Western-oriented policy in this process. Albanian President Ilir Meta stated that his country will support Ukraine in line with the European Union and NATO [*Albania Will Continue...*]. Besides, The Kosovo Government has decided to impose sanctions on Russia for its military intervention in Ukraine. Prime Minister Albin Kurti stated that these sanctions are in line with those imposed by the USA and the European Union, emphasizing that today's decision is an extension of Kosovo's political and diplomatic orientation [*Kosovo Imposes Sanctions...*]. The influence of Albanians in the recently established

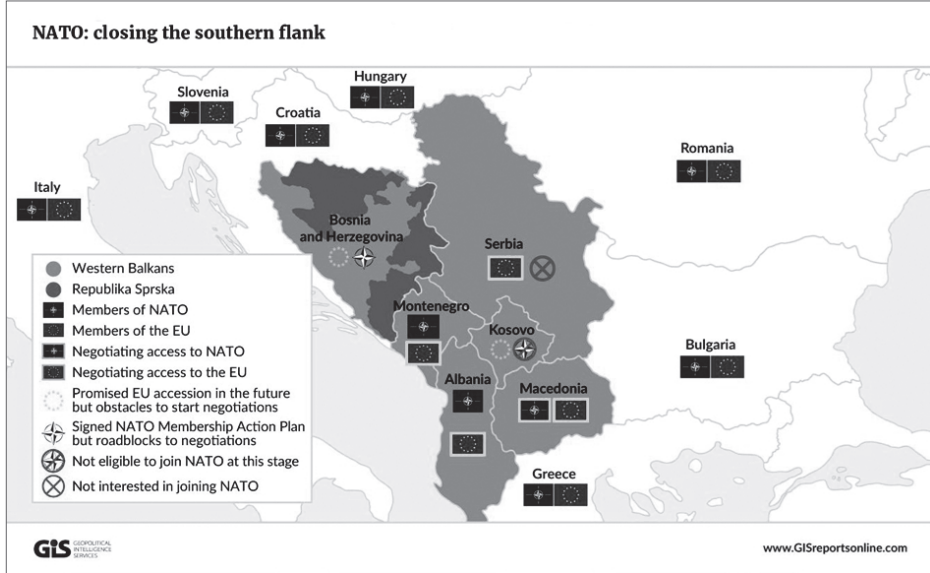
government has increased significantly in North Macedonia. The fact that Foreign Minister Bujar Osmani is of Albanian origin undoubtedly brought this country closer to Albania and Kosovo, whose populations are mostly Albanian. North Macedonia has come a long way in improving its relations with Bulgaria, which is the most important obstacle in the process of full membership to the European Union. It adopted pro-Western policies just like Albania and Kosovo with the outbreak of the Ukraine Crisis. Foreign Minister Bujar Osmani, participating in the extraordinary meeting of NATO Foreign Ministers in Brussels, expressed Macedonia's support for Ukraine before the meeting. Moreover, he stated that the European Union enlargement has now become a vital issue in terms of security [*Osmani in Brussels...*]. In Montenegro, where the pro-Russian government fell and the government crisis continues, it announced that he had declared a Russian diplomat "persona non grata" in the past few days [*Karadağ, Rus Diplomati...*].

While the Albanian presence in the Balkans takes a position in the Western camp, Serbia has a lot of trouble in taking a position. President Vucic stated that shortly before the Ukraine crisis broke out, their countries had no intention of joining NATO [*Vucic: Srbistan...*]. Serbian President Vucic condemned Russia's attack but declared that he did not agree with the sanctions against Russia. Considering the elections to be organized in Serbia in April, it is a matter of curiosity to what extent the current administration can maintain the balance between the West and Russia. Serbia is protecting the power of other Serbs living outside its borders, just like Albania. At the forefront of these are the Serb entity operating in Bosnia Herzegovina and the Serb ethnic minority remaining in Kosovo. Therefore, the attitude that Serbia will take will have an impact on these regions as well. Although Serbia takes a more moderate position in order to pursue a global balance policy, it can lead to more hawkish pro-Russian policies, considering that it will cost it less in these regions. In this context, the Serbian member of the Presidency of Bosnia Herzegovina, Milorad Dodik, cooperated with Russian diplomats to prevent Bosnia Herzegovina from voting in favor of the resolution condemning Russia at the United Nations General Assembly [*Dodik Attempts To Block UN Vote...*]. Besides, Serbian members of the Kosovo Parliament boycotted the vote on the resolution condemning Russia's aggression against Ukraine. It received the support of all parties in Kosovo, except the Lista Srpska party, which has close relations with the Belgrade administration [*Kosovo Serbs Boycott Vote...*]. The country's European Union membership process will probably become isolated in the region which will



separate it from other candidate countries in the upcoming period. In Bosnia Herzegovina, the Serbian entity in the country is expected to voice their separatist demands more loudly. The Serbian region within Kosovo will be affected by this polarization and will continue to be “the soft belly” of the Balkan geography.

Figure 1. NATO: closing the southern flank



Source: Reka.

### 3. Military impacts

The Ukraine Crisis seriously disturbed the Balkan countries militarily. The countries of the region began to be more willing to cooperate in the new military cooperation in order to ensure their security. In parallel with this situation, it is extremely important for the USA to send troops to Albania and Kosovo. Albanian Prime Minister Edi Rama announced that the USA will establish a special operations base in the country under the umbrella of the European Special Operations Command (SOCUER). There is no definite information about what kind of mission the US armed forces to be stationed in Albania will undertake [ABD, *Arnavutluk'ta Özel...*]. In parallel with this situation, the USA decided to send approximately 200 soldiers to Kosovo. It was stated that the soldiers will form

a “Mountain Warrior Task Force” to provide security operations throughout the region. Moreover, it was also announced that the military police of the US army will be stationed in Kosovo [ABD, *Kosova’ya 200...*]. Besides, Kosovo demanded the acceleration of NATO membership and the establishment of a permanent US military base on its territory after Russia’s military intervention in Ukraine [Kosovo Asks...]. The Kosovo government, which has serious problems with the Serb minority in its country, also decided to increase the police capacity in the Serb-populated region in the north of the country [Serbia Lashes Out...]. It is among the possibilities that Albanian-Serb tensions will occur in the region in the coming period. The Ukraine Crisis has created a leverage effect on the “close of ranks” among ethnic elements in the Balkans.

Figure 2. United States Soldiers in Albania



Source: Kote.

The government of North Macedonia announced that it will donate military supplies and equipment to Ukraine. While there is no clear information about the content of the donation so far, the government spokesman emphasized that their stance is in line with those of NATO allies and European Union partners [Skopje Will Donate...]. North Macedonia has declared that it will engage in military conflict if NATO requests it. Albania, the oldest NATO member in the

region, similarly expressed its readiness to participate in any future military mission in Ukraine. Albanian President Ilir Meta said: “We share the concerns of our NATO partners over the unprecedented increase in the number of Russian troops and military equipment on the Ukrainian borders and the threat of military aggression against a friendly country”. As a result of the Ukraine Crisis, while the countries of Albania, Kosovo, and North Macedonia became closer to each other in pursuing a common foreign policy, these countries have evolved into a much more willing position in terms of NATO and European Union memberships due to their concerns about the spread of the war to the Balkan geography.

Bosnia Herzegovina has difficulty in taking a position due to its hybrid structure. The division between the Western and Russian allies among the members of the three-member Presidency has long been known. Serbia, which is expected to become politically isolated in the Balkans in the coming period, has military costs of this isolation. Russia’s military demands from Serbia will continue to increase. Discussions on the deployment of Iskender-M tactical nuclear ballistic missiles to Serbia will come to the fore after the following days. In this case, Serbia’s European Union process may be suspended. If Iskender-M missiles are deployed in Serbia, a new balance of terror may occur in the region. This situation may result in a new Serbian-Albanian local tension.

#### 4. Economic impacts

The major impact of the Ukraine Crisis on the Balkans is the rising energy prices and the parallel increase in inflation to a level that reduces the purchasing power of the people. Balkan countries are highly dependent on Russia in terms of natural gas. According to the data of the European Union Energy Agency, North Macedonia, Bosnia Herzegovina, and Moldova are among the countries that are 100 percent dependent on Russia in terms of natural gas. Besides, Serbia’s dependence on Russian natural gas, which is one of the countries in the region, is 89 percent, while this rate is 77 percent in Bulgaria [ACER: *Kuzey Makedonya*,...]. Russia is a state that earns about 65 percent of its national income from oil and natural gas exports. For this reason, it is highly unlikely that Russia will be able to cut natural gas shipments to Europe as long as it gets its money because in such a case its own economy could go into more bottlenecks. In addition, Western countries are in need of Russia’s natural gas,

and therefore they are exempt from energy-related sanctions. It is unlikely that Russia will impose sanctions on natural gas, especially on countries with strong industries such as Germany and France. However, when it comes to small Balkan countries, even if Russia cannot attract these countries, it can make these countries abstain in the international arena, especially the United Nations. Although Serbia is dependent on Russian natural gas, there is a significant number of German investors in the country and it is a question of interest how it will maintain the economic balance in question.

Another situation that will impact the region economically is the issue of agriculture. The outbreak of the crisis in a country like Ukraine with large agricultural lands will negatively affect the inflation in the region and serious difficulties may be experienced in finding basic foodstuffs. Serbia has been stockpiling food for a long time and North Macedonia recently requested 50 thousand tons of wheat and 25 thousand tons of corn from Serbia [*Macedonia Requested 50,000 Tons Of Wheat...*]. Serbian President Vucic said that those basic foodstuffs would be delivered immediately and added that they could meet this need for other Balkan countries as well. With the Ukraine Crisis, it seems that there may be difficulties in accessing many basic foodstuffs. In this context, Serbia can create a new attraction for the Balkans in terms of food and basic nutrients until the Ukraine crisis subsides.

The cryptocurrency market is another significant economic reflection of the Ukraine Crisis in the region. Russia can respond to sanctions with cryptocurrencies. The Russian invasion of Ukraine, along with the economic sanctions imposed on Moscow, increased the importance of crypto money. In the early days of the war, bitcoin rose over 15 percent. On Tuesday, it exceeded 44 thousand dollars. Ethereum also gained more than 10 percent [*Bitcoin Gibi Kripto Paraların...*]. The cryptocurrency market is an important instrument for Russia in ensuring the entry of Russian capital abroad into the country. However, Russia has lost its proxy in the Balkans in this regard. The cryptocurrency market in Kosovo was largely in the hands of Serbs living in the north of the region. The Serbs were earning serious money from the cryptocurrency market and not paying electricity fees to the central government. Recently, Kosovo has completely banned cryptocurrencies and conducted operations in Serb-populated areas, confiscating computers used for mining crypto-assets [*Kosovo Police...*]. It is among the high possibilities that new political and economic crises will emerge in the coming period in the region where Serbs live in Kosovo.

## 5. Social impacts

The Ukraine Crisis had a significant social impact on the Balkan geography. Balkan countries have faced a serious population problem in recent years. There is a notable amount of immigration from Balkan countries to the European Union countries, especially Germany and France. The population of the Balkan countries decreased significantly due to the labor shortage in these countries. With the low birth rate added to this situation, the Balkan countries, which are small in terms of population, are struggling to exist. In such a conjuncture, the Balkan countries see the wave of immigration from Ukraine as an opportunity. They welcome immigration from this region, keeping them separate from immigrants from the Middle East. The Kosovo Parliament adopted the resolution on accepting 5000 refugees from Ukraine [*Kosovo Parliament Passes...*]. Also, Albanian Prime Minister Edi Rama stated at a press conference on February 26 that their country was ready to accept Ukrainian refugees fleeing the war [*Albania Ready to Receive Ukrainian Refugees*]. The government of North Macedonia emphasized that its doors were open to refugees from Ukraine [*Macedonian Government...*]. Serbia announced that it would accept refugees from Ukraine after Kosovo, Albania, and North Macedonia, although they are geographically closer to the crisis than these countries [*Srbistan: Ukraynalı Mültecileri Almaya Hazırız*]. The Ukraine crisis, in which approximately 1 to 1.5 million refugees are expected, will lay the foundations of new sociology, especially in the Balkan geography.

## 6. Conclusion

The Balkan geography, which was instrumental in the start of two world wars in the past, is feeling the effects of the Ukraine Crisis on its neck with each passing day. With the deepening effects of the crisis, the region turns into a chessboard in the new struggle between the USA and Russia. We are at the beginning of a process where global powers, who are afraid to fight each other directly, can send messages to each other through the Balkan geography. The possibility of a crisis that will break out in the region creating a domino effect and hosting the power struggle of global and regional powers should not be underestimated. The military and political picture in the Balkans is quite favorable in this respect. In particular, a conflict that will arise as a result of Albanian-Serbian tension has the potential to lead to the establishment of a regional and even global equation in a short

time. Despite the increasing influence of Russia and China in the region in recent years, the US troop shipments to the region caused a new global security dilemma to come to life in the Balkan geography. In the upcoming period, the most fragile countries of the Balkans will be North Macedonia and Bosnia Herzegovina. There is a risk of disintegration of North Macedonia, a significant part of whose population is Albanian, and Bosnia Herzegovina, which struggles with the separatist Serbian Entity. These countries are far from being able to cope with this situation on their own. In addition, within the scope of the Serbian-Albanian tension in the region and the latest developments, the Serbian region within Kosovo has the potential to be affected by a possible provocation very quickly. In this context, the current crisis can act as a lever in the enlargement process of the European Union and NATO. Both the Ukraine Crisis and the current problems in the Balkans are waiting to be resolved in the direction of regional stability through diplomatic methods and within the framework of international cooperation.

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## Anna Maria Dzienis

- ▶ SGH Warsaw School of Economics
- ▶ e-mail: anna.dzienis@sgh.waw.pl
- ▶ ORCID: 0000-0003-2261-6749

## JAPAN-EU COOPERATION IN THE DEVELOPMENT OF HYDROGEN-BASED ECONOMY

### | Abstract

- ▶ *Goal* – the paper aims to identify the main areas and motives for Japan–EU cooperation in the development of a hydrogen-based economy.
- ▶ *Research methodology* – text analysis of governmental documents, institutional reports, companies' websites, and articles in the specialized press.
- ▶ *Score/results* – the example of several Japanese companies shows that Japan–EU cooperation has been intensifying, mostly in hydrogen-based mobility in Europe, natural gas transformation and supply in Japan, and renewable hydrogen generation in the EU and Japan. Japanese companies seek new markets and competition to advance and popularize their technologies. The ability to comply with the EU environmental regulations makes them a significant player in global efforts to accelerate GHG emissions reduction.
- ▶ *Originality/value* – the research on international cooperation in hydrogen is scarce but crucial. The development of a hydrogen-based economy will change both economic and geopolitical dynamics, which is especially important in the face of the economic consequences of Russia's invasion of Ukraine.

| **Keywords:** cooperation, EU, hydrogen technologies, hydrogen-based economy, Japan.

## 1. Introduction

Japan depends on foreign fossil fuels, 94 percent of its primary energy supply comes from imports. Japan's energy self-sufficiency rate remains at a low level

of 6–7 percent [IEA, 2020]. Due to its geographical characteristics, renewable energy in Japan is scarce. Moreover, the energy supply issue has worsened since the Fukushima nuclear disaster in 2011, after which nuclear power plants were closed. As a consequence, hydrogen has again gained interest. During his second term, Prime Minister Shinzo Abe announced that Japan would become the first hydrogen-based society in the world. At the same time, the European Union has been tightening its environmental regulations, setting new global standards for the industry and consumers.

The current situation related to Russia’s invasion of Ukraine puts pressure on both Europe and Japan to look for substitutes for Russian raw materials. This creates new opportunities for cooperation, notably in the area of the development of a hydrogen-based economy. This paper aims to identify the main motives for Japan–EU cooperation in the development of a hydrogen-based economy and to examine how the EU and Japan’s national policies shape this cooperation. The analysis draws on data from governmental documents, institutional reports, companies’ websites, articles from the specialized press, and others.

## 2. Overview of hydrogen policies in the EU and Japan

### 1.1. Hydrogen-related policies in Japan

Due to the closure of nuclear power plants after the Fukushima disaster and the resulting issues with energy supplies, coupled with the global move toward a decarbonized economy, Japan has returned to its concept of hydrogen as a viable source of energy in the economy. In 2014, the government mentioned in its *Strategic Energy Plan* the idea of a society in which hydrogen is a major energy source and in which hydrogen-based products such as fuel vehicles, buses, trains, etc. are widely used in the economy. This was followed by a document called the *Strategic Roadmap for Hydrogen and Fuel Cells*, also published in 2014, which presented the three phases of hydrogen implementation in the society and economy.

In 2017, Japan announced the first world hydrogen strategy, *Basic Hydrogen Strategy*, and declared that it would become a “world-leading hydrogen-based society” [METI, 2017]. In 2019, along with the document the *Strategy for Developing Hydrogen and Fuel Cell Technologies*, Japan made it officially known that it would grow into the world’s leading fuel cell exporter. Japan has intensified its

activity in hydrogen supply chain projects and accelerated its hydrogen technologies with a clear target of hydrogen cost reduction. Moreover, in formulating policies, the government focused on building energy independence, industrial competitiveness, and decarbonization, marking an evident turn towards clean hydrogen technologies. Fuel cells, hydrogen supply chains, and water electrolysis were named the three key areas of technology development for hydrogen-based society implementation.

On top of that, in 2020 PM Yoshihide Suga announced the *Green Growth Strategy for 2050 Carbon Neutrality* (2020), an ambitious plan to reduce GHG emissions to net-zero by 2050. To support the efforts, the Ministry of Economy, Trade and Industry (METI) established the Green Innovation Fund (2021) playing the role of major funding for hydrogen-related projects.

## 1.2. Recent hydrogen policies in the EU

The *European Green Deal*, presented in 2019 and adopted in the following year, stated that hydrogen has been crucial for realizing a clean and circular economy. It communicates priority areas such as “clean hydrogen, fuel cells and other alternative fuels, energy storage, and carbon capture, storage and utilisation” (fch.europa.eu). Cooperation with industry and member states is viewed as a crucial factor in advancing research and innovation on clean hydrogen and transport in general.

The *EU Hydrogen Strategy for Climate Neutral Europe* was adopted in July 2020. The document sets new targets as to the capacity of hydrogen electrolytic cells and for the generation of green hydrogen to reach at least 6GW and 1 million tons by 2024 and 40GW and 10 million tons by 2030 [EC, 2020: 5–6]. Currently, only 2 percent of Europe’s energy consumption is supplied by hydrogen, mostly used for the production of chemical products, plastics and fertilizers. 96 percent of this hydrogen is generated from natural gas, in a process that emits a substantial quantity of CO<sub>2</sub> [EC, 2021]. Recent EU policies have been promoting hydrogen created from renewable sources, by means of electrolyzers. Europe prides itself on the technical capabilities in electrolyzer manufacturing. The emerging specialization is expected to create new jobs, stimulate economic growth and help the EU to recover from the COVID-19 crisis.

*Fit for 55 package* proposed in 2021 sets the framework for hydrogen-based economy development in the EU. It covers such sectors as industry, transportation, and aviation, introducing instruments to support hydrogen upscaling and

innovation, including the *ETS Innovation Fund*, which focuses on the production and use of hydrogen. It also gives a stimulus to the progress of hydrogen infrastructure building by e.g. setting the requirement for hydrogen refueling stations availability at “every 150 km on highways for compressed hydrogen and every 450 km for liquid hydrogen by 2030” [James, 2021]. Also, according to the package which guarantees green hydrogen use in transportation, fuel cell vehicles classify as zero-emission vehicles. The package constitutes an action plan for the EU hydrogen market. The entity responsible for the promotion of investment in the European clean hydrogen value chain is the Clean Hydrogen Joint Undertaking (JU), a partnership formed by the Clean Hydrogen Partnership, European Commission, and Hydrogen Europe.

Finally, after Russia’s invasion of Ukraine, the European Commission announced a plan to escape from Russian fossil fuels, the *REPowerEU Plan*. The newly established energy platform would facilitate the common purchasing of green hydrogen. Further, the EU External Energy Strategy would assist in building partnerships “including cooperation on hydrogen or other green technologies” [EC, 2022]. If implemented successfully, the EU “would see to quadruple the supply of hydrogen by 2030” [Plhák, 2022].

### 3. Institutional background for the EU–Japan cooperation in hydrogen

In 2018 the EU and Japan signed two documents, the *EU–Japan Economic Partnership Agreement (EPA)*, which entered into force in February 2019 opening a new era for the EU and Japan (thejapantimes.co.jp, 2019), and the *EU–Japan Strategic Partnership Agreement (SPA)*. Among others, the EPA unifies procedures that block entry to the car market, including fuel cell vehicle-related regulations. FCVs approved by European authorities will be authorized by Japanese authorities, enabling the parties to export such cars without any technical adjustments [Frenkel, Walter, 2017]. The SPA establishes an outline covering 40 areas of collaboration but the objective defined in the agreement is “more abstract” [Sekine, 2020]. Apart from “economic synergy or industrial reliance” the document underscores “values” and “principles”, which suggests that the EU and Japan aspire to recognize the partnership “as a new soft-power reliance lasting over many decades” [ibidem]. Article 17 on industrial cooperation instructs to exchange views and best practices on industrial policies in innovation, climate change, energy efficiency, and facilitate the bilateral collaboration of enterprises

[SPA Agreement, 17]. Article 26 on energy guides toward “close coordination in international organisations”, including “global energy trade and investment” and “energy-related technologies” [ibidem, 23].

Besides the EPA and SPA, the EU and Japan established the *Partnership on Sustainable Connectivity and Quality Infrastructure between the European Union and Japan (Connectivity Partnership)* in September 2019. In Point 8 of the document, the EU and Japan guarantee to cooperate further on “hydrogen and fuel cells, electricity markets regulation and the global market for liquefied natural gas (LNG) and support sustainable energy connectivity” [The Partnership, 2]. The two parties would “discuss sustainable energy infrastructure investments, with a view to strengthening [...] energy innovation in order to facilitate the transformation to low-carbon energy systems” [ibidem, 3]. Europe may help Japan in reforming its electricity grid, while the EU can learn from Japan moving forward the hydrogen economy [Midford, 2021]. The EPA and SPA signed between the EU and Japan, along with Connectivity Partnership “form a solid basis for joint action” [Flor, 2021].

In the *Joint Statement EU–Japan Summit 2022* the partners declared to cooperate to diversify Europe’s energy supply sources, increase its independence from Russia, “and acknowledge the need for investments to achieve this” [European Council, 2022]. They stress the role of low carbon hydrogen and confirmed that the Memorandum of Cooperation on hydrogen has been in progress, but also underscored the meaning of natural gas in the energy transition. To foster the EU–Japan collaboration, the parties have opened negotiations on Japan’s association to the Horizon Europe Research & Innovation Framework Programme. Horizon Europe association would give Japan’s researchers access to billions of Euros for research on an equal basis with EU counterparts [ibidem].

#### 4. Japanese and European companies’ cooperation in hydrogen-related technologies

Key areas for the cooperation between Japanese and European companies lie in the development of fuel cell technology and all parts of the (green) hydrogen supply chain. The challenge in hydrogen research, however, is to carefully govern the “regulatory framework, joint promotion of technological innovation and implementation of supply chains” [Sekine, 2020], all to accelerate the deployment and use of hydrogen. Japanese firms have been advancing innovation in particular

hydrogen specializations, building their competitive advantage in fierce global competition. At the same time in Europe, it is players like German Siemens, who are at the heart of hydrogen strategy and who make efforts to integrate the whole hydrogen value chain [Tachino, Yabuuchi, 2021]. Japan is a laggard in terms of renewable energy, as it is estimated that it would increase the cost of green hydrogen generation approx. 10 times compared to the current price of hydrogen [Nikkei Asia, 2021b]. From Japan's point of view, cheaper green hydrogen is only possible when considerable investments are made in CO<sub>2</sub> capture technology, hydrogen plants, carriers and import terminals [ibidem]. Among the Japanese companies that lead the advancement of hydrogen-related technologies, there are: Iwatani Corporation, which produces 70 percent of liquid hydrogen in Japan [Nikkei Asia 2021a], Kawasaki Heavy Industry, Mitsubishi Corporation, Mitsui & Co., Ltd., Toshiba Energy Systems & Solutions Corporation, and Toyota Motor Corporation, all placing hydrogen as a promising source of energy in future.

According to WIPO [2022: 19], companies account for 77 percent of patent filings in fuel cell-related technologies in general. In FC technologies for transportation, Japan is the second inventor (22 percent in 2019) after China (42 percent in 2019), and Germany is the third one with the share of 14 percent of patent filing. China, Japan, Germany, the Republic of Korea, and the U.S. are the top five inventor origin responsible for 94 percent of total filings [ibidem, 37]. The most appealing markets for the Japanese companies are the key global hydrogen technology players being Japan itself, China, the U.S., Germany, and the Republic of Korea [ibidem, 46]. Toyota is an unquestioned leader in FCs for transportation “with 2,720 active patent families in 2021, followed by Hyundai (1,402), Honda (1,191), General Motors (GM) (697), and VW Group (671)” [ibidem, 47].

Toyota's flagship fuel cell vehicle Mirai was introduced into the market in 2014. Despite its cost of USD 49,500 [Omoto, 2021], its sales in Europe have been growing, reaching 692 units in 2021, compared to 132 in 2017 (carsalesbase.com). Toyota Motor predicts that global fuel cell system sales will grow 10-fold in the short term [Toyota, 2021a]. Along with expectations, Toyota decided on producing, starting in January 2022, its new second-generation fuel cell modules at Toyota Motor Europe's (TME) Research and Development facility, in Zaventem, Brussels [Toyota, 2021b]. Moreover, as early as 2013, Toyota established a fuel cell vehicle alliance with BMW to stimulate the manufacturing of hydrogen vehicles by competition, releasing its patents on fuel cell technologies [Sugimoto, 2015]. Toyota's partner believes that FCVs may benefit from consistent public

policy support for industrializing the generation of hydrogen. Co-development of FCVs will also help BMW to economize by reducing its portfolio of models [Reuters, 2020]. TME has also engaged in a three-party partnership with Air Liquide, French industrial gas supplier, and CaetanoBus to, besides contributing to the greening of transport, “accelerate the development of local hydrogen ecosystems for multiple mobility applications” [Toyota, 2022]. The partners signed a Memorandum of Understanding in May 2022. The companies will collaborate to spread hydrogen mobility in both segments of light and heavy-duty trucks by deploying vehicle fleets and infrastructure development.

Also Japanese trading company Itochu has united efforts with Air Liquide. The companies announced to develop one of the largest liquid hydrogen plants in the world, located in central Japan [Nikkei Asia, 2021a]. The plant will deliver liquid hydrogen out of liquefied natural gas, the so-called blue hydrogen, supplied for power generation and as a fuel for FCVs. Apart from this project, Itochu and Air Liquide established a strategic partnership agreement to build a new gas supply network in Japan.

In 2020, Mitsubishi Power Europe was commissioned to supply the first Solid Oxide Fuel Cell (SOFC), a power generating system, in Europe [Mitsubishi, 2020]. The demonstration plant operated by the Gas- und Wärme-Institut Essen e.V. (GWI) is located in Essen. The project is called “a milestone in resource-saving energy technology” and GWI calls itself “technology-open energy institute” that together with its all stakeholders shapes the energy future [Mitsubishi, 2021b]. In May 2021 HydrogenPro (HYPRO), H2V Industry and Mitsubishi Power Europe signed a MoU establishing a consortium focused on the development of green industrial hydrogen projects. H2V Industry belongs to the French Samfi Invest group and is a major player in hydrogen in France. H2V Industry has been involved in plural green industrial-scale hydrogen projects. The one with Mitsubishi HydrogenPro has been commissioned to deliver the electrolyzer installations for the sites [Mitsubishi, 2021a].

Moreover, in April 2022, Mitsui & Co., Ltd. invested 10 million euro in Lhyfe, a French producer of green hydrogen for local consumption [Mitsui, 2022]. Lhyfe is present in ten European countries, and its more than 90 pipeline projects across 11 countries will start production between 2022 and 2028. French company targets mobility and industry usage. Thanks to the investment Mitsui “will become an insider in the European hydrogen market”, and will be able to “develop customers and leveraging synergies with its existing hydrogen-related business” [ibidem]. Mitsui also plans to set up “a hydrogen profit base in Europe”



and, through its active role in developing the European green hydrogen industry, support speeding up GHG emissions reduction.

The same month 2022 Kawasaki Heavy Industries and Airbus have signed a MoU to cooperate on the formation of the hydrogen-based ecosystem. It will contain different parts of the hydrogen supply chain for airports and onboard aircraft. The companies declared formulating a roadmap to support and respond to hydrogen aviation needs. The partners “will also pioneer the deployment of a hydrogen infrastructure for aviation with a particular focus on the development of Airport Hydrogen Hubs” [Airbus, 2022].

Last but not least, in 2021 Siemens Energy K.K., the Japanese subsidiary of Siemens Energy AG, and Toray Industries, Inc. joined the Green Hydrogen Project in Japan, funded by Green Innovation Funding Program managed by METI and NEDO. In Japan, the two companies will collaborate on the “development and demonstration of the largest multi-megawatt class PEM” (Polymer Electrolyte Membrane) electrolysis with Toray’s new membrane technology [Toray, 2021]). In the EU Siemens has been developing water electrolysis equipment, which is the core of the value chain in the green hydrogen generation. The company is said to aim to become the champion of the European hydrogen industry by building a new value chain centered on water electrolyzers [Tachino, Yabuuchi, 2021].

## 5. Conclusions

For Japan, a major future importer of hydrogen, further advancements in hydrogen-related technologies, its storage, and transportation are critical. Currently, as hydrogen is mostly produced from fossil fuels, primarily natural gas, the government needs to rely on the usage of advanced emission reduction technologies, such as CO<sub>2</sub> Capture and Storage (CCS), and Carbon Capture and Utilisation (CCU), to be able to call the process “low-carbon” or even “clean”. On the other hand, the EU focuses on clean, i.e. renewable hydrogen, resourced from renewable energy. The definition of low carbon hydrogen is yet to be established [European Clean..., 3].

The price of green hydrogen depends on the cost of electrolyzers and the cost of renewable electricity [DeLorenzo, 2022]. The EU sees three barriers to scaling up the manufacturing capacity of electrolyzers: deficient regulations in favour of the large-scale deployment of hydrogen, large investment due to uncertainty as

to the future demand for electrolyzers, and creation of integrated supply chains and the risks associated with the availability of components and raw materials for that purpose [European Clean..., 2]. The EU and member states have been working on a favourable regulatory framework and have presented ambitious plans for developing hydrogen infrastructure across Europe. “An integrated European electrolyser supply chain is only emerging” ([ibidem, 5], and Japanese companies set the grounds for expansion in this field.

There are several differences between the EU and Japan in the approach to hydrogen. First, in contrast to the EU, renewable energy in Japan is scarce, hence greater interest in fossil fuels-based hydrogen generation with the use of CCS/CCU. While Japan is focused on becoming a leading exporter of hydrogen technology in the world, the EU seems more determined to promote and lay the foundation for a net zero-emission economy, playing the role of a major rule-maker of environmental norms. As Japan is not self-sufficient in terms of hydrogen production, it is being pushed towards cooperation with other countries in creating new hydrogen supply chains based on diversified technologies. EU is an attractive partner due to its advanced renewable hydrogen generation and water electrolyzer technologies. Its varied internal market, infrastructure, and companies’ competitiveness allow for bringing in and developing new technologies, like new FC modules or SOFC systems.

In the face of war in Ukraine and the suspension of energy supplies from Russia, the development of energy infrastructure for the transport of hydrogen by sea may become a reliable way for the EU to increase the security of supplies and reduce the risk for companies willing to invest in the hydrogen market [Ruszel, 2022: 16]. Large and successful projects run by Japanese companies in Asia make their experience priceless. Also, if Japan’s position in Asian hydrogen value chains settles, the country will undoubtedly be a key player in the new production structures.

Japan may soon be granted access to substantial funds within the Horizon framework. Individual member states also offer financial support for international partnerships for the development of a hydrogen-based economy. Such incentives would accelerate collaboration in green hydrogen technology advancement, especially since Japanese companies are already cooperating with leading European firms. They have become “insiders” to the EU market, have access to the member states’ markets, and are able to test their hydrogen-related technologies against high environmental standards. They may also leverage their first-mover advantage in clean hydrogen in other regions, notably in Asia.

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## Włodzimierz Gański

- ▶ Academy of Tourism and Hotel Management in Gdansk
- ▶ e-mail: wlodzimierz.ganski@wstih.pl
- ▶ ORCID: 0000-0001-5906-6539

### THE EXPERIENCE ECONOMY: PERSPECTIVES FOR EAST EUROPEAN BORDERLANDS

#### | Abstract

- ▶ *Goal* – consideration of the conceptual provisions of a new direction of economic theory, called the experience economy, in the context of a unique cultural space and diverse ethno-cultural landscape of the Eastern European borderlands.
- ▶ *Research methodology* – when conducting the study, general scientific and special research methods were used, such as dialectics, system analysis, historical-logical, method of theoretical generalization, etc.
- ▶ *Score/results* – the study is characterized by a sufficient level of scientific analysis and contains theoretical provisions and developments that can be used for further research on sustainable development based on the cultural factors available in the region.
- ▶ *Originality/value* – the practical significance of the results obtained lies in the development of theoretical foundations for the processes of economic use of cultural factors (cultural space, cultural landscape, cultural potential and cultural heritage), which creates the basis for their successful use in the system of the national economy, use by public authorities and local governments, institutions social and cultural services, business structures and local communities for sustainable development.

| **Keywords:** experience economy, cultural heritage, cultural potential, cultural capital, Ukraine.

## 1. Introduction

The relevance of studying the problem of development of borderlands through the use of their cultural potential is due to several reasons. First, the modern economy, which has moved culture from the periphery to the center of its research, has given rise to creative industries that bring a fairly high income based on the sale of impressions in a number of countries. Secondly, the processes that have engulfed modern society have led to the emergence of globalization as an attempt by cultures and peoples to preserve their own uniqueness. Its appearance has become a kind of response to attempts to unify the modern world, where millions of identical goods and services are produced and replicated, which is entangled in information networks, like a web, where it is very difficult, on the one hand, to surprise with something, and on the other hand, not to lose one's identity. Today, only culture is able to cope with this task, the traditions and values of which mark the differences between people, peoples and nations, which is especially relevant and significant in the pre-border regions of various European countries.

In modern research in this context, the problems of cultural space, cultural values and cultural heritage are increasingly raised. Moreover, the question is not so much purely in its preservation, but in the need to use it as a resource for development, the basis for the formation of a kind of cultural brand of a particular territory.

The problem of developing a territory through the use of its cultural potential unites several directions at once in modern scientific research. The very concept of cultural potential is closely related to cultural space: a rather broad term used both in relation to culture as a whole and to characterize a specific phenomenon of the socio-cultural sphere. In this vein, its cultural space can be defined as the sphere of everyday life of a person, which combines historical continuity, local flavor and unique traditions of the region.

Currently, there are several contexts for defining this phenomenon, from purely philosophical studies to geographical and urban concepts. The trend in the study of cultural space in the regional context, which can be traced in the works of individual authors, should be noted. In this context, the cultural space manifests itself in the form of a certain mental map, which represents the past of the region, its values and sources of existence and development.

The cultural space of the pre-border region as a synthesis of two parts: the passive part (cultural heritage) and the active part (cultural production involved

in socio-economic relations) is also considered in the legislation on culture in many European countries (including Poland, Hungary, France, etc.) and in the legislation of the European Union as a whole [Peacock, 1991: 9–12].

An analysis of the mutual influence of cultural resources, which include cultural heritage, and the development of the environment is reflected in the concepts of D. Throsby, who interprets cultural heritage as cultural capital [Throsby, 2001: 162], and C. Landry, who understands the territory as a resource for economic development [Landry, 2012: 207]. Of particular note are the works of J. Pine and J. Gilmore, who described the emergence of the impression as the fourth economic proposal, directly dependent on the cultural potential of the region [Pine, Gilmore, 1998: 65–69].

The subject of analysis in this article is the cultural space of the borderlands in a certain perspective: as a resource of the experience economy, and the main goal is to analyze the main aspects of the experience economy, characteristic for the development of the cultural potential of the borderlands.

## 2. Cultural space as a specific economic resource

In studies of new types of resources, economic potential, and sustainable development of territories, culture inevitably occupies one of the first places, acting as a source and basis for the further development of society, and not so much spiritual as economic. That is, the 20th century marked an intensive increase in interest in culture from a pragmatic and utilitarian point of view. Ideas about the economic value of culture were preceded by the emergence in the 19th century of the ideas of the classics of the market economy, many of whom raised the issue of considering the environment as capital, its impact on the production of goods and services in the economy. In fact, the concept of natural capital was taking shape, which not only preceded the emergence in the economy of the fourth type of capital – cultural, but also brought together natural and material cultural resources, called by D. Throsby cultural ecosystems necessary to maintain cultural life and the viability of human civilization [Throsby, 2001: 94–95].

Let us dwell in more detail on the mechanisms of convergence of the economy and culture, and in particular on the transformation of the concepts of “cultural resource” and “cultural value”. The latter is directly related to the perception of culture as a limited space, its territorial dimension, which formed the basis of regional sustainable development. F. Braudel, considering culture as a space with



delineated boundaries within which all social life takes place, in his work “What is France” defines specific territories, such as cities, towns, suburbs and villages, as cultural spaces that form characteristic cultural values, images and meanings, traditions and customs of each particular region [Braudel, 2014: 61–67].

At present, as mentioned above, there are many approaches to the definition of cultural space, generalizing which we can give the following definition of this phenomenon. Cultural space is not only the cultivation of the natural environment and the transformation of the surrounding reality, but also the endowment of the territory with a special meaning, a manifestation of its uniqueness and originality, embodied in local traditions, folklore, legends, customs, holidays, products of both high and folk culture, in historical and ethnocultural monuments. It includes ecological, geographical, social, political, psychological spaces, information resources, covers the needs and values of a person, their way of thinking and lifestyle.

This concept in terms of economic value and cultural resource is considered by D. Throsby. Let us dwell on several important aspects emphasized by the researcher. Firstly, culture is not a set of lifeless artifacts that need to be protected, culture is a resource and a kind of “catalyst” for the revival of a territory. In the works “The Role of Culture in Economic Development” and “Economy and Culture”, D. Throsby repeatedly emphasizes the ever-increasing role of culture in regional development [Throsby, 2001: 36–42]. Despite the fact that he focuses on urban development, all these provisions are typical for regional development in general, and for borderlands in particular.

### 3. Four directions of cultural potential

The cultural potential of the territory can manifest itself in four directions, not excluding, but most often actively complementing each other [Ganski, 2017: 136–138].

1. Cultural objects located in the city can themselves be symbols that affect the economy. Examples: the Castle of the Teutonic Order in Malbork (Poland), the family residence of the Radziwiłł princes in Nesvizh (Belarus), or places associated with the life of Taras Shevchenko in Kaniv (Ukraine).
2. More often a situation arises when the development of the city is promoted not by one object, but by the whole area (cultural district), such as the Old Town in Vilnius (Lithuania) and Riga (Latvia), the Main City in Gdansk (Poland) or the historical center of Lviv or Kyiv (Ukraine).

3. Various branches of the cultural industry can become a vital component of the regional economy (the fine arts are especially important here). Moreover, this may not necessarily take place in megacities such as Vilnius or Lviv, but also in small towns and settlements such as Kosiv (Ivano-Frankivsk region, Ukraine) and Hlyniany (Lviv region, Ukraine), Koniaków (Silesian voivodeship, Poland) or Rakau and Ivyanets (Minsk region, Belarus).
4. The role of culture can also be manifested in the education of citizens of a common self-awareness, creative spirit, cohesion and vitality. For example, there is an opinion that, despite several wars, the Holocaust and forced deportations, the inhabitants of Lviv – even if they were born far from it, but have lived in Lviv for a long time – are characterized by a higher level of culture, self-awareness and creativity, which is a consequence of living in urban environment with high aesthetic and cultural qualities.
5. The economic value of these cultural resources has both direct and indirect components. Income from a cultural resource (e.g. castle, palace, museum, galleria, etc.) is often seen as a direct contribution to the development of a territory. However, the indirect component is often not taken into account, but it can be very significant both in providing employment and in increasing the well-being of the territory. It is understood as industries related to culture: transport, the HoReCa industry, the tourism industry, etc. [Ganski, 2019: 164–172].

Secondly, in the context of the development of the territory, the concept of “cultural value” is increasingly used as a factor in countering the consequences of globalization processes. It is the cultural resource of the borderlands in the form of local traditions, national customs, folklore, objects of historical and cultural memory, features of fine arts, artistic and folk culture that makes it possible to appreciate the importance of the cultural diversity of the borderlands and the uniqueness of these lands in a globalizing world. In this context, the parallel between the cultural potential of the territory, its sustainable development and the new role of cultural heritage is interesting [Sabalenka et al., 2021: 458–460].

#### 4. From cultural heritage to cultural capital

The very concept of cultural heritage is polysemantic and includes all inherited cultural experience. According to the definition of the UNESCO Convention for

the Protection of the World Cultural and Natural Heritage, adopted in 1972 [UNESCO, 1972], cultural heritage means:

- Monuments: works of architecture, monumental sculpture and painting, elements or structures of an archaeological nature, inscriptions, caves and groups of elements that are of outstanding universal value from the point of view of history, art or science;
- Ensembles: groups of isolated or combined buildings whose architecture, unity or connection with the landscape is of outstanding universal value from the point of view of history, art or science;
- Sightseeing places: works of man or joint creations of man and nature, as well as areas, including archaeological sites, of outstanding universal value in terms of history, aesthetics, ethnology or anthropology.

Currently, there is a change in the very essence of the approach to the perception of cultural heritage, and this is due to the spread of the concept of sustainable development. Thus, the heritage is now perceived not as a collection of cultural artifacts, the main task in relation to which is their preservation for future generations. In modern conditions, its main function is the formation and preservation of cultural and national identity; it acts as a factor in maintaining stability in a particular region and the world as a whole.

It is the cultural heritage that forms, among other things, the cultural space of the territory as a sphere of distribution of certain stable values, traditions and beliefs that ensure the existence and development of culture and have continuity. The understanding of culture as a necessary factor in the sustainable development of the territory has not only expanded the functions of cultural heritage, but also shaped its perception as a certain cultural and economic asset.

Thus, the definition of sustainable development given by the World Commission on Environment and Development as development that satisfies the needs of the present generation without infringing on the rights of future generations to meet their needs is quite applicable to culture, which is understood today as capital, which is a source of goods, values and services [Herrero, 2001: 154–155].

The value of cultural capital lies not only in the impossibility of exhausting and consuming the entire cultural resource (unlike natural, for example), but also in the fact that cultural capital, unlike ordinary capital, creates both cultural and economic value at the same time. Back in 1776, A. Smith was the first to draw attention to the value of a commodity in consumption, i.e. the ability to satisfy human needs, and value in exchange, i.e. the quantity of other goods and services

that someone is willing to part with in order to purchase a unit of a good. In this regard, D. Throsby's idea is interesting that social capital is exhausted not with use, but in the absence of use [Throsby, 2001: 188–190].

In this aspect, the consumption of culture looks even more attractive, because it is almost impossible to part with culture, both using it in the production of goods and services, and consuming it unlimitedly. This quality of culture, as well as its uniqueness, formed the basis for the functioning of a special type of modern economy: the experience economy.

## 5. The experience economy concept

The essence of this concept, developed by Harvard economists J. Pine and J. Gilmore, is the emergence of a new, most demanded, and therefore the most sold and popular product – experiences. In the work *The experience economy. Work is a theater, and every business is a stage*, the title of which is a paraphrase of W. Shakespeare's saying, the emergence and features of a new economic phenomenon generated by culture and competing with goods and services already familiar to consumers are described [Pine, Gilmore, 1999: 18–26].

In fact, the experience is the fourth economic proposition, coming after raw materials, goods and services, and offering the consumer a product in the form of unforgettable sensations and feelings. It is they who most often form the basis of the cultural industries and the entertainment sector, accompanying the production and consumption of any cultural product, be it shows, concerts, theater, cinema, exhibitions, etc. Experiences are built on recognition or familiarization with something majestic, for example, cultural heritage, cultural values of a particular territory or region. It is the experiences that underlie the currently quite popular phenomenon called “territory brand”, as they are the core of the popularity of a particular place, city, region or country as a whole.

## 6. The experience economy: case of Ukraine

In the modern world, one of the functions of the territory has become the production of experiences as a factor in its successful not only cultural, but also economic development. The role of cultural space as a resource can be described by the following example: the cost of two identical cups of coffee differs significantly

if one of them is drunk at a gas station somewhere on the road, and the other, for example, in a cafe on the Market Square in Lviv. In the first case, only the product itself is sold, in the second case, not just coffee, but also experiences are sold: a view of the square and a sense of belonging to the great city.

What are experiences and what are their features? There are four types of economic offers to the consumer: raw materials, goods, services and experiences. Raw materials are materials of natural origin. If we apply this concept to the development of the cultural potential of a particular territory, for example the Lviv region (Ukraine), then we can draw the following analogy. The entire natural landscape, including hills and mountains, rivers, forests and fields, in this case can be perceived as a raw material. In this regard, for example an independent trip by car to the Carpathian Mountains is perceived as a purchase of raw materials: where everyone separately receives hiking, skiing, searching for suitable housing, etc., and the consumer in this case seeks to purchase all this with the greatest benefit, because “buying” the mountains, he buys only the opportunity to walk and look at them. In this context, the raw material differs little from the commodity. Commodity are standardized products that a company produces. A significant role in the difference in prices is played by the associated costs of production and quality. As an example, let us take two well-known Ukrainian ski resorts in the Carpathians: Bukovel and Slavske, where raw materials, i.e. mountains are one and the same, and the differences are rooted in the associated costs and the level of service, from which the final price is formed.

Until recently, the maximum that manufacturers could offer consumers was services. Until now, some economists are of the opinion that experiences are part of the service industry and do not deserve special attention. Services are defined today as intangible activities aimed at meeting the needs of the client [Tsybouski et al. 2020: 478]. Services are valued more than goods, and even more so than raw materials, although in providing them, suppliers use all the same goods. This is due to the fact that goods simply provide a person with an opportunity to satisfy the necessary needs on their own, and services free a person from such a need, being the process of satisfying these needs. However, services and experiences are very different, because services still have standardization, as opposed to personalized experiences.

The best description of experiences is the phrase: “The best things on earth are not things” [Pine, Gilmore, 1999: 59]. Saving on goods and services, people are unlikely to want to save on experiences that are very important to their soul. One of the characteristics of the experience is its understanding as an unforget-

table theatrical performance, where buyers become guests, and producers and sellers become directors and actors, offering not just a product or service, but one way or another related experience that evokes a wide range of feelings in the client. All previous economic offers did not penetrate into the inner world of the buyer, while the experience is essentially personal. They affect a person on an emotional, physical, intellectual or even spiritual level. No two people get the same experience.

Experiences are worth more than services, because their value cannot be reduced to economic benefits, they cannot be touched or seen, but they can be taken with you forever. People strive for happiness; No matter what they associate with and no matter how they understand this state, it is realized to a large extent through emotional and creative activity. And consumers are able to express it through post-factum money signals. These payments will indicate the realized utility of the work, or its perceived quality, or the quality of symbolic communications, or, one might say, quality personal time that the person himself has identified as well spent. And it is experiences that are an indicator of this quality, increasing the value of emotions and experiences that directly give them and the need which increases every day due to the processes of unification and standardization that have engulfed modern society. People do not need emotions in general; they need emotions of a certain type at a specific time and in a specific place.

Another phenomenon that should be given special attention is entertainment. It is the most famous and oldest type of experience, and today its production is directly associated with a new industry called the entertainment industry. The entertainment element is now penetrating almost every segment of society [Vogel, 2010: 389–394].

Experiences created to increase sales eventually become a staple in their own right. A striking example of the sale of impressions is Lviv Coffee Mine. This cafe, which is located on the Market Square in Lviv and belongs to the FEST network of conceptual author's restaurants, exploits the legend created by him that coffee beans are actually mined in mines, like coal. Guests of the cafe are invited to go down into the long dungeons under the building, stylized as a mine, see and touch mining equipment with supposedly the remains of coffee mined here, see bags of coffee beans prepared for shipment to different countries, and also try coffee brewed according to original recipes. In addition to generating its own profit, this facility is a catalyst for the development of the economic and cultural potential of the city and the area on which it is located, and all this is through the sale of experiences.

## 7. Conclusions

Quite often, speaking about the culture of a particular territory, and in particular the territory that is located on the other side of the state border, we only list museums, theaters and other cultural institutions that make up the cultural heritage of this region, while completely losing sight of its economic potential. And it was the concept of the experience economy, proposed by J. Pine and J. Gilmore that revealed the possibilities of using the uniqueness and uniqueness of the culture of the borderlands. The need for experiences has become one of the most demanded in modern society, for whose representatives new emotions are important. This feature is associated with the mechanism of culture consumption: a person always expects new experiences from a book he has read, a movie or a performance he has watched, even if its content has long been familiar to him. The same applies to visiting the same places, and this is what the cultural tourism industry is based on, where tourists always get qualitatively new experiences compared to the previous ones and qualitatively different in relation to the experiences of other people. This is connected both with the phenomena generated by consciousness: with experience, perception, etc., and with the peculiarities of cultural values, which only benefit from their consumption. This is what makes experiences the most sought-after and expensive commodity in the borderlands today.

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**Joanna Garlińska-Bielawska**

- ▶ Cracow University of Economics
- ▶ e-mail: garlinsj@uek.krakow.pl
- ▶ ORCID: 0000-0003-3473-2827

**INFORMAL CROSS-BORDER TRADE IN AFRICAN ECONOMIC COMMUNITIES –  
THE CASE OF THE ECOWAS AND THE WAEMU<sup>1</sup>**

**| Abstract**

- ▶ *Goal* – the paper aims to present research findings relating to the complexity of the phenomenon of cross-border trade in the functioning of the ECOWAS and the WAEMU with a particular focus on elements of informal cross-border trade within the communities concerned.
- ▶ *Research methodology* – empirical (indirect observation and description) and general methods, including deduction and induction, were used to achieve the aim of the study. Research techniques such as cause-and-effect, comparative, documentary, historical, and synthesis were of great importance.
- ▶ *Score/results* – the investigation primarily leads to the conclusion that it is necessary to perceive ICBT differently from the perspective of economic communities of less developed countries (ECOWAS, WAEMU) and from that of advanced economies, such as the European Union, placing significant emphasis on the formalisation of trade and penalising entities pursuing informal activities. From the point of view of maximising the benefits of trade within particular African economic communities and – in the near future – within Africa’s continental community (AfCFTA, AEC), it seems vital to develop a specific, African way of appropriately using the potential of ICBT, specifically with the aim of promoting social inclusion and reducing poverty in Africa.
- ▶ *Originality/value* – the subject of ICBT in African REC is not a new problem, but it is still a niche subject, particularly in the Polish literature. The work is done by the

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author independently without any help and assistance of others. The study relies on the examination of source documents, statistical data and the critical analysis of the literature.

| **Keywords:** Informal cross-border trade (ICBT), regional economic communities (RECs), Economic Community of West African States (ECOWAS), West African Economic and Monetary Union (WAEMU).

## 1. Introduction

The phenomenon of informal economic activity – understood as activities not reflected in official national income statistics – is both timeless and universal in nature. In particular, it concerns economies at low levels of development, usually being directly related to weaknesses of their state institutions. However, it is not their distinguishing and exclusive feature; in the 21st century, studies have shown an increased role of informal economic activities pursued in post-industrial economies, including, in particular, the world's metropolises [Sassen, 2004: 27–59].

Furthermore, universality is not tantamount to uniformity as the reasons for the occurrence as well as the forms of the phenomenon in specific regions (including countries and economic communities) may vary fundamentally.

Official statistics on intra-African trade present very low values, also within the multiple economic communities in Africa, *de facto* established for the purpose of creating that trade (an average of approx. 7.2 percent)<sup>2</sup>. Nevertheless, observations and studies conducted on African borders suggest the opposite conclusions. Practice shows that part of the informal economy – informal cross-border trade – has been truly flourishing in Africa; consequently, official statistics are an estimated 40 percent lower than the actual trade value [Medina, Jonelis, Cangul, 2017: 1–31; Gallien, 2018: 1–9]. Despite not being a new problem, it is still a niche subject, particularly in the Polish literature<sup>3</sup>. Since the conclusion (2018) of the African Continental Free Trade Area (AfCFTA) Agreement, with

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<sup>2</sup> Calculated by the author for 14 African regional economic communities (RECs) for the period 2005–2017; for more see: Garlińska-Bielawska, 2019.

<sup>3</sup> One of the few studies wholly concerned with the role of the informal economy in the process of regional economic integration in Africa continues to be the publication by Plonowski, 2010.

the AfCFTA intended as the basis for the African Economic Community (AEC), currently in progress, the issue has become topical due to the large number of publications containing estimations of trade benefits to be potentially derived by both the participating countries and the continent as a whole. For example, as estimated by the UNECA, the entry into force of the AfCFTA may push up intra-African trade by more than a half (on condition of the elimination of import tariffs) or double its levels (if non-tariff barriers should be abolished as well) [*African Continental...*, 2022].

Without seeking to belittle the importance of lifting tariffs in Africa, still a fundamental source of budget revenues for many countries, and common difficulties in eliminating classically understood non-tariff barriers, one must also note that informal practices are deeply embedded in African trade relations and play a significant role in (affect) the functioning of economic communities in Africa as such estimates tend to solely cover formal trade. However, data on informal trade in Africa reveal a wide variety of goods, whereas the formal and informal trade structures hardly overlap. It suggests not only the underestimation in official statistics of the size of intraregional trade, but also the diversity of the goods traded; further, it is equally frequent for statistical data to indicate trade in products different from those actually sold<sup>4</sup>.

The article aims to present research findings relating to the complex role of informal trade (in particular, of informal cross-border trade) in the functioning of African economic communities.

The case analysed is that of the Economic Community of West African States (ECOWAS) and its sub-community, the West African Economic and Monetary Union (WAEMU). The ECOWAS is treated as a representative case study, covering almost one-third of African countries and a pillar of the AEC, currently in progress, but with the reservation of the non-generalisation of the ensuing conclusions due to the enormous differentiation of both states and economic communities in Africa.

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<sup>4</sup> For example, official data inaccurately point to a completely different structure by product of trade by the Democratic Republic of the Congo (DRC), a member of as many as four economic communities. According to the World Bank, the key articles imported from the DRC by countries of the region, particularly by Rwanda, include wood, vegetable oils, medicines and perfumes [World Bank, 2011], whereas other sources, interviews, observations, surveys indicate that the goods from the DRC most sought-after in Rwanda are tomato paste, milk powder, soap and loincloths. [*The Political Economy...* , 7]

## 2. Theoretical aspects of informal trade

The study of informal trade involves certain research constraints. Firstly, there are significant discrepancies in method and scope between perceptions of the informality of various manifestations of economic activity worldwide. Secondly, there are essential problems and dilemmas concerning quantification methods for the informal economy, particularly in situations where such activities are obviously not registered in official statistics. Therefore, B. Mróz distinguishes between two basic types of definitions relating to unofficial economic activities. The narrower approach classifies as a part of the unofficial economy those spheres of economic activities which should be covered by the registration and economic and financial control of the state but are not (e.g. moonlighting, or undeclared work); in the broader treatment, the unofficial economy encompasses all areas of economic activities excluded from the system of the registration and measurement of national product. In the latter approach, it is irrelevant whether such activities are legal (e.g. housework), semi-legal (e.g. operating beyond the scope of the business licence or authorisation obtained) or illegal (such as drug production and distribution) [Mróz, 2002: 14].

Similarly, there are two main groups of ways of measuring the unofficial economy: direct and indirect methods. Direct methods base on gathering information from entities engaged in the unofficial economy with the use of representative surveys, sample analysis of tax returns, interviews, participant observation, etc. Indirect methods rely on aggregates and use traces left by unofficial economic activities in various economic measures and indicators<sup>5</sup>.

Although informal trade – including informal cross-border trade (ICBT) addressed in the title of this article – is a mere section of informal economic activities, the same difficulties affect both defining and measuring it. Therefore, it is impossible to disagree with the opinion expressed by one of the authors of a recent report on African cross-border trade that “[t]here are probably as many definitions for ICBT as the authors and institutions researching it” [*African Trade Report*, 2020: 22]<sup>6</sup>.

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<sup>5</sup> For more see: Mróz, 2001: 93–110; Frey, Schneider, 2004: 17–21; Ćwikowski, 2016: 81–87.

<sup>6</sup> A broad overview of approaches to the problem is presented in: Cantens, Ireland, Raballand, 2015.

In the light of the above considerations, this study adopts the definition of informal trade as proposed by C. Lesser and E. Moisé-Leeman [2009: 9–10]. In this article, informal cross-border trade refers to ‘trade in *legitimately* produced goods and services, which escapes the regulatory framework set by the government, as such avoiding certain tax and regulatory burdens’. As part of such informal trade, goods can be traded by formal and informal firms excluded from official government records and fully or partly evading the payment of duties and charges. Such goods may also pass through official routes with border crossing points and customs offices but involve illegal practices. Examples of such practices include under-invoicing, misclassification, misdeclaration of the country of origin or bribery of customs officials.

### 3. Informal trade in Africa

Informal cross-border trade is deeply embedded in Africa’s history, also due to the manner of demarcating state borders in the post-colonial period, often artificially separating territories inhabited by individuals from the same ethnic groups. Another factor, invariably of great relevance, is the difficult economic and political situation of countries in the region. In the context of limited employment opportunities in the formal sector, ICBT is essential to job and income creation in Africa, employing approximately 20–75 percent of the total economically active population in most African countries and providing livelihoods to around 43 percent of Africa’s population [*African Trade Report*, 2020: 18]<sup>7</sup>.

Apart from historical, economic and political factors, the unusual popularity of informal cross-border trade in Africa is also fuelled by the high costs and lengthy procedures involved in formal trade (crossing the border can take several days, whereas the expenses to be incurred in connection with customs clearance and other procedures can exceed the value of goods traded informally) and very poor transport and banking infrastructure. Another condition influencing the choice of informality on the continent is the inland location of 16 African countries (landlocked countries) and the climate, of particular relevance to perishable goods.

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<sup>7</sup> An overview of research on ICBT in Africa is presented in: Bouet, Pace, Glauber, 2018: 7–9.

Other drivers of informal cross-border trade include corruption, of a universal and systemic nature in Africa, and border insecurity<sup>8</sup>. The absence of effective policing at border crossing points and commercial ports increases the frequency of the occurrence of crimes against traders (including psychological violence, sexual harassment and coercion), forcing them to travel in groups for protection or to use informal routes.

Border observation reveals at least several types of such trade. Those include the following:

1. Official transshipment of exported and imported goods. African coastal countries frequently act as hubs for landlocked states as well as for those countries with maritime borders where seaports are less accessible. That type of trade is official and, as a rule, recorded by customs authorities. But it tends to be excluded from the country's trade statistics and from international data sources;
2. Parallel trade – exports of primary products and imports of consumer goods – aimed at evading export and import taxes or regulatory compliance requirements;
3. Unofficial re-exports of legally imported products. The practice involves 'exports', whereby goods are formally imported into a low-cost country with the intent of subsequently transshipping them clandestinely into neighbouring countries with higher taxes, restrictive import quotas or stricter regulatory standards. Such re-exports comprise a complex mix of formal and informal practices, legal and illegal trade, reflecting the complexity of the informal sector in Africa;
4. Cross-border trade in traditional agri-food products, including live animals. That type of trade is historically established in Africa and usually involves little or no fraudulent intent. Ignoring borders artificial to them, peasants and herders traverse areas as their ancestors did for centuries. That practice *de facto* balances the demand for and supply of staple foods between countries<sup>9</sup>.

In the light of the above, informal trade encompasses both small quantities of goods transported by individual traders and much larger container shipments. Goods traded informally can also originate in both global markets and

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<sup>8</sup> For more see: Brol, 2015: 20–21.

<sup>9</sup> For more see: Golub, 2015.

neighbouring countries. Therefore, it is possible to analyse both the scale and substance of the phenomenon from at least several perspectives: from the point of view of a trader, a public institution or a customs official, combining into an economically and socially complicated system of African informality<sup>10</sup>.

#### 4. Informal trade in the ECOWAS and WAEMU activities

The Treaty establishing the ECOWAS was signed in Lagos (Nigeria) by the leaders of 15 West African states, gathering both Anglophone and Francophone countries of the region within a single community (those were as follows: Dahomey (Benin), Gambia, Ghana, the Republic of Upper Volta (Burkina Faso), Guinea, Guinea-Bissau, Liberia, Mali, Mauritania, Niger, Senegal, Sierra Leone, Togo and Côte d'Ivoire; in 1976, the group was joined by the Republic of Cape Verde, whereas Mauritania left the Community in 2002). At first, efforts by the key initiator of such an integration structure in the region – Nigeria – were aimed at persuading its Francophone partners to dissolve the West African Economic Community (WAEC; in French: *Communauté Économique de l'Afrique de l'Ouest*, CEAO), active from 1974, but it finally survived for quite a long time. As late as in the wave of new regionalism (in 1994), the WAEC and the UMOA combined to form the West African Economic and Monetary Union (WAEMU, in French: *Union Économique et Monétaire Ouest-Africaine*, UEMOA), functioning to date. That situation created typically 'African' conditions of overlapping memberships.

The beginning of the functioning of the ECOWAS was already marked by problems in the area of trade liberalisation, both within the ECOWAS and between the ECOWAS and the CEAO. The rules of origin were intended to ensure preferential treatment of goods produced by the local population. It was supposed to be a measure for promoting West African production and against businesses of French owners in Francophone countries as Nigeria and Ghana had managed to push through a number of exceptions. Consequently, the rules of origin effectively excluded from competition in the ECOWAS market the CEAO market leaders – Côte d'Ivoire and Senegal. Seeking not to lose their advantages, the two states as well as the other members of the CEAO were reluctant to reduce

<sup>10</sup> For more see: Karkare, Byiers, Apiko, Kane, 2021.



their tariffs in trade with other partners from the ECOWAS until such reductions would be effected by the latter. The ECOWAS countries adopted the very same line of action, which led directly to a deadlock in trade liberalisation within the community.

However, the problem proved to have more far-reaching consequences. Staple goods were produced by foreign-owned (French) companies, mostly located in Francophone countries. Their exclusion from liberalisation caused artificial shortages of staple goods in the market. It encouraged unofficial cross-border trade in 'Francophone' goods and re-became widespread, being preferred by various small and medium-sized distributors and producers, competing with traditional small-scale traders and enjoying significant support from corrupt public officials, many of whom had their own informal trade businesses.

As a consequence, the ECOWAS region is characterised by extensive, complex and multi-directional informal cross-border trade, primarily in food products, cattle, gold and fuels. Partly owing to informal fuel trade, Nigeria has become the main economic power of the region, catering for (particularly rural) areas avoided not only by transnational corporations (BP, Total, Shell), but also by domestic distribution companies, due to the risks involved. The Nigerian hub is one of the most active ones in Africa, supplying neighbouring countries such as Benin, Chad, Cameroon and (particularly with cereals) Niger. The region is famous for informal trade exports. Simultaneously, the CFA franc was overvalued for a long time (until its devaluation in January 1994), whereas a major devaluation in Nigeria and Ghana resulted in the reversal of unofficial trade flows. Traded goods mostly included textiles, footwear, cosmetics, detergents, plastics and petroleum products. Unofficial cross-border trade transactions in cattle, between Burkina Faso, Mali, Benin, Ghana, Côte d'Ivoire and Senegal. In Ghana, the informal market is dominated by informal exports of cocoa, gold and diamonds to Togo and Côte d'Ivoire; another flourishing activity in the region is informal trade in used cars and parts thereof.

Informal cross-border trade, particularly but not only on a small scale, is mostly conducted by women. In West and Central Africa, the share of female traders is nearly 60 percent [Africa Portal 2021]. The region of West Africa is particularly known for traders from Togo, selling regional loincloths and regional fabrics (pagnes, cire). Such a situation favours the social inclusion of women in the region, but it also involves particular risks for female traders, due to prowling gangs of robbers and activities of frequently corrupt law enforcement agencies.

In 2006, with support from the USAID, the WAEMU began to observe and document the number of checkpoints on West Africa's main transport corridors and the bribes paid and delays incurred by lorry drivers at those checkpoints. According to the observations, a lorry carrying imported goods from Lomé (Togo) to Ouagadougou (Burkina Faso) would have to stop an average of 23 times along the road: 14 times in Togo (746 km) and 9 times in Burkina Faso (276 km). The average amounts of bribes paid at roadblocks would be USD 36 and USD 24 in imports and exports respectively. As estimated in the study, the delays resulting from checkpoints amounted to approx. 2 hours per trip. Being a significant nuisance to traders and carriers, the number of checkpoints in West Africa considerably increases the costs of doing business. As transactional values in ICBT amount to an average of USD 50 to USD 1,000, unnecessary checkpoints and bribes push traders into the informal economy [Afrika, Ajumbo, 2012: 9].

The above-mentioned practices seem to be very difficult, if not impossible, to eradicate due to their permanent and prevalent embeddedness on the continent, combined with very weak state institutions. According to the Fragile States Index scores, as many as nine West African countries are classified under the category labelled *high alert*, *alert* (Guinea-Bissau, Guinea, Liberia, Mali, Mauritania, Niger, Côte d'Ivoire, Sierra Leone), whereas four have a *high warning* status (Burkina Faso, Gambia, Togo, Senegal)<sup>11</sup>. At the same time, the region is so unstable that the ECOWAS, with its own armed forces included in the continental security system, is sometimes assessed as an institution more effective in ensuring regional security than economic freedom in the community<sup>12</sup>. Undoubtedly, every armed conflict within the community causes changes in informal cross-border trade routes, just as epidemics, hitting Africa much more often than other regions of the world. The importance of the problem in this context has been accentuated to the international community by the recent COVID-19 pandemic [Schwettmann, 2020: 1–20].

The ECOWAS is a community characterised by medium institutionalisation, with several departments concerned with the facilitation of internal trade and regional integration. Obviously, the main focus is on formal trade through regional trade agreements, but the role of ICBT is recognised in official documents and regional cooperation programmes. Both the ECOWAS Regional Trade Facilitation

<sup>11</sup> For more see: Kłosowicz, 2017: 195–213.

<sup>12</sup> For more see: Garlińska-Bielawska, 2019: 199–221.

Committee and the Regional Aid for Trade Strategy (2016–2020) refer to informal trade as characteristic of the region. Furthermore, 2018 saw the development of an Informal Trade Regulation Support Programme, with an emphasis on data collection, institutional capacity building, policy and procedural reforms and gradual formalisation of informal traders. The ECOWAS Treaty also refers to promoting small and medium-sized businesses, not failing to address constraints faced by female traders (Article 63) [ECOWAS Revised Treaty].

In terms of treaty provisions, the duty-free circulation of goods within the region of the WAEMU was ensured prior to the equivalent regulations in the ECOWAS (the ECOWAS Trade Liberalisation Scheme – ETLS)[ETLS] by the introduction in 1999 of *Taxe Préférentielle Communautaire* (TPC)[Décision N°01/99/COM/UEMOA], or the ECOWAS CET (Common External Tariff). It is difficult for the two communities to co-exist in the region, with one of them aimed at sub-integration and using a common currency (the Franc of the Financial Community of Africa, the CFA franc)<sup>13</sup>, but in order to facilitate free trade within the regional bloc, several shared regulations were adopted, e.g. the harmonisation of the rules of origin, internal taxation, sanitary and phytosanitary measures, customs procedures, which basically also benefited cross-border traders. One result of the Regional Trade Facilitation Programme (PRFE) is increasing the transparency and predictability of trade transactions and cross-border transport.

## 5. Conclusions

In both theoretical and practical terms, within the meaning of practices of regional economic communities in Africa, informal cross-border trade is a very complex issue. The factual situation, estimated to provide livelihoods to more than 40 percent of the African population in the 2020s, has been shaped by a variety of historical, geographic, climatic, political, economic and social factors.

The investigation primarily leads to the conclusion that it is necessary to perceive ICBT differently from the perspective of economic communities of less developed countries (ECOWAS, WAEMU) and from that of advanced economies, such as the European Union, placing significant emphasis on the formalisation of trade and penalising entities pursuing informal activities.

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<sup>13</sup> For more see: Byiers, Dièye, 2022.

From the point of view of maximising the benefits of trade within particular African economic communities and – in the near future – within Africa’s continental community (AfCFTA, AEC), it seems vital to develop a specific, African way of appropriately using the potential of ICBT, specifically with the aim of promoting social inclusion and reducing poverty. The enhancement of knowledge about ICBT, including the improvement of the data collection and analysis system, aimed to effectively measure the contribution of ICBT to the development and growth of individual economies and to design appropriate political and economic policy measures within particular RECs and across Africa, should lead to the maximisation of benefits of ICBT accompanied by the minimisation of ICBT-related social losses and risks.

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## Urszula Gołaszewska-Kaczan

- University of Białystok
- e-mail: u.golaszewska@uwb.edu.pl
- ORCID: 0000-0003-2084-6268

### SOCIAL RESPONSIBILITY OF UNIVERSITIES ON THE EXAMPLE OF THE UNIVERSITY OF BIALYSTOK

#### | Abstract

- *Goal* – the purpose of this study was to present selected aspects of the social responsibility of universities and to describe examples of socially responsible activities undertaken by the University of Białystok.
- *Research methodology* – for the purpose of the article, the analysis of the literature on the subject and the method of document research were used.
- *Score/results* – the article showed that the concept of social responsibility of universities is developing all the time and there is no single, generally accepted approach to it. Despite this, it is an idea that should be implemented by all universities. The University of Białystok has already taken up this challenge. However, perhaps there is a need for greater structuring of these activities and their wider promotion.
- *Originality/value* – the article expands the knowledge about the social responsibility of universities. It presents selected socially responsible activities of the University of Białystok.

| **Keywords:** university social responsibility, stakeholders, corporate social responsibility.

#### 1. Introduction

The origins of the idea of corporate social responsibility can be traced back to the 19th century, when entrepreneurs - philanthropists took action to help the poor, the sick, the orphaned. On the other hand, the first definition of social



responsibility can be considered the one proposed at the beginning of the 20th century by A. Carnegie. He presented social responsibility as the need to implement two principles – the principle of mercy and the principle of stewardship. The principle of mercy, also translated as the principle of charity, compelled the richer members of society to help those who were less fortunate (therefore this principle goes back to the roots of the biblical injunction to help one's neighbour). The principle of stewardship, on the other hand, also translated as the principle of trusteeship, demanded that businesses and wealthy people consider themselves solely as stewards, guardians of their property [Gołaszewska-Kaczan, 2009: 42].

Since then, the way of looking at corporate social responsibility has evolved, resulting in a large number of definitions of the concept. These definitions, depending on the current economic and social issues, have dealt with the relationship between business and society in different ways. However, all definitions focused precisely on corporate responsibility and referred to the behavior of businesses. For example, the already classic definition by H. Bowen [Bowen, 1953: 6] said that social responsibility is the commitment of a business to pursue such policies, make such decisions and adopt such a line of conduct that are consistent with the prevailing goals and values of society. In contrast, Kok et al. [Kok, 2001: 288] believe that it is a company's commitment to use its resources in a way that benefits a society, through committed participation as a member of the society, consideration of the society at large, and improvement of society's well-being independent of the company's direct profits.

Nowadays, the concept of corporate social responsibility is well established, which translates into both an increasing number of companies that undertake social responsibility activities and an increasing variety of these activities. At the same time, it turns out that social responsibility can be an idea aimed not only at companies, but also at other entities. An attempt to formally include all organizations in the area of social responsibility was the definition of social responsibility proposed by the International Organization for Standardization (ISO). It was published in 2010 as part of the ISO 26000 Guidance on social responsibility. The ISO 26000 standard [ISO 26000] assumes that social responsibility is the responsibility of an organization for the impact of its decisions and actions, on society and the environment. It is realized through transparent and ethical behaviour that:

- contributes to sustainable development, including the health and well-being of society;
- takes into account the expectations of stakeholders (individuals or groups who have an interest in the organization's decisions or actions);

- is consistent with applicable law and consistent with international standards of conduct;
- is integrated into the organization's operations and practiced in its activities undertaken within its sphere of influence.

As can be seen, the definition does not refer only to businesses, since the creators of the definition use the term "organization." Thus, the definition departs from linking social responsibility to business – it extends it to all entities, including those that do not operate for profit. Indeed, social responsibility has already become a cultural phenomenon that goes beyond business. This approach to the concept makes it possible to analyze the socially responsible activity of a variety of entities, including higher education institutions.

The activities of universities are regulated by a number of legal acts that set their goals and rules of operation. However, with constant and unpredictable changes in the environment, it becomes necessary not to only fulfill legal obligations. Universities should also respond to new challenges arising in their environment and strive to respond to the legitimate claims of their stakeholders.

Although the idea of social responsibility of universities is a very topical issue, and incorporating it into the practice of every higher education institution seems essential, it is an issue not so often addressed in the Polish literature.

Therefore, the purpose of this study was to present selected aspects of the social responsibility of universities and to show examples of socially responsible activities undertaken by the University of Białystok. For the purpose of the article, the analysis of the literature on the subject and the method of document research were used.

## 2. Social responsibility of the university

A serious discussion of the role played by the university in the modern world was initiated in the 1960s by C. Kerr, with his book *The uses of the University* [Kerr, 1963]. D.G. Faust (president of Harvard) said of the publication that it is the best explanation of how the American university has evolved and why its commitment and foresight are so important for the present and the future [Electronic document (2)].

In contrast, the term social "responsibility of the university" was popularized in the 1980s by D. Bok, through his book *Beyond the ivory tower. Social*

*Responsibility of the modern universities* [Bok 1982]. In this publication, he drew attention to the core values of academia. Against this background, he analyzed the ethical and social problems faced by modern universities and then proposed specific solutions to these problems. The book was considered the first serious attempt to analyze the role of the university in society [Electronic document (1)].

However, the already relatively long discussion of the social responsibility of a university has not led to a unified position on what the term really means. It seems that the starting point for defining the social responsibility of a university should be to consider to whom and for what a university is actually responsible.

In Poland, the Law on Higher Education and Science states that universities carry out a mission of special importance for the state and the nation: they make a key contribution to the innovation of the economy, contribute to the development of culture, co-shape the moral standards of public life [Act of 20.07.2018]. Meanwhile, the main tasks of universities include [ibidem]:

- conducting college education, postgraduate studies, conducting other forms of education;
- conducting scientific activities, providing research services and transfer of knowledge and technology to the economy;
- conducting education of doctoral students;
- educating and promoting university personnel;
- creating conditions for persons with disabilities to participate fully in: the process of admission to the university for education, education, conducting scientific activities;
- educating students with a sense of responsibility for the Polish state, national tradition, strengthening democratic principles and respect for human rights;
- creating conditions for the development of students' physical culture;
- disseminating and multiplying the achievements of science and culture;
- acting for the benefit of local and regional communities.

Analyzing the tasks of a university, K. Leja says that a modern university "has three missions to fulfill, the first of which is education, the second is scientific and research activities, and the third is to create mutual relations with the environment, the effect of which is to be the dissemination and popularization of research results and their implementation, including commercialization. The third mission is to make academic institutions more involved than before in the processes of social development at various levels: economic, civilizational, moral and ethical" [Leja, 2015].

The tasks and mission of the university, formulated in this way, can be the basis for identifying the university's stakeholders. Unfortunately, it seems impossible to create an exhaustive list of these stakeholders, which is dictated by "the multiplicity of roles played by universities in the socio-economic development of the region and the country, and the high contextuality of the relationships themselves" [Piotrowska-Piątek, 2016: 87]. It should be recognized that universities (including in Poland) have a particularly complex stakeholder environment, with both stakeholder groups specific to private sector organizations [Chapleo, Simm, 2010: 2] and the public sector. This leads to different authors identifying different stakeholder groups. The basic stakeholder groups of universities, according to different authors, were compiled by M. Slaba, as shown in the Table 1.

*Table 1.* The basic stakeholder groups of universities

| Author                   | Stakeholder group   |
|--------------------------|---|
| Burrows                  | Management, employees, government entities, clients (students, parents, employers, employment agencies), government regulators, non-governmental regulators, suppliers, competition, financial intermediaries, donors, communities, alliances and partnerships  |
| Kotler, Fox              | Alumni, prospective students, current students, parents of students, local community, general public, mass media, legislature and government agencies, foundations, accreditation organizations, staff and administration, regents, faculty, trustees, competitors, suppliers, business community, grant organizations and donors |
| Licata, Frankwick        | Students, former students, general public, parents, local and business community, donors, teachers and administrative staff, marketing department, government   |
| Rowley                   | Students, families and parents, local authorities, local communities, government, media, societies  |
| Světlík                  | Local community, media, general public, students  |
| Weave                    | Students, families of students, institutional management, teaching staff, government, general society   |
| Lumby, Foskett           | State (government), community, parents, customers, students, employers and business   |
| Anderson, Iriggs, Burton | Parents, industry, business, local community, students (customers), staff, government   |
| Zait                     | Future university candidates (prospective students), present students, university professors, employers, public   |

Source: author's own work based on: Slaba, 2015: 307.

By comparing different approaches to distinguishing university stakeholders, L. Seres, M. Maric: Tumbas, V. Pavlicevic [Seres, Maric, Tumbas, Pavlicevic 2019: 9057] created a summary of the most important groups of university stakeholders, along with examples of stakeholders belonging to each group. This is shown in Table 2.

*Table 2.* The most important groups of university stakeholders

| Stakeholder category        | Constitutive groups  |
|-----------------------------|--|
| Governing entities          | state government; governing board  |
| Administration (management) | director (rector, dean); senior administrators   |
| Employees                   | teaching and research staff; administrative staff; support staff   |
| Clients                     | students (former, current, potential); students' parents; family; tuition reimbursement providers; service and industry partners; employers; employment agencies   |
| Suppliers                   | high schools; alumni; other universities; food providers; insurance companies; utilities; contracted service providers   |
| Competitors                 | direct (private and public providers of post-secondary education); potential (distance higher education providers; new ventures); substitutes (company training programmes)  |
| Donors                      | individuals (including directors (trustees), friends, parents, alumni, employees, industry foundations)  |
| Communities                 | neighbours; school systems; social services; special interest group  |
| Government regulators       | ministry of education and research; buffer organisation; state financing agencies; research support bodies; fiscal authorities; social security; patent office   |
| Non-governmental regulators | foundations; accreditation bodies; supervisory institutions; sponsoring religious organizations  |
| Intermediaries              | financial intermediaries (banks, funds); professional organizations and associations; business associations (chambers of commerce; business clusters, business incubators, science and technology parks...); networks (Enterprise Europe Network, European Entrepreneurs Network...) |
| Joint venture partners      | alliances and consortia; corporate co-sponsors of research and educational services  |

Source: Seres et al., 2019: 9057.

According to V. Meseguer-Sánchez, E. Abad-Segura, L.J. Belmonte-Ureña and V. Molina-Moreno [Meseguer-Sánchez et al., 2020: 2], the social responsibility of a higher education institution is a commitment of the university institution to develop initiatives that promote its relationship with the different social groups of society. Another definition says that the social responsibility of universities is a “policy of ethical quality in the activities of the university community (students, lecturers, administrative staff), through responsible management of the educational, cognitive, labour and environmental impact of the university, in a participative dialogue with society to promote sustainable human development” [Wigmore-Álvarez, Ruiz-Lozano 2012: 477]. For C. Wing-Hung Lo, R. Xue Pang, C.P. Egri and P. Hon-Ying Li, it is a progressive management system for pursuing sustainability [Wing-Hung Lo et al., 2017]. As L. Gomez writes, “the practice of USR encloses specific and unique impacts that concern universities. These impacts are classified as organizational (related to work climate and environment), educational (academic foundation), cognitive (epistemological research), and social (community outreach)” [Gomez, 2014: 243].

In Polish literature it is difficult to find definitions of social responsibility of universities. Rather, authors formulate definitions of a socially responsible university. For example, K. Leja considers that a socially responsible university is a university that serves the environment [Leja, 2008: 61]. According to E. Chmielecka, a socially responsible university is one that cultivates the desired values of the academic ethos and acts in accordance with its guidelines [Chmielecka, 2008: 23].

The definition of social responsibility, on the other hand, is given, for example, by the Working Group on Social Responsibility of Universities under the Ministry of Development, which considered it “a strategic and systemic approach to university management and building cooperation and dialogue with stakeholders that contributes to: sustainable development, the formation of values and attitudes of civil society, the promotion of academic values and the creation of new ideas, and the maintenance and development of scientific and teaching competencies that affect business efficiency and innovation” [Kulczycka, Pędziwiatr, 2019: 9]. The Cracow University of Economics has also formulated its definition of SOU. According to this university, it is the voluntary adoption by the university of social obligations that go beyond the obligations of the law, and greater openness to all internal and external stakeholders, as well as the environment, in order to better shape the civic attitude of students and increase the influence of the university on the shape and nature of social development [Raport Społecznej...].

### 3. Myths about the social responsibility of universities and the benefits of being a socially responsible university

Incorporating the idea of social responsibility into the everyday life of higher education is not easy. L.P. Widianingsih, I. Triuwono, A. Djamhuri and Rosidi believe that this is due to the existence of certain myths about the concept [Widianingsih et al., 2022].

For example, it is believed that only corporations have a need to realize social responsibility, while universities do not need it because they do not cause harm with their activities. However, universities should also strive to reflect on the effects and risks of their operational activities, on their impact on the environment. It is also believed that universities are neutral and generally accepted, which does not force them to implement the principles of social responsibility. However, the reality shows that in the current competitive environment universities also have to try to win the favour of stakeholders.

Another myth is that it is enough for a university to introduce teaching on social responsibility issues instead of implementing this concept in practice. Of course, the university should impart knowledge of social responsibility to students, but it should also implement the idea itself. One more myth concerns the compromises that are necessary to reconcile the realization of profit with the realization of goals arising from social responsibility. This is particularly difficult in the case of private universities. However, it must be emphasized that it is possible to balance economic, social and environmental goals [Widianingsih et al., 2022: 1689]. Furthermore, according to P. Lukhele-Olorunju and T. Maeykiso, finance-based thinking and social responsibility-based thinking can be reconciled, and such a complementary approach will allow universities to grow and have an appropriate impact on the environment [Lukhele-Olorunju, Maeykiso, 2017: 68].

The fight against these myths is helped by the knowledge of the benefits that universities can gain by becoming involved in the implementation of the concept of social responsibility. The benefits that accrue from the socially responsible actions of universities are similar to those of responsible actions by other entities. These benefits accrue to both stakeholders and the university itself.

Stakeholder benefits are, of course, related to the area in which the university undertakes activity. According to ISO 26000, social responsibility can be implemented in seven areas, i.e. organizational governance, human rights, labour practices, environment, consumer issues, social involvement and commu-

nity development, fair operating practices [ISO 26000]. Activities in each area have a specific audience, characteristics and associated profits. Here, however, the question of the benefits received by the stakeholders will be ignored<sup>1</sup>, while attention will be focused on the benefits that the university itself can realize from such activity.

Social responsibility can be an instrument for building competitive advantage by influencing the reputation of a higher education institution [Nadeem, Kakakhel, 2012: 25]. Indeed, the global trend of marketization of higher education has led to increased competition among universities for students. Hence the importance of a good university image.

To a large extent, the image of a university is related to the satisfaction of students. As it turns out, the satisfaction of these most important university stakeholders increases when they see the socially responsible activities of the university. Their evaluation of the quality of the university's services also increases. This leads to an improvement in the university's standing and reputation, reduces dropouts, and attracts new students [Vázquez, Aza, Lanero, 2017]. This is because prospective students are interested not only in the academic reputation of the university, but also in the character of the institution. The pro-social image of a higher education institution can influence applicants' choice of university.

At the same time, external entities (e.g. the entities cooperating with the university or providing funding) may be more inclined to support universities that implement socially responsible activities. This is because such activities may be an answer to their own problems.

Introducing the concept of social responsibility allows the university to raise the level of human and social capital of the organization [Jimena, 2011]. A.C. Chumaceiro Hernández, R. Ravina Ripoll, J.J. Hernández García de Velazco and I.V. Reyes Hernández even believe that social responsibility can be used by universities as a tool to build organizational happiness (organizational well-being) [Chumaceiro Hernández et. al, 2020]. This can increase the level of employees' attachment to the university and their satisfaction from working in such an organization.

Socially responsible activities also bring economic benefits to universities in the long term [Rachman, 2018: 34]. This is because they contribute to reducing the cost of recruiting new employees, marketing costs for attracting new

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<sup>1</sup> On this subject see for example: Gołaszewska-Kaczan, 2009; 2020.



students, and the cost of potential litigation for damages in various areas. Cost reductions are also possible through environmental measures. Harvard University, for example, has implemented more than 100 energy conservation measures since 2006, reducing its carbon footprint by more than 7,000 metric tons, and reducing administrative costs by more than 1 million dollars [Păunescu, Drăgan, Găucă, 2017: 561].

#### 4. Examples of socially responsible activities of the University of Białystok

The basis for the University of Białystok's socially responsible activities is its mission and strategy. The mission of the University of Białystok is: "An engaged University. Our mission is to work for social good through the creation and dissemination of knowledge". UwB's strategy emphasizes that the University's mission is not limited to the realization of educational and scientific goals alone, but also includes all activities undertaken in relation to its environment [*Strategia Uniwersytetu w Białymstoku*].

In 2019, the University of Białystok became a signatory to the University's Declaration of Social Responsibility. Signing the Declaration represents the University's voluntary commitment to implement activities in the twelve areas indicated by the Declaration<sup>2</sup>. UwB is one of 160 universities that have signed the Declaration to date.

As part of the dissemination of its responsible practices, the University has been submitting selected activities to the University's Catalogues of Good Practices since 2020, which are being developed by the University's Social Responsibility Working Group (operating within the Sustainability and Corporate Social Responsibility Team of the Minister of Funds and Regional Policy).

In 2020, the Catalogue was dedicated to good practices of universities in the era of the COVID-19 pandemic. 171 examples were submitted to this Catalogue by 57 universities [*Katalog... COVID-19*]. UwB submitted two practices to this Catalogue concerning the area of "equipment support and protection measures". The first reported practice concerned the 3D manufacturing of adapters for air-

<sup>2</sup> Contents of the Declaration on the website of the Ministry of Science and Education: <https://www.gov.pl/web/edukacja-i-nauka/zaproszenie-do-przystapienia-do-deklaracji-spoecznej-odpowiedzialnosci-uczelni>.

tight half-face and full-face masks. These adapters were made by employees of the Physics Department and were then donated to the local ambulance station and the fire department. The second practice involved the donation of personal protective equipment (gloves, masks, ethyl alcohol) and laboratory equipment (needed for testing) to the Provincial Sanitary and Epidemiological Station in Białystok. Under the “psychological support” area, UwB reported a practice of arranging psychological support for university employees and students who were struggling with mental problems due to the pandemic. In turn, under the “research” area, the University reported a practice “Modeling to estimate the actual number of COVID-19 infected worldwide”. UwB employees developed models to estimate the number of COVID-19 infected in real time, with the results presented online. A second practice was also reported in this area – the “Pandemic Stories PL” project. It collected so-called “personal documents,” i.e. stories, photos and videos that document the changes taking place in the daily lives of Poles. The individual stories look for social patterns of behaviour, thought constructs or cultural elements.

In 2021, the Catalogue was devoted to the issue of academic values, including the formation of ethical attitudes and social commitment, as well as countering the manifestation of discrimination internally at universities. 140 practices were submitted to the catalogue by 44 universities [*Katalog... etycznym i niedyskryminacyjnym*]. For this Catalogue, the University of Białystok submitted two projects of environmental activities in the area of “involvement of the academic community”. As part of the “Flower Meadow” project, the University of Białystok created its own flower meadows in cooperation with the local government of Podlasie and the Meadow Foundation. The second action was called “Feeder”, in which students from the university’s science club trapped birds in order to ring them. In the area of “diversity management and anti-discrimination” the practice of appointing a representative to develop anti-discrimination procedures was reported. In the area of “ethics in scientific research” UwB reported the project “False Information in Science”, as part of which Repository staff developed an information brochure, a set of useful articles, infographics, and conducted three online workshops to help scientists guard against “predatory journals”.

The activities shown are only selected examples of responsible practices of the University of Białystok. The University, in accordance with the signed Declaration, strives to undertake activities aimed at all its stakeholders.

## 5. Conclusions

The concept of the social responsibility of higher education is developing all the time. New definitions are being proposed, new areas of activity are being identified. This is understandable given how volatile conditions in which higher education institutions operate today. However, regardless of the conditions, the involvement of universities in the implementation of this idea seems essential. This is because the concept of social responsibility allows universities to understand the circumstances under which they operate and the impact they have on the society, much more broadly than the region in which they are located [Brown, Cloke, 2015: 481]. Socially responsible actions on behalf of the environment and the community in which they operate provide universities with a license to operate [Rachman, 2018: 29].

The University of Białystok has already taken up this challenge. However, perhaps there is a need for greater structuring of these activities (other universities create, for example, positions responsible for the proper development of the concept at the university) and wider promotion of these activities (e.g., the creation of a social responsibility report, wider promotion of these practices in the University Directory, or as part of the recruitment of university candidates). With more and more universities in Poland promoting themselves as socially responsible entities, it is important that the University of Białystok is not left behind.

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## Sylvia Leszczuk

- University of Białystok
- e-mail: s.leszczuk@uwb.edu.pl
- ORCID: 0000-0002-0897-3136

### “DISENCHANTMENT OF THE WORLD”. THE THESIS OF MAX WEBER’S CONCEPT OF THE SOCIOLOGY OF LAW

#### | Abstract

- *Goal* – the purpose of this text is to present the assumptions that are characteristic for Max Weber’s concept of the sociology of law. They undeniably fit into the picture of his vision about the state of contemporary political, economic, legal and social reality, which he collectively described with the term he coined – “the disenchantment of the world”.
- *Research methodology* – conducted through an analysis of the literature on the subject and by compiling the results of the undertaken analysis.
- *Score/results* – Max Weber, conducting an analysis of his contemporary world, tracing the historical changes that led to its formation, and studying the impact of these changes on his spheres of interest, came to the conclusion that with the development of Western civilization, magical explanations of reality gradually gave way to more “down-to-earth” explanations. Ultimately, Weber referred to the process of turning to reason and logic as rationalization. Rationalization, in turn, led to a state of affairs that Weber referred to as the “disenchantment of the world”. It should be reiterated after Grosby that “if, in fact, Weber was correct that all magical forces have been driven out of modern life, then there would no longer be a need to constantly ask ourselves about the meaning and sense of human life; there would no longer be any number of ethical disputes and paradoxes with which we are confronted; we would no longer struggle with the doubts that wrap around all action. There would only be a calculation that would determine the most effective ways to problem-free solutions” [Grosby, 2013: 308]. And as is well known, including from autopsy, both individuals and society as a whole continue to ask themselves questions that reason cannot answer.

- *Originality/value* – presenting a theoretically observable phenomenon, the grasp of which, however, often escapes observers. The text makes the reader aware of the complexity of the processes that have shaped today's dimension of law. The text aims to make the reader aware that the rationalization of the world has led to the rationalization of law, and, through convergence, the rationalization of law has led to the rationalization and disenchantment of the world.

| **Keywords:** sociology of law, Max Weber, disenchantment of the world, rationalization of the world, rationalization of the law.

## 1. Introduction

Karl Emil Maximilian “Max” Weber, born in 1864 in Erfurt, was a German sociologist, philosopher, economist and lawyer whose ideas had a great influence on the modern shape of sociology, of which he is considered the father along with figures such as Émil Durkheim and Karl Marx. He rejected the positivist conception of social sciences as natural sciences, however, trying to give them a strict and objective character. He developed the concept of ideal types, and undertook the elimination of value judgments from the methodology, pointing out their destructive influence on the course and outcome of the process of cognition. One of Weber's famous scientific achievements, among others, is distinction of the mode of governance into three pure types: traditional, charismatic and legal. His reflections on bureaucracy, legitimacy of power, politics, the influence of Calvinism on capitalism and social action have influenced various fields of science. Weber's wide range of interests also included law. He was one of the forerunners of approaching it from a sociological point of view. Michał Kaczmarczyk draws attention to Weber's statement with regard to law: “the specific professional sublimation of modern law is possible only through its formally rational character” [Kaczmarczyk, 2003: 69].

It is worth mentioning that while analyzing the social reality that is contemporary to Weber, while pondering the possible future of the development of Western society, Weber also points out that the undeniable trend he sees is a move away from tradition and towards rational thinking and action. Weber called this process *Entzauberung der Welt* – the disenchantment of the world, meaning moving away from interpreting and understanding reality through the prism of magic.

The purpose of this text is to present the assumptions that are characteristic for Max Weber's concept of the sociology of law. They undeniably fit into the



picture of his vision about the state of contemporary political, economic, economic, legal and social reality, which he collectively described with the term he coined – “the disenchantment of the world”.

## 2. The assumptions of Max Weber's sociology of law

According to Weber, legal order, in relation to law in sociological terms, is a social order [Polaczuk, 2010: 56–57]. For the creation of order, however, a rule is needed. Paweł Polaczuk points out that “by the concept of a rule one can understand a norm to which past, present and future events or actions will be referred”, and, repeating Weber, he cites that a rule can be considered in the context of “a maxim of action, i.e. a rule subjectively regarded as binding, to which human action will be directed”. With this in mind, the legal order according to Weber is formed by norms, which are themselves causes, being catalysts for the formulation of human will and action. Weber points to the possibility that “those acting in a certain social space will orient their actions to the ideas of the norms of the legal order” [ibidem, 57]. These considerations apply to the sociological view of law, as well as the empirical validity of law. It should be pointed out here that “in the case of law in sociological terms, Weber reduces the cognitive interest to the question: does it empirically affect, and how?” [ibidem].

Weber creates a sociological concept of law, focusing primarily on the causes and consequences of the assumption that members of a social community accommodate their actions towards certain social orders. Thus, he draws attention to the validity of legal norms, that is, “the probability that legal norms will be obeyed, regardless of motivation” [Kaczmarczyk, 2003: 62]. Andrzej Kojder, on the other hand, notes that “adherence to norms considered as legal norms and actions adjusted to these legal norms are signs that we are dealing with a legal order” [Kojder, 2010: 54].

Andrzej Kojder points out that Weber notes that “a valid legal order can only refer to a certain factual state of affairs, and this issue is the subject of the sociology of law”. At this point, it should be pointed out that Weber's definition of law (i.e. the sociological definition of law) defines law as “a set of factual conditions of human action, for the enforcing of which a special coercive apparatus is appointed” [Kaczmarczyk, 2003: 62]. For Weber, an extremely important aspect of the social order, and through it the legal order (and *vice versa*), is the existence of



the so-called staff, or coercive element, designed to serve as a guarantor [Kojder, 2010: 53]. This is important because the existence of legal order is guaranteed when the coercive apparatus is activated in the event of a violation.

Michał Kaczmarczyk draws attention to another concept that seems to be relevant to understanding Max Weber's concept of sociology of law. Namely, he points to the so-called social action, which is an action oriented in its subjective sense to the behavior of other people. Thus, it is based on certain expectations of others towards individuals. However, those individuals also have certain expectations. This leads us to the statement that "the social action of an individual is based on expectations of expectations" [Kaczmarczyk, 2003: 64].

Weber defines social action as human behavior, however, only if the person associates with it a certain subjective and intentional sense [Weber, 2002: 6]. In addition, Weber describes reality by capturing it through the lens of acting subjects, comparing social phenomena to ideal types he has constructed [Kaczmarczyk, 2003: 58]. Weber distinguishes four pure ideal types of action: purposefully rational, value rational, charismatic and traditional [Polaczuk, 2011: 9–10]. The construct of ideal types was intended to serve as a tool "to subordinate observation and to search for causal relations between actions".

The most relevant type of action from the point of view of the topic under discussion will be intentionally (purposefully) rational action. It is an action where the individual is aware of and acts according to "the goals, means and side effects, while considering rational means in relation to the goal as well as the side effects (...)" [Weber, 2002: 19]. We can understand purposefully rational action intellectually, just as we understand logical or mathematical structures, and therefore purposefully rational action "will be for us perhaps not so much completely unambiguous as sufficiently obvious (...) so that we are given to understand real human action, in the most rational way possible" [Polaczuk, 2011: 10–11]. Weber links a deliberately rational action, oriented to the selection of means through the prism of the goal, with the concept of rationality [ibidem, 12]. Thus, one can make the assumption that rationality is an action based on the calculation of means in view of the goal. This, in turn, leads us to conclude that rationality of action is inextricably linked with rational thinking, and this combination creates a rational lifestyle [ibidem, 18].

Before proceeding further, it is worth mentioning that it was Weber who described the general development of law, indicating that the genesis of its evolution should be traced firstly to the charismatic revelation of law by prophets (i.e. legal prophecies), moving on to the creation and detection of law by legal notables,

through the imposition of law by clerical and secular authorities, to arrive finally at lawmaking by the state and "its development and application by legal scholars with appropriate professional training" [Kojder, 2010: 57]. Such a chronology indicates a transition sequentially from the revelation of law by means of oracles, formulas, divine judgments, and rituals (in which Weber sees the beginning of the long process of formalizing legal procedure), through the empirical creation and application of law by charismatic notables, through the legislation of the secular empire and ecclesiastical authorities, to finally reach "the systematic establishment of law (...)" by people with legal training, as well as lawmaking by state authorities [ibidem, 57–60]. Thus, there was a transition in the process of legal development from "a combination of magically conditioned formalism and irrationality brought by revelations (...) to the logical sublimation and deductive rigor of law" combined with its rational techniques [ibidem, 57]. As we can see, the rationality resulting from action also translates into law and manifests itself in its later stages of evolution, as Weber clearly points out.

With these considerations in mind, it should be pointed out that the main issue of Weber's socio-legal deliberations is "the question of the development of legal rationalism and its significance for the rise of the modern state" [ibidem, 56].

### 3. Rationality and rationalization of the world and the law

Weber did not approach the term "rationality" in an unambiguous way. It should be noted that it had at least several meanings for him, including his understanding of rationality as "the manifestation of the will of the individual", as a synonym for "intellectual clarity", religious rationalization, i.e. the systematization of religious ideas; "the reduction of individual procedural decisions to a system of established rules", he considered one of the aspects of legal rationality [ibidem, 57]. Adopting the assumption of rationality of actions, on the other hand, was intended to make it possible to understand and explain those actions [Skeris, 1982: 248].

Michał Kaczmarczyk, referring to the Weberian notion of rationalization, points out that it is also a very broad concept, encompassing such processes as secularization, industrialization, bureaucratization, specialization, objectification, disenchantment, dehumanization and the development of capitalism [Kaczmarczyk, 2003: 57]. On the other hand, Richard Jenkins mentions that

“rationalization is an intellectual process - a process of intellectualization that we have been going through for thousands of years, an intellectual rationalization created by science and scientifically oriented technology” [Jenkins, 2000: 20–21]. According to Peter Skeris, rationalization can be understood as “the practice of making sense of reality” [Skeris, 1982: 249].

The rationalization relating to the participation of religious beliefs and the influence of magic (or lack thereof) in everyday life is an example of an even more powerful process of rationalization of many other spheres of life, such as political, economic, legal or aesthetic space. Michał Kaczmarek points out that “the rationalization of lawmaking thus manifests itself primarily in its secularization”, and an important step of rationalization is “the emancipation of the sphere of duty from magically guaranteed tradition”. Steven Grosby further states that “each sphere has its own criteria or axioms around which it is organized, and is thus rationalized according to the criteria or axioms proper to it” [Grosby, 2013: 303].

To illustrate the process of rationalization, one can recall the vivid observation of George Ritzer, who, describing this phenomenon in relation to modern times, coined the term “macdonaldization”, which fits perfectly with Weberian considerations, primarily in terms of the extent to which rationalization continues in the modern world [Jenkins, 2000: 20]. Indeed, it is impossible to disagree with the assertion that the rational-bureaucratic-scientific model has been adopted and successfully adapted across a wide spectrum of human activity, mainly on the grounds that this approach simply works [ibidem].

Having discussed the general conditions of rationality and rationalization, it is worth looking at their correlation with law. Thus, it can be assumed that both rational law and the process of rationalization of law can be observed. According to Weber, rational state law, based on the criteria of rationality and rationalization, is regarded as the result of the process of rationalization of law [Weber, 2002: 593].

The development of legal rationalism was considered by Weber as a factor undoubtedly conducive to the formation of Western civilization [Kojder, 2010: 56]. At this point, bearing in mind that law in Europe, as a social product, was shaped by the processes of civilizational development taking place in it, it is worth mentioning the stages of evolution of law cited earlier in the text, from its revelation by prophets, before its creation and application by notables, imposition by secular and theocratic authorities, to its establishment by the state and people with legal education contributed to the rationalization of law. At first, we had material rationalization, i.e. treating legal issues from the point

of view of political advantage or material justice, to develop eventually formal rationality and a formal system of law. As Andrzej Kojder mentions, "a system of laws is formal if it takes into account only those features of the facts that can be unambiguously subordinated to clearly formulated rules of substantive law and rules of procedural law" [ibidem, 61].

Weber's sociological theory of the rationality of law is marked by the dualism of formal and material rationality [Kaczmarczyk, 2003: 58]. In particular, "the creation and application of law can get away with formal and material rationality" [Polaczuk, 2011: 63]. Thus, the legal system is characterized by two dimensions of rationality. A law is formally rational if the legally relevant will be "only the unambiguous general features of the facts" [Weber, 2002: 501]. Following Paweł Polaczuk, it should be pointed out that "Weber, referring to the notion of formal rationality of law, allows us to assume (...) that this form of rationality is concerned with the form of law – the procedural dimension of its creation and application, i.e. formal law. On the other hand, the law is materially rational (substantive law) if the general precepts in terms of content, such as ethical, political, or utilitarian demands, overcome the formalism of external marks, as well as logical abstraction" [Polaczuk, 2010: 63].

At this point it is worth noting that, according to Kaczmarek, "Weber evaluates positively only formally rational law, the source of which is professional activity, and not the demands of the people, the whims of the ruler or the thoughts of a moralist" [Kaczmarczyk, 2003: 64]. His statement should also be quoted, proclaiming that: "both formally and materially rational law are ideal types, and therefore do not exist in pure form (...). The rationalization of law can therefore consist either in its formalization, which is typical of modern bourgeois Western European culture, or in its materialization, which is characteristic of sacred law" [ibidem, 70].

However, it should always be borne in mind that "the thesis of the rationalization of law is not synonymous with the view that rational law, whether formally or materially, displaces all irrationalism from the legal field" [ibidem, 71–72].

#### 4. Disenchanted world

Weber borrowed the term "disenchantment" from the German poet, writer, and philosopher Johann Christoph Friedrich von Schiller [Jenkins, 2000: 11], the author of such works as "Ode to Joy", who used the term in his 1795 "Letters

on the Aesthetic Education of Man” to express the disappointment he felt over the distortion of ideas and the escalation of violence that befell the French Revolution and the failure to put into practice the ideas that guided it.

According to Weber, the disenchantment of the world lies at the heart of modernity. In fact, in many respects it is, in his view, identical to the concept of modernity prevailing in the West [ibidem, 12]. Krzysztof Konecki notes that “the disenchantment of the world accompanies the process of society’s transition from tradition to modernity” [Konecki, 2003: 173]. The process of disenchantment is the elimination of powers aroused or controlled by magical techniques from our conceptual world, which is a natural consequence of rational development [Grosby, 2013: 301].

Modernity, in the context of the idea of the disenchantment in question, is in turn “the collapse of the assumption of a divine world order and the rejection of the legitimacy of the cosmos”, which is “part of the great historical process of the gradual disenchantment of the world” [Nogal, 2017: 23]. Modernity is an achievement of scientific reason.

Weber saw disenchantment as the twilight of the magical and moral universe. Richard Jenkins points out in his essay that this would be evidenced by two points that Weber himself pointed out: namely, the first would be the rupture of the moral, cognitive and interpretive unity that the German jurist and sociologist believed characterized the enchanted pre-modern worldview [Jenkins, 2000: 15]. As a result of this procedure, values hitherto considered ultimate or sublime were removed from the public life, left at most only in the realm of direct and personal human relations. Jenkins stresses that “meaning” ceases to reside in axiomatically shared and publicly reproduced beliefs and understandings, which have hitherto constituted “the epistemological and moral community of duplicating individuals” [ibidem]. It is worth quoting here the words of Jenkins, who believes that: “Weber draws our attention to the disappearance of magic as such, to the presumption that, at least in practice, the world has entered a path at the end of which there will be no more mysteries. He assumes that all things are potentially capable of explanation in terms that are acceptable to rational science and amenable to analysis whose results are predictable. As a result, a religious and magical understanding of the world becomes charming at best, and ignorant and backward at worst” [ibidem, 15].

The disenchantment of the world is, as mentioned before, a historical process through which the natural world and all areas of human existence become experiential and comprehensible as they have become less mysterious. These

areas also become defined (at least in principle) as cognizable, predictable and manipulable by humans, "conquered", tamed and included in the interpretive scheme of the sciences, capable of being rationally managed. In a disenchanted world, everything becomes understandable and tame. As Richard Jenkins notes, the world focuses on the human, and the universe – only seemingly paradoxically – becomes more impersonal [Jenkins, 2000: 12]. Repeating Weber, Steven Grosby points out that the progressive process of intellectualization and rationalization has resulted in the belief that "we can, in principle, control everything by calculation and that, as a result, we are no longer ruled by mysterious, unpredictable forces".

According to Krzysztof T. Konecki, on the other hand, the disenchantment of the world means "a social process in which there is a progressive rationalization and formalization of social relations, leading to their rationalization. The old world order and its explanations are freed from the influence of irrational, supernatural and inexplicable phenomena in the language of scientific determinism. A period of the reign of reason follows, and it is reason that mainly disenchant the world hitherto incomprehensible in the objective language of science. Reason becomes a pure tool for the accurate selection of means and precise prediction of consequences" [Konecki, 2003: 177].

Speaking of disenchantment, it would be appropriate to touch on the related two aspects, which, although different from each other, are completely correlated. For, on the one hand, there is secularization and the decline of magic, while on the other there is the growing scale, scope and power of formalized rationalization of the means and ends of science, bureaucracy, law and politics [Jenkins, 2000: 12]. Secularization appears to be very advanced and progressive among Western communities; participation in formal, organized religion has declined significantly over the past decades [ibidem, 19]. It should be remembered that secularization and disenchantment are autonomous concepts and should not be confused, however, when discussing the topic at hand, it is impossible not to refer to both of them, often linking their meanings.

Wanting to link the concept of rationalization and the disenchantment of the world, one would have to start with an observation made by Michał Kaczmarczyk: "rationalization is a very capacious concept concerning social development, and in Weber's analyses it is mostly associated with any increase in technical skills, regardless of what technical procedures are involved). An example is magic, which is considered an irrational procedure, but according to Weber is, like physics, the result of systematic rationalization (...). Magic is the result of reflec-

tion, it is a more rational technique than the earlier ways of doing things, it is abstractly more consistent because it is subject to a general principle instead of trying out herbs at random. Rationalization takes place wherever a person uses a procedure that requires more methodical preparation than before. This explains why rationalization does not mean a specific end state of some process, but an endless process of applying increasingly systematic and adequate procedures. Since a large part of our actions are value-driven rational actions, a magical action can often have a more rational character than a non-magical behavior. Magic has been preserved to this day in many areas of life; magical significance is, after all, attributed to the sacraments, for example” [Kaczmarczyk, 2003: 59–60].

Wanting to point out the effect of the displacement of magical translations from the reality around us, which is the result of the progressive rationalization of human life in all its areas, one can refer to the observations of Andrzej Kojder, who points out that “the modern state is characterized by a formalized legal order to which a central authority is subject, coercive jurisdiction over a given territory, monopolization of the legitimate use of force and bureaucracy”. All these elements were pointed out by Weber as the resultant of the departure from interpreting the world through the prism of higher forces, as the achievements of civilizational progress and the development of reason, as the realized triumph of rationality in the way social life was organized in Western civilization. Moreover, it should be remembered that in the case of law, its disenchantment, that is, the rationalization of law, could only occur when the legal profession was freed from magic and sacred traditions [Kojder, 2010: 63]. And for this, keeping in mind that law is a social phenomenon, there had to be a prior process of rationalization – disenchantment – of social life. The feedback loop of rationalization progressing both in all spheres of human life and in the legal regulations that entwine them testifies to the triumph of secular reason and rational understanding of reality.

## 5. Conclusions

Since the dawn of history, man has been trying to find an explanation and meaning for the reality around him and his own existence. In the early period of the formation of human civilization, not yet equipped with the historical achievements of future eras, he based all existence, rules and laws governing the world on mystical foundations, on the causal power of *logos*, the absolute, chaos, the

pantheon of gods and their superhuman abilities, trying to subdue by the power of imagination the phenomena that, due to the lack of appropriate tools and limited (compared to modern times) knowledge, he could not explain otherwise.

Max Weber, conducting an analysis of his contemporary world, tracing the historical changes that led to its formation, and studying the impact of these changes on his spheres of interest, came to the conclusion that with the development of Western civilization, magical explanations of reality gradually gave way to more "down-to-earth" explanations. Ultimately, Weber referred to the process of turning to reason and logic as rationalization. Rationalization, in turn, led to a state of affairs that Weber referred to as the "disenchantment of the world".

However, one can encounter opinions in opposition to the theses put forward by Max Weber. Critical literature raises the existence of observable resistance to the desire for a complete "disenchantment" of social life. This is linked to the claim that people cannot function without seeking and making sense of their lives and existence. This is an anthropological fact underlying the Weberian need to justify the recognition of any power or even life itself. And this points to the fact that faith (albeit religious) remains a vehicle for the meaning of existence. And if this is the case, then we are faced with important objections to the disenchantment of the world in relation to the modern world [Grosby, 2013: 303–304].

It should be reiterated after Grosby that "if, in fact, Weber was correct that all magical forces have been driven out of modern life, then there would no longer be a need to constantly ask ourselves about the meaning and sense of human life; there would no longer be any number of ethical disputes and paradoxes with which we are confronted; we would no longer struggle with the doubts that wrap around all action. There would only be a calculation that would determine the most effective ways to problem-free solutions" [ibidem, 308]. And as is well known, including from autopsy, both individuals and society as a whole continue to ask themselves questions that reason cannot answer.

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## Andrii Maiev

- Odesa State Agrarian University
- e-mail: ua197307@ukr.net
- ORCID: 0000-0001-9333-2933

### ENSURING REGIONAL DEVELOPMENT UNDER DECENTRALIZATION: FRENCH EXPERIENCE FOR UKRAINE

#### | Abstract

- *Goal* – the article considers the issues of state regional policy formation in the French Republic, mechanisms of interregional disparities equalization and ensuring regional development under decentralization of power.
- *Research methodology* – the methodological basis of the paper includes comprehensive and interdisciplinary analysis of regional administration development in France. Synthesis, generalization, observation and comparison, as well as other general scientific methods were used while conducting research.
- *Score/results* – different regional development models available in the French Republic within the last century, their foundations, legislative basis, and other aspects were examined in the context of further implementation of the best foreign practices in Ukraine.
- *Originality/value* – based on the analysis of main problems within development and implementation of regional policy in the independent Ukraine and the best regional development practices of France, the possibilities of using the French experience in the context of decentralization and implementation of administrative-territorial reform are outlined. Therefore, the research remains relevant in the scientific and practical aspects.

| **Keywords:** region, regional policy, decentralization, regional development.

## 1. Introduction

The issues of state regional policy implementation, development of regions, central and local authorities' interaction have become extremely important for Ukraine today. The long-term absence of an effective state regional development policy has led to interregional disparities increase, exacerbation of economic and social problems, and the emergence of interethnic contradictions. Consequently, the following priority challenges have to be addressed by the state: optimization of relations between central and regional authorities, effective regional policy implementation, and ensuring sustainable socio-economic development of the regions. The practical implementation of these tasks requires reforming regional administration system, administrative and territorial reform realization, improving local self-government as well as strengthening and successful development of territorial communities, especially the newly created ones.

The issues of determining the public administration foundations at the regional level, substantiation of theoretical principles for state regional policy and state regional development regulation are covered in the scientific works of H. Atamanchiuk, V. Bakumenko, B. Danylyshyn, M. Datsyshyn, I. Dehtiariova, M. Dolishnyi, M. Izha, V. Keretsman, V. Mamonova, N. Nyzhnyk, A. Tkachuk, O. Vasylieva, Z. Varnalii and others. The problems of improving regional administration in the context of European integration processes, research of European administrative principles and regional administration experience of the EU countries are reflected in the works of: Z. Balabaieva, T. Bezverkhniuk, T. Berehoi, N. Fomit-ska, V. Kuibida, M. Lakhyzha, M. Mykolaichuk, L. Prykhodchenko, S. Sakhanenko, V. Tolkovanov, O. Topchiiev, Y. Sharov, V. Vakulenko and many other researchers. At the same time, the conceptual principles of state regional policy in Ukraine under the new external and internal conditions, as well as the practical aspects for its implementation remain relevant and require further studies.

Defining approaches to the principles of state regional policy are enshrined in the Constitution of Ukraine. In particular: Article 132 stipulates that "the territorial structure of Ukraine is based on the principles of unity and integrity of the state territory, ... balance of socio-economic development of regions, taking into account their historical, economic, environmental, geographical and demographic characteristics, ethnic and cultural traditions" [*Konstitutsiia Ukrainy*, 1996].

In 2001, the Concept of State Regional Policy was adopted. In 2006 the State Strategy for Regional Development until 2015 declared the focus of state regional policy on creating conditions for increasing the competitiveness of

regions as a basis for their dynamic development and eliminating significant interregional disparities.

In 2010–2011, attempts were made to strengthen the institutional foundation for state regional policy by forming both centralized and regional strategic institutions. In the first stage, it played a positive role in strengthening the subjectivity of the regions in regional policy and shifting the “growth centers” to the local level. However, later on, due to the administrative centralization increase and the formation of corruption power verticals, there was “manual control” consolidation and limitation of local governments’ responsibilities. The spread of local authorities’ paternalistic orientations was cultivated. Objectively conditioned by the logic of economic and social processes, the capacity of regional communities’ reinforcement was in conflict with the strengthening of administrative centralism in the relations between the center and the regions, which formed the basis for a deep social conflict [*Nova rehionalna polityka*, 2017].

For a long time, Ukraine did not have a special law “On the Principles of State Regional Policy”, which was adopted only on February 5, 2015. The Law [*Pro zasady derzhavnoi...*, 2015] contains the basic legal, economic, social, environmental, humanitarian and organizational grounds for the state regional policy; definition of its purpose, principles and priorities, as well as financial support and monitoring instruments.

The State regulation of regional development was carried out in the form of: transfers directed from the state budget to local budgets in order to equalize the financial security of the region; additional financial support for depressed regions; state targeted programs aimed at solving territorial problems (achieving accelerated growth of the regional economy priority sectors, growth of export potential of the region); budget investments and specific investment projects (so-called development budget), etc.

The state regulation for territorial development in Ukraine has faced many difficulties. The main obstacles for effective state regulation of regional development included: lack of systematic approach to regional policy, uncertainty of strategic regional development prospects, i.e. long-term non-acceptance by the authorities of the “regional development planning” concept, which led to inefficient use of mechanisms for regional development regulation [Horbyk, 2018].

Consequently, despite the creation of regulatory and institutional framework for regional policy implementation, there was neither significant reduction of interregional disparities, nor creation and stimulation of “growth points”. The state’s efforts did not affect the systemic solution of depressed areas’ problems.

The unsystematic realization of regional development state policy, which has been observed in Ukraine for a long time, has become one of the main reasons for economic, social and informational unpreparedness of regions and the country in general for new external and internal challenges, a certain loss of Ukraine's position in the international economic space, emergence and exacerbation of numerous local problems. For many years, no one has seriously assessed the deepening social and humanitarian disparities between the regions as a threat to state security [Kuibida, 2017].

The problems faced by regional policy in Ukraine are not unique or caused solely by internal crisis phenomena. Such problems, in fact, have a global dimension, and they have motivated the formation of new models for regional policy and local development on a pragmatic basis [*Nova rehionalna polityka*, 2017].

Our state has identified integration into the European community as a foreign policy priority, which is currently enshrined in law. Ukraine's European perspective necessitates further detailed study of European principles and standards of public administration, whereas the development of effective regional administration should be carried out in the context of pan-European trends of power decentralization, based on the best European administrative practices for ensuring state and regions' development.

## 2. Regional policy formation in the French Republic

In most foreign countries a three-tier system of territorial socio-economic development has been formed. Therefore, institutions directly responsible for regional development have been established and operate within the system of central authorities. Central bodies of territorial administration carry out macroregulation of socio-economic development processes. At the same time the legislative environment regulating all activities in the field of territorial administration is created. Along with the central authorities, large regional and local territorial structures are engaged in administrative activities [Kinshchiak, 2017]. It should be borne in mind that the administration of most European countries is based on the decentralization principles, where the regions play a significant role that is constantly growing. Decentralization is defined as one of the key principles of democracy development in the European Union and the Council of Europe, the basis for their regional policy, along with the principles of subsidiarity, concentration, complementarity, partnership and program approach. This prin-

ciple is enshrined in the European Charter of Local Self-Government, the Draft European Charter for Regional Democracy, etc., dealing with the redistribution of powers to regions in order to effectively use internal capacity, encourage regional initiatives and delineate functions and powers between different levels of government. Decentralization is a key condition for EU candidate countries and is the basis for all sectoral policies developed and implemented within the EU [Naumenko, Rylska, 2015].

In the context of effective decentralization reform and a clear division of powers at all levels of government, the experience of the French Republic is significant for many so-called “new democracy” countries. Historically, France was a centralized state with a strong bureaucracy. During several centuries of royal, imperial or republican centralism, the balance of power between the French territories was simple: on the one hand – Paris, where practically everything was decided, on the other – the province, treated as a simple object [Dumont, 2018].

Today, the entire system of administration is based on the principles of decentralization, while the French reforms have become evidence of the introduction of the subsidiarity principle. Such a profound approach to the problem of public administration decentralization in France can be considered a real way to ensure the implementation of the constitutional principle enshrined in Article 2 of the Constitution of the French Republic – “Rule of the people, at the will of the people and for the people” [*Constitution de la France*, 1958].

France has considerable experience in stimulating the regions. However, the implementation of regional policy and regional development first came into force in the 40–50s of the twentieth century. Before World War II, the French did not think at all about planning territorial development. The authorities of the Third Republic did not consider this issue as a priority. Even children at school were taught about the harmony of the “French hexagon”. However, in the 1960s the disparities between regions became apparent. It was primarily about the difference between the industrialized regions of northeastern France and southern and western France – the land of villages and traditions. The difference between Paris and the province was even more striking [Fremont, 1993].

The development of French regional policy began in the late 1940s, when the government decided to decentralize industrial enterprises from the Paris region. This decision was based on the fact that against the background of the reduction of the total of the country population, the number of the capital citizens tripled in 1880–1936, its employment rate increased by almost 50 percent, while in the

rest of the territory – only by 3 percent. The key reason for such administrative centralization was the transport problem. All roads from the regions led directly to Paris, while there was almost no connection between the provinces. During the 1950s, the French government took a number of measures to address this problem. The government's policy focused on the relocation of industrial enterprises from the capital to the provinces and was carried out through financial incentives: various tax benefits and subsidies, as well as huge taxes for enterprises in the Paris region [Gryshchenko, 2018].

It is true that, in France in the 1950s and 1960s, the State had an abundance of financial resources which enabled it to impose itself on poorly endowed local authorities and to offer subsidies to those who would be willing to accept them. "Local authorities do not have control of the rules of the game, even if their elected representatives participate in parliamentary life, because they are prisoners of a distributive logic that feeds on their own needs" [Dumont, 2018].

In 1963, Interministerial Delegation for Territorial Planning and Regional Attractiveness (Délégation interministérielle à l'aménagement du territoire et à l'attractivité régionale, DATAR) was established, which was subordinated to the Prime Minister. It became the main institution for regional development, responsible for the implementation of regional aspects of the national economic development plan of France, as well as the coordination of regional development planning. The agency had the competence to allocate the finances of special development funds [Gryshchenko, 2018].

DATAR played the role of "a coordinating and stimulating body responsible for preparing and coordinating the elements necessary for government decisions in terms of land use planning and regional action and for ensuring that the technical administrations adjust their respective actions in this area, and bring together the means at their disposal towards objectives which, overall, go beyond the action and responsibility of each of them. It was an interministerial task which constantly required the possibility of resorting to arbitration and the authority of the Prime Minister" [Palard, 1993].

France took effective steps to equalize interregional disparities and bring regions out of a depressed state. In the city of Lyon (Rhône-Alpes region), there was a transition from heavy industry to the development of clusters and the implementation of government programs for the establishment of training and research centers. The realization of the programs resulted in the development of three global and eight national clusters (urban transport, sporting goods, video games, film clusters, etc.). The state program "Chemical Valley" with the

development of chemical, biotechnological, training, research and coal mining centers was implemented in the basin of Saint-Etienne. Restructuring of the region, cleaning of non-operating mines, development of technologies became possible due to co-financing and application of public-private partnership instruments.

In 1968, Grenoble in the Rhône-Alpes region was to host the Winter Olympics. Grenoble has long been in competition with the larger and more conveniently located Lyon. This resulted in depressive phenomena in the city and surrounding mountainous areas. However, properly organized activities within preparations for the Winter Olympics have turned Grenoble into a powerful pole of economic competitiveness, an advanced research and university center, that generates innovations in such areas as fundamental and nuclear physics, medicine, nanotechnology, biotechnology, chemistry and alternative energy. In addition, positive socio-economic effects were observed in almost all areas within a radius of 150 km from Grenoble. In other words, the organization of the 1968 Olympic Games was a shining example of the competent use of a significant event for regional development.

Diversifying the economy and improving the situation in depressed regions is not possible without creating new jobs. To stimulate this process, France used a range of financial incentives comprising, (a) tax exemptions, (b) reduced-rate loans or interest subsidies, (c) disposals of land and buildings on preferential terms, (d) capital grants. In the latter case, these are regional development grants, the amount of which is adjusted according to the geography of the priorities (maximum of 50,000 F per job created or 25 percent of the investment). In 1982, regional development grants contributed to the creation or maintenance of around 40,000 jobs [*Fonds européen...*, 2020].

Another important component of French policies was “reducing distances” by simultaneously developing transport and communication infrastructures. Consequently, the motorway network went from 1,300 km in 1970 to 4,550 km in 1983 [ibidem].

### 3. Regional development based on power decentralization

A significant impetus for regional development is associated with the decentralization of 1982–1983. The institutional framework, due to the decentralization laws, enabled local elected officials to rehabilitate and revitalize many city



centers which, at times, had lost all dynamism (Bordeaux, Le Havre, Nantes, Nice, Toulon, etc.). The decentralization effects have been felt in many other smaller municipalities. There are such examples at all scales: Vitré in Brittany, having fewer than 20,000 inhabitants; Espelette in the French Basque country, having fewer than 2,000 inhabitants; Saint-Bonnet-le-Froid in the Massif Central, having fewer than 200 inhabitants [Dumont, 2018].

In the context of modern reform processes in Ukraine it is interesting to study the experience of France in uniting municipalities. (Numerical size and demographic weakness of basic administrative units go hand in hand: 33,000 municipalities have fewer than 2,000 inhabitants and 26,000 – fewer than 700).

Thirty years ago, the French government sought to initiate a forced territorial reform aimed at merging municipalities created during the French Revolution, which, however, actually originated in church parishes established in the Middle Ages. The forced merger rejected by the population was transformed into the process of creating inter-municipal associations, which took over almost all issues of public funding (investment and running costs) at the local level [Vakulenko, Orlaty, 2014].

Due to the large number of small communes, various inter-communal administration systems have developed in France. Public establishment for inter-communal cooperation can be classified mainly into the association type and the union type. An association type administration system operates on contributions from the individual communes to perform a single or multiple administrative duties transferred from the communes to the association. A union type has its own financial resources, as well as taxation rights, and can further be classified roughly into four (*communauté de communes*, *communauté d'agglomération*, *communauté urbaine*, *métropole*) in accordance with its size of population and other factors. Inter-communal systems number 2,599, cover 95 percent of the communes, and account for 91 percent of the population [*Development of Inter-Communal...*, 2017].

The local authorities and their groups have several levers of intervention: aid to companies, which can take the form of exemptions, subsidies, participation in the financing of companies, the land offer, with the creation of activity zones, the creation of specific infrastructures intended for the reception of companies, the establishment of consulting services, etc. These tools can intervene in various sectors: industry, commerce, crafts and agriculture. Local authorities and their groups directly conduct their interventions in the area of economic development, or support specialized organizations, such as economic expansion committees,

economic development agencies, regional innovation agencies, tourism development agencies [*Les collectivités territoriales...*, 2013].

Cooperation of municipalities can be implemented for the purpose of joint management of state facilities or services (collection of household waste, sanitation, urban transport, etc.), elaboration of economic development projects, landscaping on a scale larger than the municipality size. Initially conceived as a collective management of basic services, inter-municipal cooperation has become project cooperation. This cooperation is implemented within public establishments of inter-municipal cooperation (Établissements publics de coopération intercommunale, EPCI).

In 2002, France passed a law creating so-called agglomerations, i.e. associations of settlements, associations of communes. On the one hand, it helps to solve problems concerning residents of neighboring communities, and on the other – saves public resources and creates conditions for the territory itself to earn money, i.e. creates conditions for self-development [Arkhyenko, 2018].

It is important to note that in France, the region has become the main administrative unit through which the state regional policy is implemented. This is clearly confirmed by the successful experience of concluding planning contracts between the state and the regions.

Contracting is not a new phenomenon. Feudalism, a complex system of territorial government, was based on contract. From the 19<sup>th</sup> century, public works or public service concessions (railways, sanitation, etc.) could be considered as forms of management by contract of public initiatives [*Décentralisation: nouvelle...*, 2005].

Conceived by the National Council of Resistance during World War II, the national planning of economic activity and major infrastructure works appeared in 1947 in order to facilitate reconstruction after the war. On December 31, 1958, a decree created regional plans for economic and social development and land use planning. Greater importance is gradually being given to regional differentiation of the plan content and to the development of consultation with local authorities. In 1964, the administrative divisions of the various ministries were reorganized around the perimeters of regions. After the failure of the 1969 referendum proposing that the regions become elected communities, the regions acquired the status of regional public establishments (Établissements publics régionaux, EPR) by the law of July 5, 1972. They have since been represented by two unelected assemblies: the regional council and the regional economic and social council, but the executive remained in the hands of the regional prefect.

It was with the decentralization law of March 2, 1982, relating to the rights and freedoms of municipalities, departments and regions, that the region obtained a status comparable to that of departments and municipalities. Decentralization, a new era in the distribution of skills and resources between the state and local communities, then results in the transfer of the regional executive to the presidents of regional councils.

State-Region planning contracts (*Contrats de plan État-Région*, CPER) constitute a development tool between the State and the regions, through the implementation of structuring projects. The CPERs reinforce the development policy in the service of territorial equality. The regions, therefore, got the particularity of having not only their own skills (vocational training, high schools, etc.), like the departments and municipalities, but also general skills that they share with the State: regional planning and economic and social development strategies. Spatial planning was no longer just a matter of state action, and the regions became a partner with whom it had to reckon.

The content of the planning contract consists of determining the state of development of the region in various areas (socio-economic and environmental ones). The document covers problems, their impact on the economic situation and prospects of economic development, assessment of opportunities and forms of coordination of national and regional interests, outlines obligations, measures and deadlines for their implementation, as well as financial participation of agreement parties to address relevant issues. For the implementation of the concluded agreements there is a need for a special organizational and financial mechanism. The functioning of this model is supported by special legislation [Kinshchiak, 2017].

Conceived as an instrument of articulation between the national plan and the plans of the regions, the State-Region planning contracts make it possible to harmonize the orientations of the various plans on co-financed actions, which may also fall within the scope of both state and region's competence.

French regional development plans (in the form of a contractual agreement) are one of the means of optimizing the division of responsibilities for regional planning between different public authorities. They normatively determine the administrative, legal and financial interest of the state authorities to be engaged in the development of the country (and its regions) in the medium term. The planning process includes a dialogue between the various levels of government and coordination at each level between the responsible authorities. In terms of content, a standard contract consists of justification of a joint action program

between the state and the regional administration. Funds for regional planning are directed by the French ministries in four areas: development of physical infrastructure; coordinated action programs targeting areas with special challenges: education and research, increasing employment and revitalizing economic development (improving the business environment for small businesses through grants and consulting) [Liba, 2016].

The preparation and signing of CPERs falls to the president of the regional council and the regional prefect. Preliminary projects (diagnostics, strategies) are drawn up by the regional prefects on the basis of guidelines defined at the national level. These preliminary drafts are examined by the Government, which then draws up negotiation mandates for the prefects. As a final step, the projects resulting from negotiations in the regions are approved by inter-ministerial consultation, in order to ensure their compatibility with national priorities.

The negotiations of State-Region planning contracts have themselves become a key moment in regional life, during which the various choices on the future of the territory and the orientations of public action are discussed and fixed. The development of these contracts allows the State and local authorities to be brought together around the same table, fostering the dialogue between central administration and decentralized services.

There is a mechanism through which you can monitor the effectiveness of the planning contracts implementation. In a report published in October 2014, the Court of Auditors took stock of the 2007–2014 planning contracts. It recalls the local actors' attachment to CPERs, an essential mechanism allowing the mobilization of actors and the development of a partnership and multi-year strategy, securing the funding of major projects which, in their absence, would struggle to emerge. However, the Court highlighted the gap between the initial ambitions and the effective implementation of the contracts. The Court's conclusions join those of various reports (report by the General Council for the Environment and Sustainable Development – CGEDD, report by Senator Georges Labazée), published between 2010 and 2012. The latter call for an overhaul of the system, insisting on the necessary construction of a concerted strategic framework between the State and the regions, based on a stronger territorial dimension and greater selectivity of projects [*Rapport d'information* 2014].

One year was devoted to the analysis of the information received, after which France returned to planning contracts concluding. By relaunching for the years 2015–2020 the contractualization of public investments through planning

contracts, the Government wished to record, for six years, the priorities on which the State, the regions and the sub-regional communities agree. Six essential areas for investing have been defined: multimodal mobility; higher education, research and innovation; ecological and energy transition; digitalization; innovation, sectors of the future and factory of the future; territories to which is added a transversal priority: employment. Through the planning contracts, more than 30 billion euros was injected into the regional economy by 2020 [*Contrats de plan état-région*, 2019].

The planning contracts have played a major role in regional planning policies since the 1980s. They underwent significant changes over the generations, in their guiding principles as well as in their development and implementation methods. They also managed to constitute around the State-Region couple a real space for dialogue between the State, local communities and many other operators of territorial development.

It should be noted that Ukraine has had experience in introducing a similar form of contractual relations. The State Strategy for Regional Development for the period up to 2015 provided for the preparation and implementation of pilot projects in the field of concluding agreements on regional development between the Cabinet of Ministers of Ukraine and the regions.

The agreements were conceived as a radical tool to stimulate the development of regions through the contractual relations institute. Although drafts of such agreements were approved by many oblast (region) councils, such agreements were concluded only with Donetsk (15.09.2007), Volyn (12.01.2010), Lviv (25.06.2009), Vinnytsia (26.01.2010), Ivano-Frankivsk (6.10. 2010) and Kherson (19.10.2010) oblasts.

In general, conclusion and implementation of the agreements had the following positive features:

- possibility of widespread implementation of strategic planning for regional development;
- concentration of state and regions' resources for the most acute problems solution;
- coordination of the interests of executive and local self-government bodies on strategic tasks of regional development;
- diversification of regional development resources, including the possibility of wide attraction of private capital;
- increasing responsibility of local authorities for the efficient use of resources aimed at solving the problems of the region;

- clear definition of the parties' obligations, joint responsibility of the government and local authorities for the final result of the certain tasks implementation, etc. [Izha, 2011].

At the same time, the practice of concluding and implementing the agreements on regional development has shown their certain features:

- duration of procedures for development and conclusion of the agreements in time. From the moment of signing the protocol of intentions on concluding the agreements to the moment of their actual signing, it has passed: for Donetsk oblast – a little less than 1 year; for Lviv oblast – 1 year and 9 months;
- dependence of the procedures for drafting and concluding the agreements on the political situation. Share of financing of the Agreement on development for Donetsk oblast from the state budget was 82.6 percent; the Agreement on the development for the Lviv oblast – 56.6 percent;
- priority for concluding agreements with the regions having high and medium level of development, due to relatively smaller amount of required funding and the possibility of attracting local capital;
- different structure of sources for financing the concluded agreements. The shares of funding from local budgets and other sources of funding for the Agreement on the development for Donetsk oblast were 6.7 percent and 10.7 percent while for Lviv oblast these indicators were, respectively, 41.1 percent and 2.3 percent [Izha, 2011].

Among the obstacles to the effective use of regional development agreements as a tool to stimulate regional development were: miscalculations and shortcomings in the strategic planning of regional development; conflicts between oblast state administrations, oblast councils and influence groups at the regional level; different visions of the region's development priorities, which significantly hinders the timely preparation of relevant regional strategies; inertia of central executive authorities on preparation and conclusion of agreements [Izha, 2011].

In Ukraine the agreements have not yet justified their purpose in terms of achieving the desired results, primarily due to insufficient funding. Their institutional context also raises many questions, the main one being the rather symbolic role of local self-government bodies as the main signatories of the agreements. In addition, there are no mechanisms for irresponsible attitude to the agreements implementation.

#### 4. Cohesion policy and public-private partnership instruments

The active use of the European Union financial resources became an important component for promoting the development of the French territories. European Union's territorial action in France mobilizes two structural funds specifically intended for cohesion policy: the European Social Fund (ESF) and the European Regional Development Fund (ERDF). Although these two funds have different priorities, the strong complementarity between ERDF and ESF is essential for the success of EU cohesion policy.

ERDF is a financial instrument of the European Union intended to subsidize projects serving the development of European regions, while permanently minimizing the development gaps between them. In this perspective, the projects co-financed by the ERDF in France concern various sectors: the environment and energy transition, research and innovation, the competitiveness of small and medium enterprises (SME), or even local development and urban areas.

ERDF also has a component intended for European territorial cooperation, which is divided into three axes:

- cross-border cooperation (Interreg A);
- transnational cooperation (Interreg B);
- interregional and network cooperation (Interreg Europe).

In France, ERDF has four key priorities:

- research, technological development and innovation;
- competitiveness of SMEs;
- information and communication technologies;
- transition to a low carbon economy.

These four priorities are the driving force behind projects that adapt to each territory in order to meet the challenges specific to each region, whether urban, rural or even outermost [*Trois questions...*, 2017].

The ERDF management is entrusted to the regional councils – with the exception of the Saint-Martin, Mayotte and “Europ’Act” programs which are managed by the state.

The mode of management of ESF and ERDF is said to be “shared between the EU and the Member State” according to the principle of subsidiarity. In fact, these funds involve, in their governance, monitoring and evaluation, a sharing of responsibilities between the European Commission, the Member State and

the managing authorities. In this context, it is the Member State which proposes to the European Commission the most efficient administrative organization for managing cohesion policy funds. The law “On the modernization of territorial public action and the metropolises establishment” of January 27, 2014 entrusted the Regional Councils with the management of almost all of ERDF and of 35 percent of ESF credits (the State, for the intermediary of the General Delegation for Employment and Vocational Training (Délégation générale à l’emploi et la formation professionnelle, DGEFP), remaining the managing authority for 65 percent of the European Social Fund envelope) [ibidem].

Finally, it is up to the Member States and their regions to be responsible for implementing the operational programs, i.e. selecting, monitoring and evaluating the thousands of projects submitted to them and deciding which ones will benefit from the funds. This work is organized by the managing authorities specific to each country or region. In France, this is the General Commission for Territorial Equality (Commissariat général à l’égalité des territoires, CGET) and the Regional Councils. The Commission must then allocate the funds, in order to enable the countries to start the programs. The partnership agreement between France and the European Commission for the period 2014–2020 was adopted on August 8, 2014. It mentioned that EU support in France amounted to 15.9 billion euros [*Quels sont les objectifs...*, 2020].

Between 2014 and 2020, the European Union has devoted 351.8 billion euros to its cohesion policy, or nearly a third of its budget. These resources were allocated to projects which contribute to the implementation of the Europe 2020 Strategy of the European Union for “smart, sustainable and inclusive growth” [ibidem].

Participation in the implementation of the EU regional policy, support from the European Structural Funds in combination with internal measures have led to the fact that France has no “poor” regions left. Subsequent to the 2000–2006 period, France has not had any convergence regions with a per capita national income of less than 75 percent of the EU average, except overseas [*Development of Inter-Communal...*, 2017].

Ukraine is not a European Union member and therefore does not have comparable opportunities to use European money. However, within the framework of the European Neighborhood Policy, cross-border cooperation, and EU operational programs, Ukraine can join regional development projects. However, the uncertainty of the region’s subjectivity, the lack of qualified staff in public authorities capable of working in European projects, and the lack of private sector involvement hamper the effective use of this mechanism.



In France, there is a Regional Development Agency (RDA) in each region, whose main mission is to help the government to support business, innovation and employment. As such, RDA deploys the financing mechanisms defined by the region to anchor employment on a long-term basis in the territory. The agency's activity is structured around four directions corresponding to the needs of entrepreneurs: growth, innovation, international and market conquest, and economic attractiveness [*L'agence est le bras...*, 2020].

The Interministerial Delegation for Territorial Planning and Regional Attractiveness (DATAR), established in 1963, was historically the first institution of this kind, which began the formation of modern regional policy in France. The progress in decentralization since the 1980s led to the strengthening of the roles played by the regions, resulting in the promotion of spatial improvement and development through multi-tiered collaboration among the state, regions, local autonomous bodies, and inter-communal organs, taking the EU's principles and philosophy into consideration as well [*Development of Inter-Communal...*, 2017].

A typical modern RDA is a non-profit association. Its Board of Directors is made up of three colleges:

- Institutional college: a representative of the Regional Prefecture, two representatives of the Regional Council, a representative of the Regional Chamber of Commerce, the President of Regional Innovation and Development Council;
- Higher education college: a representative of a high school, a representative of competitiveness clusters, a representative of innovation parks, a representative of research organizations;
- College of economic actors: business leaders [*L'agence*, 2020].

They perform a wide variety of functions, which depend on the economic project of their funder and on the distribution of roles carried out with other actors, such as consular chambers, as well as on the needs of businesses. However, their main areas of activity are:

- supporting startups and companies in their innovation and industrial performance projects;
- developing entrepreneurship;
- support of economic development policies in the region [ibidem].

The territorial reform of 2015 had a significant impact on the implementation of the regional policy in the French Republic. The number of regions was

reduced from 22 to 13. In addition, the 22 largest urban areas have the status of “metropolis”, with distinct competencies. The competencies of the local authorities have been clarified along with the ways in which they are articulated. The government has implemented the State-Metropolises Pact. Two hundred twenty-two cities in all regions benefited from a five-year revitalization agreement to revitalize their city center.

This was part of the Town Centre Plan (*Action coeur de ville*), which had the dual ambition of improving the living conditions of inhabitants of medium-sized cities and consolidating their role as a driving force for territorial development. One hundred twenty-four “industrial territories” got benefit from state support to accelerate the development of their industrial potential. Four hundred eighty-five contracts for rural development were signed between 2016 and 2018 in order to revitalize rural areas through actions promoting social cohesion, economic attractiveness, access to public services, mobility solutions, access to digital technologies, and the ecological and energy transition. The National Conference of the Territories has been created. It was presided over by the Prime Minister and was made up of members of the government, representatives of local authorities, presidents of consultative bodies and representatives of the parliament [*Regional Development Policy...*, 2019].

Due to the reform, fewer in number but stronger, the Regions are in charge of coordinating all actions in favor of the economy and the animation of competitiveness clusters within their territories. They steer all regional express train (TER) transport policies, as well as inter-urban transport.

The regions have been fully responsible for vocational training since January 1, 2015. They also received the management authority for European funds since 2014. The Regions have the power of “financial corrections and sanctions” which has hitherto been vested in the State. Already delegated management authority until 2014, they now have the duty to select and co-produce territorial projects with other communities.

Strengthening the competences of the Regions in the area of economic development and regional planning confirms their role as a true pilot of agriculture and rural development policies at the regional level. The Regions become responsible for the writing and proper implementation of regional operational programs, the regional Rural Development Programs (RDPs) for 2014–2020, and now manage nearly 1.8 billion euros per year [*La région...*, 2020].

In the context of the analysis of the regional policy in the French Republic, European trends should be taken into account. Decentralization on the subsidia-

rity principles is a characteristic feature for the evolution of the regional policy institutional support in the EU countries. Regional policy is multilevel and is implemented by the authorities of the center, regions and local governments.

Previously, the main role in the development and implementation of regional policy was played by central executive bodies, but now local and regional self-government institutions, as well as supranational governing bodies representing the European Union Structural Funds, are increasingly involved in regional development processes. The role of the central government, which remains a key element in the institutional infrastructure of regional policy, is increasingly reduced to the development of conceptual grounds and necessary regulatory framework. At the same time, the role of regional and local self-government, private structures, public organizations representing the interests of communities and regions, as well as professional structures (including regional development agencies) designed to promote regional initiatives is growing in the implementation of regional policy [Kinshchiak, 2017].

European Union regional policy recognizes the key role of decentralization for ensuring regional development. At the same time, decentralization alone does not guarantee the successful development of regions. The state must also make its specific contribution so that the development of territories serves the achievement of national goals. This must be accomplished through the development of a clear national policy, where regional development will play an important role.

An important factor is the recognition of the local government as a subject of development, which is a condition for positive relationship between decentralization reforms and regional development. To make the most of the regional development potential, local authorities must have a sufficient level of autonomy and competences. If the center is not ready to share power with the local authorities, the chances for progress are greatly reduced.

## 5. Conclusions

In conclusion, it should be noted that the experience of the French Republic in the field of regional development is useful to Ukraine primarily in the context of successful decentralization. The reform of decentralization in France has led to the expansion of subnational autonomy, the reduction of the central government functions, the weakening of the prefects' role and the creation of an autonomous regional level.

Today, the decentralization of power has become the leading process for strengthening the role of subnational actors in Ukraine as well. It is realized through the transfer of competences from the central government to the localities and the formation of consolidated territorial communities. At the same time, an important difference between French and Ukrainian reforms should be noted. The process of delegating authority to the community level is largely limited to the administration of medicine, education, and administrative services provision, when state functions are delegated to communities as local self-governments, albeit with financial support. On the other hand, communities do not receive powers in the areas that would form the basis for territorial development. The transfer of power and resources to the community level reduces the importance of the regional level of government. The lack of subjectivity of the region as the main element for state regional policy implementation significantly limits the balance of regional development.

It is extremely important for Ukraine to complete the decentralization reform, but regional policy cannot be reduced to expanding the powers of territorial communities alone. In France, the role of the region, which has become the main partner of the state in addressing territorial development issues, has grown. This is clearly seen in the analysis of the contractual form of relations between the state and the regions. French planning contracts have become one of the means for optimizing the distribution of powers in the regional development field, when regional government role has significantly increased.

It should be also taken into account that successful application of regional development mechanisms in France is not limited to decentralization. This success is due to the balanced regional policy that correlates with the European Union's cohesion policy making effective use of its tools and resources.

France's leading role as the EU founding member and one of the leaders of the modern European Community provides significant opportunities for the use of the EU funds, the resources of which are implemented through operational programs that meet the objectives of the common European regional policy. This approach, which links the goals and instruments of regional policy, deserves special attention, because in this case the resources go to solving clearly defined specific problems, being a priority for regional development of a particular country.

Ukraine should make more active use of public-private partnership mechanisms. In this context, the experience of France offers a well-established form of institutional support for regional development – regional development agencies.

They effectively cooperate with local and central authorities, playing the role of the main centers of planning and support of territorial development projects, ensuring effective intersectoral cooperation between government and business. Such agencies should become advisory offices for preparation and implementation of regional development programs and projects. For its part, the public authorities' participation should ensure control and compliance of RDA activities with the regional development strategy.

The implementation of Ukraine's European integration guidelines encourages a fuller consideration of the European cohesion policy components. The new regional policy for the new Ukraine must be a symbiosis of European approaches and its own strategy, adequate to the today's challenges.

In this context, it is necessary to form a mechanism for effective attraction of investment, credit resources and technical assistance from international financial organizations to implement the tasks of systemic rehabilitation of Ukraine's regions on the basis of development programming, and coordination between public authorities, local governments, communities, and business.

The solution of these problems requires paying much more attention to the personnel component, professional and competence-oriented approach to staff selection, and refusal to politicize local leaders' appointments. The implementation of regional policy and effective use of decentralization benefits for sustainable regional development require trained professionals armed with new modern knowledge and skills. Consequently, achieving regional development goals in Ukraine is possible only with high-quality staffing.

Therefore, the successful completion of decentralization in Ukraine should be the basis for the development and implementation of the new regional policy aimed at developing the potential of the regions. At the same time, the regions, as the main partners of the state in regional development matters should receive the relevant powers from the center and become a key link in its implementation.

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## Marta Maksimczuk

- ▶ University of Białystok
- ▶ e-mail: m.maksimczuk@uwb.edu.pl
- ▶ ORCID 0000-0001-7855-5469

### EUROREGIONS OF THE EASTERN BORDERLAND OF POLAND – WHAT CAN THEY AIM AT IN THE CURRENT GEOPOLITICAL CONDITIONS (DEVELOPMENT, STAGNATION, TWILIGHT OF FUNCTIONING)?

#### | Abstract

- ▶ *Goal* – the problem presentation of the evolution of the functioning of the Euroregions located in the eastern borderlands of Poland has been examined in the context of the objectives of the EU's eastern policy.
- ▶ *Research methodology* – the study is based on an analysis of documents (founding acts, statutes, activity reports and others) of the Euroregions (Neman, Białowieża Forest, Bug and Carpathian) and the scope of their financial support from the EU funds.
- ▶ *Score/results* – alongside the positive elements, the reservations in their functioning arising from the economic and political crisis phenomena occurring since 2008 are pointed out. Recent events, related to the hybrid war on the Polish-Belarusian border and Russia's aggression against Ukraine, have prompted a deeper reflection on their future. The results of this analysis, applied to the latest developments, allow us to argue that there may be a further acceleration of the process of the already ongoing curtailment of the statutory activities of most (apart from the Carpathian) of the Euroregions under investigation. The distant future may lead to the disappearance of the activities of some of them (especially the Neman and Bug Euroregions) without excluding the possibility of their disappearance.
- ▶ *Originality/value* – the article raises the important and timely issue of the functioning of Euroregions.

| **Keywords:** EU eastern policy, cross-border cooperation, Euroregions.

## 1. Introduction

The functioning of Euroregions largely has a practical dimension. It is also the subject of many considerations undertaken in scientific works. A great increase of attention (both theoretical and practical) to the issue of the creation of Euroregions located on all Polish borders took place in the period of several years of the late 20th and early 21st century (in the years 1991–2003). In the context of the forthcoming expansion of the scope of European economic integration, they were created first on Poland's borders with the European Union. They were also formed on the Eastern border of Poland – on the external EU borders.

Nowadays, the process of their formation and functioning can be assessed from the perspective of the past few decades. There is no doubt that their functioning may raise many doubts as to the degree of implementation of the assumptions made. A number of dilemmas became particularly apparent in relation to those operating in Poland's eastern borderlands in the second decade of the 21st century. These included: the legitimacy of the functioning of such groupings, the purposefulness of their activities, the role they play in an integrated European Union or their impact on economic processes. There must therefore be a question about their future.

In the light of the above, it is worth considering in this study: in the perspective of the coming years, will the Euroregions (especially those in the eastern borderlands of Poland) start to gradually become inactive and slowly disappear, or will they still be able to function in their hitherto stagnant and little changed formula? Perhaps, however, there will even be a strengthening of the activities of some of them (in particular the Carpathian Euroregion) because of the recently gaining more and more favourable conditions in the exceptionally rapidly changing EU policy towards the integration aspirations of Ukraine?

## 2. Models and key practical principles of Euroregions

The concept of "Euroregion", not only because of its repeated use and its interdisciplinary nature, is variously defined in the literature. In fact, however, it has not lived to see its own fully comprehensive legal regulation. Nor does it appear as an economic category (an institution of the economic integration process) in official EU documents. Furthermore, there is no mention of it in international agreements. In addition, it is not to be found in agreements and other

official documents dealing with cross-border cooperation issues. It is therefore necessarily assumed to be a much more “colloquial term” [Dębowski, 2015: 20]. The term is primarily used in documents (contracts, agreements) formalising cross-border cooperation, in scientific studies and in media releases. However, this lack of a legislative formulation of the term depreciates its legal significance. Undoubtedly, its psychological significance is also of great importance. It emphasises the European Union’s decidedly positive attitude to the development of border areas. This is a particularly important issue for the countries of Central and Eastern Europe [Małecka, 2004: 16]. Nevertheless, a variety of approaches to understanding the essence (definition) of a Euroregion can be found in the professional literature devoted to cross-border cooperation issues<sup>1</sup>. Their citation is not the most important thing for us in this context. In principle, they are pretty close to each other. They also generally give an idea of *what a Euroregion actually is*. In doing so, they emphasise that every Euroregion is<sup>2</sup>:

- an institutionalised formal relationship [Chmielewska, 2014: 31–42].
- established between governmental and/or self-governing organisations of neighbouring states,
- formed with the objective of establishing cross-border cooperation.

In Poland, Euroregions were created on the basis of the provisions of the Law on Associations<sup>3</sup>. Those operating at the Polish borders were created in two stages. This was done as a result of an agreement between previously established national Euroregions with the attribute of a legal personality. In contrast, a new institution created in such a manner with entities from two or more countries does not have such an attribute. Nor is it based on the domestic legislation of any of the participating states. Nor is it an institution of international law, as it was not created with the participation of subjects (states) of international law. The proper functioning of a Euroregional organisation is guaranteed by the existence of its common supranational structures. Resolutions, in order to be valid, must be accepted by the national Euroregional bodies [Kusiak-Winter, 2011: 94].

<sup>1</sup> For a presentation of these, see: Dębowski, 2015: 20–21.

<sup>2</sup> For a detailed discussion of the legal demarcation of the terms “voivodeship”, “region”, “Euroregion”, see: Perkowski, 2013: 16–52 (chapter 1. *Województwo w stosunkach międzynarodowych*).

<sup>3</sup> Ustawa z dnia 7 kwietnia 1989 roku Prawo o stowarzyszeniach, Dz.U. 1989 Nr 20 poz. 104.

At the heart of the creation and establishment of the Euroregional structures is the voluntarily expressed wish to cooperate extensively beyond the borders of a single state. They must comply with the domestic law of each of the states entering into the agreement. Bilateral and multilateral agreements between the states concerned are also subject to the main provisions formulated by the Council of Europe relating to cross-border cooperation [Tomaszewski, 2007: 117]. In the eastern border region of Poland, the requestor of cross-border structures was the government administration with the cooperation of the central authorities. Euroregions were created administratively, i.e. centrally. Associations of municipalities were created only later. This, in turn, took place in a kind of forced manner.

In international legislation, the Euroregional activities are structured by the following legal provisions [Galicki, Owsieniuk, 2014: 43–51]:

- the European Framework Convention on Transfrontier Cooperation between Territorial Communities or Authorities of 1980 (known as the Madrid Convention in brief),
- the European Charter of Local Self Government,
- the European Charter of Regional Self-Government,
- the European Charter for Border and Cross-Border Regions.

The creation of Euroregions in the form of associations between state and/or local government organisations of neighbouring states is the result of two underlying reasons. The first is the administrative structure of the countries whose border regions intend to function within the framework of the Euroregion to be set up. It is not always possible to sign a Euroregional cooperation agreement between self-governing organisations. It has happened that there may not have been self-government on one side of the border. This has often been the case in Russia and Belarus as well as in Ukraine. In some cases, the local government is not legally empowered to take decisions on Euroregional cooperation. The second reason is the will (or lack thereof) of the parties at the state and local government levels to enter into an agreement.

Taking into account the ability of both governmental and local authorities to establish a Euroregion, there are two models of Euroregions distinguished in the literature:

- local governmental / self-governmental,
- administrative and local governmental / self-governmental (administrative).

The self-government model is shaped by local initiatives. The first step towards cooperation within the framework of such a model is for the municipalities to form a special-purpose association and have it registered with the court. This is followed by the signing of an agreement with a similar association on the other side of the border and the formation of the corresponding Euroregional structure. The self-government model is characteristic of Poland's western and southern borders. Small and medium-sized Euroregions have been created there. They often do not cover a compact territory. This is related to the lack of interest of municipalities in joining these formalised structures. There are also cases of double membership of municipalities in Euroregional structures. There are no binding restrictions in this respect. The Euroregion self-government model is referred to interchangeably as a goal-oriented association of municipalities [Lewkowicz, 2013: 35].

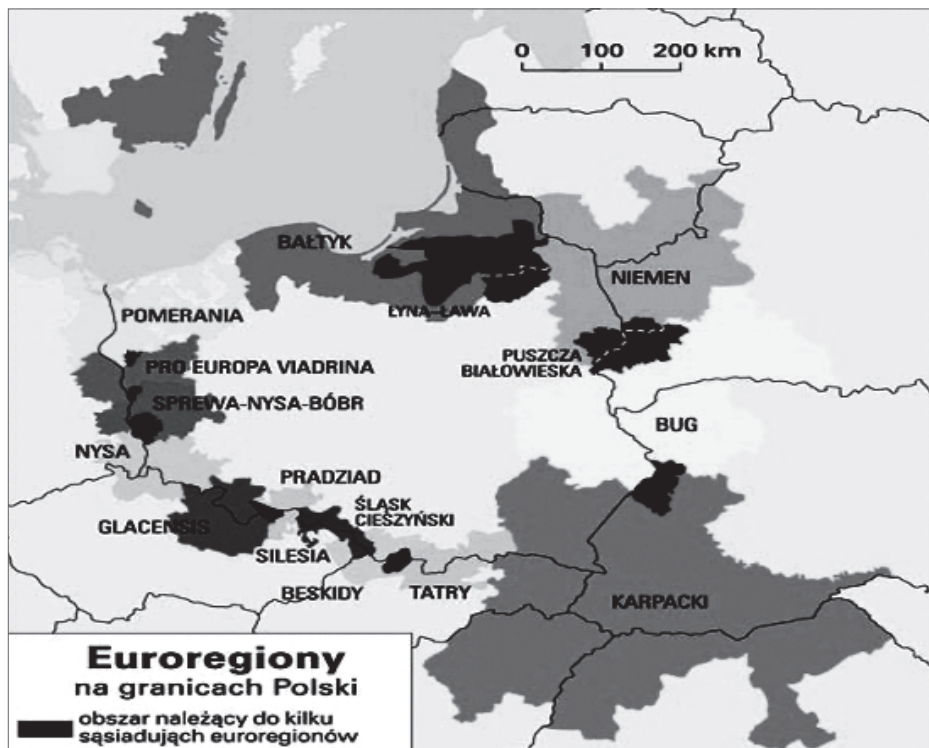
The administrative model already arises on the initiative of the government administrative bodies. The administrative decision is made at the voivodeship level with significant participation of the central level. In Poland, this mainly applies to the eastern and northern borders. Especially the eastern border region (Russia, Belarus, Ukraine) turns out to be politically very specific. The lack of competent local authorities in these countries means that cooperation at the voivodeship level must be established with similar structures (districts, regions) on the other side of the border. Hence, the members of Euroregions are usually supra-local structures. The Euroregions created are quite large in terms of area. The administrative model of a Euroregion is also referred to as an interregional association [Dumała, 2000: 60–62].

In the course of their existence, the Euroregions, as cross-border cooperation institutions, have developed a number of principles on the basis of which the cooperation of their members should be based. Among these, the following deserve to be mentioned [Borys, Panasiewicz, 1996: 12–13]:

- a good neighbourhood of people in the border zone;
- preservation of the identity (national, state, regional, local) of the members of the agreement;
- voluntary participation in the Euroregion;
- symmetry and parity (equal number of seats/voting rights in the Euroregion's bodies, equal representation of the parties in its external relations and proportionality in the financing of the activities);
- pragmatism and cost-benefit considerations;
- friendship and trust in the implementation of joint undertakings;

- consensus, i.e. finding a common position through discussions, negotiations and agreements;
- rotation, i.e. changing places of organisation and carrying out joint initiatives, as well as changing the chairmanship of various cross-border bodies and institutions.

Figure 1. Map of the Euroregions on the Polish border.



Source: Dębowski, 2015: 23.

The detailed rules for the activities of the Euroregions are incorporated in the documents which formalise their cooperation, i.e.: agreements, contracts, statutes and regulations. The verification of the provisions existing therein allows for the conclusion that most of the abovementioned principles are usually taken into account by the Euroregions. However, their application occurs with varying (greater or lesser) intensity. It is also strongly dependent on the formed model of Euroregional cooperation and the competencies of the authorities involved in the association. These factors further influence joint initiatives and create a certain level of openness of the Euroregion.

### 3. Objectives and tasks of the Euroregions of the eastern borderlands of Poland

The objectives and tasks of the Euroregions are formulated in their basic founding documents, i.e. in the agreements on establishment and statutes. They are usually presented in separate chapters with similar sounding names, i.e. “Objectives and areas of cooperation”, “Objectives of the community and forms of cooperation”, “Goals and tasks”, “Goals and motives of cooperation”, “Forms of cooperation”, “Objectives”. They focus mainly on economic cooperation, infrastructure development, environmental protection, tourism, as well as cultural and educational activities. In the initial period of its existence, the political importance of the Euroregions was emphasized above all. They have constituted and still constitute a bridge in the process of European integration<sup>4</sup>.

The detailed provisions relating to the objectives and tasks carried out by the Euroregions located on the eastern border of Poland are presented in Table 1.

*Table 1.* Principal objectives and tasks of the Euroregions from the eastern border of Poland

| Name of the Euroregion | Objectives and tasks  |
|------------------------|---|
| Neman                  | <ul style="list-style-type: none"> <li>• organisation and coordination of all cross-border cooperation of Polish entities with entities from other countries;</li> <li>• management of European Union funds in support of cross-border cooperation;</li> <li>• maintenance of the Euroregion's European Information Point;</li> <li>• implementation of own projects within the framework of aid programs with particular emphasis on the development of international tourism in the area of the Augustow Canal;</li> <li>• conduct of training and educational activities</li> </ul>  |
| Białowieża Forest      | <ul style="list-style-type: none"> <li>• strengthening the scope of environmental protection and the rational use of natural resources;</li> <li>• promotion of the development of cross-border ecotourism in the territory of the Euroregion;</li> <li>• socio-economic, cultural and scientific-educational cooperation in the border areas;</li> <li>• rapprochement of peoples while maintaining a favourable environment for future generations;</li> <li>• preservation of the unique natural complex of the Białowieża Forest affecting the climate of the continent.</li> </ul> |

<sup>4</sup> This observation applies to the Euroregions on the eastern border, which cover the area between the countries that are members of the European Union and those that are not.



| Name of the Euroregion | Objectives and tasks   |
|------------------------|--|
| Bug                    | <ul style="list-style-type: none"> <li>• spatial and land-use planning;</li> <li>• communication, transport and connectivity;</li> <li>• education, health protection, culture, sport and tourism;</li> <li>• protection and improvement of the natural environment;</li> <li>• elimination of threats and natural disasters;</li> <li>• development of contacts between inhabitants of border areas and organisation of institutional cooperation and cooperation of economic entities.</li> </ul>  |
| Carpathian             | <ul style="list-style-type: none"> <li>• organisation and coordination of activities to develop cooperation between members in the following fields: economy, ecology, culture, science and education;</li> <li>• assistance and support for specific projects and plans of common interest;</li> <li>• development and facilitation of contacts between the inhabitants of the association's area of activities;</li> <li>• development of contacts between experts in different fields;</li> <li>• establishing good neighbour relations between members;</li> <li>• identification of potential areas of multilateral cooperation between members;</li> <li>• intermediate and facilitate co-operation between members and organisations, agencies and institutions.</li> </ul> |

Source: own study based on an analysis of the articles of association, statutes and activity reports of the aforementioned Euroregions.

An analysis of the aims and tasks ascribed to the Euroregions on the eastern border of Poland allows for the observation that the basic message of the participants in the agreement has always been to emphasise cooperation in a broad dimension, covering a variety of fields, areas and issues. In some cases, a certain outline of an emerging 'specialisation' can also be discerned. This is the case, for example, with the Białowieża Forest Euroregion. They formulate their objectives and tasks in the context of environmental care and ecological issues. The objectives of the Euroregion Neman, on the other hand, are essentially focused on cooperation related to the implementation of projects financed from the European Union funds.

#### 4. A feasible vision for the future of Euroregions in the eastern borderlands of Poland

The functioning of the Euroregions, established in the eastern borderlands of Poland, is closely linked to the political relations of the countries (Poland, Lithuania, Slovakia) newly acceded (2004) to the European Union with the countries

located at their borders – the external borders of the European Union<sup>5</sup>. It is also determined by the nature of the political relations between the parties/countries participating in it (Poland, Russia, Ukraine Belarus). So far, the EU–Russian relations have been characterised by a rather high degree of volatility – from normal to even extremely tense [Bieleń, Chudolej, 2009; Bodzio, 2005].

The political crisis between the European Union and Russia has had its course since (2008) the Russian-Georgian conflict. In turn, the Russian-Ukrainian conflict and Russia's seizure of Crimea in 2014 greatly exacerbated these tensions. Poland, being a member of the European Union, could not remain indifferent to both of these crises. It had a dual role in the Russian-Ukrainian conflict. After all, decisions at the European Union level were binding on all its member states – including Poland. In addition, Poland has been a neighbour of Ukraine and has actively supported the democratic changes taking place there since Ukraine gained its independence. It thus found itself in opposition to Russia as the unquestionable aggressor in the Russian-Ukrainian dispute. In the existing circumstances, the behaviour of Poland and Russia in the context of the Russian-Ukrainian conflict of 2014 resulted from bilateral and multilateral relationships<sup>6</sup>.

The events of 2014, as the Russia–EU political conflict escalated, had profound international consequences. They exacerbated tensions between the countries that were directly and indirectly involved. Poland's political and economic relations with Russia have also deteriorated. This has also adversely affected Poland's already poor relations with Belarus [Kłysiński, Żochowski, 2016: 7–9]. There has been a clearly perceived deterioration in the conditions for the implementation of the *“Eastern Partnership”* as well. Neither has it been without a negative impact on changing the conditions for the implementation of cross-border cooperation policy in the eastern borderlands of Poland and the Euroregions operating there [Cygler et al., 2014: 65–73].

In those newly created after 2014, significantly more complicated geopolitical conditions, the Euroregions operating on Poland's eastern borders have already been increasingly treated by some bodies as a relic of the past. A further escalation of political tensions in this part of Europe, this time on a scale hitherto unheard of, occurred at the turn of 2021/2022 in connection with the hybrid

<sup>5</sup> Read more in: Rutkowski, Proniewski, 2010.

<sup>6</sup> A detailed overview of the calendar of these happenings in 2014, with their resulting political and economic consequences, is presented in: Cygler et al., 2014: 65–73.

war on the Polish-Belarusian border<sup>7</sup> and Russia's armed aggression against Ukraine on 24 February 2022.

Therefore, one must ask the question about the future shape of the eastern policy of the European Union and, consequently, about the further existence of its various forms of economic cooperation – including the Euroregions analysed here – which have been implemented so far. The long-standing assertion that one of the following three scenarios may occur in this regard becomes admissible [Dębowski, 2015: 28]: disintegration, continuation or domination. In the opinion of the author of this study, the disintegration scenario is the most likely to occur – especially in relation to the Euroregions of eastern Poland. This is based on the assumption that European integration may significantly slow down. As a result, a number of factors will come to light, which will prevent the Euroregions from continuing to function. In a certain sense, even the achievement of a high level of integration by the European states may already mean that there is no validity associated with the continued existence of the Euroregions. This scenario assumes that there may be growing scepticism in the European Union on the part of decision-makers and local societies towards the realisation of the vision of a European federation of regions which, after all, differ in terms of status, competencies, demographic and economic potential, and are in a weaker position vis-à-vis the EU bureaucracy than nation-states. European states and certain European communities may thus view integration processes and cross-border cooperation less enthusiastically. Even, as is becoming increasingly evident today, they may associate this with a loss of national identity and see this as a threat to their sovereignty [Lewkowicz, 2013: 246–247].

The continuation scenario is based on the assumption that the Euroregions will continue their activities in the context of cross-border cooperation. In order to deepen this cooperation, they will, as it were, be forced to reform themselves in institutional and legal terms. According to this scenario, it is not anticipated that any factors would emerge that would prevent future Euroregional activities. In the opinion of the author of this study, however, this cannot be ruled out in relation to the regions of Eastern Poland under analysis here. Nor is it envisaged that the Euroregions will gain their political independence. After all, the special

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<sup>7</sup> Belarus, which had maintained its neutrality in principle in the political conflicts of 2014–2015, then began to depart more and more clearly from these principles and became an active ally of Russia in the implementation of its imperialist intentions as early as 2021. For more on the evolution of the Belarusian policy from neutrality to decisive support for Russia in: Kłysiński, 2018, and Wilk, 2021.

role of the EU funds is emphasised in the continuation scenario. It is also not an isolated view that it is “the number of funds at the disposal of the Euroregions, and subsequently the level of their use, that can decisively contribute to the realisation of the optimistic or pessimistic variant of their development scenario” [Lewkowicz, 2013: 243–245].

In contrast, the dominant scenario assumed (in the most likely variant) that in the 2014–2020 programming period, the Euroregions will implement separate operational programmes for territorial cooperation and will eventually transform themselves into the European Groupings of Territorial Cooperation. As a result of acquiring a “new” legal personality, having at their disposal significant financial resources and a propensity for innovation, they will gain a real influence on decision-making processes in the institutions of the European Union. The concluding effect of the Euroregionalisation phenomenon in this scenario is a new order in the European Union giving the Euroregions complete freedom of action. The strengthening of the position of the Euroregions is to mean that they are assigned a significant role: social, economical and political within the European Union, the Council of Europe and other sub-regional international organisations [Lewkowicz, 2013: 239].

An analysis of the functioning of some Euroregions in Poland indicates some symptoms of the realisation of a disintegration scenario. Such a view is shared by many authors – mainly from research centres in Podlaskie Voivodeship<sup>8</sup>. However, the continuation scenario is much closer, at least for most of the Euroregions (leaving aside those located on the eastern border of Poland). The possibility of its continuation was in principle already confirmed in the

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<sup>8</sup> Some testimony to this is provided by, among other things, the following confirming facts: “discontinuation of the Polish-Czech Euroregion Dobrawa, established in 2001 (liquidated in 2004). Another example is the failure of the municipalities of Gołdap and Kowale Oleckie to join the cooperation within the Sheshupa Euroregion. At the turn of 2014/2015 there was media information about the intention of Biała Podlaska to withdraw from the Euroregion Bug, these phenomena are not caused by the effects of integration processes. It is worth noting that the Euroregion Dobrawa has not taken action at all in practice. The commune of Kowale Oleckie did not receive permission from the Ministry of Foreign Affairs to cooperate in the Sheshupa Euroregion (however, it was not possible to establish the reasons for the failure of the commune of Gołdap to cooperate). Meanwhile, the municipal authorities in Biała Podlaska explained their desire to leave the Euroregion structure simply because of the generation of cooperation costs in the absence of benefits. The observed changes argue for a slight shift in the functioning of Euroregions towards a disintegration scenario” [Dębowski, 2015: 29].

financial perspective 2007–2013. At that time, the Euroregions actively participated in obtaining European funds within the framework of the third objective of the EU cohesion policy – European Territorial Cooperation. Euroregional cooperation was included in this period in the ETC operational programmes [Zielińska-Szczepkowska, Zabielska, Kisiel, 2018: 69–74]. A total of 7.75 billion EUR was allocated to this type of cooperation in the European Union. The allocation of ETC funds implemented in the Polish border programmes is presented in Table 2 below.

Table 2. Allocation of ETC funds implemented in Polish border programmes 2007–2013

| No.   | ETC programme                               | Budget of the programme<br>(in euros) |
|---|---|---------------------------------------|
| Western border of Poland                      |   |                                       |
| 1.  | Poland – Czech Republic                     | 258 000 000                           |
| 2.  | Poland – Saxony                             | 124 000 000                           |
| 3.  | Poland – Brandenburg                        | 146 470 982                           |
| 4.  | Poland – Mecklenburg-Vorpommern/Brandenburg | 156 250 000                           |
| Southern and eastern borders of Poland        |   |                                       |
| 5.  | Poland – Slovakia                           | 185 185 633                           |
| 6.  | Poland – Lithuania                          | 71 680 000                            |
| 7.  | South Baltic Sea                            | 75 342 210                            |
| ETC programmes within the Eastern Partnership |   |                                       |
| 8.  | Poland – Belarus – Ukraine                  | 186 200 000                           |
| 9.  | Lithuania – Poland – Russia                 | 130 000                               |

Source: Greta, 2013: 205.

At this point, one can already notice the insignificant attention paid to the Euroregions related to Podlaskie Voivodeship and the entire eastern border region of Poland. Even the ETC South Baltic Operational Programme, referring to the cooperation of partners forming the Euroregion Baltic, left out members from the areas of Latvia and Russia. Within the framework of the Eastern Partnership, which is one of the dimensions of the European Neighbourhood Policy, the Euroregions from the south-eastern borderlands, i.e. the Carpathian, Bug, Neman, Białowieża Forest, Lyna–Lava and Sheshupe, have marked their activity in the implementation of the ETC operational programme Poland–Belarus–Ukraine and Poland–Lithuania. Some of them (Euroregions:

Neman, Sheshupe and Lyna–Lava) and the Euroregion Baltic were in the area of influence of the ETC Lithuania–Poland–Russia operational programme [Greta, 2013: 181–195].

It is worth noting that, in the 2014–2020 financial perspective, the European Territorial Cooperation was again one of the objectives of the European Union's cohesion policy [Zielińska-Szczepkowska, Zabielska, Kisiel, 2018: 75–80 and Michalik, 2017: 319]. This time, unlike the 2007–2013 financial perspective, it was the second objective. It proved to be a model for the previous programming period as well. It became an important element in strengthening the community's social and economic cohesion. Within the framework of the ETC in Poland, programmes financed from the European Regional Development Fund, presented in the table below, were planned for implementation.

*Table 3. Allocation of ETC funds implemented in Polish border programmes 2014-2020*

| No. | ETC programme                               | Budget of the programme<br>(in euros) |
|-----|---|---------------------------------------|
| 1.  | Poland – Slovakia                           | 155 000 000                           |
| 2.  | Poland – Czech Republic                     | 226 000 000                           |
| 3.  | Poland – Saxony                             | 70 000 000                            |
| 4.  | Poland – Brandenburg                        | 100 000 000                           |
| 5.  | Poland – Mecklenburg–Vorpommern/Brandenburg | 134 000 000                           |
| 6.  | South Baltic Sea                            | 83 100 000                            |
| 7.  | Lithuania – Poland                          | 51 500 000                            |
| 8.  | Baltic Sea Region                           | 264 000 000                           |
| 9.  | Central Europe                              | 246 000 000                           |
| 10. | Interreg Europ                              | 359 000 000                           |
| 11. | INTERACT 2014-2020                          | 39 000 000                            |
| 12. | URBACT III                                  | 74 000 000                            |

Source: *Programy Europejskiej Współpracy...*

The Euroregions on the borders of Poland could have become active beneficiaries of the funds guaranteed by the ETC programmes. The experience gained in the

previous programming period should have strengthened Euroregional activity in the context of the realisation of their own aims and objectives as well as those of the EU cohesion policy – but did it happen? – especially in relation to the eastern external borders of the European Union which are of most interest to us in this study. It is difficult to unequivocally answer the question posed in this way. It is not even clear whether a full assessment of this state of affairs will be possible immediately (after 2020) following the end of this financial perspective. There are far more arguments that this may only be feasible during the implementation of the next financial perspective. There are also many more arguments to suggest that the functioning of the majority of the Euroregions (certainly located on Poland's internal EU borders) will continue to be a part of the continuation scenario. A less optimistic scenario (with many arguments in favour of a pessimistic one) appears, due to the new situation, with regard to those existing on Poland's eastern external border. The most optimism may relate to the Carpathian Euroregion due to the Union's ongoing interest in the integration process of Ukraine.

## 5. Conclusions

1. Euroregions, operating on the Polish border since the early 1990s, have already become a permanent feature of the country's economic picture.
2. The fact that no new associations have been founded in the last decade does not, however, imply that the existing ones are dying out.
3. However, a positive assessment of the functioning of all the Euroregions in Poland is not possible. The functioning of the Euroregions in the eastern borderlands of Poland (mainly including Podlaskie Voivodeship, which is of most interest to us here) is of particular concern.
4. There is no doubt that this question, in the context of the emergence of new geopolitical conditions in 2022, will require a great deal of new research in a larger scope.
5. It seems premature to claim that Euroregional activities on the Polish borders may disappear altogether.
6. However, such a development (cf. previous point 5) of events cannot be absolutely ruled out – with a possible reservation concerning the Euroregions operating in the eastern borderlands of Poland.

7. An analysis of the activities of Euroregions so far in the last two EU financial perspectives – 2007–2013 and 2014–2020 – confirms the conviction of researchers and observers of this sphere of socio-economic and political life that the most likely scenario is the continuation of Euroregions on Poland's internal borders – with the possibility, however, of their far-reaching limitation or even the disappearance of some on the eastern external borders.
8. The most recent events of the 2020–2022 period (hybrid war on the Polish-Belarusian border and Russian aggression against Ukraine) are removing the remnants of any optimism even in the 2014–2020 financial perspective. Leaving aside the Carpathian Euroregion, which has opportunities for development, at least in general terms presented earlier, the political conditions are increasingly sketching out a pessimistic vision for the future of the other Euroregions from Poland's eastern border region. The most pessimistic variant, however, may apply to the Euroregions Neman and Bug – *not even excluding the possibility of their liquidation*. Moderate pessimism, only due to the unique natural values of the area, may concern the Euroregion Białowieża Forest.

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## Hasret Ozan Sevim

- ▶ non-affiliated scientist
- ▶ email: hasretozan.sevim@studio.unibo.it
- ▶ ORCID: 0000-0002-1923-737X

### EUROPEAN UNION'S APPROACH TO CRYPTO-ASSETS AND DISTRIBUTED LEDGER TECHNOLOGIES

#### | Abstract

- ▶ *Goal* – to analyse the different and comprehensive aspects of the European Union's approach to distributed ledger technologies and crypto-assets with a teleological interpretation then finally foresee what kind of policy is going to be adopted by the European Union regarding distributed ledgers.
- ▶ *Research methodology* – the article includes an analysis of the current and upcoming legal acts and regulations of the European Union regarding distributed ledger technologies and crypto-assets. A multi-disciplinary approach is adapted to understand the financial and technological reasons of European Union's policy.
- ▶ *Score/results* – many regulations and directives have been legislated by the European Union and more regulations are in the final phase of the legislation process. Since the global hubs of the distributed ledgers (especially the United States and the Republic of China) have put negative pressures on the crypto-assets and their underlying technologies, the European Union is a candidate to be a new global hub with its ongoing technology-agnostic approach.
- ▶ *Originality/value* – the effort for the harmonization between a range of different regulatory areas such as anti-money laundering regulations, public financial regulations and the legal infrastructure for pilot regimes regarding distributed ledger technologies and crypto-assets will bring a new impulse to the promoting innovation in a politically and financially safe zone of the European Union.

| **Keywords:** Distributed ledger technologies, regulation, crypto-assets, policy studies.

## 1. Introduction

The rising interest in distributed ledger technologies (DLTs) in FinTech industry and notorious events that occurred in crypto-asset markets draw attention of the governments and relevant supervisory authorities. The European Union has shown the willingness to regulate the area for years. Currently, the Union keeps legislating new framework upon a consistent approach regarding the legal treatment of crypto-assets and their underlying technology. Different fields of legal treatment exist for crypto-assets and distributed ledger technologies. Taxation, financial regulation, providing digital infrastructure, anti-money laundering (AML) and terrorist financing are main concerns. Creating an impact on the DLT industry will depend on legislating technology-agnostic regulations as well as the national implementations of those regulations. In this article, the European Union's treatment of crypto-assets and distributed ledger technologies is assessed. Firstly, the anti-money laundering and terrorist financing approach of the Union is analyzed. Secondly, the financial treatment and the approach to provide a digital infrastructure with distributed ledger technologies are analyzed. Afterwards, the taxation in relevance to crypto-assets in various Member States is studied. Finally, the difference between the approach to the Central Bank Digital Currency in the Union and the approach to crypto-assets used through highly distributed ledgers is evaluated.

## 2. Anti-money laundering and terrorist financing

The European Union and Member States are sensitive to prevent the ways illicit money flows in their jurisdiction. A flow can be defined as illicit due to criminal or political reasons such as tax evasion or the financial sanction on Russia imposed upon the invasion of Ukraine. Since the underlying digital network of crypto-assets can be composed of permissionless and censorship-resistant protocols, illicit international transfers and transactions could be made from undesired jurisdictions, and then flowed into the financial systems in the Union through intermediaries. The European Parliament and European negotiators reached a provisional deal on issuing a new bill to ensure that electronic money tokens and crypto-assets can always be traceable like traditional ways of money transfer [*Anti-money laundering:...*]. Additionally, European Authorities target to complete the new EU anti-money laundering package in harmony with the

upcoming Markets in Crypto-assets Regulation (MiCA) [Proposal for a Regulation of the European Parliament...], which will regulate crypto-asset markets from financial markets' legal point of view. At the end, transfers of crypto-assets will be traceable and identifiable to prevent crimes, terrorist financing and money laundering. Crypto-asset service providers (CASPs) are going to be obliged to submit and block suspicious transactions. The rules will not apply to disintermediated peer-to-peer transactions as these transactions are out of the European financial system. The information on the sources of the asset, its beneficiary parties in transactions and its storage will have to be submitted by CASPs to competent authorities if an investigation is concluded to money laundering and terrorist financing. Underlying distributed ledger technologies such as blockchain and smart contracts would provide easier traceability as the technology involves transparent and automated mechanisms. There will be no minimum thresholds nor exemptions for any value transfers according to the current proposal. Implication of personal data protection rules will be applied throughout the process. Non-compliant and non-supervised CASPs will be registered in a public register in order not to exclude them from trading services covered in the Markets in Crypto-assets Regulation. In conclusion, law enforcement authorities in the Union will have the competence to intervene in the significant part of the public and private distributed ledger networks.

### 3. Financial treatment of crypto-assets in the European Union

The European Union Digital Finance Strategy Package is a set of regulatory initiatives introduced by the European Commission in 2020 to create a harmonized regulatory framework for digital finance and accelerate the digital transformation of the financial sector within the EU. Proposal on a Regulation on the Markets in Crypto-assets (MiCA) is one of four regulation proposals in the package. MiCA is expected to be in force in 2024. The European Union brings crypto-assets, crypto-asset service providers and crypto-assets issuers under a regulatory framework for the first time. The European Council presidency and The European Parliament reached a provisional agreement on the markets in crypto-assets proposal that aims to regulate issuers of unbacked crypto-assets, and so-called “stablecoins”, which are supposed to have an equal value to a legal tender as well as the trading venues and the wallets where crypto-assets are held. Global so-called “stablecoins” are seen as the assets that may include systemic

risk to financial stability. This regulatory framework targets to protect investors and keep financial stability, while allowing innovation and fostering the attractiveness of the crypto-asset sector. This will bring more precise framework in the European Union, as some member states already have their own national legislations for crypto-assets. However, there had been no specific regulatory framework at a EU level.

The developments of the quickly evolving sector have confirmed the urgent need for an EU-wide regulation. The first move was made upon the financial bubble of initial coin offerings with a joint declaration from the European Supervisory Authorities in 2018 [*ESMA, EBA and EIOPA warn consumers...*]. The second landmark move was the declaration of the European Digital Finance Strategy Package in September 2020 [*Communication From The Commission To The European Parliament...*]. The Proposal on Markets in Crypto-assets Regulation is one of the four drafts in the package. It will protect Europeans who have invested in these assets and prevent the abuse in crypto-asset markets, while being innovation-friendly to maintain the EU's attractiveness. The proposal will be legislated and come into force by the approval of the Council and the Parliament. This regulation will put an end to the crypto wild west where the issuers and crypto-asset service providers are looser and confirm the standard of the EU for digital topics. The European Commission is obliged to report on the environmental and sustainable standards for crypto-assets including proof-of-work consensus mechanism<sup>1</sup>.

MiCA has several legal goals to provide. It will protect consumers against some of the risks associated with the investment in crypto-assets and avoid fraudulent financial structures. Currently, consumers have limited rights to protection or redress, especially if the transactions take place outside the EU. Crypto-asset service providers including crypto-asset exchanges and crypto-asset custodians will have to respect strict requirements to protect consumers' wallets and become liable in case they lose investors' crypto-assets. MiCA will also cover any market abuse related to any type of transaction or service, notably for and insider dealing and market manipulation. The regulation will provide legal certainty on European level to remove the legal treatments fragmentation for crypto-assets

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<sup>1</sup> "Proof-of-work" is a type consensus mechanism which is a fundamental element for a distributed ledger network to keep producing data blocks with a decentralized nature. For details see: <https://ethereum.org/en/developers/docs/consensus-mechanisms/pow> [date of access: 19.08.2022].

on national levels. Crypto-asset service providers will have to get authorized in order to operate services in the EU. Significant electronic money issuers and significant asset-referenced token issuers will be supervised by the European Banking Authority whilst other token issuers will be supervised by national competent authorities. National authorities will transmit relevant information to the European Securities and Markets Authority on a regular basis in regard with the largest CASPs. Non-fungible tokens (NFTs) and security tokens are out of the scope of the current proposal.

#### 4. Digital Operational Resilience Act and the pilot regime

In addition to the MiCA proposal, the European Finance Strategy package includes Digital Operational Resilience Act (DORA) – which will cover CASPs as well – and a pilot regime for market infrastructures based on distributed ledger technology for wholesale uses. The goal of DORA is to ensure that financial institutions, including banks and investment firms, have robust operational resilience in place to withstand and recover from cyber-attacks and other disruptive events. The proposal aims to achieve this by establishing common requirements for risk management, incident reporting, and testing and monitoring of critical systems and services. The pilot regime for market infrastructures based on distributed ledger technology aims to provide a framework for the testing and development of DLT-based market infrastructures, such as trading platforms and settlement systems. The pilot regime would allow market infrastructures to operate under a limited period of exemption from certain regulatory requirements, such as those related to capital and liquidity requirements, while they test and develop new DLT-based systems. The goal is to encourage innovation in the financial sector while maintaining appropriate levels of consumer protection and regulatory oversight. These regulations will promote the innovative implications regarding distributed ledger technologies and ensure the well-established infrastructure for crypto-asset service providers. European firms can test and imply new digital finance infrastructures and instruments by being exempted from obligations imposed on crypto-asset service providers whilst consumers and investors are not included in pilot stages.



## 5. Tax treatment of Crypto-assets in European Union

Though there are overall guidelines and regulations on the Union level regarding taxation<sup>2</sup>, the competence of levying tax and legal implications are up to the Member States. Consequently, analyzing the taxation on crypto-assets mostly requires a divergent look at national laws. The goal of having a European Single Market also involves positive and negative harmonization on taxation. Taxation on crypto-assets needs precise harmonization steps on the Union level after the upcoming legislation of the European Digital Strategy Package. Including the definitions of crypto-assets made by National Tax Authorities, the tax treatment and liabilities should be as close as possible to ensure fair and efficient market in the Union. Not for all of the crypto-assets, but the European Court of Justice has made some clarifications for the legal status of Bitcoin regarding its taxation. The Court of Justice of the European Union has ruled that the services of a Bitcoin exchange in exchanging Bitcoin for a traditional currency is exempt from VAT on the basis of the ‘currency’ exemption.

## 6. European Central Bank digital currency and public distributed ledgers

The European Central Bank published the key objectives for a digital euro on July 2022 [*The case for a digital euro...*]. Today central bank money is available to the public only in the form of banknotes. Therefore, it could become marginalized in a digital world as a means of payment. A digital euro would be accessible to everyone throughout the euro area as an electronic means of payment issued by the central bank. It would complement cash, not replace it. This would help the role of central bank money to keep the force of the payments system stabilized. The critical point of the hybrid model is that citizens can convert private (commercial bank) money to public (central bank) money one-to-one and they can use the central bank money for payments. This ensured convertibility establishes trust in both public and private money. Furthermore, it protects the function of the currency as a single unit of account. Public money provides an

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<sup>2</sup> The European Commission will amend the Directive on Administrative Cooperation (‘DAC’) to ensure that EU rules stay in line with the evolving economy and include other areas such as crypto-assets and e-money. Tax fraud & evasion – strengthening rules on administrative cooperation and expanding the exchange of information (see: [europa.eu](https://europa.eu)).

anchor to maintain a well-functioning payment system by preserving financial stability and trust in the currency.

The system of European Central Bank digital currency (CBDC) will continue to offer banknotes together with the hybrid model and support the usage of banknotes as long as it is demanded. Nevertheless, it is also a reality that cash cannot be used in e-commerce. During the pandemic, online and contactless payments surged. If the online payment trend continues, cash could ultimately lose its central role for payments. On the other hand, the widespread availability and acceptance of cash protects the strategic autonomy of European payments and monetary sovereignty. Cash would still be an “insured” solution in the event of geopolitical tensions especially if sanctions were imposed against Europe. On the contrary, at present companies with headquarters outside the European Union run most electronic payments solutions.

Recent trends – specifically the case of crypto-assets - are creating confusion about what is digital money and what is not. European Central Bank considers the lack of convertibility of crypto-assets at par with central bank money to constitute an inefficient means of payment in the case of unbacked crypto-assets. This case creates vulnerabilities with exposing the financial system to instability. The backed crypto-assets have similar issues with private banks. Furthermore, The Bank has a concern regarding the potential domination of the market by non-European financial and technological solutions through global “stablecoins” if big technology companies adopt these “alternatives”. An interoperable infrastructure to switch funds between different CBDCs and crypto-assets might be a critical solution thanks to hybrid smart contracts like how the Bank of International Settlement (BIS) and Society for Worldwide Interbank Financial Communication (SWIFT) had advanced cooperations and experiments. Consequently, the Union wants to rise the emergence of central bank digital currencies (CBDCs) in large economies to increase the international role of the euro. Thus, efficiency, scalability, liquidity and safety with cross-border payment facilities are priorities for the ECB. However, the risks associated with an excessive use of a digital euro for investment purposes exists if the investment purpose goes beyond the intended role of CBDCs as a means of payment. It is thought taking safeguards might help avoid excessive migration of bank deposits to the central bank, which could disrupt efficient lending by banks to consumers and companies by destabilizing the banking system during times of financial stress. A holistic approach and careful design are required for an efficient CBDC to provide a true public good, from which the society and economy benefit as a whole.

## 7. Conclusion

The European Union is close to completing and legislating a comprehensive approach to crypto-assets and distributed ledger technologies such as blockchain. From illicit flows to the obligations of so-called “stablecoin” issuers in the European Union, the legal framework is becoming consistent. The formal procedures between the European authorities to conclude the legislation processes are in their last phases. The harmonization between the anti-money laundering approach and the financial treatment to crypto-assets might be able to create a tamper-proof monetary system against any criminal or political threat, including the attempts of Russia to break the financial sanctions imposed upon the invasion of Ukraine. The European Union regulates the legal treatment of crypto-assets mostly with regulations instead of directives. It means that the Union keeps the political power on the international level regarding its financial and technological sphere, instead of leaving the discretion to the Member States. However, the taxation issue on crypto-assets will still require harmonization steps as the nature of taxation is strictly bound to the competence of Member States. The European Union can be the main hub for the interoperable innovations of distributed ledgers if the EU keeps its unbiased stand on distributed ledger technologies. Overall, the European Union has a balanced stance between promoting innovation, protecting financial and political stability regarding the use of distributed ledgers and crypto-assets. It is another brick in the wall of emerging intergovernmental administration.

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### **Ewa Oziewicz**

- ▶ University of Gdansk
- ▶ e-mail: ewa.oziewicz@ug.edu.pl
- ▶ ORCID: 0000-0002-0266-2097

### **Sylwia Pangsy-Kania**

- ▶ University of Gdansk
- ▶ e-mail: sylwia.pangsy-kania@ug.edu.pl
- ▶ ORCID: 0000-0002-7850-9101

## **BLUE ECONOMIC CORRIDORS AS A PART OF THE BELT AND ROAD INITIATIVE AND THEIR IMPLICATIONS FOR THE WORLD ECONOMY**

### **| Abstract**

- ▶ *Goal* – the aim of this article is to present the 21st Century Maritime Silk Road as the maritime complement to the Silk Road Economic Belt, paying particular attention to the benefits and costs for China and other countries.
- ▶ *Research methodology* – the article uses the method of descriptive and explanatory research, as well as the cause and effect analysis based on a review of the literature on the subject.
- ▶ *Score/results* – presentation of the importance of the Maritime Silk Road (MSR) and its enormous economic potential as well as other key ramifications for the various nations situated along the routes and the world economy.
- ▶ *Originality/value* – blue economic corridors need to be understood as complement to each other regarding the strategic integration of the regions under the BRI and the benefits and costs of the engagement in them are different for various groups of countries. The implications of the MSR for China and other countries are presented in the tables covering both advantages and benefits plus disadvantages and threats.

**| Keywords:** Belt and Road Initiative, BRI, Maritime Silk Road, MSR, blue economic corridors, China, world economy, international relations.

## 1. Introduction

China implements its plans and ambitious economic vision in the policy of opening to the world under the Belt and Road Initiative (BRI) not only on lands. The seas and oceans have always been a bridge for economic cooperation but in the last decades they have become especially important routes for trade. The 21st Century Maritime Silk Road (commonly known as the MSR) is the maritime complement to the Silk Road Economic Belt, comprising six development corridors. The 21st Century Maritime Silk Road does not include only one route, but a few of them, as the geographical scope of the MSR has been expanding to new regions since its inception in 2013. The idea of the MSR has evolved all the time focusing on cooperation on common maritime security and “green” development. The initiative is aimed at obtaining mutual benefits, but *de facto* benefits as well as threats extend to both China and the rest of the world economy. The European Union and the US fear that the main purpose of the BRI is primarily to strengthen China’s influence on the world economy and to pursue solely its own interests. Meanwhile, there are two possibilities for the future: either cooperation or hegemony of China.

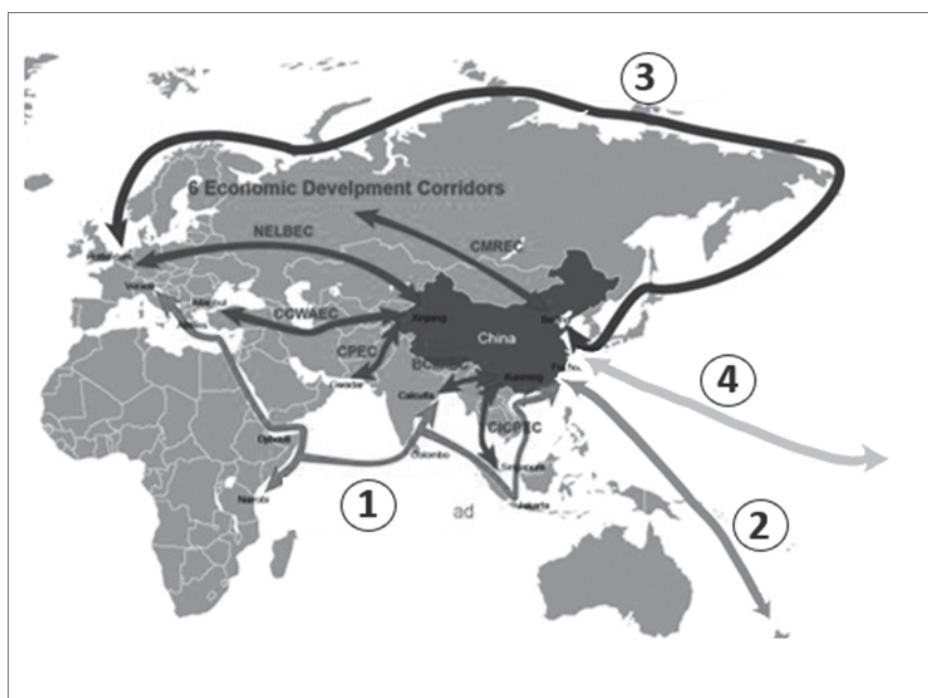
The aim of the article is to show the importance of the Maritime Silk Road, paying particular attention to the benefits and costs for China and other countries. The Maritime Silk Road has enormous economic potential and other key ramifications for the various nations situated along the routes and the world economy. The main threats include Chinese control or, at least, the impact on global supply chains. The MSR’s routes, also called blue economic corridors, are an important issue, and its completion and further popularization are highly recommended. The routes need to be understood as complement to each other regarding the strategic integration of the regions under the BRI. The article contains analysis including causes and effects and is based on the method of descriptive and explanatory research. The authors have formulated a research question: Is the 21st Century Maritime Silk Road an opportunity or a threat for the Belt and Road economies? The authors have also formulated one hypothesis: The benefits and costs of the engagement in blue economic corridors are different for various groups of the BRI countries.

The BRI has become an instrument of Chinese internal as well as foreign policy in the regional and global dimension. This initiative was raised in 2013 by President Xi Jinping. The concept of Maritime Silk Road was presented by China as a development strategy aimed at boosting infrastructure connectivity throughout Southeast Asia, the Indian Ocean, Middle East, Africa, and Europe.

## 2. The 21st Century Maritime Silk Road as blue economic corridors

The 21st Century Maritime Silk Road is an important component of the BRI. Four sea routes within the BRI described as the blue economic corridors are presented on Figure 1. The Maritime Silk Road is destined to serve a range of China's core interests, including the development of Chinese blue economy, which is worth more than 1.2 trillion USD, improving food and energy security, diversifying, and securing sea lines of communication, upholding territorial sovereignty, and enhancing its international discourse power [Ghiassy, Su, Saalman, 2019].

Figure 1. The map of land and sea routes within the BRI



Route 1: China – the South China Sea – the Indian Ocean – Africa – the Mediterranean Sea – Europe.  
 Route 2: Southern Leg of the Silk Road – China – the South China Sea – the Pacific Ocean.  
 Route 3: The Arctic Blue Economic Corridor – the Polar Silk Road.  
 Route 4: Latin American Extension of the Maritime Silk Road.

Source: authors' own work based on: *Belt and Road Initiative*.

The Chinese initiative is based on investing in ports in the region of the Indian Ocean, the South China Sea, and the Red Sea. China's maritime activity, both civil and military, from the southern shores of China to the Red Sea is called



the “String of Pearls” strategy [Ashraf, 2017]. China now owns (or has shares in) 96 ports in 100 countries in the world, and some of them are at key locations for maritime trade, for example: Gwadar (Pakistan), Hambantota (Sri Lanka), Haifa (Israel), Piraeus (Greece). There is a concern that commercial ports, which are in geostrategically important countries, could be used for military purposes of China [Xie, 2021]. The Chinese point of view in the context of the Maritime Silk Road is presented in Table 1.

*Table 1.* Maritime Silk Road – the Chinese point of view

| Advantages and benefits  | Disadvantages and threats  |
|--|--|
| accelerating the transport of goods from China   | risk of implemented projects   |
| large amounts of goods can be transported compared to rail transport                                     | expensive investment (for example in the case of the Kra Canal – cost of all necessary excavation, construction, maintenance, and operation) |
| large amounts of goods can be transported compared to rail transport                                     | land ownership and other legal problems  |
| shortened transport time compared to traditional sea routes  | possible increasing criticism of and resistance to the BRI   |
| increasingly dominant in the maritime supply chain and the production activities that support it         | security and political issues in the region, including military disputes   |
| tool of Chinese politics, facilitating the growth of Chinese influence in transit countries              | engagement can escalate the anti-Chinese sentiment and related social conflicts and protests   |
| trade can take place in the case of problems with land roads (including the Russian invasion of Ukraine) | possibility of deterioration in the functioning of global supply chains  |
| maritime investment by revitalizing local economies and bringing new jobs can benefit China's image      | possibility of deterioration in the functioning of global supply chains  |
| important locations of Chinese direct investment   | sea transport, although cheaper than rail transport, takes more time (even twice as much)  |
| achieving more corporative bilateral relations in the region   | growing congestion in ports  |
| greater importance of the Indo-Pacific Region  | potential for corruption   |

Source: author's own work based on: Ciborowski, Oziewicz, Pangsy-Kania, 2021; Puślecki, 2019; Pająk, 2018.

In reference to Table 1, strategic and economic implications of blue economic corridors, connecting Beijing with economic hubs around the world, should also be considered from the point of view of other countries.

### 3. Silk blue economic corridors – opportunities and threats for the world economy – other countries' point of view

There are several opportunities as well as challenges for recipient states created by Chinese investment concerning the BRI and blue economic corridors. The most significant opportunities relate to financing infrastructure investment. Developing countries, the majority of which are the BRI partners, need about 40 trillion USD in infrastructure and development financing to narrow the investment gap and accelerate their growth (G7 leaders 2022). Other positive consequences relate to developing blue economy, which will influence such issues as marine inter-connectivity, marine environment protection, maritime security, and common oceanic governance. Among the challenges: erosion of national sovereignty, lack of transparency, unsustainable financial burdens, disengagement from local economic needs, geopolitical risks, negative environmental impacts, significant potential for corruption are the most important ones. Table 2 presents general opportunities and threats, which apply to all blue economic corridors presented above.

*Table 2.* Opportunities and threats connected with the MSR

| Opportunities  | Threats   |
|--|---|
| easier access to financing infrastructure investment in the littoral zone of MSR countries   | China's influence upon the BRI countries  |
| <ul style="list-style-type: none"> <li>• shipping networks and transport connectivity</li> <li>• smooth, secure, and efficient transport routes</li> </ul> | the country of construction funds the projects, and the Chinese government gives loans not estimating possibilities of returning those loans properly - debt trap diplomacy |
| trade facilitation, lower costs, shorter time  | intensified port competition (natural, shipping, external conditions)   |
| logistic development   | challenges of geopolitical suspicion and security risks   |

| Opportunities   | Threats  |
|---|--|
| facilitating communication among the MSR countries will increase common interests between them  | inadequacy of logistics infrastructure and support   |
| <ul style="list-style-type: none"> <li>• shelving or at least narrowing differences and conflicts, e.g. the South China Sea conflicts</li> <li>• building consensus, openness, cooperation (not only economic) among the involved countries</li> <li>• inclusive development</li> </ul> | intensified logistic performance (accessibility of coastal regions, transport infrastructure, information, and communication, value added services)  |
| policy makers' attitude towards development and the BRI may facilitate development  | <ul style="list-style-type: none"> <li>• risk and uncertainty relating to the BRI projects</li> <li>• the undertaken projects happen to be misguided</li> <li>• pandemic has blocked some of the projects</li> </ul>                               |
| benefits sharing, win-win concept   | —  |
| infrastructure development of maritime transport, intermodal transport, sea ports   | policy makers' attitude towards development and BRI may hinder development   |
| market-based operation  | unequal division of profits  |
| multi-stake holder participation  | data on public procurement as well as on the terms and size of debt financing are lacking, while contractor participation is dominated by Chinese contractors – raising concerns about the risks of misappropriation of funds and of elite capture |
| joint development   | debt trap diplomacy  |
| revitalizing local economies by bringing new jobs   |  |

Source: authors' own work based on: Chaturvedy, 2017; Noah, 2021: 1–5; Hillman, 2019.

In Tables 3 to 6, the authors have presented specific advantages and benefits, as well as disadvantages and threats individually for each of earlier shown blue economic corridors. The first blue economic corridor (Table 3) represents sea routes extending from China to Europe, with improving port facilities being the major focus.

**Table 3. Route 1: China – the South China Sea – the Indian Ocean – Africa – the Mediterranean Sea – Europe**

| Advantages and benefits   |  | Disadvantages and threats  |   |
|---|--|--|---|
| Europe  | Developing countries   | Europe   | Developing countries  |
| <ul style="list-style-type: none"> <li>diversifying and securing the lines of communication (new passages substituting the Strait of Malakka, e.g. the Kra Canal)</li> <li>success in decongesting traffic on the Malacca Strait will reduce shipping time</li> </ul> |  | —  | in effect of decongesting the Malacca Strait, faster traffic between Chinese and other ports in the south coast of Asia will mean greater trade, which would imply more pressure on other ports in the region                 |
| as the MSR goes through the dangerous seas (e.g. out of Somalia and Sumatra) it is useful to engage China in combating piracy (e.g. EU's operation Atalanta)  | littoral livelihoods given extra economic opportunities: new employment, tourism, industry, and high scale fishery | lobbying by Chinese to gain contracts in the BRI countries and opaque financing deals without open bids create unfair competition for the EU | local traditional small business (e.g. fishery, tourism) in underdeveloped countries is eliminated because of the strong competition of new, modern and strong fishery entities and tourist resorts managed mainly by Chinese |
| Chinese willingness to finance infrastructure in the EU, if all the procedures are transparent and fulfilling all the rules and regulations   | —  | China subsidized transport of goods creates unfair competition for the EU goods  | it may happen that new infrastructure forces littoral population to leave their settlements   |
| <ul style="list-style-type: none"> <li>further boost to trade and investment between European and other MSR countries, mainly China</li> </ul>  |  |  | the risks and unintended consequences of economic and financial overdependence on China, which could turn into political and strategic leverage   |
| <ul style="list-style-type: none"> <li>opening new routes is beneficial for all the sides</li> </ul>  |  | —  | the speed and scale of the investment may overwhelm local capacity, which may cause extra challenges faced by residents   |

| Advantages and benefits  |                      | Disadvantages and threats |  |
|--|----------------------|---------------------------|--|
| Europe   | Developing countries | Europe                    | Developing countries   |
| investment in port infrastructure allows those ports to become important points on the maritime routes |                      | —                         | Chinese “String of Pearls” (port seizures by Chinese state-owned enterprises, <i>vide</i> Hambantota)                            |
| improvement of transport between China and Europe  | —                    | —                         | changes in geopolitical configuration in Asia and the Indian Ocean Region  |
| —  | —                    | —                         | the region is diversified as far as different regional agreements (FTAs, RTAs) are created there influencing trade architectures |
| —  | —                    | —                         | China as the main resident military power in Asia/the Indian Ocean   |
| —  | —                    | —                         | diminishing the role of the US as the regional security provider   |
| —  | —                    |                           | deteriorating diplomatic relations of the BRI partners with the US   |

Source: authors' own work based on: Wang, 2016: 1–9; *Agreement Moves...*, 2021; Cameron, 2020; Oziewicz, Bednarz, 2019: 110–119; Calabrese, 2022; Cathcart, 2008; Wardin, 2008; Klimowska, 2017; Shinn, 2021.

Many developing countries also try to preserve good relations with both China and the US, as well as other Western countries. In 2021, the G7 countries decided to create a strategic opposition to the BRI and launched the Build Back Better World (B3W) initiative, which is to mobilize infrastructure investment in Global South. This undertaking is evidently an effect of geostrategic competition [Pangsy-Kania, 2021], but it may also be perceived as a complement to the BRI. It is already noticed that the participation of Western countries (*vide* Italy) in the BRI projects together with China neutralizes threats and risks [Bieliński, Michałowski, Oziewicz, 2020: 75–81]. As one of the dangers connected with using Chinese sources for financing of infrastructural investments is so called debt trap diplomacy, Chinese – Western cooperation in financing investment as well as competition between the BRI and B3W will have positive effects. The developing countries do not want to make themselves dependent neither on China,

nor on the US, however, they perceive the MSR initiatives proposed by China as generally positive, allowing opening new perspectives to the development ahead of them.

As to the second blue corridor, the one going south, the total land area of this region is only a little more than 550,000 square kilometers, and its population accounts for only 0.5 percent of the world's total population. Anyway, this is an opportunity for remote small islands to improve their connectivity with Asia and the world, and possibility of gaining means for new investments. On the other hand, it creates some risks to small local business, similarly to such a problem in other regions. The aim of route 2 (Table 4) is to develop infrastructure and increase economic connectivity between China, Oceania, the South Pacific, while Australia intends to consolidate its leadership in this region [Pangsy-Kania, Kania, 2021].

Table 4. Route 2: China – the South China Sea – the Pacific Ocean

| Advantages and benefits  | Disadvantages and threats  |
|--|--|
| more investment in the underdeveloped small maritime countries (Pacific Island Countries)            | China expansionism is negatively afflicting the well-being of local populations in underdeveloped countries, as investment in big entities and establishing new businesses within the fishery industry damages the possibilities of small local fishers and local businesses, cutting them off |
| significant improvement in connectivity between remote islands and Asia – easier international trade |  |

Source: authors' own work based on: Cheng, Lee, 2020; Ghiasy, Su, Saalman, 2019.

The third blue corridor (Table 5) brings high number of reservations, but also numerous positive sides. So far, China has invested over 90 billion USD in infrastructure, assets, or other projects above the Arctic Circle.

Table 5. Route 3: The Arctic Blue Economic Corridor – the Polar Silk Road

| Advantages and benefits  | Disadvantages and threats                                  |
|--|--|
| wider opening of Arctic routes will bring diminishing of the CO <sub>2</sub> and other greenhouse gases emission in shipping industry in other regions | Russian-Chinese close cooperation within the Arctic region |

| Advantages and benefits  | Disadvantages and threats  |
|--|--|
| shorter time and distance of transit in case of numerous sea passages. The Arctic routes are about 30% to 50% shorter than the routes across the Suez and Panama Canals and the time of transit is estimated to be 14 to 20 days shorter | juridical, environmental, and geopolitical consequences of the Arctic Silk Road  |
| weakening Russian control over trade routes through Arctics is safer for international community   | the lack of political mutual trust among the countries involved  |
| the Russian areas along the Polar Silk Road have abundant gas resources  | fragile relations between China and Japan, RoK and China, Japan, and Russia  |
| possibilities of cooperation of Arctic countries in new technologies for ocean research  | Arctic countries' skepticism of Russian and Chinese intentions   |
| providing financing infrastructure from AIIB, in which all the six most important Arctic countries are the founding members (Russia, Norway, Iceland, Finland, Denmark and Sweden)   | disputes over the delimitation of the continental shelf and the management of the shipping routes (for instance problem of jurisdiction)   |
| possibility of developing communication facilities along the Polar Silk Road   | Russians try to control the route and exploit it for achieving their own trade goals. Throwing their ports open, providing bunkering, and supplying ice-breaking services, they gain certain profit. However, the current geopolitical situation and Russian aggression on Ukraine has stopped international shipping companies from being dependent on Russian services (inspections and frequent repairs among others) |
|  | relocating of invasive species to the waters of Arctic via ballast water   |

Source: authors' own work based on: Kaźmierczak, 2022; *Ocieplenie klimatu...*, 2022; Winnicki, 2016; Gacek, 2018; Brańka, 2018.

As to route 4 – connecting Asia with Latin America, which China called “natural extension of the 21st Century Maritime Silk Road” – it has made the BRI global endeavor. 20 Latin American countries have already become partners, with Panama being the first one since 2017, although they try to be cautious, expressing concerns over the debt burden touching small and weak economies. Table 6 shows main benefits awaited by Latin American countries, but also presents negative consequences and threats connected with the participation in the BRI and espe-

cially the MSR. There is even the proposal of Chinese-Chilean joint investment in Trans-Pacific optic fiber cable to improve digital connectivity [Kopp, 2019].

*Table 6.* Route 4: Latin American Extension of the Maritime Silk Road

| Advantages and benefits  | Disadvantages and threats   |
|--|---|
| opting-out of the US influence<br>undermining the notion that Latin America<br>is the United States' "backyard"                  | China's control over every link in supply<br>chains and within the energy sector  |
| the potentiality of replicating Chinese<br>three-level scheme of development, including<br>domestic, regional, and global scopes | Chinese investment focuses on energy<br>sectors carrying big risks for the<br>environment   |
| to diversify and improve the quality of its<br>economic links with China   | challenges to the indigenous population   |
| achieving the Sustainable Development<br>Goals   | China's attitude towards Latin American<br>countries misunderstanding the fact that<br>as there is not "one" Latin America, but<br>many different regions and each one<br>country's domestic situation is different |
| new port infrastructure  | —   |

Source: authors' own work based on: Koop, 2019; Jauregui, 2021; Jenkins, 2021.

In fact, all the countries taking part in the MSR expect financial support for infrastructure investment from the outside: China and other partners, and stimulation of their trade and cooperation giving an impetus for their economic development, and all are aware of disadvantages connected with Chinese influence upon their economies. Developing countries also hope that the MSR will accelerate their social and economic development. Nevertheless, parallel to this, there are specific points differentiating both positive and negative elements connected with the participation in the MSR among the routes and even each of the partners within the routes, being a consequence of different environments and condition.

#### 4. Conclusions

The 21st Century Maritime Silk Road is the sea component of BRI, aiming at infrastructure investment with special reference to developing countries. When considering the pros and cons of establishing blue economic corridors within



MSR, the attention should be paid to the possibility of further development, expanding the sphere of influence and strengthening China's position on the international arena and, at the same time, the adverse reactions of other countries.

The analysis of each blue corridor allows to conclude that China should project itself as a dependable or equal partner, not a dominant one to succeed in realizing the idea of the MSR. China and its partners might have to adjust their expectations and their targets, especially in the situation of the COVID pandemic and the post-pandemic period. The dominant economic position of China and its political influence upon the local authorities are the cause of appearing from time-to-time accusations for neocolonialism. However, 140 countries from the Global South as well as from the West take part in the BRI and perceive it more as an opportunity than a threat. That is why the G7 has been working on the competitive project B3W. It would be much more positive if the two projects BRI and B3W were rather complementing than undermining each other. Co-opetition – the mixture of cooperation and competition would be a much better solution to the world.

The above presented advantages and benefits on one hand, and threats and disadvantages on the other allow to confirm the hypothesis propounded in the introduction. The authors do not aspire to cover all the aspects connected with advantages and disadvantages as well as opportunities and threats of the MSR and each of the blue economic corridors separately but would like to turn the attention to the fact that there are both positive and negative consequences connected with this issue. This analysis is a kind of a starting point for further, more detailed research on blue economic corridors' implications for the world economy.

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## Jacek Pera

- Cracow University of Economics
- e-mail: peraj@uek.krakow.pl
- ORCID: 0000-0002-2856-1323

### RISK OF GLOBAL ECONOMIC CRISIS IN 2022 AND THE MECHANISM OF TRANSMISSION OF ECONOMIC SHOCKS BETWEEN THE MAIN AREAS OF THE GLOBAL ECONOMY

#### | Abstract

- *Goal* – the aim of the study is to analyze the main economic areas of the global economy in terms of the possibility of transferring the crisis in relation to the current global economic situation.
- *Research methodology* – the analysis conducted was based on literature research; the empirical analysis used causation in the Granger sense and Pearson's linear correlation coefficient.
- *Score/results* – The existence of the so-called “locomotive effect” was observed for a group of countries: USA–CSSA, CSSA–USA, EA–LA, EA–CSSA, LA–EA, CSSA–EA, MECA–LA, MECA–CSSA, LA–MECA, CSSA–MECA, EDA–CSSA, CSSA–EDA, LA–CSSA, CSSA–LA, meaning a positive domestic shock transmitted to the economic partner, among the countries studied, the analysis is carried out based on annual data of GDP values as a measure of economic activity. CSSA remains the safest economic area and also the most neutral in view of the current global economic and political situation. In the WPE, there is a maximum [full] correlation of 1 for: EDA–USA, MECA–EA, EDA–EA, MECA–EDA and EDA–MECA. These are currently the most dangerous and crisis-prone areas, with potential for transferring crises between them. It is facilitated by territorial cohesion and the geopolitical situation between countries in these economic regions. Relatively high correlations can also be observed in these areas between the analyzed factors: IMP, IMG, IDCF and PC. The risk of transferring a crisis resulting from war between the areas mentioned is the highest here. Other correlations in terms of: USA–EA, USA–LA, EA–USA, LA–USA, LA–EDA,

EDA–LA remain at weak or average levels. This is influenced by geographic distance and the lack of strong economic and political ties.

- *Originality/value* – the originality of the study results from the topic undertaken. Identification of potential crisis areas and channels of crisis transmission in the current global geopolitical situation constitutes an added value.

**Keywords:** crisis, economic situation, locomotive effect, shock, transmission channel.

## 1. Introduction

The current picture of the onset of the global economic and financial crisis at the moment, as a consequence of the COVID-19 pandemic and the war in Ukraine, manifests itself in a deceleration of economic growth. This includes a rise in unemployment (so far outside Poland), a decline in the rate of investment growth, as well as a decline in consumer spending. The rise in the price of currencies that have been devaluating has also become apparent, which is beginning to reduce imports and exports. As a result, unfavorable liquidity in some industries can already be identified. This will result in employment reduction and redundancies. Some companies may go bankrupt in the future, through these factors. Domestic banks have solid balance sheets, and some have already stopped lending money to each other. They are reluctant to lend, and if they do, they are very careful. Companies with fewer resources are cutting back on hiring, or the hours of work performed. The difficulties of European companies are affecting foreign contractors. Besides, “bombarded” with catastrophic news from the world, people have started to be more careful with their money and will curb their shopping appetites. Inflation levels continue to remain high, with a tendency to rise further. Adding to the total predicament facing much of the global economy, there is an energy crisis caused by the sanctions imposed on Russia as a result of the war in Ukraine, and the disrupted commodity supply chains resulting from the COVID-19 pandemic and the aforementioned war. All of these developments are ultimately compounded by the attempt by Russia and its coalition partners to change the existing world order in the balance of economic, political, and security power.

The distinctions made in the literature between continuous and transitory, domestic, global, symmetric and asymmetric shocks are the result of theoretical studies of international business cycles and international political coordination.

The strength and direction of their impact in different parts of the global economy is still largely a subject of theoretical considerations that lack empirical confirmation.

The aim of the study is to analyze the main economic areas of the global economy in terms of the possibility of transferring the crisis in relation to the current global economic situation. The realization of the goal was based on the discussion of: the issue of transmission of the crisis in economic theory, the economic and political background of the coming crisis, and the practical aspects of the transmission of economic shocks in the context of the coming crisis.

## 2. The issue of crisis transmission in literature

Crises have accompanied the development of economies for centuries, but recent years have seen an increase in their frequency as well as their depth. In addition, it can be observed that economic downturns occur in different countries at the same time, even when countries are far apart. Because of that, in order to explain this phenomenon in the literature, concepts have emerged stating that the crisis can be transmitted from one country to another. This process can be referred to as *contagion*. Many authors use the two terms interchangeably. However, they can be distinguished from a theoretical point of view.

Namely, according to the World Bank, there are three different approaches to defining them [World Bank, 2022]:

- the broad one: contagion means the transmission of a shock from one country to other areas, demonstrating international character; it is worth noting that this transmission involves both positive and negative impulses;
- the narrow one: contagion is the transmission of shocks from a contagious country to other areas, but the relationship between entities goes beyond fundamental links; this view includes the case where several contagious countries share the same source of shock; similar changes in the performance of individual economies can be explained by herd behavior;
- the very narrow one: contagion can be observed between countries if the correlation between their economies increases during the crisis period compared to the traditional period of development.

Contagion can also be defined as the spread of market distortions across several countries, which manifests itself in similar changes in exchange rates,

stock market asset prices, capital inflows and domestic bond premiums. However, one can distinguish between real *contagion* and “pure” *contagion*. Real contagion is characterized by the spread of crises, which can be explained by trade and financial ties between certain countries. “Pure” contagion, on the other hand, cannot be explained by fundamental linkages alone, as it is also influenced by the behavior of investors and financial agents [Dornbusch, Parks, Claessens, 2000: 4].

Three factors can be used to distinguish the contagion effect from traditional transmission [Mazurek, 2011: 21; Antczak, 2000]:

- the nature of the links between economies that allow the crisis to spread;
- the rate at which negative economic impulses are transmitted;
- the scale of the phenomenon, that is, the number of countries that have been infected by the crises.

As already mentioned, for the transmission of negative business cycle impulses, economies must be characterized by fundamental linkages, which include those of a trade and financial nature. The contagion effect, on the other hand, can be described in two ways. Firstly, in the case of the spread of economic impulses that cannot be explained by fundamental linkages, while secondly, it is possible to identify the area through which contagion occurs, such as the global financial market, investor behavior or speculative attacks. With different channels for the spread of crises, this also entails different transmission rates of these negative impulses. Given that a reduction in exports leads to a reduction in production, and consequently a decrease in employment and investment, it is reasonable to assume that the full sequence of events will take time. Considering the development of technology used in financial market transactions, it can be noticed that the contagion effect is occurring rapidly. The last factor that distinguishes the two terms is the scale of the phenomenon, which is dictated by the previous considerations. Since economies must be characterized by fundamental ties in order for crisis transmission to occur, the scope of the phenomenon will be limited to the number of countries that cooperate with each other. In the case of the contagion effect, the range will be much greater due to the multiplicity of channels for the transmission of negative conjunctural impulses [Mazurek, 2011: 21–23]. Concepts of the vulnerability of economies to shocks are also linked to theories on the spread of crises. One representative of this approach is P. Guillaumont, who believes that the vulnerability of an economy to shocks is nothing more than the risk that a country will be affected by unforeseen shocks. Factors that

have a particular impact on this type of risk are the magnitude and likelihood of shocks, the exposure of an economy to shocks, and the country's ability to respond to shocks. The first should be interpreted as a typically exogenous stimulus. Exposure to shocks, on the other hand, is more complex, as on the one hand it is dictated by the size of a given economy or population, which should be counted among a country's structural features, while on the other hand the process of opening up to international exchange is driven by political decisions. The last factor, country's ability to respond to shocks, depends on the health of a given economy and its flexibility, which determines the depth of an economic downturn [Guillaumont, 2004: 57–61]. Other authors can be seen separating aspects of the economy's vulnerability to shocks and its resilience to shocks. As for the economy's vulnerability to shocks, it is dictated by structural conditions, and can only partly be shaped by policymakers. L. Briguglio believes that different factors determine a country's vulnerability to shocks. These can include economic openness, export concentration and dependence on imports of strategic products. Studies show that small countries have high vulnerability to shocks in particular. This is due to their relatively small resources, which makes the propensity to undertake trade among small countries greater than that of large countries. As a result, small countries are more vulnerable to economic shocks. Similarly, they are often characterized by a higher ratio of exports and imports to gross domestic product. The lack of strategic products leads to "exposure" to the foreign environment (e.g. changes in the price of strategic products). However, the fact that an economy is infected by a shock is significantly influenced by its resilience to shocks [Błaszczewicz, Paczyński, 2001: 145; Chang, Velasco, 2001; Cutler et al., 2000].

It should be considered in terms of three aspects [Briguglio et al., 2004: 229–247]:

1. The economy is flexible enough to recover at a rapid pace from the pre-shock state despite the negative impact of the crisis.
2. The economy is able to absorb the effect of the shock, i.e. there will be an absorption of negative impulses, which will result in the end effect being neutral or barely felt.
3. The economy is able to avoid paralysis, which is equivalent to the opposite of vulnerability.

Kindleberger [Kindleberger, 1999: 210–211] lists the following issuing channels of the crisis: the commodity market, the movement of money, changes in



interest rates, the cooperation of monetary authorities and purely psychological links. It can also be noted that the decisions made by those in power when a country is infected by a shock can compound its effects or minimize them. Hence, the right decisions during a downturn can have an impact on the ultimate effect of the shock.

### 3. Political and economic background of the coming crisis

There is no doubt that we are now facing an emerging new global economic crisis that will shatter the existing world order and disintegrate the global economy, probably for a long period. The unfolding economic crisis is the result of the war in Ukraine, the progressive, planned dismantling of the modern global economic order, and the effects of the COVID-19 pandemic. While a pandemic is something natural, the Russian Federation, a state that was the political, cultural and military foundation of the Soviet Union and whose elites, after the temporary shock of the superpower's collapse, wanted to rebuild the empire with the significant approval of a huge part of the population that never got rid of the *homo sovieticus* mentality, is responsible for the war in Ukraine and the dismantling of the current world order. According to J. Chai "the problem, however, is far more serious, and the roots are still to be found in the traditions of Russian self-rule, authoritarianism, aversion to foreigners, Russia's political and strategic culture. Western-affiliated and especially NATO aspiring Ukraine appeared to Russia as the biggest obstacle on this path to empire restitution" [Czaja, 2015: 41]. Therefore, the actual process of dismantling the current world order was initiated by Russia's policy toward Ukraine, and the Georgian conflict was its rather clear foreshadowing. Russia has also shaken up European and Euro-Atlantic security. It has done so in a world characterized by interdependence, the flow of various phenomena across borders in a process that is referred to as globalization.

All of Russia's currently observed actions are embedded in the so-called Putin Doctrine. It could be described as a willingness to interfere in any area of the near foreign areas, under the pretext of protecting the population of Russian origin and even the Russian-speaking population. The evolution of this doctrine is moving in the direction of recognizing an attack on the Russian-speaking population as an attack on Russia. The most recent document, the Military Doctrine of the Russian Federation, signed by Putin on December 26, 2014,

includes a provision stating that it is no longer only possible to intervene in neighboring countries in defense of its own citizens, but even if the authorities of a neighboring country were to pursue policies contrary to Russia's interests [ibidem, 32]. The authors of the Doctrine, constructed in this way, assumed a "hidden agenda" in it, the effect of which is the current situation in the world, leading to a division in decision-making among countries in response to sanctions imposed on Russia. V. Putin correctly assumed that the likely sanctions imposed on Russia for its attack on Ukraine would divide the world, especially the Western world. Since the introduction of the Doctrine, Russia has spent 8 years preparing for its implementation, including making Western countries fully dependent on energy resources as a bargaining power in its sanctions policy against Russia. As a result, Germany, Hungary and Bulgaria, among others, strongly opposed the imposition of sanctions on Russia after it invaded Ukraine, fearing that Russia would cut off their access to energy sources. Thus, they contributed to the breakdown of unity in the coalition against Russia. It should also be remembered that many countries have adopted a neutral stance towards the war in Ukraine. Regardless of the stance taken toward Russia, the continuity of energy supplies is at risk in many countries ahead of the upcoming autumn-winter season.

Currently, the anti-Russian stance is definitely represented mostly by the European Union countries, the United States, Australia, Canada, the United Kingdom, Norway and Japan. Other countries around the world declare neutrality or support for Russia. And V. Putin seeks coalition partners for himself among such countries, reinforcing cooperation with China, Iran, Brazil, North Korea, Venezuela, Turkey, Kyrgyzstan, Tajikistan, Turkmenistan, Belarus, the ultra-separatist part of the Chechen Republic, Abkhazia, Serbia and Uzbekistan. These countries are fully pro-Russian as of today. Such a wide geographic distribution of Russia's potential allies could lead to numerous trade wars in the near future, as well as numerous disruptions and blockages in the supply chains of strategic raw materials, goods and services. Thus, Russia's ultimate goal is increasingly crystallized – the economic dismantling of the Western countries and, consequently, of NATO (after all, in the wake of commercial political action comes a new international security doctrine), and the creation of a new political, economic and military order in the world, with a clear hegemon: Russia. Russia has already achieved the non-military goal of blocking grain shipments from Ukraine, the world's largest granary by far. Russia sees an opportunity to change the optics of thinking among Western political elites in prolonging the armed

conflict with Ukraine (held hostage by Russia to its global interests), as a result of the European society being “exhausted” by war. Increasingly, anti-Russian politicians are beginning to fear that the European public will say “enough is enough”. That “we don’t want these sanctions to continue, because we are not ready to become poorer, to pay more for everything”. Hence, the Kremlin wants the European public to be “tired” of the war. Any political concessions to Russia could turn out to be “suicidal”, and would spell the end of Europe as we have known it for more than 200 years.

The global economy is facing turbulence as a consequence of foregoing events. This is already known, although scenarios related to the war and its impact on the global economy may yet vary.

“Getting to” the full-blown crisis will be preceded by the following 5 major processes:

1. Stagflation. The current high inflation is largely due to measures taken by governments and central banks during the COVID-19 era: on the one hand, whole branches of the economy were brought to a standstill, i.e. the production (supply) of goods was curtailed, and on the other hand, it was decided to support businesses financially by crediting their accounts with money “created” in the financial sector through so-called debt monetization – countries increased their debt, it was sold on the financial markets, or to central banks, and the funds from the sale of bonds were transferred to businesses and households. This meant the fastest increase in the amount of money in the financial system in many decades, which, once fairly normal economic life returned – meant more money and fewer goods on the market, resulting in inflation. These processes were compounded by problems with broken supply chains (some goods could not be produced, because there was a shortage of components. Sanctions imposed on Russia – additionally mean, e.g. an increase in energy commodity prices, compounding inflationary pressures. All this is not without an impact on the level of economic activity – in such uncertain times, entrepreneurs postpone investment, and consumers – after the first wave of purchases, stimulated by demand “postponed” during the pandemic, and then stimulated by the effect of “let’s buy it today, because it will be more expensive tomorrow” – will reduce their spending, saving “for a rainy day”.
2. Producer Price Inflation (PPI) – an indicator that precedes the CPI. Producer prices are growing rapidly and refuse to slow down. The latest PPI read-

ing for Poland is almost 25 percent year-on-year growth, and for the entire EU, the dynamics exceeds 30 percent y/y, while it has already exceeded even 37 percent y/y in the Eurozone in April 2022. This unfortunately means further “fuel” for consumer price increases in the months ahead. The prices of energy carriers in the autumn and winter months will be important. If their prices rise even higher, this will perpetuate inflationary pressures. It is also important to remember that until we see a clear drop in PPI, there is no use expecting a noticeable drop in consumer inflation.

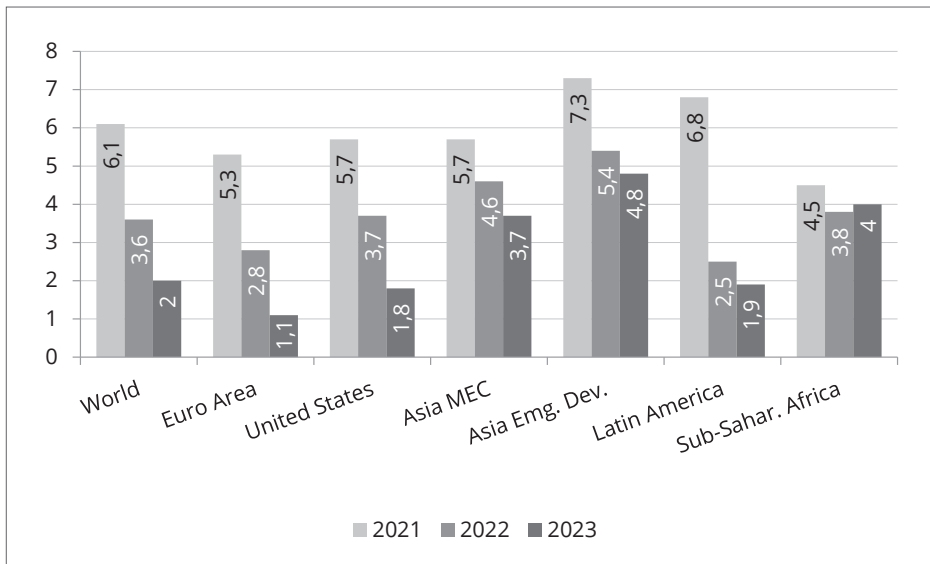
3. Foreign current account balance. The foreign account balance tells you whether you have a surplus – which, in simple terms, means that a country exports more than it imports – or a deficit, which is the opposite situation. The COVID-19 pandemic caused significant disruptions in this area, especially as a result of disrupted supply chains – the pressure towards imports increased significantly.
4. Twin deficits. The simultaneous existence of: a foreign trade deficit and a significant national budget deficit. In the pandemic, markets accepted much higher deficits, knowing that they were a response to extraordinary circumstances. The combined occurrence of a current account deficit of more than 5 percent and a budget deficit of similar magnitude (or higher if, for example, winter brings a gas “turn-off” for Europe, triggering a recession) would mean strong downward pressure on currencies.

In such a situation, if the country’s currency continues to remain weak after the government and central bank apply currency sales (from foreign exchange reserves), the central bank would be forced to raise interest rates even more sharply than currently assumed to defend the currency.

5. Public debt service costs. Financial markets are able to “forgive” quite a lot when it comes to the amount of the deficit under extraordinary circumstances. However, it is important to remember that high deficits are deposited in the form of growing debt. During the pandemic period, when both inflation and interest rates were low, there was no increase in the cost of servicing this debt – that is, interest on the debt was stable. Nevertheless, when inflation began to rise and bond yields rose sharply, it meant seriously rising debt service costs for public finances. Debt costs money, and the significant increase in the indebtedness of public finances in previous years will mean that the issue of the rising cost of servicing it will increasingly come up in public discourse.

As the International Monetary Fund points out, the global economy is currently struggling with high inflation and a slowdown. In May 2022, the growth forecast was lowered to 2.4 percent. Energy commodity prices have hit vulnerable low-income economies the hardest. According to forecasts, inflation for 2022 will be 18.7 percent for developed economies, and 22.7 percent in emerging and developing markets. As for the outlook for the global economy, growth will slow from an estimated 6.1 percent in 2021 to 3.6 percent in 2022 and 2.0 percent in 2023. Thus, this is 0.8 and 0.2 percentage points lower than predicted back in January. After 2023, growth is expected to drop to about 1.3 percent in the medium term. As can be seen, growth in 2023 will be visible in the sub-Saharan African region and in emerging and developing Asian economies [IMF April 2022] – Chart 1.

Chart 1. Growth projections by region (percent change)



Source: author's own work or [IMF, April 2022].

According to IMF analysts, the war in Ukraine has aggravated two policy trade-offs – between fighting inflation and protecting the recovery, and between supporting the vulnerable and rebuilding fiscal buffers. The war will reduce economic growth for 143 economies accounting for 86 percent of global GDP. At the same time, it was stressed that the current outlook is highly uncertain, as it depends on the developing geopolitical situation. The reduction in growth for the United States is the most notable. The growth rate will be 3.7 percent in

2022 and 1.8 percent in 2023. According to the forecast, similar declines will be seen in Europe. The forecast for China, according to which the growth will be 4.4 percent in 2022, already reaching 5.1 percent in 2023, is noteworthy. For Russia, the index is expected to be -8.5 percent in 2022 and -8.5 percent in 2023: -2.3 percent [IMF April 2022]. The level of growth in the global economy will also be affected by the course of the COVID-19 pandemic in Q4 2022 and 2023, and its impact on the degree of disruption to supply chains. The pandemic has also resulted in a significant increase in corporate debt. According to the Bank for International Settlements, China's total debt last year already exceeded 250 percent of GDP, and according to other sources: it is already as high as 270 percent. 2/3 of that is corporate debt. Only a few countries in the world have a larger scale of corporate debt. According to the World Bank, these are: Cyprus and Hong Kong at about 200 percent of GDP each, the U. S. at 192 percent, Switzerland at 175 percent, Denmark at 165 percent, Japan at 162 percent and the very China – at 156 percent [IMF, UNCTAD 2022].

The danger of another major military conflict in the Middle East (Iran–Israel) in 2022/2023 and in Asia (China–Taiwan) should also be taken into account when forecasting the height of the recession. If any of these conflicts erupt, then any estimates should be lowered even further, and the economic crisis will get much worse.

#### 4. Practical aspects of the transmission of economic shocks in the context of the coming crisis – an empirical analysis

Economic crises are the result of the transfer of negative economic impulses (crisis impulses) between countries. According to economic theory, crisis phase is characterized by rising unemployment and declining production, employment, investment, demand and prices.

Taking into account economic theory on the formation of economic prosperity, the empirical analysis and the study conducted adopted the following factors – the basic determinants of the crisis:

##### 1) *Wars and political events [WPE]*

Undoubtedly, this factor plays an important role in the emergence of the crisis – as has already been partially written about in Section 3. Its importance and strength determine the direction and intensity of the crisis, as well as its type.

The war in Ukraine has caused grain supply shortages. Sanctions on Russia lead to the energy crisis. And all of this leads to a commodity crisis and the formation of scarcity economies.

## 2) *International Movement of People [IMP]*

International population flow is a less significant factor affecting the business cycle. They are not able to cause an economic crisis, because the outflow of unemployed people during a crisis mitigates the effects of a recession. This factor will not be considered in further analysis.

## 3) *International Movement of Goods [IMG]*

One of the most important factors contributing to the transmission of economic and crisis impulses is the flow of goods. When country 1's economy is in recession and international economic prosperity is also in recession, the decline in its domestic demand is not compensated for by an increase in exports. The consequence will be a deepening recession. If the crisis impulse comes out of a country or a group of countries with a serious share of world trade in goods, there will not be enough room for expansion in country 1, the income of exporters in country 2 will fall, which will negatively affect the condition of the entire global economy, which will reduce demand for imported goods including those from country 1. If it is assumed that the change in exports was caused by a change in the economic situation in country 2, then we get a mechanism for transferring economic impulses from 2 to 1, through the foreign trade channel. A measure of the sensitivity of country 1's income to these impulses is the elasticity of country 1's GDP to that of foreign countries. Meaning:  $E_Y = E_E \cdot m \frac{E}{Y}$  where,

$E_E$  – income elasticity of the country's 1 exports

$m$  – foreign trade multiplier

$\frac{E}{Y}$  – share of exports in national income

Thus, the economy of country 1 is the more susceptible to the impact of the economic situation impulses of the environment, the greater the income elasticity of its exports, the greater the value of the foreign trade multiplier and the greater the share of exports in national income. Therefore, a large economic body that has fallen into recession – country 2 – reduces imports and lowers the price of export goods going to country 1. This has the effect of reducing their income,

which reduces the country's 2 imports. Country 2 in crisis – lowers prices of its exports. As a result, the destination country's imports are increasing which entails changes in the foreign trade balance. There is a drop in prices on the domestic market, and in addition, interest rates may rise to reduce consumption, resulting in an economic recession. The greater the share of country 2 in economic turn-over, the greater will be the crisis impulse transferred by foreign trade.

#### 4) *International direct capital flows [IDCF]*

The transfer of corporate profits is primarily related to foreign direct investment. These transfers will be greater when the country from which these investments originate is in recession and the destination country is booming. They are the smallest when the country receiving the investment is in recession and the country exporting the investment is booming. In a global recession involving major economies, the crisis impulse may spill over to countries where foreign direct investment was created through the corporate profit transfer channel [Piech, 2012: 56]. An analysis of the causal relationship in the Granger sense between real GDP growth and BIZ inflows was carried out when analyzing this factor. The general form of Granger's [Granger, 1969] definition of causality is formulated as follows: let generally  $F(Y|X)$  denote the conditional distribution of  $Y$  at a given  $X$ , let  $W_t$  represent all information in the universe at time  $t$ . If for every positive  $k$  there is a relation:  $F(Y_{t+k}|W_t) = F(Y_{t+k}|W_t \setminus X_t)$ , where  $W_t \setminus X_t$  stands for all information in the universe except that contained in  $X_t$ , then  $X_t$  is not the cause of  $Y_t$ . Otherwise,  $X_t$  is the cause of  $Y_t$  in the Granger sense [Osińska, 2008: 39–41]. In other words, the variable  $X_t$  is a cause in the Granger sense of the variable  $Y_t$  if the inclusion of lagged values of the variable  $X_t$  in the explanatory model of  $Y_t$  makes it possible to obtain a better description of the variable  $Y_t$ . On the other hand, referring to forecasting ability, this means that  $X_t$  is the cause of  $Y_t$  when we are better able to predict future values of  $Y_t$  using the entire available set of information than using the set of information excluding  $X_t$  [Folfas, 2014: 655].

#### 5) *Price changes in the international market [PC]*

The price level is an important factor that can cause crises to be transmitted and may even be its source. If the current crisis is threatened, an increase in energy commodity prices could cause significant difficulties in the real sphere of many countries and complications in the functioning of the global economy.



The analysis assumes that the crisis impulse from the country in which the crisis occurs [2] to the target country to which the crisis impulse will be transferred [1] will be stronger the greater the degree of capital movement link between [1] and [2]. Moreover, it was assumed that in a crisis situation, the crisis impulse will be stronger the greater the share of exports [2] in the realization of production [1]. In addition, it was assumed that between [1] and [2], the transmission of crisis impulses to underdeveloped and highly developed countries is carried out using the relationship: highly developed country – underdeveloped country – decrease in demand in [2] for goods [1] – decrease in exports [1]; highly developed country – highly developed country – [2] has a pro-export policy and reduces imports, in [1] decrease in exports.

The analysis and study adopted statistics for the period 2019-Q2 2022 and forecast for 2023. The initial time period adopted was dictated by the onset of the COVID-19 pandemic. The analysis and study included: United States of America [USA], Euro Area [EA], Middle East and Central Asia [MECA], Emerging and Developing Asia [EDA], Latin America [LA] and the Caribbean and Sub-Saharan Africa [CSSA].

The key issue in the study – after analyzing the determinants of the crisis 1–5 – was the correlation coefficients determining the level of linear dependence between random variables. Pearson's linear correlation coefficient was used for this purpose.

$$r(x,y) = \text{cov}(x,y) / \sigma_x^* \sigma_y$$

$$\text{cov}(x,y) = E(x^*y) - (E(x)E(y))$$

where:

- $r(x, y)$  – the correlation coefficient between the variables  $x$  and  $y$ ,
- $\text{cov}(x, y)$  – covariance between the variables  $x$  and  $y$ ,
- $\sigma$  – standard deviation,
- $E$  – expected value.

It leads to the classification of correlations into weak and strong. In the case of negative correlation, a weak relationship is said to exist when the final result of the equation is between -0.1 and -0.5. Values below -0.5 indicate a strong negative correlation. The same applies to a positive correlation – values between 0.1 and 0.5 define a weak correlation, and a strong one above 0.5.

- the coefficient  $r$  takes values in the range  $[-1,1]$ ,
- the closer the value is to 1, the stronger and positive the relationship (if  $x$  increases, then  $y$  increases),

- the closer the value is to -1, the stronger and negative the relationship (if x increases, then y decreases),
- $r = 0$  means there is no linear relationship between the variables.

The study assumed the following correlations:

- $r > 0$  positive correlation – when the value of x increases, so does y,
- $r = 0$  no correlation – when x increases, then y sometimes increases and sometimes decreases,
- $r < 0$  negative correlation – when x increases, then y decreases.

Correlation strength for  $|r|$ :

- $0.1 < 0 \leq 0.1$  – weak correlation,
- $0.3 < 0 \leq 0.5$  – average correlation,
- $0.5 < 0 \leq 0.7$  – high correlation,
- $0.7 < 0 \leq 0.9$  – very high correlation,
- -1 or 1 – full correlation.

Let x and y be random variables with discrete distributions  $x_i, y_i$ , denote the values of the random samples or variables ( $i = 1, 2, \dots, n$ ), while  $\bar{x}, \bar{y}$  – mean values from these samples, then:  $\bar{X} = \frac{1}{n} \sum_{i=1}^n x_i, \bar{Y} = \frac{1}{n} \sum_{i=1}^n y_i$ , then the estimator of the linear

correlation coefficient is defined as follows  $r_{x,y} = \frac{\sum_{i=1}^n (x_i - \bar{x})(y_i - \bar{y})}{\sqrt{\sum_{i=1}^n (x_i - \bar{x})^2 \sum_{i=1}^n (y_i - \bar{y})^2}}; r_{x,y} \in [-1, 1]$ .

In general, the linear correlation coefficient of two variables is the quotient of the covariance and the product of the standard deviations of these variables – in particular, for random variables with discrete distributions, it has the form:

$$r_{X,Y} = \frac{\text{cov}(X,Y)}{\sigma_X \sigma_Y} = \frac{[\sum_{i=1}^n \sum_{j=1}^m P(X = x_i, Y = y_j) x_i y_j] - \bar{X} \bar{Y}}{\sqrt{\sum_{i=1}^n P[(X = x_i) X_i^2] - (\bar{X})^2} \sqrt{\sum_{i=1}^m P[(Y = y_i) Y_i^2] - (\bar{Y})^2}}.$$

The value of the correlation coefficient is in the closed range  $[-1, 1]$ . The greater its absolute value, the stronger the linear relationship between the variables.  $r_{x,y} = 0$  denotes no linear relationship between features  $r_{x,y} = 1$ , means exact positive linear relationship between features, while  $r_{x,y} = -1$  means exact negative linear relationship between features, i.e. if the variable x increases, y decreases and vice versa.

**Table 1.** Resulting matrix of correlation of major world economic regions and crisis factors as of April 2022

| Correlation of regions:<br>1-2, 2-1 | Factor              | r                 |
|-------------------------------------|---------------------|-------------------|
| USA-EA                              | WPE,IMP,IMG,IDCF,PC | 0;0;0.1;0.5;0.2   |
| USA-MECA                            | WPE,IMP,IMG,IDCF,PC | 0.7;0;0.5;0.3;0.3 |
| USA-EDA                             | WPE,IMP,IMG,IDCF,PC | 0.7;0;0.7;0.7;0.5 |
| USA-LA                              | WPE,IMP,IMG,IDCF,PC | 0.1;0;0.1;0.2;0.1 |
| USA-CSSA                            | WPE,IMP,IMG,IDCF,PC | 0;0;0;0;0         |
| EA-USA                              | WPE,IMP,IMG,IDCF,PC | 0;0.1;0.1;0.1;0.1 |
| MECA-USA                            | WPE,IMP,IMG,IDCF,PC | 0.5;0.3;0.1;0.1;0 |
| EDA-USA                             | WPE,IMP,IMG,IDCF,PC | 1;0.1;0.2;0.1;0.1 |
| LA-USA                              | WPE,IMP,IMG,IDCF,PC | 0;0.5;0.1;0.1;0.1 |
| CSSA-USA                            | WPE,IMP,IMG,IDCF,PC | 0;0;0;0;0         |
| EA-MECA                             | WPE,IMP,IMG,IDCF,PC | 0;0.1;0.4;0.3;0.2 |
| EA-EDA                              | WPE,IMP,IMG,IDCF,PC | 0;0.1;0.3;0.3;0.3 |
| EA-LA                               | WPE,IMP,IMG,IDCF,PC | 0;0;0;0;0         |
| EA-CSSA                             | WPE,IMP,IMG,IDCF,PC | 0;0;0;0;0         |
| MECA-EA                             | WPE,IMP,IMG,IDCF,PC | 1;0.5;0.9;0.9;0.9 |
| EDA-EA                              | WPE,IMP,IMG,IDCF,PC | 1;0.4;0.9;0.8;0.8 |
| LA-EA                               | WPE,IMP,IMG,IDCF,PC | 0;0;0;0;0         |
| CSSA-EA                             | WPE,IMP,IMG,IDCF,PC | 0;0;0;0;0         |
| MECA-EDA                            | WPE,IMP,IMG,IDCF,PC | 1;0.2;0.9;0.9;0.9 |
| MECA-LA                             | WPE,IMP,IMG,IDCF,PC | 0;0;0;0;0         |
| MECA-CSSA                           | WPE,IMP,IMG,IDCF,PC | 0;0;0;0;0         |
| EDA-MECA                            | WPE,IMP,IMG,IDCF,PC | 1;0.2;0.9;0.9;0.9 |
| LA-MECA                             | WPE,IMP,IMG,IDCF,PC | 0;0;0;0;0         |
| CSSA-MECA                           | WPE,IMP,IMG,IDCF,PC | 0;0;0;0;0         |
| EDA-LA                              | WPE,IMP,IMG,IDCF,PC | 0;0.1;0.1;0.1;0.1 |
| EDA-CSSA                            | WPE,IMP,IMG,IDCF,PC | 0;0;0;0;0         |
| LA-EDA                              | WPE,IMP,IMG,IDCF,PC | 0;0.1;0.1;0.1;0.1 |
| CSSA-EDA                            | WPE,IMP,IMG,IDCF,PC | 0;0;0;0;0         |
| LA-CSSA                             | WPE,IMP,IMG,IDCF,PC | 0;0;0;0;0         |
| CSSA-LA                             | WPE,IMP,IMG,IDCF,PC | 0;0;0;0;0         |

Source: author's own work, based on calculations for: WPE, IMP, IMG, IDCF, PC.

## 5. Conclusions

The current situation in the global economy, determined mainly by the economic consequences of the COVID-19 pandemic and the war in Ukraine, is causing a progressive decline in the global economy and great uncertainty. It seems that the world is facing a new economic crisis, and the question that needs to be asked now is not so much about the fact of the crisis but about its intensity and scale. Hence, the aim of the study was to analyze the main economic areas of the global economy in terms of the transferability of the crisis in relation to the current global economic situation. The analysis conducted showed:

1. The progressive scale of the decline in basic macroeconomic indicators and especially their forecasts point to a further development of the global downturn.
2. The end of 2022 and the beginning of 2023 will be marked by a crisis in energy (especially in Europe) as well as raw materials and food.
3. The dismantling of the current world order and harmony, still led by Russia, will proceed.
4. The war in Ukraine will not end soon and a new global conflict in the Middle East (Iran-Israel) or Asia (China-Taiwan) is likely on the horizon. At the same time, the danger of turning the war in Ukraine into a global conflict will persist.
5. As a result of the perpetuation of broken supply chains – there will be periodic shortages of many goods, mainly in the high-tech field, which to some extent will make the global economy – an economy of shortages.
6. As a result of rising inflation, societies will become impoverished.
7. The channels of transmission of the crisis in the form of: the commodity market, the movement of money and changes in interest rates have been confirmed.
8. At this point, it seems likely that the “arrival” of a full-blown crisis will be preceded by 5 major processes: stagflation, producer price inflation, current account balance, twin deficits and the cost of servicing public debt.
9. Of the 5 indicators adopted to characterize the downturn – in view of the risk of a crisis today – the strongest will be wars and political events; the international flow of goods; and the international flow of direct capital. The weakest impact will come from the international movement of people and changes in international market prices.

10. For a group of countries (Table 1): USA–CSSA, CSSA–USA, EA–LA, EA–CSSA, LA–EA, CSSA–EA, MECA–LA, MECA–CSSA, LA–MECA, CSSA–MECA, EDA–CSSA, CSSA–EDA, LA–CSSA, CSSA–LA, meaning a positive domestic shock transmitted to the economic partner, among the countries studied, the analysis is carried out based on annual data of GDP values as a measure of economic activity.
11. CSSA (Table 1) remains the safest economic area and also the most neutral one in view of the current global economic and political situation.
12. In the WPE (Table 1), there is a maximum (full) correlation of 1 for: EDA–USA, MECA–EA, EDA–EA, MECA–EDA and EDA–MECA. These are currently the most dangerous and crisis-prone areas, with potential for transferring crises between them. It is facilitated by territorial cohesion and the geopolitical situation between countries in these economic regions. Relatively high correlations can also be observed in these areas between the analyzed factors: IMP, IMG, IDCF and PC. The risk of transferring a crisis resulting from war, between the areas mentioned, is the highest here. There is already an armed conflict in Ukraine, the scale of further development of which is unpredictable. Due to the extent of global economic interdependence, the effects of the war will be felt by most European Union countries. The war in Ukraine means the challenge of an unprecedented number of refugees, a further increase in inflation and a deterioration in the structure of public debt. The prices of food and energy will increase the most. In addition to disrupted food supply chains, one must also consider the sanction-induced reduction in fertilizer exports, which will increase the cost of food production. Globally, the war is reducing global food security, as Russia and Ukraine rank 1st and 5th respectively in global wheat exports, and are major suppliers of other agricultural products. The outbreak of war and fear of supply disruption resulted in a rise in the price of grain and other agricultural commodities on world markets. The war against Ukraine has also affected the prices of energy commodities, especially oil. Further changes in energy commodity prices will depend on sanctions imposed on Russia and Belarus, as well as retaliatory Russian actions. In contrast, fuel price increases will be felt most strongly by consumers in Luxembourg, Slovenia and Hungary. In January, the rise in fuel prices indirectly added 3.2 percentage points to inflation in Luxembourg, 2.0 percentage points in Slovenia and 1.5 percentage points in Hungary, accounting for 81 percent, 73 percent and 27 percent of inflation in those countries, respectively. The

current war is leading to the largest refugee crisis in Europe after World War 2. During the first four weeks since the beginning of the aggression alone, 3.7 million people left Ukraine, most of whom came to Poland. Another 6.5 million had to move inside Ukraine. The influx of refugees could be a huge burden on neighboring countries, including Poland. Finally, it is important to remember that the threat of a new conflict is as real as possible just from the areas: MECA and EDA.

13. Other correlations in terms of (Table 1): USA–EA, USA–LA, EA–USA, LA–USA, LA–EDA, EDA–LA remain at weak or average levels. This is influenced by geographic distance and the lack of strong economic and political ties.
14. Further research should focus on the scale and impact of the coming crisis and the means to mitigate it.

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**Ewelina Szczech-Pietkiewicz**

- ▶ SGH Warsaw School of Economics
- ▶ e-mail: [eszcze@sgh.waw.pl](mailto:eszcze@sgh.waw.pl)
- ▶ ORCID: 0000-0001-7004-1631

**Mariusz Jan Radło**

- ▶ SGH Warsaw School of Economics
- ▶ e-mail: [mjradlo@sgh.waw.pl](mailto:mjradlo@sgh.waw.pl)
- ▶ ORCID: 0000-0001-7756-1613

**IS EUROPEAN GREEN DEAL DOOMED TO SHARE THE PATHS  
OF PREVIOUS MULTIANNUAL EU STRATEGIES?**

**| Abstract**

- ▶ *Goal* – to analyse feasibility of the European Green Deal in the perspective of implementation experience of the previous multiannual EU strategies.
- ▶ *Research methodology* – comparative multi-level and multi-period analysis, review of documentation and literature review and other methods including synthesis and deduction.
- ▶ *Score/results* – the authors indicated a number of problems hindering the implementation of past multiannual EU strategies that were not solved in the current one. However, potential success factors of the European Green Deal implementation were also identified.
- ▶ *Originality/value* – value of the analysis lays in contextual reference to development and growth programmes of the EU. Conclusions are based on the comparative approach. The paper is original, not previously published.

**| Keywords:** Lisbon strategy, Europe 2020, European Green Deal, multiannual EU strategies.



## 1. Introduction

The European Green Deal (EGD), like the previous multiannual development strategies of the European Union, including the Lisbon Strategy and the Europe 2020 Strategy, set ambitious goals for the EU's socio-economic development for the next decades. Among them are, among others "transformation of the EU into a fair and prosperous society living in a modern, resource-efficient and competitive economy", achievement of "net zero greenhouse gas emissions" by 2050 and "decoupling economic growth from the use of natural resources".

Currently, at the beginning of the implementation of the European Green Deal, it is worth noting that the two previous EU multiannual strategies also assumed the implementation of ambitious goals that were to be achieved in the years 2000–2010 and 2010–2020. However, they have never led to their implementation. The implementation of the Lisbon Strategy did not make the European Union "the most competitive and dynamic knowledge-based economy in the world" not only until 2010 as stipulated in this strategy, but also until today. Likewise, the Europe 2020 Strategy has not made the Union's economy "smart and sustainable", has not made the EU more "socially inclusive" and has not made the EU member states to achieve goals related to "high employment and productivity rates and social cohesion".

In the above context, the question in the title of this article seems important: Is European Green Deal doomed to share the paths of previous multiannual EU strategies? Currently, it is difficult to answer this question unequivocally, but the trajectories of the implementation of the EU's past multiannual strategies provide a wealth of empirical material to assess the implementation challenges of the current program, which is the European Green Deal. Their analysis makes it possible to present the main factors which, in the authors' opinion, will determine the future of the newest long-term strategy of the Union.

Our research strategy assumes a critical comparative analysis of the Lisbon Strategy, the Strategy Europe 2020 and the European Green Deal with regard to their goals, implementation mechanisms, financing and the importance of external factors for the implementation of these strategies. We paid particular attention to the reasons for the failure of the last two strategies from the perspective of the possibility of their replication during the implementation of the present multiannual EU strategy.

## 2. Goals of multiannual EU development strategies and the level of their achievement

A characteristic feature of all three analysed multiannual strategies of the European Union is the complexity of the objectives that were or are to be achieved as a result of their implementation. A brief overview of these goals – based on documents from the European Commission or the European Council – is presented in Table 1.

*Table 1. Goals of multiannual EU strategies: Lisbon Strategy, Strategy Europe 2020, European Green Deal*

| Strategy             | Goal   | Time horizon and trade-offs   |
|----------------------|--|---|
| Lisbon Strategy      | <p>The Union has today set itself a new strategic goal for the next decade: to become the most competitive and dynamic knowledge-based economy in the world, capable of sustainable economic growth with more and better jobs and greater social cohesion. Achieving this goal requires an overall strategy aimed at:</p> <ul style="list-style-type: none"> <li>• preparing the transition to a knowledge-based economy and society by better policies for the information society and R&amp;D, as well as by stepping up the process of structural reform for competitiveness and innovation and by completing the internal market;</li> <li>• modernising the European social model, investing in people and combating social exclusion;</li> <li>• sustaining the healthy economic outlook and favourable growth prospects by applying an appropriate macro-economic policy mix (European Council, 2000).</li> </ul> | <p><b>Time horizon:</b><br/>2010, for some goals undefined (long-term).</p> <p><b>Possible trade-offs:</b></p> <ul style="list-style-type: none"> <li>• economic growth-versus sustainability,</li> <li>• European social model and social inclusion versus structural reforms and growth,</li> <li>• short term versus long term goals,</li> <li>• one policy mix does not fit all.</li> </ul> |
| Strategy Europe 2020 | <p>Three priorities should be the heart of Europe 2020:</p> <ul style="list-style-type: none"> <li>• Smart growth – developing an economy based on knowledge and innovation.</li> <li>• Sustainable growth – promoting a more resource efficient, greener and more competitive economy.</li> <li>• Inclusive growth – fostering a high-employment economy delivering economic, social and territorial cohesion (European Commission, 2010).</li> </ul>   | <p><b>Time horizon:</b><br/>2010, for some goals undefined (long-term).</p> <p><b>Possible trade-offs:</b><br/>Same as in case of Lisbon Strategy.</p>  |
| European Green Deal  | <p>It is a new growth strategy that aims to transform the EU into a fair and prosperous society, with a modern, resource-efficient and competitive economy where there are no net emissions of greenhouse gases in 2050 and where economic growth is decoupled from resource use. It also aims to protect, conserve and enhance the EU's natural capital, and protect the health and well-being of citizens from environment-related risks and impacts. At the same time, this transition must be just and inclusive. (European Commission, 2019).</p>   | <p><b>Time horizon:</b><br/>2030, 2050.</p> <p><b>Possible trade-offs:</b></p> <ul style="list-style-type: none"> <li>• growth versus resource use, emissions etc.</li> <li>• short-term versus long-term goals,</li> <li>• uneven distribution of benefits and burdens.</li> </ul>   |

Source: author's own work based on European Commission, 2010, 2019; European Council, 2000.

At the end of the 2000s, the Lisbon Strategy was replaced by another multiannual Strategy Europe 2020. The strategy assumed that economic growth fostered by implementation of Strategy Europe 2020 will be “smart”, “sustainable” and “inclusive”. Therefore, greater emphasis was placed on innovation, sustainability (especially related to resource consumption and “green” technologies) and maintaining social cohesion. It was also assumed that this strategy would reverse the effects of the global recession that took place in 2008–2009. However, as indicated by Kasprzyk & Wojnar [2021], the results of the implementation of this strategy in various Member States turned out to be heterogenous. In the second decade of the 21st century, the economic disparities between the highly developed countries of Western Europe and the countries of Southern Europe deepened which means that Europe 2020 has not led to greater cohesion, and economic growth in the EU has not turned out to be inclusive. The inability to achieve the goals of this strategy was largely due to the consequences of the economic crisis of 2008–2009 and the recession of 2012–2013, as well as the inability of the southern countries to return to a path of sustained economic growth. Moreover, the discussed strategy replicated many weaknesses of the Lisbon Strategy as regards the coherence of various goals and the possibility of their simultaneous implementation.

At the end of the second decade of the twenty-first century, the third, multiannual EU strategy, the European Green Deal, was adopted. Contrary to previous strategies, the implementation of the sustainable development agenda has become a priority of this strategy, in particular the goals of reducing greenhouse gas emissions and decoupling economic growth from resource use. At the same time, Green Deal reiterated that these goals will be achieved in parallel with such principles like “fair and prosperous society” and “competitive economy”. At present, it is difficult to assess the implementation status of the discussed strategy, but it should be noted that it partially duplicates the patterns underlying the failure of the previous strategies. This applies in particular to the assumption that there are no trade-offs between its goals, i.e. that decoupling economic growth from resource use is possible and that it is possible to achieve the increasingly ambitious and costly targets related to reducing greenhouse gas emissions while maintaining economic growth and competitiveness. These assumptions are difficult to verify. However, it should be noted that the implementation of the European Green Deal will certainly be influenced by two external factors that occurred at the beginning of its implementation. The first concerns the economic effects of the policy of lockdowns aimed at counteracting the spread

of COVID-19, and the second is related to the effects of the Russian aggression against Ukraine and its consequences for the prices of energy resources and the economic situation of the EU.

### 3. Implementation mechanics of multiannual EU development strategies

The mechanism of Lisbon strategy implementation relied on Open Method of Cooperation (OMC). Instead of harmonizing national regulation, the Member States introduced new rules via cooperation with EU. Lisbon strategy governance meant not adding a new level of governance but rather concentrating on new, less formal patterns of rule. The characteristics of those new modes of governance were: reliance upon non-binding ‘soft law’ rather than legal instruments, the engagement of both public and private actors and leaving the choice of policy to the Member States, and inclusive participatory approach [Copeland, Papadimitriou, 2012; Kohler-Koch, Rittberger, 2006].

The OMC meant allowing the Member States to develop their own policies, and leaving them the choice of instruments. The procedure, however, had some milestones: first, guidelines were fixed by the EU with specific timetables; then, the Member States implemented those objectives via national actions plans. Finally, qualitative and quantitative indicators were used in the peer review to measure successes and failures of the Member States.

Open Method of Coordination meant common goals measured by indicators, annual review of strategy implementation at the European Council summit. Starting from the mid-term review, each country prepared a National Reform Program, which was also agreed with the Commission and assessed (based on an implementation report).

The OMC was to some extent blamed for limited success of the Lisbon strategy. Leaving the choice of instruments, self-evaluation, and peer pressure as motivation mechanism were pointed out as too weak for such an ambitious program. As put in the Kok report (*Facing the challenge...*, 2004), the low level of target achievement was ‘due to an overloaded agenda, poor coordination and conflicting priorities’. Mechanism of Europe 2020 strategy implementation was supposed to be a remedy for some of these issues. Firstly, more responsibilities were given to the Member States, secondly – targets were designed to each country’s specificity. In terms of governance, the strategy tried to remedy the rather weak architecture of the Lisbon strategy, therefore the Member States

were obliged to present two reports every year, the Stability and Convergence Programme and the National Reform Programme, which were presented every April and fully integrated in the European Semester. These documents formed the basis of the European Commission's country-specific recommendations.

However, even under more rigorous rules of EU2020 the Member States had no incentives to make extraordinary efforts to reach the strategy's targets. The confirmation for the voluntary character of the program is lack of any reference to the agenda in the overwhelming majority of government plans at a national and regional level in the EU [Renda, 2014].

Stronger governance implemented under Europe 2020 relied on two pillars: the thematic approach (represented by seven flagship initiatives), combining priorities and headline targets; and country reporting, with a core goal of returning to sustainable growth and sound public finances. The main framework for implementation of Europe 2020 at a national level was via the European Semester. This included commitment by the Member States through their National Reform Programme reports, monitoring and assessment by the Commission in country reports and country-specific recommendations that were adopted by the Council. Integrated guidelines have been formulated, having in mind the broader EU2020 targets, and are used to guide this process. Moreover, implementation of the EU2020 strategy was monitored through yearly reports by Eurostat, the European Employment Strategy and the OMC. Strengthening of the EU2020 implementation was to reach also via means of establishing link with the Stability and Growth Pact and the use of EU structural funds. Emphasis on SGP resulted, however, mostly in turning to austerity measures, rather than growth-oriented ones in the economic development strategies of the Member States.

The implementation mechanism of EU2020 derived from the Lisbon strategy's focus on guidelines and peer-review to greater concentration on economic and financial targets (e.g. reduction to just ten guidelines). The process was called "co-ordination of co-ordination" which well describes the shift in mechanics from LS to EU2020.

The European Green Deal presents a shift in multiannual programming of the EU not only in the area of policy considerations, towards a clear focus on green transition. The process of implementation will still include important elements and strong association with the European Semester, i.e. country-specific recommendation, national reform programs, and country reporting. However, important changes are introduced in the area of policy management, with focus on sector approach and technological policy relations.

Major introduction to the system of implementation in the European Green Deal is the engagement of private sector. Even though a large part of the investment will come from the public sector, the private sector is going to play a vital role in the implementation mechanisms. It is going to be in the responsibility of companies to introduce sustainable economy priorities in their strategies and investment to meet the demands of the EGD.

As far as the policy orientations are concerned, the process of multiannual programming, a shift in ethos is observed from detailed micro-management through perspective and revisable non-legislative norms (LS), through domestic accountability for actions in line with guidelines (EU2020), to responsibility of private sector for the implementation. On the other hand, the trend in implementation started with horizontal multi-lateral co-ordination, through more vertical and bilateral stimulus to increase domestic policy effort, towards focus on business support and sector-related policies and instruments (EGD).

A significant change in approach in the EGD's mechanics is also seen in the area of regulation of policies. Both the Lisbon strategy and the EU2020 strategy were prioritizing deregulation, with Integrated Guidelines based on economic policy oriented at deregulating and dismantling regulatory interference in the market functioning. The approach planned for the Green Deal relies on regulating economic sectors related to green transition which may be a significant factor in improving target reaching potential. On the other hand, such a process moves the cost effects of the reforms to the business sector as major actors implementing the program.

#### 4. Financing of multiannual EU development strategies

The Lisbon Strategy introduced into the policies of the EU and the Member States such categories as: knowledge-based economy, information society, learning regions, information and communication technologies, diffusion of innovation, but in practice – for the first five years – the strategy did not have any significant impact on the cohesion policy.

It was only since the reform in 2006 that the cohesion policy strictly supported the implementation of the Lisbon goals in the years 2007–2013. The assumption was that in the years 2007–2013 at least 60 percent of the funds under each operational program will be allocated to the implementation of the Lisbon Strategy.

The Lisbon strategy reform and focusing it on the goals of growth and employment and binding it to the cohesion policy meant a significant change in the philosophy: from compensatory to serving as support for competitiveness, with the use of endogenous development potential of regions and removing development barriers.

The budget of the cohesion policy for 2007–2013 amounted to EUR 347 billion and an additional EUR 160 billion from national funds. Approximately 80 percent of this amount was earmarked for the regions covered by the Convergence objective, 65 percent of which supported the Lisbon objectives. 16 percent of the cohesion policy funds were allocated to the Regional Competitiveness and Employment objective, of which 82 percent to support the objectives of the Lisbon Strategy.

In the case of the EU2020 strategy, the original version of the document did not support the cohesion policy: it was non-spatial, preferred a sectoral rather than a regional approach, it promoted partnership at the national, not regional level, and territorial cohesion was manifested in it only in promoting labor mobility. However, in the final version of the document it was recognized that the cohesion policy could be actively involved in the implementation of the Europe 2020 strategy. The European Commission estimated 1.8 trillion Euro as a budget to finance EU2020. Part of this sum was supposed to come from private sector, with public sector contributing from both national and subnational levels.

With this in mind, the Structural Funds were given a key role in financing the initiatives of the Europe 2020 program. On the other hand, the future of cohesion policy also depended on its successful implementation. There was therefore a mutual feedback between the two programs.

An important institutional arrangement for the EU2020 came with European Systemic Risk Board for macro-prudential supervision and the European Financial Stabilization Facility, later also with the European Stability Mechanism for managing sovereign debt crisis.

The relation of cohesion policy financial instruments and EU2020 has also changed since the Lisbon strategy. As stated in the Barca report [Barca, 2009], cohesion policy had traditionally been focused on less developed regions and Member States. In EU2020, however, all the Member States regardless of their level of development or underdevelopment were equally involved in delivery of targets of smart, sustainable and inclusive growth.

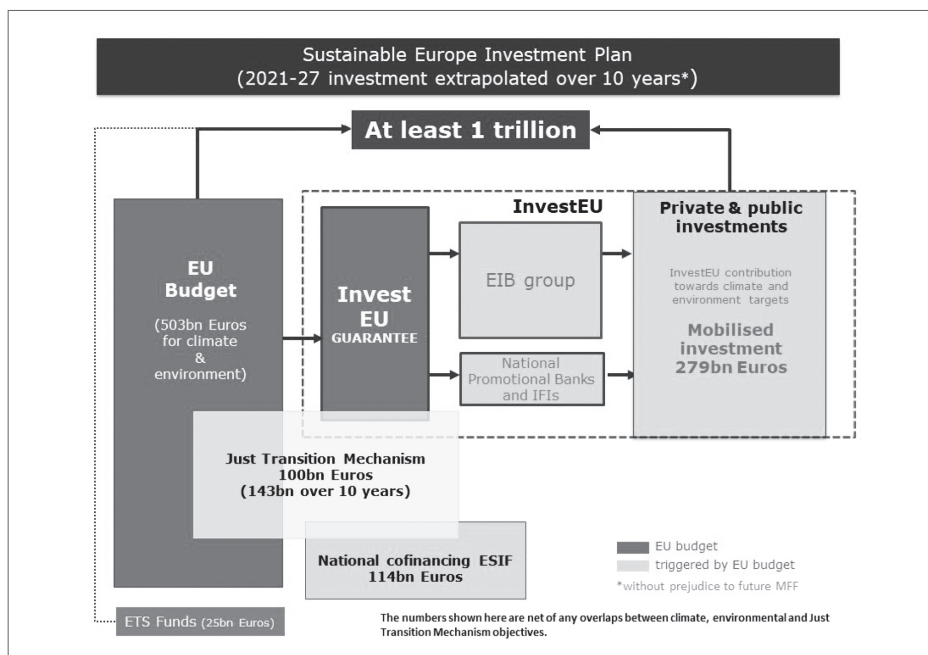
Financing of the European Green Deal will be arranged differently, with special investment plan and mechanisms dedicated to its goals. The European

Green Deal Investment Plan (EGDIP) will mobilize at least 1 trillion Euro in investment over the next decade. 25 percent of the next long-term EU budget (for years 2021–2027) is going to contribute to climate action and spending on the environment. An important innovation is also introduction of repayable instruments – InvestEU will leverage ca. 279 billion Euro of private and public investment by providing a EU budget guarantee to allow the EIB and other implementing partners to invest.

Overall, the rationale behind EGD as opposed to previous multiannual programs is changing from “financing” to “mobilizing capital”. The three objectives of the EGDIP are:

- to increase funding for the transition, and mobilize at least €1 trillion to support sustainable investments over the next decade through the EU budget and associated instruments, in particular InvestEU;
- to create an enabling framework for private investors and the public sector to facilitate sustainable investments;
- to provide support to public administrations and project promoters in identifying, structuring and executing sustainable projects.

Chart 1. Origin of the financial resources for the European Green Deal implementation



Source: European Commission [2020].



Under the mechanism of mobilising capital for the EGD implementation, various sources are planned to be used. About half of the 1 trillion Euro will come directly from the EU Budget (earmarked for Climate and Environment actions), whereas the remaining half will be triggered by the EU budget in the form of guarantees and mobilized private investment.

## 5. Causes of incomplete implementation of past multiannual EU strategies and the future of European Green Deal

The future of the European Green Deal can be studied from the point of view of the experiences of previous multiannual strategies, but also the specificity of the current strategy.

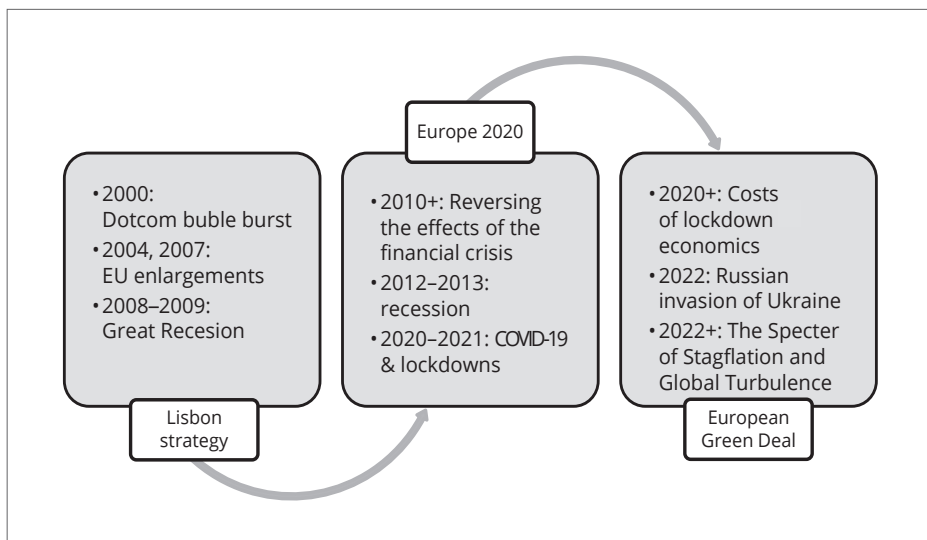
Several factors influenced the inability to achieve the goals of the Lisbon Strategy and the Strategy Europe 2020. They referred to both the goals and their inconsistency with the priorities of the Member States or trade-offs between specific goals of these strategies, problems with policy coordination, the lack of bottom-up legitimacy for the top-down agenda of actions, and the possibility to freely select goals to be implemented in accordance with the *à la carte* principle. External factors, in particular crises that occurred during their implementation, also had a very significant impact on the implementation of the discussed strategies. These problems were overlapped by implementation problems related, on the one hand, to the weakness of the implementation mechanisms and, on the other hand, to the lack of legitimacy for the specific objectives of the EU strategy at the national level. This in turn has led to the selective implementation of the EU strategies at a national level, or even to the questioning of the European added value of these strategies.

The problem of internal or geographical inconsistency of the objectives of the long-term EU strategy appeared at the beginning of the Lisbon Strategy implementation and was repeated during the implementation of the Europe 2020 Strategy. Successive external shocks – from the Great Recession of 2008–2009 through the reception of 2012–2013 asymmetrically influenced the Member States. As a result, the objectives of the European multiannual strategy became less and less consistent with the economic challenges faced by the Member States. Moreover, the Member States were quite easy to implement the goals of the discussed strategies. Applying the *à la carte* principle, they emphasized those areas where it was easier for them to show obstinacy in achieving their

goals, and ignored the areas where they had problems with the implementation of the European agenda.

The above problems with the objectives of the EU's multiannual strategies overlapped with the problems with coordinating their implementation. The OMC has proven to be as flexible as it is ineffective as an implementation tool. As a result, the National Reform Programs reflected the diversity of approaches and priorities of the member states. The slightly more rigorous approach to the implementation of the European strategy applied in the case of the Europe 2020 strategy did not improve much [Renda, 2014].

Chart 2. Role of external factors influencing implementation of multiannual EU development strategies



Source: author's own work.

Given the experience of previous multiannual development and competitiveness programs of the EU, the trajectories of the European Green Deal's implementation may be predicted. The most general conditionality of EGD's is its monitoring system's similarity to both Lisbon and EU2020 strategies. All three programs rely on "soft law" measures when it comes to ensuring target achievement. Apart from this, all three engage both public and private actors, while policy choice is left to Member States (subsidiarity principle), and encourage inclusive participatory approach [Kohler-Koch, Rittberger, 2006]. These three characteristics of new modes of governance are part of the EU multiannual

programming DNA. However, they are also evaluated as weakening the implementation system and hindering its added value.

The new element of the implementation system, i.e. stronger engagement of the private sector may, however, be a positive introduction and prevent EDG from the repetition of previous paths. The experience of the Single Market program building in the EU showed that tighter link to business entities and their goals gives Member States dynamics, resources and focus on targets. The difference, however, remains between the Single Market and EGD with the first putting private sector as beneficiaries, and the latter as source of finance and action. EGD's success relies heavily on the effort from the business partners: with half of the program's budget covered by private funds and most of the costs of implementation attributed to the enterprises. This may improve the target achievement rate but needs to be related to business strategy goals in order to succeed. So far, however, EGD lacks serious estimates of the effects of the regulations. Having this in mind, it is hard to expect business entities to be willing to take the risk of financing half of the 1 trillion Euro budget, even with InvestEU and European Investment Bank Group guarantees. The 7.5 billion Euro in the Just Transition Mechanism, set to assist those whose strategic goals are not in line with Climate and Environment agenda, may not be sufficient to convince businesses to alter their goals.

The focus of EGD goals in the area of environmental aspects of sustainable growth may be a significant factor in the trajectory of the program development. Especially in the area of funding mobilization, it can fall in the build synergy with Sustainable Development Goals implemented by the European private sector. Strong commitment to SDG's, implementation of economic, social and governance standards and public pressure on business sustainability create a positive conditionality set for the European Green Deal goals in business practice and give it a positive momentum. If combined with financial mechanisms of InvestEU and Sustainable Finance Strategy, it may contribute to actual target achievement. However, the combination must be effective. Either way, definite focus on particular policy and action area is a novelty, as compared to previous multiannual programs which tended to overarch all economic, social and environmental issues. This time the programming is less cross-policy and more cross-sector synergy oriented.

Apart from business sector involvement, with all its limitations, coming back to the "Europeization" of development priorities may introduce a positive dynamism of EGD. In the new structure of implementation, this process has a chance

not to repeat Lisbon strategy's mistake of "Brussels talking to Brussels" without the presence of sufficient commitment devices to ensure compliance [Copeland, Papadimitriou, 2012]. The device in question is stronger bond to regulation and sector approach, especially in the areas of technology policy.

## 6. Conclusions

The aim of the above analysis was to conclude on the success and failure factors of the European Green Deal in the context of previous experience of EU development programming. Our analysis revealed following factors which may hinder the implementation of the European Green Deal or slow down its dynamics.

First is the possibility of materializing the trade-off between the strategic goals. This especially refers to the assumption that economic growth needs to be decoupled from the resource consumption, and at the same time achieve zero-emission growth. Despite the fact that the European Green Deal is far more concentrated in its areas of impact than the previous strategies, its scope is still quite broad and goals vary, increasing the possibility of action dispersion.

The two shocks to the European economy (namely: pandemic and military conflict in Europe) may further deepen the discrepancy between goal of the EGD and national policy agendas.

In spite of these factors, the EGD is building on the experience of both the Lisbon strategy and the EU2020 strategy as far as the implementation mechanisms are concerned. Drawing from the limited success of the previous two, EGD is equipped with stronger instruments when it comes to new regulations in the field of climate and environment. The Green Deal will mostly be introduced by a system of EU regulations, which have to be introduced by the Member States.

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## Sylvia Szkołut

- Cracow University of Economics
- e-mail: szkoluts@uek.krakow.pl
- ORCID: 0000-0001-9292-6166

### THE INFLUX OF WAR REFUGEES FROM UKRAINE – RECOMMENDATIONS FOR POLAND BASED ON TURKEY’S EXPERIENCES<sup>1</sup>

#### | Abstract

- *Goal* – the presentation of analysis results regarding the numerical comparison of migration crises caused by refugee displacements from Syria and Ukraine and the identification of challenges faced by Poland based on Turkey’s experiences related to the mass influx of refugees.
- *Research methodology* – the examination of Poland’s and Turkey’s official state documents, a review of articles and existing studies, the analysis of statistical data on the flows of persons from the following databases: the UNHCR, the UN Population Division, data from the Polish Chancellery of the Prime Minister and the Office for Foreigners. The research methods used also include synthesis and inference.
- *Score/results* – although the Syrian and Ukrainian migration crises show various differences, Poland can certainly draw on Turkey’s proven tools and avoid solutions having hindered integration and contributed to the exclusion of Syrian refugees. However, Turkey’s and Poland’s experiences represent evidence for other countries that it is necessary to have a clearly defined migration policy in place.
- *Originality/value* – the originality of the article lies in the comparison of the two largest migration crises of recent years and an attempt to identify challenges faced by Poland in connection with the influx of war refugees and possible solutions based on Turkey’s experiences. In addition, the subject has significant research potential due to the imminent economic crisis in Ukraine, which may trigger another wave of migration.

| **Keywords:** Russia-Ukraine war, migration management, Syrian refugees, Turkey’s policy, host country, war refugees, Poland.

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## 1. Introduction

As a result of the Russian aggression against Ukraine, having begun on 24 February 2022, several million persons have fled the war-ridden country and sought refuge in the neighbouring countries. Poland has become the country receiving the most refugees – it poses a major economic, social and political challenge.

A similar crisis affected Turkey, having played the main role in the Syrian migration crisis – it currently hosts the highest number of Syrian refugees [UNHCR, 2022]. The mass influx of Syrians started in 2011 and was spread over a period of several years. Initially, Turkey adopted an open-door policy, which changed diametrically at a later stage. Hosting such a large number of persons caused various socio-economic issues that Turkey needed to face. The development of the influx of refugees to Poland differs (with the level of one million registered refugees noted in Poland after two months since the outbreak of the war, whereas in Turkey it was exceeded after four years); thus, there is a need for immediate measures, which can be copied from Turkey's experiences.

The selection of the subject was inspired by the mass influx of refugees, unprecedented in Poland as it was in Turkey and posing a challenge to the host country, as well as the topicality and dynamics of the phenomenon. In addition, the subject has significant research potential due to the imminent economic crisis in Ukraine, which may trigger another wave of migration as well as to the existing gap in the literature and international research.

The study aims to present analysis results regarding the numerical comparison of migration crises caused by refugee displacements from Syria and Ukraine and the identification of challenges faced by Poland based on the Turkish experience related to the mass influx of refugees. The essential research issue considered in the article is the comparison of the scale and development of the migration crises connected with displaced persons from Syria and Ukraine and the identification of challenges facing Poland in the context of Turkey's experiences. The question about effective solutions aiming at the integration of war refugees into Poland's labour market and education system is extremely important at present, whereas the Turkish experience related to the implementation of instruments intended to manage the influx of immigrants may prove to be of major relevance. To this end, the article examines Poland's and Turkey's official state documents, reviews articles and existing studies as well as analyses statistical data on the flows of persons from the following databases: the UNHCR, the United Nations Population Division, data from the Polish Chancellery of the

Prime Minister and the Office for Foreigners. The research methods used also include synthesis and inference.

The composition of the article is as follows. The first part presents a comparative numerical analysis of the largest migration crises of recent years, related to refugee displacements from Syria and Ukraine. The second part discusses the most significant challenges facing Poland in connection with the mass influx of refugees and proposals for possible solutions based on Turkey's experiences.

## 2. The characteristics of the migration crises caused by refugee displacements from Syria and Ukraine in numbers – a comparative analysis

The start of protests in the Syrian city of Daraa in March 2011 became the sore point for the outbreak of the civil war in Syria [UNHCR, 2022]. The internal conflict intensified by the armed response on the part of the authorities caused mass displacements of the Syrian people into the neighbouring countries, thus contributing to one of the largest migration crises after World War II [Ince Yenilmez, 2017: 184].

In the first year of the conflict in Syria, its residents were forced to leave their homes, which fuelled internal migration of Syrians towards Syria's external borders [Tumen, 2016: 10]. According to the UNHCR data, in 2011, there were approximately 19,931 Syrian refugees [UNHCR, 2022]. In the following year, after the escalation of the conflict in Syria, internal migrations became a mass refugee wave, which pushed the number of refugees to 729,012. In 2013, the estimated number of Syrians having fled their country exceeded 2.4 million. In the following years, the movement of refugees from Syria intensified; the most recent UNHCR data for 2021 indicated more than 6.761 million people.

After the internal conflict intensified in 2012, Syrians mostly fled into the neighbouring countries [Ibidem, 10]. According to the UNHCR data for 2012 (Table 1), the most Syrian refugees were hosted by Turkey – 34.1 percent. Other major host countries for refugees from Syria were Jordan (32.8 percent) and Lebanon (17.4 percent). Significantly fewer Syrians chose Iraq (8.7 percent) and Egypt (1.8 percent). Other countries hosted a total of 4.6 percent of all Syrian refugees. As the conflict in Syria proved to be a permanent one, refugees increasingly moved into the neighbouring countries whose absorption capacity gradually declined. Therefore, Syrians also chose advanced Western European



countries, in the hope of obtaining residence permits and no longer waiting for the civil war to end [ibidem, 10]. In 2021, the European Union Member States hosted 14.7 percent of all Syrian refugees (Table 1). Apart from the EU Member States' significant contribution to receiving refugees from Syria, an important subject is the role played by Turkey, the country to host the highest number of displaced Syrians – over 54 percent of all refugees, or more than 3.6 million in 2021 [UNHCR, 2022].

*Table 1.* The distribution of Syrian refugees in 2012 and 2021

| 2012   |                  |         |        |       |                 |                 |
|--------|------------------|---------|--------|-------|-----------------|-----------------|
| Turkey | Jordan           | Lebanon | Iraq   | Egypt | Other countries |                 |
| 34.1%  | 32.8%            | 17.4%   | 8.7%   | 1.8%  | 4.6%            |                 |
| 2021   |                  |         |        |       |                 |                 |
| Turkey | EU Member States | Lebanon | Jordan | Iraq  | Egypt           | Other countries |
| 54.5%  | 14.7%            | 12.6%   | 9.9%   | 3.6%  | 2.0%            | 2.7%            |

Source: prepared by the author based on the UNHCR data.

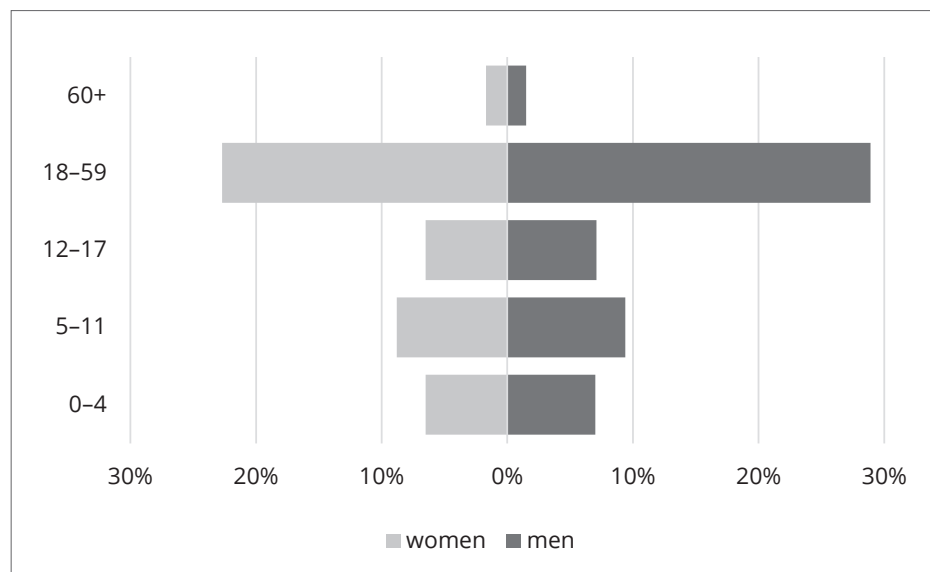
As late as one year before the outbreak of the Syrian civil war, the largest group of foreign nationals in Turkey were persons from Bulgaria (nearly 35 percent of all migrants) rather than Syrians [UN International..., 2019]. It is related to the difficult relations between Bulgaria and Turkey during the Cold War, with many deportations from Bulgaria to Turkey [Demirtaş, 2001: 27]. Before the conflict, Syrians represented a mere 0.4 percent of the total number of migrants in Turkey.

After the outbreak of the civil war, at the beginning of 2012, Turkey had 9,500 registered Syrian refugees [UNHCR, 2022]. A year later, the number sky-rocketed to 148,000. In 2014, Turkey hosted as many as over 0.5 million people from Syria. Until 2019, the number of registered refugees continued to rise and exceeded 3.6 million. 2020 saw a minor fall in the number of registered Syrian refugees, by approx. 46,000, followed by another increase; at present, there are more than 3.7 million registered refugees in Turkey.

The Syrian refugees arriving in Turkey are not characterised by a distinct overrepresentation of one sex (Chart 3). At present, men account for slightly

more than half of the registered refugees in Turkey – 53.9 percent. Working-age persons represent 51.6 percent of all registered refugees, 28.9 percent of whom are men. 45.3 percent of the refugees are under 18 years of age. Elderly persons aged 60 or over account for a mere 3.2 percent of all refugees.

Chart 1. Syrian refugees in Turkey by age and sex (in 2022)

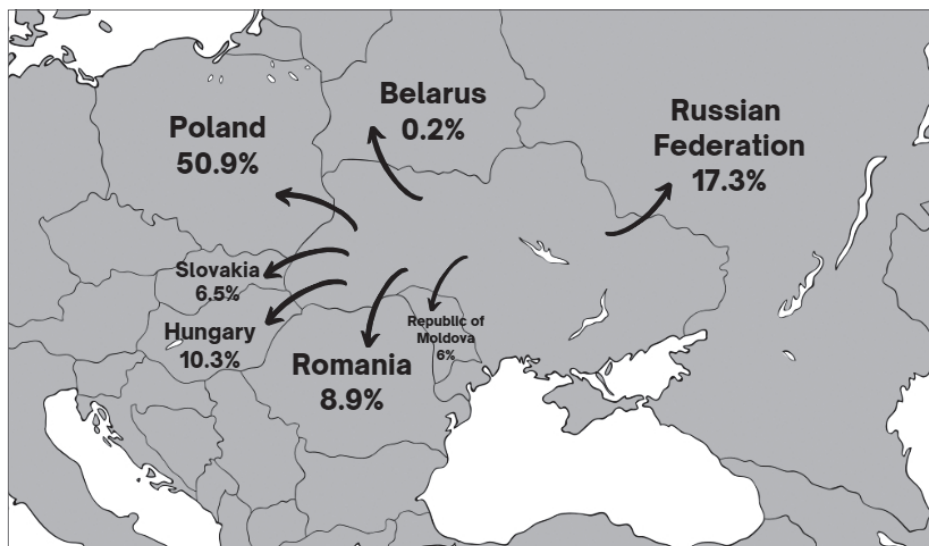


Source: UNHCR, 2022.

Due to the start on 24 February 2022 of another stage of the conflict between Russia and Ukraine which has begun in 2014, for the first time in history, there is a military conflict very close to the European Union's external border, threatening its security [Opióła et al., 2022: 7]. It is still hardly possible to specify its duration and possible military, geopolitical, economic and financial consequences [Astrov, 2022: 13]. But it is common knowledge that the conflict – in addition to the above-mentioned long-term effects – has caused a humanitarian crisis in the form of a mass influx of refugees from Ukraine. On the date of the outbreak of the war, nearly 80,000 people crossed the Ukrainian border [UNHCR, 2022]. On the following days of the Russian invasion, the number of border crossings was on the rise. After one month, nearly 4 million persons had crossed the border, whereas the number of border crossings had exceeded 5 million by the end of April 2022. As at 12 July, border authorities had registered more than 9 million people having left the territory of Ukraine.

As regards the countries chosen by refugees from Ukraine, most of them crossed the Polish-Ukrainian border – 50.9 percent (Figure 1). The distribution of border crossings to other countries was as follows: to Hungary – 10.3 percent, to Romania – 8.9 percent, to Slovakia – 6.5 percent, to Moldova – 6 percent and to Belarus – 0.2 percent<sup>2</sup>. Surprisingly, 17.3 percent of persons having left Ukraine crossed the border with Russia. It is difficult to estimate the proportions of forced deportations and voluntary border crossings.

*Figure 1. The influx of refugees from Ukraine to the neighbouring countries (in % by number of border crossings, as at 12 July 2022)*



Source: prepared by the author based on the UNHCR data.

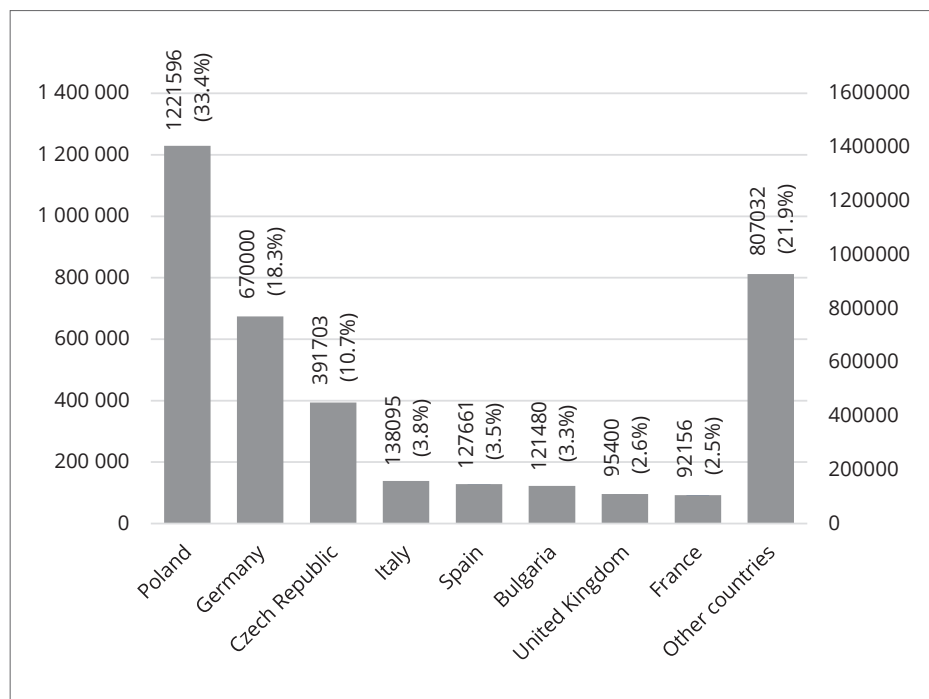
The European countries have been faced with the challenge of receiving more than 3.6 million refugees from Ukraine<sup>3</sup>. The most persons arrived in Poland: over 1.2 million, i.e. 33.4 percent of all registered refugees (Chart 2). Large groups of refugees are hosted by Germany (18.3 percent), the Czech Republic

<sup>2</sup> It must be mentioned that persons arriving in Moldova immediately leave for Romania, which results in double counting in statistics. Therefore, the percentages presented in Figure 1 add up to exceed 100 percent.

<sup>3</sup> Those are registered persons enjoying temporary protection or similar national protection measures in Europe.

(10.7 percent), Italy (3.8 percent). Other European countries have been receiving significantly fewer refugees.

*Chart 2. The distribution of registered refugees from Ukraine in the European countries – number and percentage of registration refugees (as at 12 July 2022)*



Source: prepared by the author based on the UNHCR data.

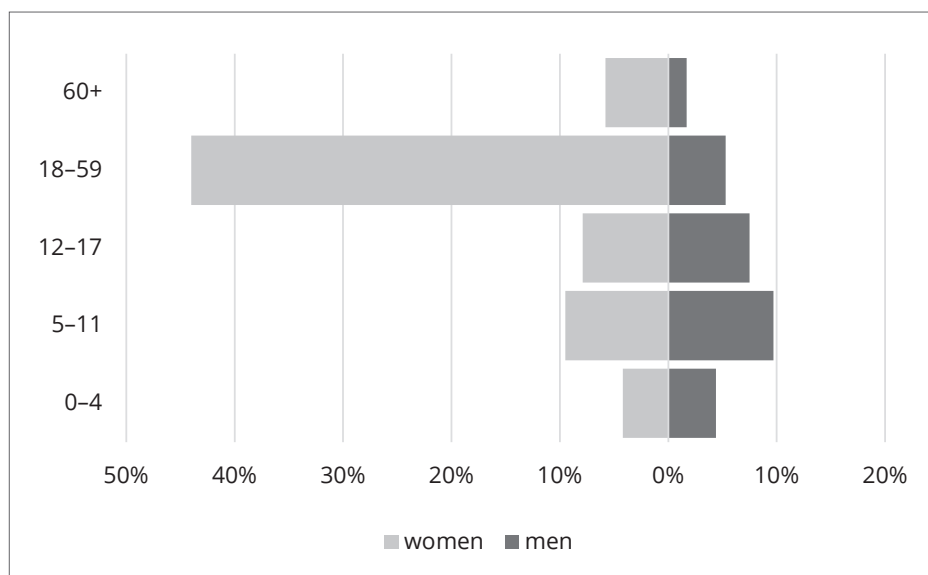
In 2021, before the outbreak of the war in Ukraine, Ukrainian nationals represented the largest group of migrants in Poland – nearly 300,000 holders of valid residence permits [Office for Foreigners 2022]. Their inflow has markedly increased since 2014, mostly as economic migration, in connection with the deteriorating economic situation in Ukraine, the introduction of visa-free travel and easier access to the Polish labour market [Office for Foreigners, 2022]. Having built closer socio-economic relationships, as well as the geographic and cultural proximity have contributed to choosing Poland as the place for seeking refuge by Ukraine's residents fleeing the war.

On 16 March 2022, Poland launched the registration of applications for a PESEL number for Ukrainian citizens fleeing the war [Ministry of the Interior

and Administration 2022]. It allowed estimating the number of refugees in Poland. It is difficult to exactly determine the size of the group as the allocation of a PESEL number is no condition to lawfully reside in Poland. Within the first week after the launch of the registration procedure, the authority received more than 250,000 applications for a PESEL number [The Polish Chancellery of the Prime Minister 2022]. As at 12 July, the number of applications filed by Ukrainian refugees exceeded 1.2 million.

Among the registered Ukrainian refugees, women dominate with a share of 71.4 percent (Chart 3). As regards age groups, working-age persons (aged between 18 and 59 years) account for the highest share of 49.3 percent, of which women represent 44 percent. The respective shares of those aged 60 years or over and of children under 18 years of age are 7.5 percent and 43.2 percent.

Chart 3. Ukrainian refugees in Poland by age and sex (as at 12 July 2022)



Source: prepared by the author based on the UNHCR data.

The comparative analysis of the migration crises caused by refugee displacements from Syria and Ukraine – faced by Turkey and Poland as the respective countries hosting the largest groups of refugees – must take into account the information presented above. Both migration crises have forced millions of people to leave their home countries. Due to the outbreak of the civil war in Syria, more than 7 million Syrians have fled since 2011, or for around a decade. But

the escalation of the conflict in Ukraine with Russia in February 2022 has caused a mass exodus of and seeking refuge by over 3 million refugees registered in the host countries during a period of less than six months of the war. Just as Turkey, Poland has received the highest number of refugees among all the host countries. By July 2022, more than one million refugees were registered in Poland. A total of over 3.5 million Syrian refugees have arrived in Turkey, but the first million was not registered until 2015, after several years of the war in Syria. Hosting refugees from Ukraine has not been such a social challenge; as early as 2014, Poland already experienced job migration by Ukrainians, having settled in and functioning in Polish society. In contrast, Turkey faced a serious challenge because Syrians had represented a minority of immigrants before 2011. Refugees arriving in Turkey were both men and women, with a slightly higher share of men, including working-age persons and children. The challenge facing Poland is that war refugees mostly represent women with children and seniors.

### 3. Challenges facing Poland – recommendations based on Turkey's experiences

The mass influx of Syrian refugees into Turkey had become an unprecedented challenge to the host country, the breakthrough point for the development and implementation of changes in Turkey's specific migration policy. The migration crisis management by Turkey can be divided into four subsequent stages [Gökalp-Aras, Sahin Mencutek, 2020: 100]: initially, it was an open-door policy based on no legal acts, having transformed into a stage of using international solutions and introducing appropriate documents for crisis management. The third stage was a policy reversal to a 'closed-door' strategy; finally, Turkey started encouraging returns.

As compared to other European countries and in contrast to Turkey, Poland has limited experience with regard to the reception of refugees. Turkey had already experienced such mass influxes of people. For example, in 1991, during the Persian Gulf War, the military attack by Saddam Hussein on the northern part of Iraq – inhabited by Iraqi Kurds and other minorities – forced nearly half a million people to flee to Turkey [Kirişçi, 2014: 7]. Those were mainly Kurds and Turkmens, refused entry by the Turkish authorities [Gökalp-Aras, Sahin Mencutek, 2015: 198]. Poland was previously treated as a transit country, as reflected in a high number of discontinued procedures initiated by

filed applications for international protection [Polakowski, Szelewa, 2016: 16]. Therefore, receiving more than one million refugees from Ukraine in a period of several months has become an enormous challenge, in terms of their stay and integration, not only for those in power, but also for Polish society – mainly due to the absence of a coherent and clearly defined migration policy [Duszczyk, Kaczmarczyk, 2022: 165].

In the first weeks of the influx of refugees, Poland – just as Turkey – adopted an open-door strategy; every person arriving in Poland as a result of the Russian aggression received the necessary assistance, whether from public authorities or as disinterested help from individual citizens. On 12 March 2022, in order to facilitate the legalisation of residence in Poland for refugees from Ukraine, the Sejm of the Republic of Poland adopted a relevant Act as early as around two weeks after the Russian invasion of Ukraine<sup>4</sup>. The new provisions primarily concerned the legalisation of residence in Poland and access to the job market, health care, education and other public services [Public Information Bulletin..., 2022]. Poland was rather quick to enact a document governing the influx of refugees, in comparison with Turkey's actions consisting in only issuing recommendations and introducing relevant legal acts after several years.

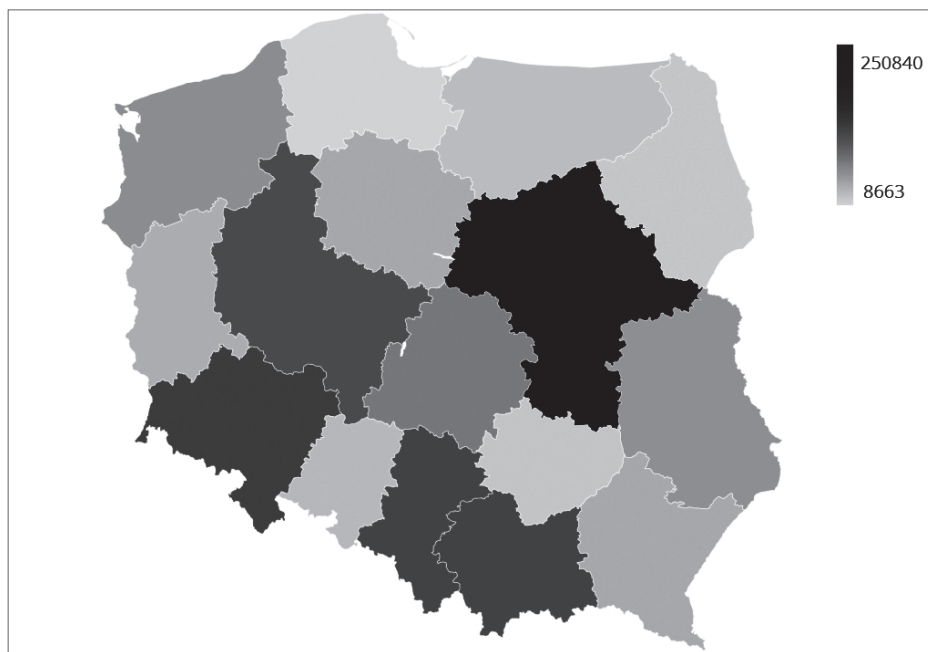
It is unlikely for the war in Ukraine to end quickly. Presumably, the Ukrainian army and nation, especially after deliveries of weapons from supporting countries, will be able to effectively defend Ukraine's independence [Duszczyk, Kaczmarczyk, 2022: 37]. Therefore, the mass influx of foreign nationals into Poland is challenging; the key problems faced by Poland are those relating to housing, education, health care and the labour market. As regards the provision of temporary shelter, the majority of refugees from Ukraine have been living at Poles' private houses and flats [ibidem, 169]. Additionally, some of them have been staying at hotels and boarding houses, large sports or exhibition halls, whereas others were received by their family members having arrived in Poland prior to the war. Therefore, the refugees are dispersed across the territory of Poland (Figure 2).

On account of uncertainty about subsidies for Polish families hosting refugees and limited possibilities to stay at tourism establishments due to the high season, Ukrainian nationals are often forced to leave their temporary accommodation.

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<sup>4</sup> Act of 12 March 2022 on assistance to be provided to Ukrainian citizens in connection with the armed conflict in the territory of Ukraine (Journal of Laws 2022, Item 583).

Figure 2. Distribution of refugees in Poland based on registered applications for UKR status (a PESEL number) (as at 12 July 2022)



Source: prepared by the author based on data from the Polish Chancellery of the Prime Minister.

Therefore, it is necessary to obtain support from other countries in relocation and to prepare temporary dwellings in the form of modular housing estates. For example, such solutions are Turkey's camps for refugees, called by "The New York Times" 'perfect refugee camps' due to proper management and the provision of essential services [McClelland, 2014]. Such camps are located in the provinces of Hatay, Adana, Osmaniye, Kilis and Kahramanmaraş, currently hosting the most refugees (Figure 3).

Another challenge facing Poland is the issue of education as the refugees, apart from women, are mostly children. It is difficult to estimate the number of minors who will actually stay and wish to receive education in Poland on a permanent basis. Therefore, it is advisable to develop remote schooling for pupils planning to return to Ukraine and to prepare those wishing to reside in Poland permanently for the Polish education system [Duszczyk, Kaczmarczyk, 2022: 38]. As regards Turkey, the situation in education may vary between regions and depending on the permit held [Bircan, Sunata, 2015: 228]. It is related to the three pre-determined education paths:



1. learning at camp schools with the Syrian curricula in the Arabic language;
2. available to persons living outside camps, with residence permits that allow them to attend Turkish public schools;
3. for those living outside camps without valid residence permits – such persons can go to Syrian schools teaching in the Arabic language, run by various non-governmental organisations and Syrian teachers doing voluntary work.

Figure 3. Distribution of Syrian refugees in Turkey (as at July 2022)



Source: UNHCR, 2022.

With regard to the issue of health care in Poland, the most significant difficulty appears to be the language barrier [Duszczyk, Kaczmarczyk, 2022: 38–39]. It seems necessary to facilitate access to translators and interpreters as well as to medical documentation translated into Polish. Furthermore, hosting over a million additional potential patients in Poland is likely to extend the waiting times for treatment, quite long already. It may contribute to tensions between Poles and Ukrainians [Duszczyk, Kaczmarczyk, 2022: 38]. In Turkey, as in Poland, the main problem was the lack of appropriate infrastructure and the shortage of medical personnel. Moreover, the staff were burdened with additional administrative activities rather than with medical tasks, due to the need to qualify

patients for health care [Chen, 2021: 56] – unregistered Syrians in Turkey have limited access to primary and secondary health care [Assi, Ozger-Ilhan, Ilhan, 2019: 149]. Therefore, the solution proposed for Poland, also suggested to Turkey, is the inclusion of persons from Ukraine in medical teams, thus speeding up the integration of displaced specialists, improving the quality of health care and the welfare of refugees who speak the same language as well as addressing the existing personnel shortages [Chen, 2021: 57].

The last issue which must be raised in the context of challenges facing Poland is the domestic labour market, providing employment mostly to Ukrainian men before the war [Duszczyk, Kaczmarczyk, 2022: 169]. At present, the main groups of Ukrainians in Poland are women and children. Difficulties in that regard will include the provision of child care, teaching and learning the Polish language and participation in upskilling courses for women to adapt to the Polish job market. Besides, access to the labour market has been made easier under the introduced Act of 12 March 2022; Ukrainian citizens may very easily take up employment if they have a valid residence permit, without the need to obtain a work permit<sup>5</sup>. It shows that Ukrainians have definitely easier access to the Polish job market than Syrians to the labour market in Turkey; the latter could only apply for work permits six months after the completion of the temporary protection registration procedure [Danish Refugee Council, 2021: 3]. Another difficulty for refugees was the territorial restriction, only limiting the validity of the work permit obtained to the province of residence.

#### 4. Conclusions

The Russian aggression against Ukraine, initiated in February 2022, triggered a mass exodus from their home country of 3.6 million Ukrainian citizens registered in the host countries. As a neighbouring country, Poland was the main destination for 50.9 percent refugees from Ukraine. The mass influx of refugees, unprecedented in Poland, poses a major economic, social and political challenge to the host country.

<sup>5</sup> Article 39 of the Act 12 March 2022 on assistance to be provided to Ukrainian citizens in connection with the armed conflict in the territory of Ukraine (Journal of Laws 2022, Item 583).

It follows from the conducted comparative analysis of the migration crises caused by refugee displacements from Syria and Ukraine that the former and the latter forced 6.7 million and 3.6 million persons respectively to flee their home countries. Poland and Turkey, having received 54.5 percent of Syrian refugees, have become the main host countries; however, the challenge faced by Poland has been considerably greater as it received one million refugees over a period of two months. Turkey had significantly more time; the level of one million registered Syrians was not reached until four years after the outbreak of the war. Today, Poland hosts 1.2 million registered Ukrainian refugees, accounting for approx. 3.2 percent of the Polish population of 37.8 million in 2021 [World Bank 2022]. At the beginning of 2022, Turkey recorded 3.7 million Syrian refugees; with Turkey's population of 85 million in 2021 [World Bank 2022], the group has a share of 4.4 percent. It must be also be noted that Poland experienced the influx of immigrants crossing the eastern border even before the Russian invasion – Ukrainian citizens accounted for the largest proportion of registered foreign nationals in Poland in 2021. That experience has also facilitated the reception of such a high number of refugees. In contrast, Syrians represented an insignificant share of migrants in Turkey before the war. Another difference is the structure by sex and age of persons entering the two countries. In Turkey, men represent 53.9 percent of all Syrian refugees, which reflects a balanced sex structure. In contrast, Poland mostly hosts women (71.4 percent) with children, which aggravates challenges related to housing, access to health care, the labour market or education. The task for Poland is not only to integrate the women into the Polish job market, but also to ensure childcare and the children's access to education.

To recapitulate, the main differences between the two migration crises under examination include the rate of the influx of refugees and their structure by age and sex, constituting the greatest difficulty for Poland and giving rise to doubts whether Poland is able to cope with the current mass influx of individuals from Ukraine. At present, the most significant challenges facing Poland include the issues of housing, health care, education and the labour market. As regards accommodation, Poland may draw on Turkey's experiences as it specialised in the construction of refugee camps, also in connection with its initial policy towards refugees. Poland must immediately seek relevant solutions as the current hosting of refugees at private dwellings or costly leases are no long-term measures. Nevertheless, the solutions introduced by Poland with regard to the labour market inspire hope for the soonest possible integration of refugees from Ukraine, particularly women, and for avoiding socio-cultural conflicts. In

the area concerned, Turkey applied no measures to facilitate access to the job market. Poland must definitely consider how to resolve the difficulties related to the health care and education systems for refugees; here, Poland should not rely on the Turkish authorities' solutions, creating barriers and depriving individuals of possibilities to meet their basic needs.

Although the migration crises under examination show various differences, Poland can certainly draw on Turkey's proven tools and avoid solutions having hindered integration and contributed to the exclusion of Syrian refugees. But Turkey's and Poland's experiences represent evidence for other countries that it is necessary to have a clearly defined migration policy in place.

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### **Piotr Trąpczyński**

- ▶ Poznan University of Economics and Business
- ▶ email: piotr.trapczynski@ue.poznan.pl
- ▶ ORCID: 0000-0001-8154-9174

### **Krystian Barłożewski**

- ▶ Warsaw School of Economics
- ▶ email: kbarlo@sgh.waw.pl
- ▶ ORCID: 0000-0002-7050-0962

## **THE USE OF INTERNET TECHNOLOGIES AND EXPORT PERFORMANCE: THE MODERATING ROLE OF INTERNATIONAL EXPERIENCE<sup>1</sup>**

### **| Abstract**

- ▶ *Goal* – the objective of the present study is to examine the moderating effect that internationalisation has on the relationship between the use of Internet technology on export performance.
- ▶ *Research methodology* – the study uses data on 500 Polish manufacturing companies with grounded foreign activities for the period between 2017 and 2019. To test our hypotheses a fixed-effects regression analysis was employed.
- ▶ *Score/results* – the relationship between the implemented internet technologies and operational efficiency is visible only for highly internationalised companies, supporting the hypothesised moderating effect of the international experience. The implemented passive internet technologies may, contrary to expectations, even have a negative impact on the company's efficiency.

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- *Originality/value* – This study contributes to extant research by adopting a broader concept of export model, including the use of modern marketing and sales concepts, in addition to the previous understanding of market strategy used in export research.

| **Keywords:** export performance, business models, digitalisation, internet technologies, international experience.

## 1. Introduction

While export is a primary mode of firm internationalisation, its success cannot be taken for granted, as firms also happen to withdraw from exit operations [Sousa, Tan, 2015; Trąpczyński, 2016]. Therefore, the issue of export performance determinants is of vital importance for firms and entire economies alike. And yet, the related research into firm-level exporting has been criticised for its lack of consistency and completeness [Leonidou et al., 2010; Sousa, Lengler, 2009; Tan, Sousa, 2013]. Although a range of theories have been considered, each individual theory only provides a fragmented view of export performance [Lages et al., 2008; Tan, Sousa, 2013].

For instance, despite the theoretical progress made in this field, still little empirical work has assessed whether firm capabilities are supportive in the application of Internet technologies [Prasad, Ramamurthy, Naidu, 2001]. Given the relevance for export managers to concentrate on developing the skills and capabilities such as those related to e-commerce, an interesting gap in research on exporting pertains to how the leverage of IT-related capabilities enhances export performance [Gregory et al., 2019]. Moreover, while the role of digitalisation as a vehicle for internationalisation has been discussed in the context of service firms [Banalieva, Dhanaraj, 2019; Hennart, 2019], the importance of modern technologies in the export growth of traditional manufacturing firms has been less explored.

Accordingly, the objective of the present study is to examine the moderating effect that internationalisation has on the relationship between the use of Internet technology on export performance. We address these objectives by studying companies from a post-transition economy of Poland. This paper is structured as follows. In the first section, the overall nature of the relationship between firm resources and performance is discussed in the light of earlier research. Subsequently, the intermediate role of internationalisation is analysed in order to

formulate the moderation hypothesis. Further, the research design is described in detail and followed by a presentation of results. The ensuing part of the paper is devoted to discussion of the obtained findings and their implications.

## 2. Theory and hypotheses

### 2.1. Integration of Internet-based technologies into the business model of the firm

The resource-based view (RBV) presents a firm as a unique bundle of valuable tangible and intangible resources which determine a firm's competitive advantage and performance in export market [Barney et al., 2001]. The fundamental assumption of the RBV is that product markets are stable and constant, since the resources cannot be perfectly imitated and transferred [Barney, 1991]. In the context of export research, for instance Cadogan et al. [2009] point to the crucial role of market orientation capabilities in improving export performance. However, many studies devoted to firm internationalisation have focused on firm capabilities in the meaning of intangible assets, with a specific focus on product innovation or brand equity, devoting less attention to other pillars of competitive advantage, such as the organisation of export activities, the ability to adjust export behaviour to foreign market conditions, or experience-based advantage, which may be a relevant asset for firms from post-transition economies [Cuervo-Cazurra, Genc, 2008].

In general, these strategic aspects of exporting have long been regarded as a key area of research interest [Cieřlik et al., 2015; Leonidou et al., 2010]. In extant export literature there have been several attempts at conceptualising foreign market strategy. According to authors like Peng, Zhou, York [2006], firms sell their offerings to foreign customers or foreign middlemen/agents/distributors directly located overseas (direct channel) or to distributors who export for them (indirect channel). Klein and Roth [1990] distinguished the market mode, intermediate mode, and hierarchical mode (including integrated channels with offices at home and/or in foreign markets) according to the degree of integration [also see: Li, He, Sousa, 2017].

Apart from the issue of organisation of exporting activities, most studies focused on whether to standardise or adapt the export marketing strategy [Morgan et al., 2012; Theodosiou, Leonidou, 2003]. In fact, most studies examined

merely a few components of the marketing mix, thus ignoring potential inter-relationships in or adapting them. For instance, Tan & Sousa [2013] find that product standardisation has a negative effect on international performance, promotion standardisation has a non-significant impact on international performance, while price and distribution standardisation have a positive effect on export performance.

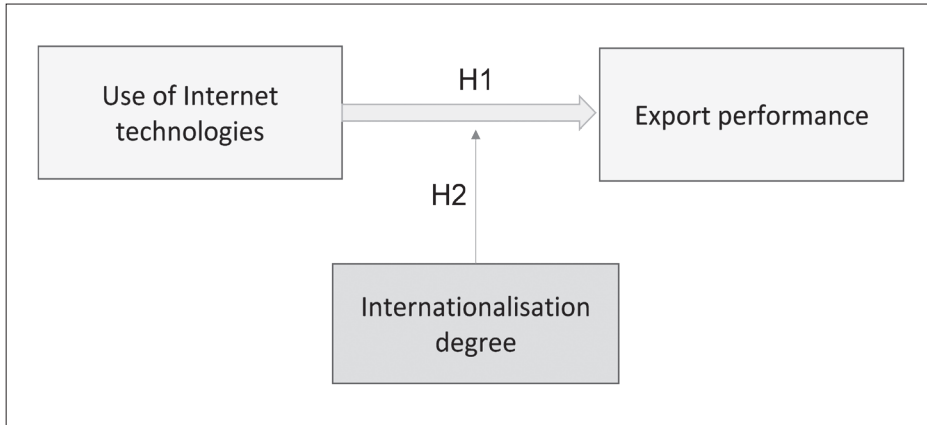
Moreover, the degree of adaptation was in most cases examined at a generic level, failing to investigate the finer dimensions of each component separately. For instance, promotion was in some cases decomposed into advertising, sales promotions, public relations, personal selling, yet scholars have unsuccessfully called for more fine-grained conceptualisations [Theodosiou, Leonidou, 2003]. Therefore, overall it is not surprising that this research has not shown consistent support for factors leading either to adaptation or standardisation of export marketing strategy, nor for their overall consequences for the exporting firm [Sousa et al., 2008; Chen et al., 2016].

In conceptualising export strategy, little research has referred to the concept of the business model thus far [Zott, Amit, Massa, 2011; Hennart, 2014], instead focusing on selected marketing strategy aspects. The business model depicts “the content, structure, and governance of transactions designed so as to create value through the exploitation of business opportunities” [Amit, Zott, 2001: 511]. Osterwalder (2004) distinguishes value proposition, customer segments, partners’ network, relationships, delivery channels, revenue streams, cost structure, value configuration, and firm capability in the concept of a business model.

The aforesaid organisational aspects, as well as the ability of the exporter to reach foreign markets, have been significantly affected by the emergence of a new category of capabilities related to information and communication technologies, and Internet technologies in particular. A growing number of studies investigate how the Internet and other information technologies influence international strategies of firms [e.g. Ekeledo, Sivakumar, 2004; Petersen, Lawrence, Liesch, 2002] suggesting that it facilitates internationalisation, for instance through better and easy acquisition of information about foreign markets [Mathews, Healy, 2007] or through decreasing costs associated with spatial distance, for example, remote customer service or fewer travel costs [Arenius, Sasi, Gabriels-son, 2006]. However, the determinants of the use of specific e-commerce or information tools for export development in different locations, have not been studied to date. Therefore, we posit:

**H1:** *There is a positive relationship between the use of Internet technologies and export performance.*

Figure 1. The conceptual framework of the study



Source: author's own work.

## 2.2. The moderating role of international experience

Furthermore, the competitive advantage derived from a firm's capabilities, in particular its ability to design and adjust its exporting behaviour, and influenced by institutions in various locations, is neither fixed nor infallible. Instead, it is conditioned by the co-alignment between internal resources and external forces. Contingency theory indicates that export performance is affected by the contingent compatibility, which is changeable and individualised to each firm or export venture. For instance, Hultman et al. [2011] find that the effectiveness of export promotion is contingent on a complex interaction between export experience and sociocultural distance. In addition, firms' exporting activities are continuing operations and in line with organisational learning theory there is a connection between an organisation's previous operations and its future behaviour and outcomes [Santos-Vijande et al., 2012]. In the exporting context, export managers learn from past exporting activities and gain a better understanding of the causality among export strategies, surrounding conditions and corresponding export performance [Lages et al., 2008]. Hence, such knowledge leverages current strategic decisions, and influences future export performance [Lages et al., 2008].

Accordingly, we propose the following:

**H2:** *The internationalisation degree of the firm positively moderates the relationship in H1.*

We summarise our conceptual logic in Figure 1.

### 3. Theory and hypotheses

#### 3.1. Data collection

The study uses data on 500 Polish manufacturing companies with grounded foreign activities for the period between 2017 and 2019. The selection for the sample was based on the following criteria:

- a) majority share of Polish shareholders;
- b) activity in the manufacturing processing sectors;
- c) exports to at least 2 countries and at least 10 percent of foreign sales in relation to total sales (FSTS);
- d) employment of at least 10 people;
- e) financial stability in 2017–2019.

*Table 1. Structure of the research sample*

| Variable                     | Total, N=500 |      |
|------------------------------|--------------|------|
|                              | In numbers   | In % |
| <i>Employment as of 2019</i> |              |      |
| 10–49 employees              | 168          | 34%  |
| 50–249                       | 167          | 33%  |
| > 250                        | 165          | 33%  |
| <i>Revenue as of 2019</i>    |              |      |
| < 10 m PLN                   | 59           | 12%  |
| 10–20 mPLN                   | 109          | 22%  |
| 20–50 mPLN                   | 130          | 26%  |
| 50–200 mPLN                  | 134          | 27%  |
| > 200 mPLN                   | 68           | 14%  |
| <i>Manufacturing sectors</i> |              |      |
| Low-tech                     | 170          | 34%  |
| Mid-tech                     | 165          | 33%  |
| High-tech                    | 165          | 33%  |

| Variable                | Total, N=500 |      |
|-------------------------|--------------|------|
|                         | In numbers   | In % |
| <i>FSTS</i>             |              |      |
| 10–19%                  | 226          | 45%  |
| 20–30%                  | 188          | 38%  |
| > 30%                   | 86           | 17%  |
| <i># export markets</i> |              |      |
| 1–10                    | 351          | 70%  |
| 11–20                   | 104          | 21%  |
| > 20                    | 45           | 9%   |

Source: author's own work.

The initial database created contains 2166 randomly selected companies with an equal share of small, medium and large enterprises as well as low, medium and high technology manufacturing companies. In the second stage, primary survey data on 500 firms was collected (return rate of 23 percent) using CATI method (Computer Assisted Telephone Interviewing). The structure of the research sample is presented in Table 1.

Regardless of the company size, the distribution of low, medium and high-tech companies was similar, as was the share of the B2B/B2C markets as shown in Table 2. However, along with the increase in the size of the sample company, the average number of foreign markets served grew.

Table 2. Sample characteristics

| Size   | N   | Low-Tech | Medium-Tech | High-Tech | Av. # of foreign markets | Market |       |
|--------|-----|----------|-------------|-----------|--------------------------|--------|-------|
|        |     |          |             |           |                          | B2B    | B2C   |
| Small  | 168 | 35.1%    | 32.1%       | 32.7%     | 4,05                     | 71.4%  | 28.6% |
| Medium | 167 | 33.5%    | 32.9%       | 33.5%     | 7,07                     | 76.6%  | 23.4% |
| Large  | 165 | 33.3%    | 33.9%       | 32.7%     | 14,28                    | 78.2%  | 21.8% |

Source: author's own work.

The questionnaire consisted of questions relating to technological complexity of product offering, technological and marketing resources possessed, usage of Internet technologies, financial and operational firm performance and industry competitiveness. The survey was conducted under the author's supervision by an external research agency.

### 3.2. Data operationalisation

#### *Dependent variables*

There are nine types of performance measures relating to firms' performance in foreign markets which were used in the study as dependent variables. These are presented in the Table 3 below.

*Table 3. Dependent variables*

| No. | Variable                 | Code   | Definition   |
|-----|--------------------------|--------|--|
| 1   | Sales                    | PERF_1 | Increase in sales on foreign markets                                     |
| 2   | Profit margin            | PERF_2 | Gross margin on sales  |
| 3   | ROI                      | PERF_3 | Return on investment in foreign markets                                  |
| 4   | Financial liquidity      | PERF_4 | Financial liquidity regardless of how it might be measured               |
| 5   | Market share             | PERF_5 | Growth in market share in foreign markets                                |
| 6   | Marketing performance    | PERF_6 | Overall performance of marketing activities performed in foreign markets |
| 7   | Distribution performance | PERF_7 | Overall performance of logistics and distribution in foreign markets     |
| 8   | Firm reputation          | PERF_8 | The company's reputation from the perspective of customers               |
| 9   | Overall performance      | PERF_9 | Overall satisfaction with the company's performance on foreign markets   |

Source: author's own work.

Export performance is perceived through the lenses of its financial and operational performance. The first group comprises of accounting measures mostly

used in international business research mainly due to easy access to data and because they are commonly accepted.

Because there is no agreement on the best way to assess export performance [He et al., 2013; Sousa et al., 2008] and managers are often unwilling to offer objective data [Brouthers, Xu, 2002], in line with previous export studies (Sousa et al., 2008) we used subjective indicators to measure our dependent variable export performance. Respondents were asked to indicate (on a 7-point Likert-type scale) the level of satisfaction over the past three years since the moment of the study (see Table 3).

### *Independent and moderating variables*

The major explanatory variable used in this study is the degree of the Internet technologies used. An extensive list of 16 technologies were included in the study as shown in the Table 4. Similar to the dependent variable, responses were given by the respondents on a 7-point Likert scale. In line with earlier studies on the integration of the Internet into marketing activities, we followed Prasad et al. [2001] and Gregory et al. [2019] in the operationalisation of Internet technologies.

Internet technologies do not constitute a homogeneous aggregate as they have different applications, influence on the organisation and are used in different ways in organisations. To facilitate understanding of our data and to get better insights, we decided to group the observed variables (technologies) into fewer number of non-observable latent factors using Principal Factor Analysis (PCA) with Kaiser normalisation. Based on the conducted analysis, we distinguished five factors as presented in Table 4.

*Table 4.* Measurement of the use of Internet technologies

| IMI 1   | IMI 2                            | IMI 3   | IMI 4   | IMI 5   |
|---|----------------------------------|---|---|---|
| Provision of online product catalogs  | Using an external sales platform | Keeping an active profile in social media                   | Better coordination and communication between employees | Product support for distributors or business partners |
| Online access to information about product availability, order status, etc. | Online payment by customers      | Analysis of activity in social media for marketing purposes | —   | —   |



| IMI 1   | IMI 2   | IMI 3   | IMI 4 | IMI 5 |
|---|---|---|-------|-------|
| CRM support for customer relationship management                                | Online access to components from suppliers            | Analysis of visits to the website for marketing purposes. Sales | —     | —     |
| —   | Gathering information about customers and competitors | —   | —     | —     |
| Promotion and advertising of the company's products and services on the website | Online customer ordering                              | —   | —     | —     |
| —   | Online webinars and conferences                       | —   | —     | —     |

Source: author's own work.

Furthermore, for IMI1, IMI2 and IMI3 we measured Cronbach's alpha to verify internal consistency of the items grouped within those factors. The coefficient alpha was ranging reasonably strong between 0.84 and 0.95. Based on that, we conclude that the items analysed exhibit strong validity and belong to the same constructs of Internet technologies groupings.

The moderating variable was FSTS, which was operationalised as the ratio of foreign sales to total sales. There were two groups created. The first one with FSTS between 10 percent and 25 percent and the second one with FSTS above 25 percent.

### *Control and moderating variables*

The first control variable was firm size – small, medium and large companies. The size of the company relates to the number of employees. A small company was defined as the one with the number of employees between 10 and 49. A medium company with 50 to 249 employees and a large company with 250 or more employees. The second control variable was firm age, which was controlled for by dummy variables representing young firms (equal to or below 12 years) and old firms (above 12 years). The third variable was geographical dispersion

of foreign expansion, which was measured by number of foreign countries in which a given company was present. The next variable was the technological intensity of the industry. The fifth variable is institutional distance, which has been calculated on a firm level as an average difference between the Heritage Index of Economic Freedom values for the home country (Poland) and target foreign countries. If the average distance was bigger than zero, then we would presume that the target countries exhibit higher level of institutional development than the home country. If the measure was below zero, we would conclude that the target countries are less developed. This effect was controlled for by dummy variables.

The sixth variable was product complexity to reflect not the technological intensity of the industry, but the technological development of the products and services provided by a company in foreign markets. For this purpose, a construct comprising seven items was designed and measured on a 7-point Likert scale (Cronbach alfa greater than 0.6). The last two variables include managerial and technological resources on a company level. Similarly, compound indices were designed and calculated to control for these variables. It was expected that companies with more abundant resources would benefit more from new Internet technologies.

#### *Specification of econometric model*

To test the hypothesis put forward in the previous section, a fixed-effects regression analysis was employed. Based on the discussion presented in the previous section, the regression equation to be estimated is as follows:

$$\text{PERFi} = \beta_1 + \beta_2 \text{IMI1}_i + \beta_3 \text{IMI2}_i + \beta_4 \text{IMI3}_i + \beta_5 \text{IMI4}_i + \beta_6 \text{IMI5}_i + \sum \beta_c \text{Control variables}_{ci}$$

where PERFi is the performance of i company in the sample, IMIni usage of grouped Internet technologies by the i company and Control variables represent the eight control variables defined in the section above. Taking into account the theoretical, we expected a linear relationship. Prior to the analysis, we examined the dataset to verify if the assumptions for using regression analysis were met. For this purpose we confirmed that the variables are normally distributed (first examined visually and then verified with Kolmogorov-Smirnov test); next we analysed the scattergrams of standardised residuals to confirm that there is no

presence of heteroscedasticity issue. Lack of multicollinearity issue was examined with Pearson's  $r$  correlation and VIF coefficient. The correlation coefficient did not exceed 0.7 and the value of VIF did not exceed 10, which would imply a potential multicollinearity issue.

#### 4. Results and discussion

The results of the regression analysis are reported in Table 5. For the sake of clarity, only the dependent variables with significant statistical effects were presented. Additionally, the analysis was performed in subgroups, i.e. for low and highly internationalised companies separately. We found out that relationships between implemented Internet technologies and foreign operations performance were visible only for highly internationalised companies and no significant statistical effects were identified for the low internationalised subgroup. Searching for a possible explanation, it might be presumed that the firms from this group might not have introduced new processes and tools, including new technologies, to improve the efficiency of operations conducted abroad only, but the enterprise as a whole. This may also relate to reporting frameworks allowing for monitoring of the results of foreign operations. Thus, the respondents of low internationalised companies might not have sufficient knowledge to verify performance in foreign markets in details.

Once a given significant internationalisation degree is reached, the company may focus much more attention on foreign markets as well as processes and tools developed to support its presence in those countries. Subsequently, those companies may start to analyse the performance of foreign operations more in details. Only then could it be possible to plan and take actions targeted specifically at foreign markets as well as to determine their outcomes.

For the selected dependent variables, the size effect measured by adjusted  $R^2$  was moderate and ranging between 8.9 percent and 17.4 percent. No effects were observed for the following variables: Revenue from sales, Overall performance satisfaction, Financial liquidity, and Firms reputation. For the last two variables, it might be explained by the fact that the use of new Internet technologies with the major objective to improve firm's image and financial liquidity might be questionable as there is hardly any direct cause-effect link to be found here. However, lack of size effects for Sales and Overall satisfaction might be perceived as a little surprising.

**Table 5.** Results of regression analysis

|                                   | Model 1      | Model 2  | Model 3      | Model 4               | Model 5                  |
|-----------------------------------|--------------|----------|--------------|-----------------------|--------------------------|
|                                   | High FSTS    |          |              |                       |                          |
| Independent variables             | Gross margin | ROI      | Market share | Marketing performance | Distribution performance |
| Intercept                         | 5.256***     | 5.361*** | 3.942***     | 2.135***              | 4.158***                 |
| Firm Size                         | -0.048       | 0.367 †  | 0.342*       | 0.592                 | 0.124                    |
| Firm Age                          | 0.251        | 0.118    | 0.179        | 0.047                 | 0.286                    |
| Geographical dispersion           | 0.282        | 0.068    | 0.046        | -0.082                | 0.284 †                  |
| Product complexity                | 0.159        | 0.179    | 0.195 †      | 0.144                 | 0.218 †                  |
| Technological resources           | -0.183       | -0.294   | -0.305       | -0.407 †              | -0.173                   |
| Managerial resources              | 0.570**      | 0.567*   | 0.655**      | 0.624*                | 0.482 †                  |
| Industry technological intensity  | -0.186 †     | -0.216   | -0.229 †     | -0.109                | -0.199                   |
| Institutional distance            | -0.237       | -0.029   | -0.221       | -0.061                | -0.007                   |
| IMI1 – Access to information      | -0.148       | 0.179    | 0.267        | 0.424*                | 0.078                    |
| IMI2 – Sales supporting services  | -0.175       | -0.393*  | -0.383*      | -0.495**              | -0.217                   |
| IMI3 – Customer traffic tools     | -0.014       | -.107    | -0.168 †     | -0.091                | -0.153 †                 |
| IMI4 – Efficient data flow        | -0.201 †     | -0.265 † | -0.073       | 0.080                 | -0.097                   |
| IMI5 – Distribution network tools | -0.063       | -0.098   | -0.141       | -0.097                | -0.149                   |
| N                                 | 121          | 121      | 121          | 121                   | 121                      |
| R <sup>2</sup>                    | 0.514        | 0.433    | 0.499        | 0.483                 | 0.215                    |
| R <sup>2</sup> adj.               | 17.4%        | 8.9%     | 15.8%        | 14.0%                 | 12.0%                    |
| F of change                       | 1.898 †      | 2.155 †  | 2.274 †      | 2.257 †               | 1.694                    |

Significance levels: \*\*\*p < 0.01; \*\*p < 0.01; \*p < 0.05; †p < 0.1.

Source: author's own work.

It was expected that the major goal of Internet technologies developed to support or enable expansion into foreign markets, was indeed to increase revenue from sales. Presumably, the highly internationalised companies did not focus on sales in absolute value, but more on taking a competitively attractive position in the market as well as making the foreign operations more profitable. That conclusion would be supported by the results for other dependent variables, i.e. Gross Margin, ROI on foreign operations and Market share. However, it is quite interesting that the Beta coefficient for technologies supporting online transactions, analysis of customer traffic, as well as tools supporting workflow coordination within company have a negative value. We do not necessarily conclude that implementing them would lead to deteriorating the performance. There are a few potential explanations that might be considered.

First, there could not be sufficient time for new technologies to exhibit significant results for a company. Taking into account that a vast part of IT projects fails or takes longer time and cost than initially planned, it might be the case that the companies are in a “disillusionment stage” of new technologies adoption and presumably even partially disappointed as they could expect more direct and immediate results. Subsequently, those technologies did not exhibit their impact on business before the COVID-19 pandemic (the analysed period).

Secondly, we could also argue that respondents assessed their firms’ performance, for the period analysed, as weaker compared to other players in the market. In consequence, those companies could be more determined to implement new technologies as a potentially viable way to improve returns from foreign markets. Here, unsatisfactory results would lead to adopting new technologies but the research would need to be repeated to determine if they brought expected outcome for the company.

Thirdly, the reasons can be found in the illusory hope that new technological tools will automatically solve the problems. In such conditions, companies could make decisions to limit traditional market activities. Subsequently, more time would be needed for the new technologies to demonstrate target performance impact while lack of traditional activities would lead directly to deteriorating results. In this case, the overall negative impact on performance should be only temporary.

Finally, regardless of the performance measure analysed we found out that a very significant positive impact was demonstrated by managerial resources possessed by a company. It may lead to the conclusion that new technologies and tools are only one factor in the performance equation. They may be a great

enabler and bring new opportunities for a company to improve results, but their impact can be offset by lack of proper management skills.

## 5. Conclusion

Our study allowed us to make a number of observations. The relationship between the implemented internet technologies and operational efficiency is visible only for highly internationalised companies, supporting the hypothesised moderating effect of the international experience. The implemented passive internet technologies may, contrary to expectations, even have a negative impact on the company's efficiency. The reasons for such situation can be found in the illusion that new technological tools will automatically solve all problems. In such conditions, companies can make decisions to limit traditional market activities. Significant control variable with a strong positive influence is the managerial skills of the managerial staff. In the case of low-internationalised companies, an important factor turned out to be the institutional distance between the domestic market and expansion target markets.

In the past research, export behaviour had been predominantly conceptualised with simple dimensions of marketing strategy or level of channel integration, neglecting further performance-affecting dimensions related to the implementation of exports, such as export logistics and the use of information technology for export development. This study contributes to extant research by adopting a broader concept of export model, including the use of modern marketing and sales concepts, in addition to the previous understanding of market strategy used in export research.

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### **Anna Wierzbicka**

- University of Białystok
- e-mail: a.wierzbicka@uwb.edu.pl
- ORCID: 0000-0002-1154-7082

### **Magdalena Owczarczuk**

- University of Białystok
- e-mail: m.owczarczuk@uwb.edu.pl
- ORCID: 0000-0002-9337-1657

## **INNOVATIVENESS OF SMALL AND MEDIUM ENTERPRISES IN CENTRAL AND EASTERN EUROPE**

### **| Abstract**

- *Goal* – the sector of small and medium enterprises (SMEs) is considered a driving force for economic development. The literature on the subject increasingly emphasises that it is SMEs that initiate transformation of an economy as they play a crucial role in implementing innovations that make it possible to enhance its competitive success. The purpose of the article is to assess the level of innovativeness (innovative activity) of small and medium enterprises in CEE countries.
- *Research methodology* – the article contains an analysis of innovation measures and indicators, including (among others) the share of enterprises classified as innovative, the level of outlays on research and development, the number of research workers, and the number of innovations implemented by companies. The authors verified two research hypotheses: H1: The SME sector in CEE is becoming increasingly more innovative; H2: CEE countries significantly differ in terms of the level of innovativeness in their SMEs. In order to achieve our purpose and verify the research hypotheses, we use publicly available data and indicators published by Eurostat or the European Commission. The study covers EU member states located in Central and Eastern Europe: the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, and Slovenia.

- *Score/result* – the presented statistical data indicate that the innovativeness of small and medium enterprises in CEE countries is growing. An increasing number of SMEs can be classified as innovating companies. The firms' own expenditure on R&D (BERD) and non-R&D innovation has also been rising. A marked increase can be observed in the number of employed scientists and R&D personnel in small and medium enterprises in CEE countries. It should be emphasised, however, that these countries vary significantly in terms of their levels of innovation in the SMEs sector.
- *Originality/value* – the review of the literature on the subject and the conducted analysis have highlighted serious problems with measuring innovation and the availability of data, particularly that regarding SMEs. On the other hand, the obtained results make it possible to identify areas of interest for future research projects. Among them, special attention is deserved by the reasons for the disparities in innovation across SMEs from CEE countries.

| **Keywords:** sector of small and medium enterprises, innovativeness, measurement of innovativeness, Central and Eastern Europe

## 1. Introduction

The sector of small and medium enterprises (SMEs) is considered a driving force for economic development. What is more, the literature on the subject increasingly emphasises that it is SMEs that initiate transformation of an economy as they play a crucial role in implementing innovations that make it possible to enhance its competitive success. Therefore, innovativeness is regarded as a determinant of enterprise development and thereby a factor behind the development of entire economies. This is particularly true about developing economies, a category to which most Central and Eastern European countries (CEE) belong.

The purpose of the article is to assess the level of innovativeness (innovative activity) of small and medium enterprises in CEE countries. We conducted a comparative analysis of innovation measures and indicators, including (among others) the share of enterprises classified as innovative, the level of outlays on research and development, the number of research workers, and the number of innovations implemented by companies. Our study examines and verifies the following two research hypotheses:

**H1:** *The SME sector in CEE is becoming increasingly more innovative.*

**H2:** *CEE countries significantly differ in terms of the level of innovativeness in their SMEs.*

In order to achieve our purpose and verify the research hypotheses, we use publicly available data and indicators published by Eurostat or the European Commission. The study covers EU member states located in Central and Eastern Europe: the Czech Republic, Estonia, Lithuania, Latvia, Poland, Slovakia, Slovenia, and Hungary. The conducted analysis has allowed us to assess the level of innovativeness in the SME sectors of the particular countries and has provided a basis to formulate conclusions and indicate further research areas in the field under examination.

## 2. Significance of SME sector

The sector of small and medium enterprises is regarded as a foundation of the economies of many countries. Micro-enterprises and small/medium enterprises account for 99 percent of all the enterprises of the EU. According to experts, it is they that cultivate the spirit of entrepreneurship and innovation [Electronic document (3)].

The SME sector can be divided into three basic types of companies: micro-, small, and medium enterprises. Classification into these categories is performed on the basis of quantitative criteria, i.e. the number of employed persons, annual turnover, and annual balance sheet total (Table 1).

*Table 1.* Classification of enterprises according to quantitative criteria

| Type of enterprises | Characteristic  |
|---------------------|---|
| Micro enterprise    | employed fewer than 10 persons, an annual turnover, or an annual balance sheet total does not exceed EUR 2 million                          |
| small enterprise    | employed fewer than 50 persons, an annual turnover, or an annual balance sheet total does not exceed EUR 10 million                         |
| medium enterprise   | employed fewer than 250 persons; an annual turnover does not exceed EUR 50 million, or an annual balance sheet not exceeding EUR 43 million |

Source: Electronic document (2).

Apart from the formally applicable quantitative criteria for classifying enterprises, also qualitative criteria can be used. They refer to the characteristics of the sector in question (Table 2). The emphasis is on independence in decision-making, flat organisational structure, innovativeness, and efforts to increase market shares

[Tomczyk, 2012: 160]. At the same time, the SME sector is exceptionally varied in terms of the organisational and legal framework under which business is done, the scale, type and range of business activity, or industry structure.

Table 2. Classification of enterprises according to qualitative criteria

| Criterion                                 | Enterprises   |   |
|---|---|---|
|   | Micro-, small, and medium                                 | Large   |
| Management system                         |   |   |
| Managerial functions                      | Owner   | Managers                                      |
| Information system                        | Insufficient  | Extensive, formalised                         |
| Knowledge about management                | Limited, often insufficient                               | Solid   |
| Group decision-making                     | Happens rarely  | Happens frequently                            |
| Significance of institutions              | Great   | Small   |
| Organisation                              |   |   |
| Type of organisational structure          | Usually functional  | Varied  |
| Formalisation of tasks                    | Low   | High  |
| Flexibility of organisational structure   | High  | Low   |
| Means of transmitting information         | Short, often direct                                       | Long and formalised                           |
| Delegation of managerial authority        | Limited   | Broad   |
| Provision of guidance and command control | Direct  | Formalised                                    |
| Finances                                  |   |   |
| Capital ownership                         | Capital belongs to family members or another narrow group | With participation of capital market          |
| Access to capital market                  | No access (hence limited financial resources)             | Free access (hence ample financial resources) |
| State support in crisis situations        | Restricted  | Probable                                      |

| Criterion  | Enterprises                                |   |
|--|--|---|
|  | Micro-, small, and medium                  | Large                                       |
| Human resources  |  |   |
| Number of employees  | Low  | High  |
| Share of unskilled workforce                               | Low  | High  |
| Contacts among employees                                   | Evident across the entire staff            | Only in work teams                          |
| Production   |  |   |
| Type of production   | Work-intensive                             | Capital-intensive                           |
| Types of used materials and devices                        | Universal                                  | Specialist                                  |
| Division of labour   | Low  | High  |
| Possibility to reduce costs thanks to increased production | Low  | High  |
| Sales  |  |   |
| Sales market   | Individual needs of customers              | Mass demand                                 |
| Market position  | Varied                                     | Good  |
| Research and development                                   |  |   |
| Market research  | Short-term                                 | Long-term                                   |
| Separate R&D units   | No permanent R&D units                     | Permanent R&D units                         |
| Development of new products                                | Usually oriented on the needs of customers | Closely related to basic research           |
| Supply and warehouse management                            |  |   |
| Position in supply market                                  | Weak                                       | Strong                                      |
| System of material supply                                  | Order-based (with the exception of trade)  | Based on long-term contracts with suppliers |

Source: Lachiewicz, Majetun, 2021: 30–32.

Analysis of the qualitative criteria which can serve as a basis for classification of enterprises reveals a number of challenges that the SME sector faces. In order to stay in business smaller companies have to actively adapt to the needs of customers, expectations of suppliers, activities of competitors, as well as changes in the broadly-understood business environment. When building their competitive advantage, entrepreneurs strive to exploit relational resources by exerting an influence on stakeholders, managing relations, operating in networks of interpersonal relationships, and shaping interorganisational liaisons. Representatives of the SME sector are increasingly aware of the fact that traditional concepts of competitiveness, including [Danielak, Mierzwa, Bartczak, 2017: 19]:

- cost competitiveness,
- quality leadership,
- competition based on the market strength of enterprises,
- marketing concepts of competition,
- focus on market niches,
- cost leadership and differentiation

are no longer sufficient. For this reason, changes in business environment prompt them to search for new sources of competitive advantage. These can be found in innovative business models conducive to creating and providing new values in novel ways [Danielak, Mierzwa, Bartczak, 2017: 21].

Pursuit of new solutions is facilitated by such assets as, e.g., capacity for dynamic action and timely reaction to changes in the environment, rapid adjustment to market needs, creation of new jobs, and openness to new technologies and technical progress [Wolański, 2013: 20].

What is more, small and medium enterprises play an important part in economic development due to their significant share in domestic product, creation of new workplaces, increasing productivity and investment expenditures, as well as undertaking and implementing innovative projects which boost competitive advantage [Danielak, Mierzwa, Bartczak, 2017: 9]. Thanks to these features, enterprises contribute to qualitative and quantitative changes that occur in an economy [Gherghina et al., 2020: 2].

The SME sector seeks solutions in innovative products, unconventional marketing and management methods, as well as ground-breaking technologies [Popescu, 2014: 514]. Development of product, process and organisational innovations enables companies to gain a competitive edge, thereby ensuring that both they and entire economies accomplish sustainable development.

### 3. The essence of innovativeness

The term ‘innovation’ is derived from the Latin word *innovatio*, i.e. “renewal”. J. Schumpeter was the first economic scholar to fully recognise the importance of the phenomenon. In his opinion, innovation encompassed the following range of activities [Schumpeter, 1960: 64]:

- launching of a new product or semi-finished product characterised by new properties;
- introduction of a new production method and a new technological process;
- opening of a new sales market;
- acquisition of a new source of raw materials and semi-finished products;
- reorganisation of production.

The issue of innovation was further developed by P. Drucker, who perceived it as a tool by means of which entrepreneurs were able to embark on new business ventures, launch novel products, or offer new services, which gave them fresh opportunities to create wealth [Drucker, 1992: 29].

According to the OECD, an innovation consists in implementing a new or significantly enhanced product, process, marketing or organisational method used in economic practice, as well as in shaping the relations with the environment of the enterprise [Electronic document (1)]

The Oslo Manual (2018), which contains recommendations regarding acquisition, presentation and application of data on innovation, defines the term as “a new or improved product or process (or combination thereof) that differs significantly from the unit’s previous products or processes and that has been made available to potential users (product) or brought into to use by the unit (process)” [GUS, 2020: 22]. Knowledge indispensable for creating an innovation, the value of novelty and utility, as well as creation and maintenance of the values at which the innovation is aimed are key constituent elements of the innovative process. In line with these assumptions, an innovation must be implemented, i.e. transferred to others for use. Therefore, it can either be an activity or a result of an activity [GUS, 2020: 22–23].

J. Brzóska and J. Cierkosz claim that the path to development and implementation of innovation in itself constitutes innovativeness [Brzóska, Cierkosz, 2016: 12]. An innovation is, therefore, the ability and willingness of entrepreneurs to seek and put into economic practice the outcomes of scientific research. Innovating also involves learning – a process which requires collecting knowledge



and information relevant for the kind of business activity which a given enterprise pursues [Brzóska, 2014: 105–135].

In view of the impact that innovations have on competitiveness as well as economic and civilisational development, attempts are more and more often made to identify the determinants of innovativeness. C.L. Wang and P.K. Ahmed observed that determinants of innovativeness are closely correlated with the innovation potential that an organisation possesses and exploits [Wang, Ahmed, 2004: 313]. The capacities of enterprises to implement innovations are shaped by a number of factors [Stefaniuk, 2019: 36]. H. Albach divides them into two types: internal and external factors. The former group comprises structural factors, including innovation strategies, and organisational structure and processes as well as soft factors, e.g. organisational culture of an enterprise or the style of team management. Among external factors are, among other things, state innovation policy or market and non-market relations with external subjects [Albach, 1993: 31].

It is important, however, that innovativeness is not restricted to a one-off implementation of an innovative project, but that it becomes a process of continuous search for novel solutions. M. Romanowska referred to this kind of approach as ‘sustained innovation’. In her opinion, “sustained innovation, manifested in continual undertaking of innovation efforts in various aspects of activity and in building an enduring competitive advantage based on innovation, requires consistent, long-term changes in the systems of law, science, education, and upbringing as well as establishment of stable principles on which to build the functioning of the state” [Romanowska, 2016: 29].

Initiation of innovative processes is a challenging issue for many economies. According to J. Tidd and J. Bessant, innovation plays a multidirectional role in the modern economy. It enables opening of new markets, helps strengthen enterprises’ position in their current fields of operation, opens opportunities for implementing new technologies as well as for repurposing hitherto used technologies. As a result, innovations contribute to fortifying national economies, becoming strategic areas of state economic policies [Tidd, Bessant, 2018]. Building competitive advantages around knowledge and innovation is crucial for sustainable development. Economies which are capable of generating innovations on a regular basis increase their chances of achieving success [Kasperkiewicz, 2008].

Globalisation, technological advancement, progressive informatisation, and rapid digitalisation lead to increased involvement in the development of innovative solutions. The phenomena listed above provide an opportunity to eliminate the main differences between nations, regions, and enterprises [Gherghina

et al., 2020: 5]. Of course, changes which take place in this area can generate “new difficult challenges for small enterprises. And yet, the successes of many small companies which have adopted the ‘born global’ strategy can reassure us that also small and medium enterprises are capable of addressing the challenges which arise from the globalisation process” [Róžański, 2016: 5]. Nevertheless, if implemented innovations are to produce satisfactory effects, it is vital to monitor the outcomes of enterprise culture management and to support companies to identify and utilise innovation capacities [Guan et al., 2019: 12].

#### 4. Methodology and measurement of innovativeness

Although seemingly straightforward and intuitive, the notion of innovativeness is rather difficult to define. It is also far from easy to devise a reliable method for measuring innovativeness. Obviously, measurement and assessment of innovation are among the most crucial aspects of research and analysis of innovative phenomena which take place in enterprises. However, the literature fails to provide a single, universal way to measure this category.

Measurement methods of innovativeness vary depending on, for instance, the scale of analysis. Innovativeness of enterprises can be evaluated by means of many different factors, such as: human resources involved in creating innovation, financial resources allocated to creating innovation, the number of filed patent applications, the number of new products or services launched into the market, the commercial viability of investments in innovation, or the share of new products in a company’s revenue, as well as many others. They are usually classified into two types: expenditure factors and outcome factors [Karbowski, 2015]. Nawrocki categorises measures of innovativeness in a slightly broader way, dividing them into four categories [Nawrocki, 2015: 222]: 1) resource potential of innovative activity; 2) expenditures on innovation; 3) outcomes of innovative practices, viewed from a quantitative/value-oriented perspective, as well as from qualitative and time-oriented ones; 4) impact of innovative activity on the enterprise’s financial results. Boston Consulting Group suggests that an assessment of a firm’s innovative activity should employ a balanced collection of measures from three categories: expenditures, processes, and outcomes [Motyka, 2011: 164].

Problems can be encountered also in macroeconomic analyses since measurement and assessment of the innovativeness of economies requires using aggregated macroeconomic data. Among the ways to overcome the limitations of the

methods used for measuring innovation of economies is the methodology applied in the European Innovation Scoreboard (EIS) reports. The annual reports assess the innovative achievements of the EU member states, as well as those of the USA, Japan, Switzerland, Turkey, Norway, and Iceland, based on the Summary Innovation Index (SII). The SII offers a synthetic assessment of innovativeness, not only taking into account resources and expenditures on innovation, but also the results (effects) accomplished as a consequence of applying innovations [Knop, Olko, 2015: 293]. The latest (2021) EU table is based on 32 indicators, grouped into 4 main categories and 12 dimensions<sup>1</sup>. In view of the conducted research, the economies of the EU member states are divided into four groups, depending on the achieved results: innovation leaders, strong innovators, moderate innovators, emerging innovators<sup>2</sup>.

Thanks to the applied methodology and extensive comparative material, the reports of the European Commission make it possible to assess the level of innovativeness in the various EU countries – both overall and with regard to particular dimensions [Prystrom, 2018: 127]. The wide range of data encourages scholars to use them in their analyses of different issues associated with innovativeness. The literature contains information about their usefulness for assessing innovativeness from the macroeconomic or regional perspective [Prystrom, 2018: 127]. Among the data describing innovation in the EIS reports there are also indicators referring to the activity of the SME sector, including SMEs with product innovations (percent share), SMEs with business process innovations, and innovative SMEs collaborating with others.

## 5. Comparative analysis of selected measures of innovativeness of the SME sector in Central and Eastern European countries

Analysis of the current state of innovation and its change trend is an important part of assessing the innovativeness of economies. Because of the limited length of this article and accessibility of data, we only analyse a selection of measures

<sup>1</sup> The exact structure of the SII is presented in [*European Innovation Scoreboard 2021...*, 4]

<sup>2</sup> The group of ‘innovation leaders’ comprises of countries with an SII above 125 percent of the EU average, The countries which are ‘strong innovators’ have an SII of 100–125 percent of the EU average. Among ‘moderate innovators’ are those countries whose SII falls between 70 and 100 percent. The SII of ‘emerging innovators’ is below 70 percent of the EU average [ibidem, 24].

reflecting the innovative performance of enterprises. The current state is demonstrated using the latest available data, although some of them end at the year 2018, other at 2019, and still other at 2021<sup>3</sup>.

In accordance with what was mentioned above, measures to evaluate the innovativeness of the SME sector were divided into two groups:

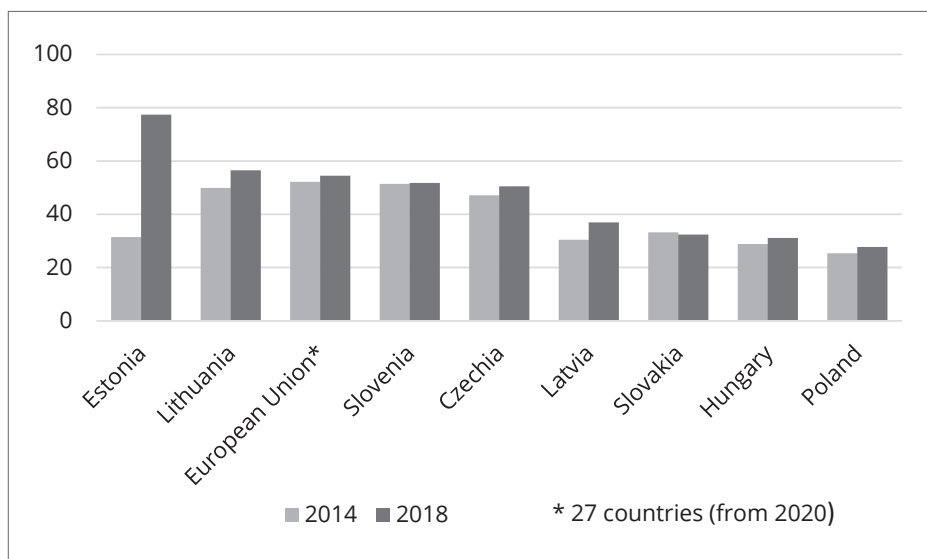
1. Indicators which reflect expenditures on innovative activity – they describe the ability of small/medium enterprises to innovate, i.e. the potential of the SME sector for creating and commercialising innovations. Among them are, e.g., the volume of expenditure on research and development, the number of persons employed in R&D, or the expenditure that enterprises incur to finance innovation practices.
2. Indicators which describe the outcomes of innovation activity in SMEs – these serve to assess the innovation position of the SME sector. They include, for instance, the percentage of SMEs regarded as innovating, the percentage of SMEs which implement product innovations, or the percentage of SMEs which implement process innovations.

In Central and Eastern Europe, Estonia is the leader as regards both the overall share of innovating companies and their share in the SMEs sector. As data collected in the years 2016–2018 reveal, more than 70 percent of small and medium enterprises in Estonia were classified as innovative (see Chart 1). Also Lithuania's percentage of innovating SMEs was above the EU average. Over 56 percent of Lithuanian SMEs were described as innovative. Poland ranked the lowest in this group of countries: less than 28 percent of Polish SMEs engaged in innovation. Hungary and Slovakia also occupy relatively low positions in this ranking. Still, it can be noticed that the percentage of innovating SMEs is growing in every Central and Eastern European country. This can be a confirmation of the increasing innovativeness of the sector as well as its growing significance for enhancing the innovative character of CEE economies.

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<sup>3</sup> Analysis of the innovativeness of small and medium enterprises poses methodological and statistical difficulties. Data used for analysis mainly come from Eurostat or the European Innovation Scoreboard. Indicators from the latter source regard the years 2014–2021. Some data on SME's innovativeness found in Eurostat databases are only available for up to 2018 or 2019, depending on the type. Moreover, some of the information is only collected for entrepreneurs who employ from 10 to 249 persons (e.g. the percentage of innovating enterprises).

Chart 1. Share of innovative SMEs in CEE countries, 2014, 2018



Source: authors own work based on: Eurostat Statistics Database (1).

Rising internal expenditure on research and development also testifies to an increasing level of innovativeness. The latest data published by Eurostat confirm the growing involvement of small and medium enterprises in research and development. Nearly all CEE countries report rises in R&D expenditure (BERD, Business Enterprise Research and Development), both in terms of overall value and per enterprise.

In the years 2011–2019 (see Table 3), of all the economies under analysis the highest expenditures were made by SMEs from the larger (area and population wise) economies, i.e. Poland, the Czech Republic, Hungary, and Slovenia. Besides, Poland and Lithuania were countries in which the greatest dynamics of increases in R&D expenditure was noted. The assessment of innovativeness of the SMEs in CEE countries is slightly different when we take into consideration the relative values of the indicators reflecting expenditure on innovation (e.g. per one enterprise). From this perspective, Slovenia and Estonia were countries where BERD expenditures were the highest. Both in 2011 and 2019, their value was far above what the other countries of the region reported. Czech companies ranked quite high in this regard, whereas enterprises from Latvia and Poland ranked the lowest. It is worth remembering, however, that in Central and Eastern European countries, with the exception of Estonia and the Czech Republic, it is

the state that plays a major role in financing R&D [Ciborowski, 2016: 85]. For this reason, in spite of the fact that BERD expenditure keeps growing, in all the CEE countries, it still remains lower than the EU average:

*Table 3.* BERD in Small and Medium Enterprises for CEE Countries in the years 2011–2019

| GEO/<br>TIME/<br>Unit | 2011        |                        | 2014        |                        | 2019        |                        | Average<br>2011–2014 |
|-----------------------|-------------|------------------------|-------------|------------------------|-------------|------------------------|----------------------|
|                       | Mln<br>euro | Euro per<br>inhabitant | Mln<br>euro | Euro per<br>inhabitant | Mln<br>euro | Euro per<br>inhabitant | Mln<br>euro          |
| Czechia               | 613,59      | 58,5                   | 676,67      | 64,4                   | 718,61      | 67,5                   | 648,07               |
| Estonia               | 193,15      | 145,3                  | 71,55       | 54,4                   | 133,93      | 101,1                  | 95,01                |
| Latvia                | 20,67       | 10,0                   | 29,00       | 14,4                   | 34,40       | 18,0                   | 27,29                |
| Lithuania             | 33,48       | 11,0                   | 89,73       | 30,5                   | 177,44      | 63,5                   | 92,82                |
| Hungary               | 310,21      | 31,1                   | 436,24      | 44,2                   | 649,12      | 66,5                   | 454,20               |
| Poland                | 290,08      | 7,6                    | 596,23      | 15,7                   | 1483,69     | 39,0                   | 837,65               |
| Slovenia              | 303,25      | 147,9                  | 315,22      | 152,9                  | 299,61      | 144,0                  | 288,09               |
| Slovakia              | 78,47       | 14,6                   | 93,60       | 17,3                   | 144,10      | 26,5                   | 104,81               |

Source: authors own work based on: Eurostat Statistics Database (2).

The SME sector's potential for creation and commercialisation of innovations largely depends on the human resources involved in the process. Higher quality human capital allows companies to maintain an advantage in innovation and accelerate the diffusion and absorption of novel solutions. To a certain extent, the presence of scholars and other R&D employees among the staff of an organisation can be interpreted as a reflection of the quality of its human capital. As can be seen in Table 4, Czech SMEs typically employed large numbers of this kind of workers. Poland, Lithuania, and Hungary noted a rapid growth of this indicator. For instance, in comparison with 2012, the number of R&D employees in Polish small and medium enterprises grew more than four-fold. In 2019, it reached over 34,000 persons, far exceeding the relevant figures recorded in the other CEE countries. The growing trend to hire persons with higher education and other R&D employees by SMEs may be a valuable opportunity to boost the innovative performance of these companies.

**Table 4.** R&D personnel and researchers in SMEs for CEE Countries, in the years 2011–2019

| GEO/TIME  | 2011   | 2012   | 2013   | 2014   | 2015   | 2016   | 2017   | 2018   | 2019   |
|-----------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Czechia   | 14 939 | 15 673 | 16 569 | 16 038 | 15 676 | 14 496 | 16 525 | 16 488 | 16 791 |
| Estonia   | 1 307  | 1 109  | 1 019  | 1 116  | 984    | —*     | —      | 1 334  | 1 518  |
| Latvia    | 473    | 535    | 640    | 642    | 723    | 654    | 653    | 840    | 794    |
| Lithuania | 1 415  | 1 166  | 1 783  | —      | 2 119  | 1 966  | 3 078  | 3 621  | 4 028  |
| Hungary   | 8 942  | 11 488 | 13 142 | 11 976 | 10 017 | 8 806  | 11 601 | 16 588 | 17 559 |
| Poland    | —      | 8 495  | 11 755 | 13 142 | 16 111 | —      | 29 162 | 33 613 | 34 458 |
| Slovenia  | 5 417  | —      | 5 959  | 5 810  | 5 480  | 5 253  | 5 584  | 5 776  | 6 390  |
| Slovakia  | 1 784  | 1 948  | 1 936  | 1 953  | 2 016  | 2 342  | 2 413  | 2 931  | 3 212  |

\* – not available.

Source: authors own work based on: Eurostat Statistics Database (3).

An assessment of innovativeness of the SME sector from the point of view of introduced innovations is reflected in the sub-indices of the Summary Innovation Index published by the European Commission.

**Table 5.** Assessment of innovativeness of the SMEs for CEE Countries by sub-indices of the Summary Innovation Index

| SMEs introducing product innovations |        |        |        | SMEs introducing business process innovations |        |        |        |
|--------------------------------------|--------|--------|--------|---|--------|--------|--------|
| Economy                              | 2014   | 2019   | 2021   | Economy                                       | 2014   | 2019   | 2021   |
| Estonia                              | 81,39  | 81,08  | 238,84 | Estonia                                       | 90,49  | 115,00 | 199,17 |
| Slovenia                             | 107,15 | 74,47  | 184,76 | Lithuania                                     | 58,69  | 143,31 | 149,83 |
| Lithuania                            | 20,37  | 120,15 | 152,45 | Czechia                                       | 83,17  | 107,60 | 127,25 |
| Czechia                              | 106,68 | 109,97 | 117,54 | Slovenia                                      | 111,56 | 111,56 | 111,56 |
| Hungary                              | 13,10  | 38,48  | 79,44  | Latvia  | 42,29  | 42,74  | 53,77  |
| Latvia                               | 13,23  | 31,59  | 59,72  | Slovakia                                      | 60,56  | 29,68  | 32,77  |
| Slovakia                             | 36,12  | 32,00  | 42,21  | Hungary                                       | 44,54  | 14,00  | 21,79  |
| Poland                               | 2,86   | 6,83   | 29,99  | Poland  | 8,02   | 5,15   | 12,57  |

Source: authors own work based on: *European Innovation Scoreboard 2014–2021...*

Selected data contained in Table 5 show that in almost every CEE country, the indicators of innovation activity in SMEs have been improving. Only Slovakia recorded a decline in the category of implemented process innovations. At present (2021 Report), SMEs from Estonia are the undisputed leader among the CEE countries as far as the number of product innovations is concerned. Lithuanian SMEs enjoy the highest growth dynamics of the analysed indicators. Slovenia and the Czech Republic are also in the top four countries of the region as regards introduction of product and process innovations by SMEs. Poland ranks at the bottom of all the CEE countries in this respect.

## 6. Conclusion

The considerations and analyses undertaken in the article allowed positive verification of both hypotheses. The above-presented statistical data indicate that the innovativeness of small and medium enterprises in CEE countries is growing. An increasing number of SMEs can be classified as innovating companies. The firms' own expenditure on R&D (BERD) and non-R&D innovation has also been rising. A marked increase can be observed in the number of employed scientists and R&D personnel in small and medium enterprises in CEE countries.

It should be emphasised, however, that these countries vary significantly in terms of their levels of innovation in the SMEs sector. The leader, Estonia, has a highly innovative SME sector – at least compared to the other countries of the region. It is there that the greatest number of innovative companies can be found, as well as the highest BERD expenditure per enterprise, and the highest indicators of product and process innovations. The SME sectors of Lithuania, the Czech Republic, and Slovenia also compare very favourably with those of the other CEE countries. The innovativeness of Polish SMEs is the least impressive. Despite significant amounts of expenditures on research and development and non-R&D innovation, or a high number of scientists and R&D staff employed by companies from the SME sector, the results accomplished by this sector are the worst in the region. For instance, the value of the sub-index 'SMEs introducing product innovations' in the SII was almost 8 times lower in Poland than in the regional leader, Estonia, while in the case of 'SMEs introducing business process innovations', the value was more than 15 lower. This confirms the observation that the levels of innovativeness of the SME sector in CEE countries vary widely.



The review of the literature on the subject and the conducted analysis have highlighted serious problems with measuring innovation and the availability of data, particularly that regarding SMEs. On the other hand, the obtained results make it possible to identify areas of interest for future research projects. Among them, special attention is deserved by the reasons for the disparities in innovation across SMEs from CEE countries.

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