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A REASSESSMENT OF THE MIGRATION ISSUE IN THE EU: A CROSS-COUNTRY COMPARATIVE ANALYSIS WITH FOCUS ON ROMANIA[1]

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Abstract: The study aims to analyse demographic, economic, and social aspects and identify the impact of migration in EU Member States, especially in Romania. It focuses on finding methods for more efficient migration management and faster, higher-level immigrant integration. These efforts aim to benefit both the native population and migrants. The study is innovative due to its interdisciplinary methodology. It couples economic and social research from fields such as macroeconomics and sociology with an analysis of migration policies. Main findings reveal that migration helps mitigate demographic decline and supports economic development by increasing labour force employment. The immigrants' integration is positively influenced by best practices, such as Sweden's labour market model, which combines strong collective bargaining mechanisms, high union membership, and coordinated wage-setting processes, as well as relatively flexible employment protection legislation. The research conclusions and policy recommendations aim to transform the challenge of migration into an opportunity that stimulates sustainable economic and social development and addresses labour market deficits in Romania.

1. Introduction

According to Eurostat (2025), as of 1 January 2024, out of the 449.3 million people living in the European Union (EU), 44.7 million people (9.9% of the total EU population) were born outside the EU. About 17.9 million people (4.0%) were born in another EU country, and 29.0 million people (6.4%) were non-EU citizens.

In absolute terms, the largest numbers of foreign-born individuals living in EU countries were found in Germany (16.9 million), France (9.3 million), Spain (8.8 million), and Italy (6.7 million). Foreign-born individuals in these four EU countries collectively represented 44,7% of the total number of foreign-born individuals living in the EU (Chart 1). The highest relative share of foreign-born individuals within the total population was in Luxembourg (51.0% of the resident population), followed by Malta (30.8%), Cyprus (26.9%), Ireland (22.6%), Austria (22.1%), Sweden (20.6%), and Germany (20.2%). By contrast, foreign-born individuals represented less than 5% of the population in Poland (2.6% of its resident population on 1 January 2024), *Romania* (3.1%), Bulgaria (3.3%), and Slovakia (3.9%).

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[1] This article is based on the Research Study **PSG 2.11** with the topic "*European migration and its economic impact on EU Member States. Case study: Romania,* coordinating Alina Ligia Dumitrescu, under the Research Plan of the Romanian Academy/National Institute of Economic Research/ Institute for World Economy.

Chart 1: Foreign-born individuals living in different EU Member States, 1 January 2024 (%, the share of foreign-born individuals within the total population)
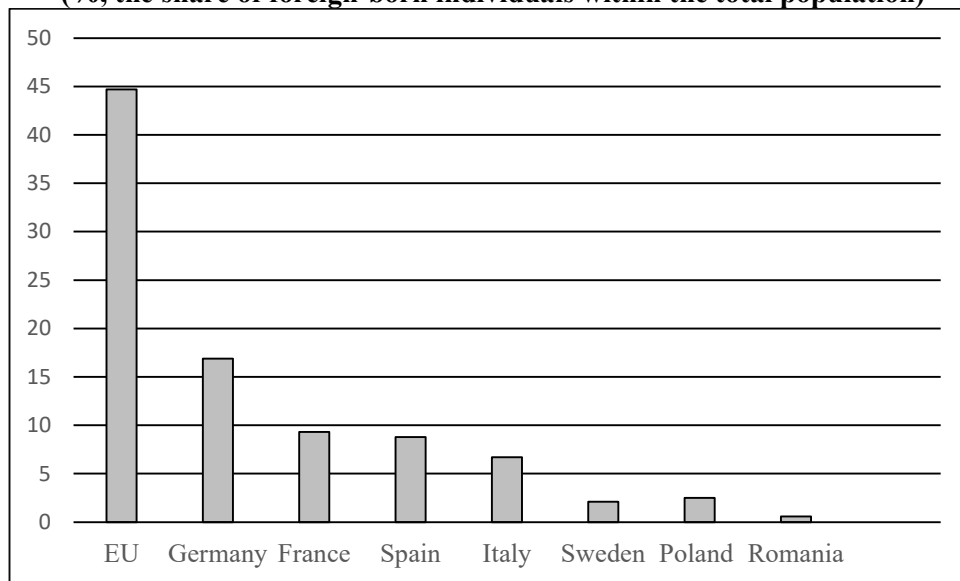
Source: Eurostat (2025)

2. Research Methodology

The article presents *comparative research* across EU Member States using both quantitative and qualitative methods. Quantitative data come from EUROSTAT, STATISTA, the Romanian National Agency of Employment (AJOFM), and the Bucharest Municipal Employment Agency (AMOFM). The employment rate of the foreign-born population is a key indicator to assess the economic impact of immigrant integration in the EU labour market. The analysis uses national data from the Prime Minister's Office to assess immigrant labour market integration in Romania. Qualitative research involves reviewing publications and articles by migration experts on the social and economic impacts of migration. It is based on an *interdisciplinary methodology* that uses different fields such as economics (statistical data analysis), demography, and migration policies, which gives an added value to the study.

3. Literature review on migration impact

The results of the economic impact of migration analysis by Privara et al. (2023) show that:

- Both immigration and emigration have a significant influence on unemployment and annual average wage growth.
- The education and skills of immigrants play a central role in the host country's labour market development.
- The presence of highly qualified immigrants has a significant positive impact on the recipient country's labour market.
- The immigration of low-skilled immigrants, like most asylum seekers, has a slight negative impact on the host country's labour market.
- The emigration of educated and skilled citizens will lead to "brain drain", which has a negative impact on the origin country's economy.

According to Vanselow et al. (2016), the negative impact of immigration on the labour market is generally minimal. This is due to several factors. The immigrants' skills often complement those of native-born, who typically hold higher positions on the occupational ladder. Also, the native-born workforce tends to be more flexible than that of immigrants. Furthermore, adjustment processes—including shifts in industrial structure, advances in production technologies, and capital flows—can reduce migration's negative effects on labour market (Dumitrescu, 2019).

Ruhs & Vargas-Silva (2017) highlight that immigration and changes in employment rates are insufficient to counteract labour force decline in Europe. They argue that labour shortages—already visible in many

countries—are set to persist and intensify, especially given the European Green Deal and technological advances. The authors note high migrant employment in domestic services, despite high unemployment and low employment rates among women in countries like Greece, Italy, and Spain. Migrants from southern EU states typically fill seasonal, short-term, or social care roles (Dumitrescu, 2018).

According to Anderson et al. (2021), many of the "essential workers" during the COVID-19 pandemic were immigrants, playing an important role in the continued functioning of basic services, especially health services, social care, and food supply chains. Existing studies highlight how the employment of immigrant workers in essential services is shaped by employer interests, sectoral policies, and national institutions. According to the same authors, the "*labour shortages" typically refer to demand for labour exceeding supply at prevailing wages and employment conditions."*

OECD experts (2016) underline that labour market institutions are essential for immigrants' labour market integration, because their employment tends to be much more cyclical than that of the native-born. OECD (2016) recommends for the immigrants' efficient integration, methods such as *decent working conditions, ensuring adequate salaries and decent working time arrangements, a safe work environment, fair treatment, and fair access to social security schemes, as well as respect for fundamental principles and rights at work and relevant international labour standards.* The *collaboration at all levels (bilateral, regional, and multilateral)* between governments, social partners and other stakeholders is an essential pillar for ensuring decent working conditions and the protection of migrant workers (OECD, 2016).

One of the best practice examples is the Swedish model of immigrant economic integration. Rauhut (2025) underlines that the causes of migration are multifaceted and complex and, in his analysis, focuses on Sweden's *immigrant labour integration model.* "*Sweden's labour market model combines strong collective bargaining mechanisms, high union membership, and coordinated wage-setting processes with relatively flexible employment protection legislation* (Anxo & Karlsson, 2019a; Rauhut, 2025)." The absence of statutory minimum wages in most sectors, with wage levels determined instead through collective bargaining between employers and trade unions, is a characteristic that influences how EU migrants integrate into the Swedish labour market (Rauhut, 2025).

Rauhut (2025) *underlines that "supply-side analysis reveals that EU migration to Sweden has been predominantly driven by economic factors, with wage differentials and employment opportunities serving as primary pull factors, complemented by Sweden's reputation for good working conditions and social welfare system."* He appreciates that "migration flows have been characterised by significant circular and temporary migration patterns, challenging assumptions about permanent settlement and integration trajectories."

Unlike many EU-15 Member States, Sweden chose not to impose transitional restrictions on workers from the New Member States during the 2004 EU enlargement, immediately granting full labour market access (Rauhut, 2004). Subsequent enlargements, with Bulgaria and Romania joining *in 2007 and Croatia in 2013, led to significant increases in labour migration from these countries to Sweden* (Andersson Joona et al., 2014; Rauhut, 2025). *This migration has occurred within a context of relatively open labour markets, strong welfare systems, and coordinated wage-setting mechanisms that distinguish Sweden from many other EU destinations* (Rauhut, 2025).

This review of specialized literature on the economic impact of immigration on the EU labour market, focusing on Sweden as a best practice example, demonstrates a significant gap between other Member States and Romania. To clarify our main argument, we will add a quantitative analysis of EU and Member State immigration data, that will strengthen the comparative framework for assessing integration outcomes for immigrant workers.

4. A cross-country comparative analysis of the immigration demographic impact in Europe

According to Statista (2025a), in *Germany*, the main immigrants by country of origin were 1,097,882 Ukrainians*, 204,637 Romanians*, 107,060 Turks, 81,108 Poles, 71,835 Syrians, and 68,321 Bulgarians in 2023. In the same year, the German federal government's costs for refugees and asylum seekers totalled around 29.7 billion euros. The largest cost item was social transfer payments following asylum procedures at 11.8 billion euros in 2023. The amount is expected to increase to around 13.3 billion euros in 2025, and to decrease to 13.1 billion euros in 2026 (Statista, 2025b).

Statista (2025c) shows that in *France*, there were approximately 8.9 million foreign-born people in 2023. The majority of immigrants arriving in France were from Africa and Europe. Since the mid-2000s, the percentage of immigrants looking for a job has gradually increased. The immigrant population remains more affected by

unemployment. In 2023, more than 11.2 percent of immigrants were jobless, compared to 6.4 percent of the French native-born population (Statista, 2025c). [1]

In 2024, the population of *Spain* was 48.6 million people, including 6.6 million people with a non-Spanish nationality (Statista, 2025d). Around 460,000 *foreign residents* in Spain stated that they migrated to the country for employment or self-employment. Many migrants look for employment opportunities, despite Spain's rather high unemployment rate. Regarding the composition of migrant residents, more Romanians live in Spain than in any other EU country, and Moroccan residents account for the largest community of African origin (Statista, 2025d).

In *Italy*, almost 130,000 non-EU citizens legally immigrated for family-related reasons by obtaining a residence permit in 2023. The second most common motive behind migrating to Italy was applying for asylum, as more than 106,000 residence permits were issued for humanitarian reasons. Moreover, around 39,000 non-EU citizens were granted a permit to work (Statista, 2025e).

In Poland, there were more inflows than outflows, resulting in a net migration of nearly a thousand people in 2024. The net international migration after Poland's accession to the EU increased from a negative figure of - 9.4% in 2004 to a positive one of + 9.3% 2024, based on the decreasing trend of emigration rate from 18.9% in 2004 to 10.2% in 2024, and increasing trend of the immigration rate from 9.5% in 2004 to 19.5% in 2025 (Statista, 2025f).

According to Statista (2025h), over the past 20 years, *Sweden had the highest positive net migration of the five Nordic countries,* except for 2011 and 2022, when Denmark and Norway had the highest net migration of the five Nordic countries. The foreign-born population in Sweden has risen significantly over the past three decades, from 9% to 20% of the population in 2022. In Sweden, the immigrant employment rate was 74,9%, comparing with the Swedish native-born employment rate of 86,1%, and *immigrant unemployment rate was 14.2%, comparatively, the Swedish native-born employment rate of 4,9% in 2023.*

By comparison, in the *United Kingdom (UK)*, in 2023, approximately 1.2 million people immigrated, with 532,000 persons emigrating, resulting in a net migration of 685,000 people (Statista, 2025i). Between 2020-2021, approximately 696,000 Polish nationals were living in the United Kingdom, the most numerous non-British populations. Indian and Irish were the joint second-largest nationalities at approximately 370,000 people, followed by Italians and Romanians, each with 342,000 people, Portuguese, 268,000 people, Spanish, 206,000 people, Pakistanis, 181,000 people, Nigerians, 178,000 people, and Americans, 166,000 people. In the fourth quarter of 2024, approximately 81.9 percent of people born in the EU but living in the UK were employed, compared with 74.7 percent for UK nationals and 74.4 percent for people outside the EU and UK (Statista, 2025i).

From the comparative country analysis results that one of the main purposes of migrating to EU Member States and UK is due to economic reasons. The analysis shows a growing trend of the number of economic immigrants, especially immigrants interested in employment. Regarding the unemployment rate, in the analyzed countries, the unemployment rates among immigrants are much higher than among those native-born with two native-born parents. A significant example is Sweden, where the disparity between immigrants' unemployment rates and native-born with two native-born parents is over 10 percentage points.

5. The economic impact of the immigrant's labour market integration by activity sectors in the European Union

The labour market integration, as defined by the European Commission, refers to *achieving participation levels similar to EU target[2]*, assessed through indicators like employment rates.

In 2024, 75.8% (197.6 million people) of the EU's 20 to 64-year-olds were employed, the highest share recorded since the start of the time series in 2009 (Eurostat, 2024a). The employment rate was up 0.5 percentage points (pp) compared with 2023 and 1.2 pp compared with 2022. Among the EU countries, the highest employment rates were recorded in the Netherlands (83.5%), Malta (83.0%) and Czechia (82.3%). The lowest rates were recorded in Italy (67.1%), Greece (69.3%) and *Romania (69.5%). Romania does not have a single, publicly stated national employment rate target, but its current rate is tracked against benchmarks, most notably the EU's 78% goal for the 20–64 age group by 2030.*

Regarding the integration of immigrants, in EU, around 12.1 million non-EU citizens were employed in the EU labour market, out of 197.6 million people aged from 20 to 64, corresponding to 6% of the total in 2024.

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[1] Denmark, Finland, and Sweden are Nordic countries that are members of the EU. Norway and Iceland are not EU members, although they are closely integrated with the EU through other agreements like the European Economic Area (EEA).
[2] The overall employment rate target for the European Union is 78% by 2030.

The employment rate of the working-age population was higher for immigrants from EU native-born (77.3%) than for non-EU native- born (64.3%) in 2024 (Eurostat, 2025b).

If we extend the analysis to *immigrant employment by economic activity*, in 2022, non-EU citizens were *over-represented* in different economic sectors such as construction or domestic work (Chart 2).

Chart 2: Over-represented employment of non-EU citizens in different economic sectors in the EU, in 2022 (%)
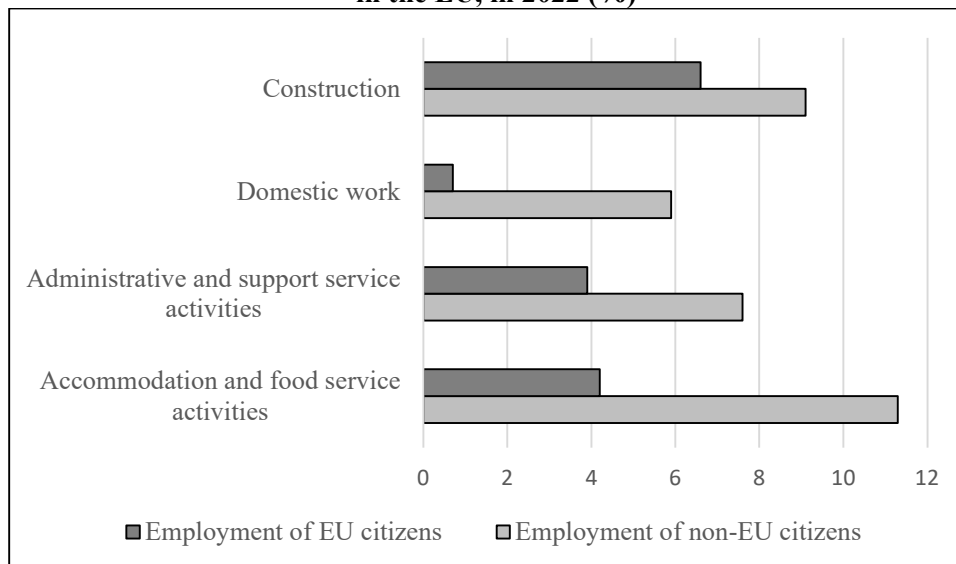
Source: European Commission (2025a)

Non-EU citizens were *under-represented* in other economic sectors, including education, science, and health (Chart 3).

Chart 3: Under-represented employment of non-EU citizens in different economic sectors in the EU, in 2022 (%)
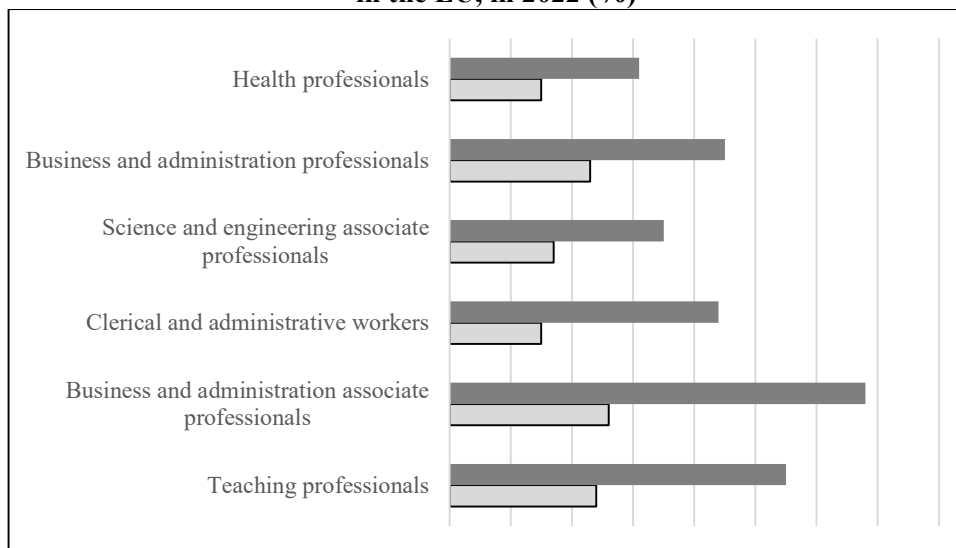
Source: European Commission (2025a)

In order to stimulate the social inclusion of immigrants, the European Commission (2025b) has promoted the 2021-2027 Action Plan on Integration and Inclusion. Its goals in the area of employment and skills include:
- Cooperation is strengthened at the EU, national, and local levels among key labour market actors and the migrants;
- Migrant entrepreneurs, including social entrepreneurs, receive more support through easier access to financing, training, and advice;

- More immigrant women participate in the labour market;
- The assessment of migrants' skills is more effective and faster; upskilling and reskilling are continuously supported, including through validation procedures for non-formal and informal learning;
- More migrants participate in high-quality Vocational Education and Training (VET).

The pillars of the Action plan on Integration and Inclusion 2021-2027 are:
- **European Pillar of Social Rights:** The action plan supports the implementation of social rights and principles.
- **Coordination and Partnerships:** Strong cooperation is encouraged between the EU, national, regional, and local authorities, social partners (like trade unions and employer organizations), and civil society.
- **Funding:** The Commission provides funding to support the efforts of social partners in addressing labour and skills shortages. While Member States are primarily responsible for implementing social policy (such as integration and inclusion), the EU has supported integration actions through dedicated funding through the Asylum, Migration and Integration fund, the European Social Fund, the European Regional Development Fund, Erasmus+, and other funds.

6. Immigrant labour market integration in Romania

Romania is facing high emigration (with over 4 million Romanians living abroad) and a labour shortage. Therefore, legal immigration is seen as a solution to compensate for this labour market supply deficit. Romania continues to face a major labour shortage, especially in economic sectors such as construction, trade, and the hospitality industry. In 2025, a quota of 100,000 newly admitted non-EU foreign workers was established on the Romanian labour market, according to Government Decision No. 10 of 2025. This quota, published on January 16, 2025, aims to cover the labour shortage in the country and support economic growth, in the context of the personnel crisis and negative demographic trends. It is important to note that this quota refers to foreign workers from outside the European Union, excluding citizens of the Republic of Moldova. Currently, from 10 countries, legal immigrants who have received work permits come mainly from Nepal, Sri Lanka, India, Indonesia, the Philippines, and Egypt. According to some representatives of employers' associations, the real need for labour force in Romania would be 200,000 -250,000 work permits annually.

Additionally, the integration of migrants in Romania involves support programs for beneficiaries of international protection, third-country nationals, and those with temporary protection, aiming at their socio-economic inclusion. These programs aim to facilitate access to services through integrated centres, strengthen links with the private sector to integrate into the labour market, and encourage dialogue between migrants and the local community through information campaigns and socio-cultural activities.

After the Russian invasion of Ukraine, from February 24, 2022, to April 30, 2025, a total of 11,507,497 Ukrainian citizens entered the territory of Romania, of which: 4,526 people applied for asylum, 199 people obtained a form of international protection, and 252,407 people benefited from temporary protection. The statistical data on flows of Ukrainian refugees show that Romania was a significant transit country.

Ukrainian citizens can receive work permits under temporary protection status. The medium and long-term integration of Ukrainian citizens into Romanian society is closely linked to facilitating access to the Romanian labour market. (Table 1).

Table 1: Main indicators regarding the integration of Ukrainian citizens into the Romanian labour market

Indicators	24.02.2022-30.04.2025
Number of Ukrainian citizens registered with the Employment Agencies to be employed	24,433
Number of economic operators that have declared jobs available for Ukrainian citizens	743

Number of jobs filled through AJOFM/AMOFM	3,321
Number of active employment contracts registered	6,104

Source: Prime Minister's Office (2025), based on AJOFM/AMOFM data

If we look from the point of view of *territorial distribution*, the most active employment contracts of Ukrainian refugees were registered in Bucharest (2,523), Constanța (310), Maramureș (305), Cluj (302), Timiș (300), Ilfov (267), Brașov (260), Suceava (189), Bihor (183), Galați (182), Iași (180), Arad (179), Sibiu (155), Bistrița-Năsăud (104), in the period 24.02.2022-30.04.2025 (Prime Minister's Office, 2025). According with the same source, the *main sectors of activity with the highest number of registered employment contracts* were: manufacturing (995), construction (883), trade (870), hotels and restaurants (707), information and communications technology (609), administrative and other support service activities (506), transport and storage (369), other service activities (282), and professional, scientific, and technical activities (261).

The low number of active employment contracts indicates that Romania serves as a temporary, not final, destination for Ukrainian refugees. While Romania is initially attractive due to easy access, refugees often move on, seeking countries with better jobs, higher wages, more social benefits, or improved educational opportunities for their children. High rents and the reduction or cancellation of housing aid in Romania further encourage this relocation. Ultimately, the primary factors shaping refugees' choices are economic prospects and social support in host countries.

7. Main findings and discussion

Migrant integration is a complex, multidimensional, two-way process. The immigrants have to adapt to a host society, while the host society also adapts to accommodate them. The economic integration focuses on migrants gaining access to the labour market, recognising their skills, and participating in the economy.

We may look to the Nordic countries as one of the best examples of integrating migrants into planning reforms for providing insights into effective practices in Romania. In the Nordic counties the social work, health, and community services sectors account for a relatively high percentage of total employment. State agencies or large firms recruit immigrants, and employment in these fields remains concentrated among certain nationalities.

Based on Rauhut's writing (2025), we synthesise the essence of the Swedish model of immigrant integration:

- "The EU labour migration to Sweden has been shaped by distinctive institutional arrangements, sectoral dynamics, and policy responses that distinguish it from other European destinations.

- The demand for EU labour in Sweden has been highly concentrated in specific sectors, particularly construction, agriculture, and certain manufacturing industries, reflecting both structural labour shortages and Swedish workers' preferences for different types of employment. This sectoral concentration has created distinct regional patterns, with metropolitan areas and southern Sweden attracting most EU migrants while northern regions remain largely unaffected despite experiencing labour shortages in other industries.

- Supply-side analysis reveals that the EU migration to Sweden has been predominantly driven by economic factors, with wage differentials and employment opportunities serving as primary pull factors, complemented by Sweden's reputation for good working conditions and social welfare system.

- The fiscal impact analysis indicates that while the EU migration generates immediate costs through social service provision and integration support, these are generally offset by tax contributions and economic activity over time (European Commission Joint Research Centre, 2021; Christl et al., 2022b). Healthcare, education, and housing represent the most significant expenditure categories, with regional variations reflecting different labour market conditions and service delivery models.

- Sweden's institutional framework has provided considerable resilience against potential negative effects of EU labour migration (Anxo and Karlsson, 2019). The collective bargaining system, strong labour market institutions, and comprehensive welfare state have generally maintained wage levels and working conditions while facilitating labour market integration. However, the growth of subcontracting arrangements and temporary work agencies has created regulatory gaps that challenge the effectiveness of traditional Swedish labour market institutions (Thörnqvist, 2013; Albin and Eklund, 2020).

- The regional dimension of impacts cannot be understated, with metropolitan areas demonstrating greater capacity to absorb EU migration positively, while smaller communities and specific sectors have experienced more pronounced adjustments. This geographic variation highlights the importance of place-based policy responses rather than uniform national approaches."

In Romania, the integration process of migrants, in general, and Ukrainian refugees in particular, involves a mix of policies, respectively: social policies (granting financial aid for food and accommodation, medical insurance) coupled with employment policies and support measures for integration into the labour market, such as work permits and access to public employment services (ANOFM – Agenția Națională pentru Ocuparea Forței de Muncă, National Agency for Employment). In Romania, the legal immigration is based mainly on multilevel governance and institutional collaboration between central and local authorities. The role of the private sector is poorly represented, limited to NGOs' activities, which are mainly funded from abroad.

In Romania, as in other Central and Eastern European Member States, successful integration is a cornerstone of effective migration and asylum policies, stimulating economic growth, sustainable development, and ensuring fiscal consolidation by increasing employment.

8. Conclusion

Migration plays a significant role in *compensating for the EU's demographic deficit* by contributing to its workforce, but it's a complex issue with varying economic and social impacts. While *migration can offset labour shortages and support an aging population*, it is not a singular solution, and its overall sustainability depends on various factors like the skills of migrants, integration policies, and the broader economic context. It can *maintain the size of the workforce and labour supply*, which is crucial for sustainable economic growth and for supporting social security systems like pensions and healthcare. By bringing in new workers, migration can prevent or *reduce labour shortages*, which have become a threat to the *EU's economic competitiveness and ability to fund public services*.

The impact of immigration on the labour market depends critically on the skills of immigrants, the skills of existing native-born workers, and the characteristics of the Romanian labour market. As a special case study, Ukrainian refugee flows include many women and those with higher education, meaning that the most affected segments of the labour market will be different from those affected by previous refugee flows, and policy responses need to consider the skills and demands of this new flow. However, the number of active employment contracts registered is small. There is a short-term impact that can create imbalances and a long-term impact, in which case labour demand can adjust to the increase and diversify the labour supply.

A negative impact on employment or wages for the resident population, driven by the flows of immigrant workers or refugees, seems highly unlikely, especially given the acute labour shortages in Romania. Romania had one of the lowest employment rates *(69.5%)* from the EU in 2024. Romania is a significant country of emigration, with over 4 million Romanians living abroad, making it one of the top 20 countries globally for emigration. However, it is advisable for policymakers to monitor developments to identify potential problems at the local level or for specific occupations or regions with a high concentration of immigrants. *The 2021-2027 EU Action Plan on Integration and Inclusion r*ecommends better management of migration flows based on strong cooperation between the EU, national, regional, and local authorities, social partners (like trade unions and employer organizations), and civil society. That means better communication between government bodies and service providers, and for involving civil society, businesses, and local communities in the integration of migrants.

In conclusion, migration—both immigration and large-scale emigration—strongly impacts the Romanian labour market. These complex challenges require social policy protection and coordinated responses from political and private-sector actors. *Policy recommendations include a more active migration management and immigrant integration. This needs careful planning, international cooperation, and a broad approach that covers governance, labour, education, and social inclusion. Key methods are establishing legal migration pathways and ensuring safe, legal processes.* Policies for post-arrival support, such as language training, skill recognition, healthcare, and migrants' housing, also matter. From the Swedish integration model, we learn the value of aligning integration policies with sectors like education, employment, and healthcare.

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MACROECONOMIC CLIMATE – FROM THE WORLD ECONOMY TO THE MOLDOVAN ECONOMY

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Abstract: The macroeconomic climate has recently demonstrated strong resilience to the unprecedented changes in trade policy in the United States, the world's largest economy. In July 2025, the world economy expanded at the strongest rate since December 2024, according to the PMI (Purchasing Managers' Index) Composite (manufacturing and services) indicator, an evolution driven by the dynamics of new orders and production. However, one can notice the persistence of the gaps among the largest economies in the world, in terms of annual growth rates of the economic activity, with the remarkable performance of China (the second largest economy in the world). On the other hand, the investment climate has deteriorated in the United States due to the high level of uncertainty and the real financing costs. In Europe, the appreciation of the euro and the increase of trade tariffs by the United States are counterbalanced by the measures launched by the European Commission and by the German Administration since the beginning of the year, with the expectations component of the business climate heading to the highest level since February 2022 (IFO Institute, 2025). The macroeconomic climate has also recently improved in the economy of Moldova, as reflected by the increase in industrial production for the fourth month in a row in June. In this paper, we analyse the recent macroeconomic development, from the world economy to the economy of Moldova, by focusing on the gap between industrial production and its structural component. We implement standard econometric tools (the Hodrick-Prescott filter) and use the databases of the Netherlands Bureau for Economic Policy Analysis (2025) and of the National Bureau of Statistics of the Republic of Moldova (2025) to distinguish between the structural and cyclical components of the volume of the industrial production (from world economy to Moldova), one of the most used indicators as a proxy for the economic activity. At the same time, we estimate the correlation between Moldova (on the one hand) and the largest economies in the world (on the other hand) in terms of the gap between industrial production and its structural component during 2012-2020 (pre-pandemic period), and 2021-2025 (post-pandemic period). The results of our analysis express overall better prospects for the European economy and for the economy of Moldova in the medium run, as the programs under implementation by the European Commission (including Competitiveness Compass and ReArm EU), in conjunction with the expansionary monetary policy, are going to support the investments. Furthermore, there can be noticed an increase in the correlation between the industry of Moldova and the industry of Euroland during the post-pandemic period (2021-2025), an evolution also influenced by the consequences of the geopolitical tensions, including the acceleration of the process of the EU accession.

Keywords: - macroeconomic climate, industrial production, Moldova
JEL Classification: C22, E32, O47

1 Introduction

The recent macroeconomic developments indicate a high degree of resilience of economic activity to increased uncertainty (to record highs) and to fundamental changes in trust, driven by trade policy announcements in the United States since the beginning of the year.

The leading indicators estimated by OECD (2025a) for the member countries of G-20 (which contributes by around 80% to the world GDP and by 60% to the global population) rose for the ninth month in a row in June, while the annual rate accelerated to 0.7%, the strongest pace since January 2024, as can be noticed from the following chart (Figure 1). These indicators highlight the prospects for short-term evolution of economic activity. This development indicates prospects for the improvement of the economic activity in the coming quarters, in contrast to the increase in the probability of a global recession after the announcement of the change in the trade policy in the United States at the beginning of April.

Figure 1. The Leading Indicators (LI) for G-20
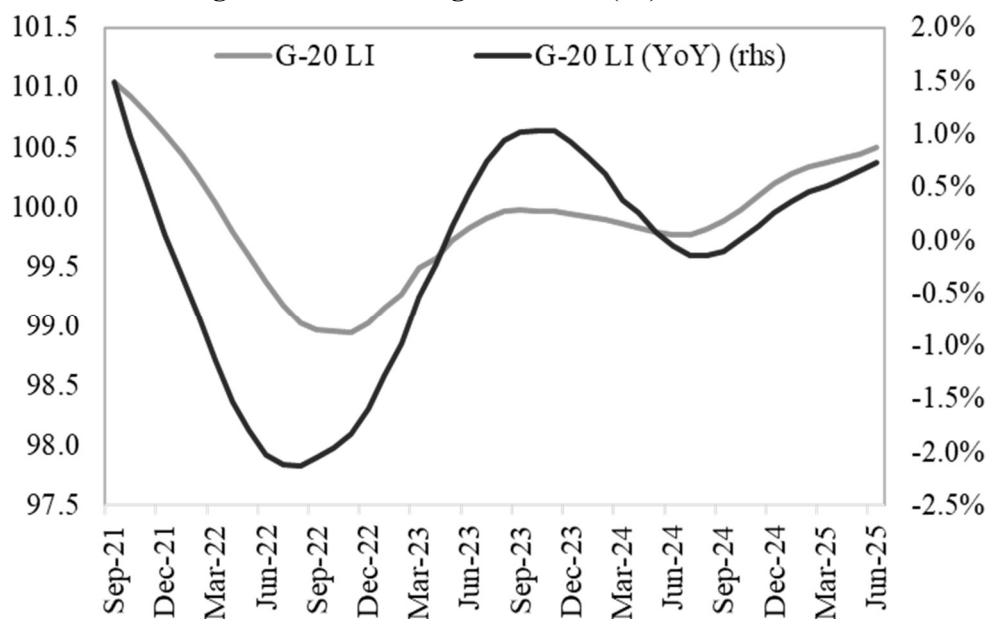
Therefore, in 2Q 2025, the leading indicators for G-20 climbed for the third quarter in a row, by the highest annual rate since 4Q 2023 (0.7%). In 1H 2025, these indicators advanced by an annual rate of 0.5%, an evolution also supported by the positive climate in the international financial markets.

The favourable developments of the leading indicators in the recent quarters determined a similar trend for the coincident indicators. On the one hand, there can be noticed the improvement of the international trade in goods in the first half of 2025, driven by the front-loading and the negotiations before the effective implementation by the United States of the new, increased tariffs on the imports of goods. The volume of the international trade in goods climbed for the 20th month in a row in June 2025, by an annual rate of 3.1% (the slowest since February), but increased by an annual rate of 4.2% in the first half of 2025, the best performance since 2021, according to the estimates of the Netherlands Bureau for Economic Policy Analysis (CPB, 2025). However, there persisted the divergence among the main economies in the world in terms of the annual growth rate of the volume of exports during the first half of 2025, an evolution influenced by structural factors, as well as the recent developments on the FX markets.

China continued to be a leader in terms of the annual rate of the volume of exports, with an increase of 8.6% during January – June 2025, slowing down from 11.8% in 2024. In the United States, the volume of exports of goods advanced by an annual rate of 2.9% in 1H 2025, slightly accelerating from 2.3% in 2024, as the exchange rate of the dollar depreciated by over 10% from the end of 2024 to the end of June 2025. On the other hand, the volume of exports of goods of Euroland (the main component of the European Union) continued the contraction in the first half of 2025, but at a slower annual pace, of 0.9% (compared with 2.6% in 2024 and 3.1% in 2023).

On the other hand, there can be noticed the improvement of industrial production, a widely used proxy indicator for the overall economic activity. This trend has been supported by the improvement of international trade in goods. The statistics recently released by the Netherlands Bureau for Economic Policy Analysis (CPB, 2025) show the increase of the world volume of industrial production by an accelerating annual rate of 3.2% in June (the best performance since March 2025) and by an annual rate of 3.0% during January – June 2025 (higher levels than 1.0% in 2023 and 1.7% in 2024), as represented in the following chart (Figure 2).

Figure 2. International trade in goods vs. world industrial production (volume, annual rate)
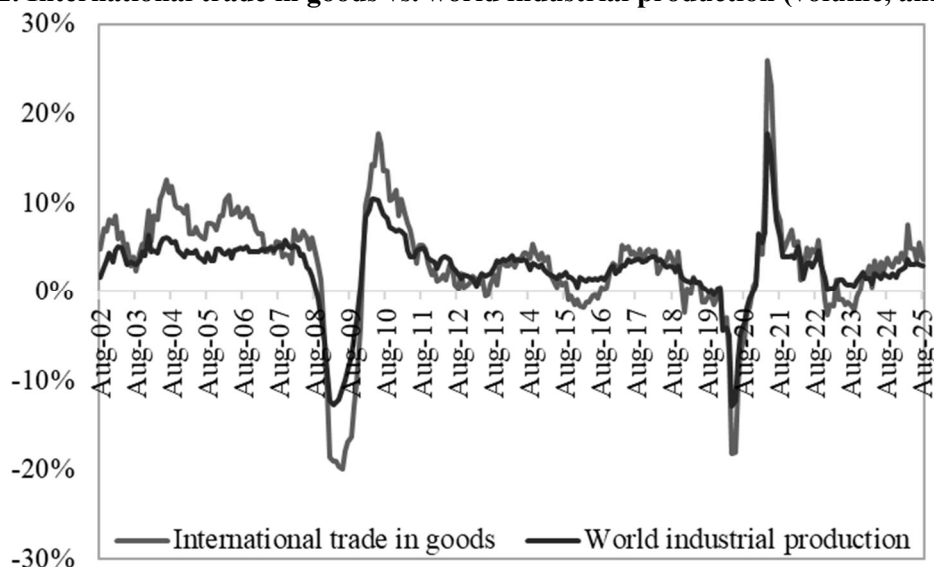
Source: representation of the author based on the database of the Netherlands Bureau for Economic Policy Analysis (CPB, 2025)

In this paper, we apply standard econometric tools and use the databases of the Netherlands Bureau for Economic Policy Analysis (2025) and of the Bureau of Statistics of the Republic of Moldova (BNS) (2025) to assess the recent macroeconomic developments, from the world economy to Europe and the Republic of Moldova.

We implement the Hodrick-Prescott filter (one of the most used methodologies, given the high levels of transparency and simplicity) to distinguish between the structural and cyclical components of the volume of the industrial production, a widely used proxy indicator for the overall economic activity in the past decades.

The rest of the paper has the following structure: Section 2 briefly presents the literature review on the recent macroeconomic developments and outlook, with a perspective from the world economy to the Moldova economy; the methodology is described in Section 3; the main results are interpreted in Section 4; the conclusions are drawn in Section 5.

2 Literature Review

The world economy has presented a high degree of resilience in the context of the changes in terms of trade policy in the United States, the largest economy in the world with a nominal GDP above USD 30 trillion, according to the estimates of the U.S. Department of Commerce (BEA, 2025). These changes represent another symmetric shock for the rest of the world, but with asymmetric consequences, as the countries have different exposure to the United States.

According to the International Monetary Fund (IMF, 2025), in the first quarter of 2025, the annual growth pace of the world economic activity stood above the forecasts, on the back of the increase in international trade and investments, evolutions determined by the front-loading process, before the implementation of the higher trade tariffs by the United States. Furthermore, the effective average trade tariffs following the negotiations with the trade partners are lower compared with the level resulting from the announcement by the United States at the beginning of April (the White House, 2025).

In this context, in the Summer 2025 update of the World Economic Outlook, released by the IMF (2025) at the end of July, the experts of the international financial institution based in Washington revised on the upside the forecasts for the annual rate of the world economic activity in 2025 (from 2.8% to 3.0%) and 2026 (from 3.0% to 3.1%), as represented in the following chart (Figure 3). However, these forecasted annual growth rates for the world GDP are lower compared with the dynamics in 2024 (3.3%) and the average dynamics recorded during the pre-pandemic decades (3.7%). Overall, the IMF (2025) forecasts a slowdown in the annual growth pace of the world economy in 2025 and a consolidation in 2026.

Figure 3. The economic activity (volume, annual rate)
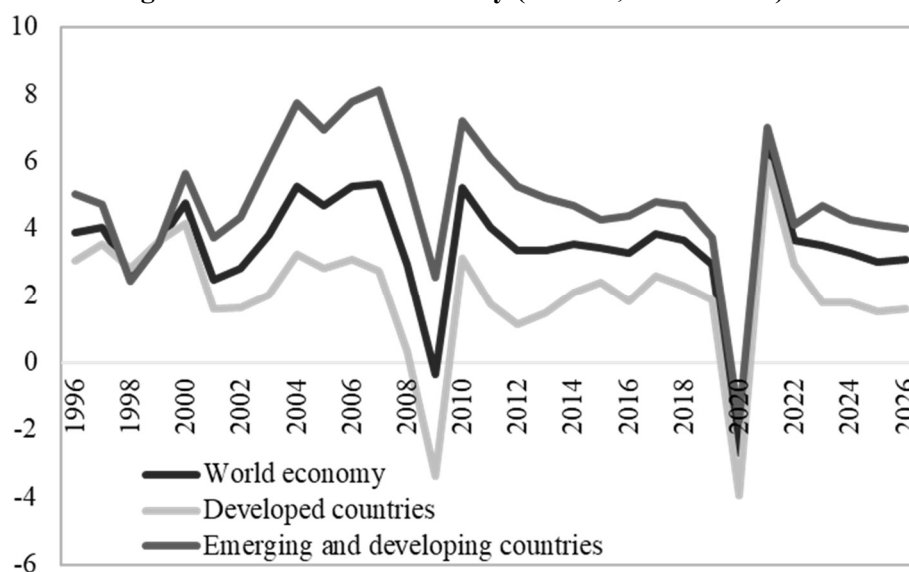
In the Summer updated macroeconomic scenario of the IMF (2025), the annual growth rate for the economic activity in the developed (advanced) economies was upwardly revised by 0.1 percentage points to 1.5% in 2025 and 1.6% in 2026, below the level of 1.8% recorded in 2023 and 2024. One can notice the upward revision of the annual growth rate for the emerging market and developing economies, by 0.4 percentage points to 4.1% in 2025, and by 0.1 percentage points to 4.0% in 2026, below the levels in 2023 (4.7%) and 2024 (4.3%).

According to the Summer report of the IMF (2025), the economy of the United States would increase by annual rates of 1.9% in 2025 and 2.0% in 2026, upwardly revised by 0.1pps, and 0.3pps, respectively. For economic activity in the Eurozone, the experts of the international financial institution forecast an acceleration of the annual growth rate, from 0.9% in 2024 to 1.0% in 2025 (upward revision by 0.2pps), and 1.2% in 2026. Last, but not least, the forecasts for the annual growth rate of the Chinese economy were upwardly revised by the IMF (2025), by 0.8 percentage points to 4.8% in 2025, and by 0.2 percentage points to 4.2% in 2026.

OECD (2025b) also forecasted in June a slowing down of the annual growth rate of the world economy, from 3.3% in 2024 to 2.9% in 2025 and 2026, due to the increase in trade barriers and high level of economic policy uncertainty. According to the Summer 2025 macroeconomic report of the Paris-based institution, the economic activity in the developed countries would increase by annual rates of 1.4% in 2025 and 1.5% in 2026. In this macroeconomic scenario, the economic activity in emerging and developing economies would increase by slowing down annual rates from 4.5% in 2024 to 4.1% in 2025 and 3.9% in 2026.

In the OECD (2025b) macroeconomic scenario, the economic activity in the United States is forecasted to increase by annual rates, slowing down from 2.8% in 2024 to 1.6% in 2025 and 1.5% in 2026. Furthermore, the annual growth rate of the Chinese GDP would slow down from 5.0% in 2024 to 4.7% in 2025 and 4.3% in 2026. On the other hand, the GDP of Euroland would advance by annual rates accelerating from 0.8% in 2024 to 1.0% in 2025, and 1.2% in 2026, as can be noticed in the following chart (Figure 4).

Figure 4. The economic activity (volume, annual rate)
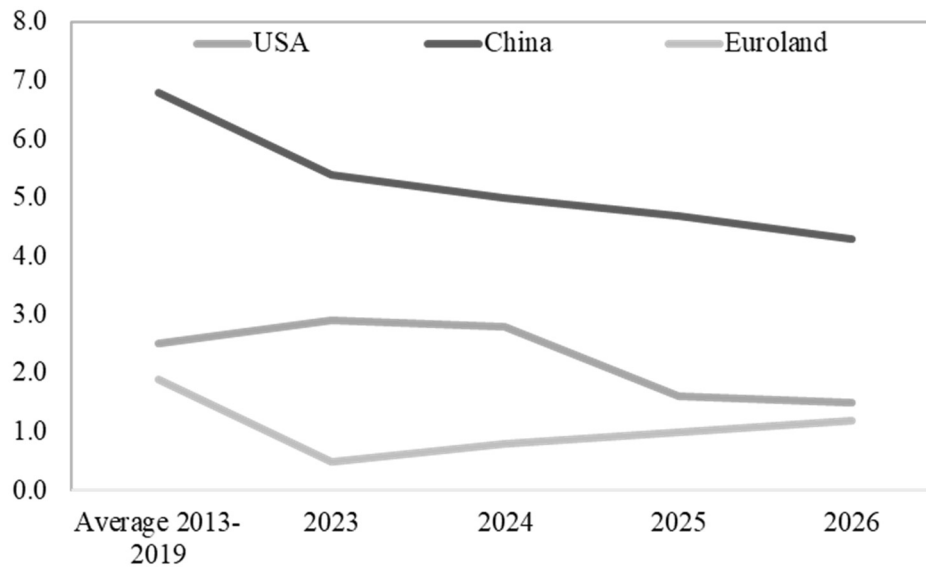
Source: representation of the author considering the database of the OECD (2025b)

The increase in trade tariffs and the high level of economic policy uncertainty are the main factors that led the experts of the World Bank (2025) to cut the forecasts for the annual growth rate of economic activity in 2025 and 2026, in the summer edition of the Global Economic Prospects. The revised macroeconomic scenario of the Washington-based institution points to the slowing down of the world GDP annual growth pace from 2.8% in 2024 to 2.3% in 2025, the worst performance since the pandemic year 2020. The annual growth rate of the world economy is forecasted to slightly accelerate afterwards, to 2.4% in 2026 and 2.6% in 2027. The World Bank (2025) is pointing out that the average annual growth pace of the world economy during this decade would be 2.5%, the weakest performance since the 1960s.

In this scenario of the World Bank (2025), the economic activity in the advanced economies would increase by annual rates of 1.2% in 2025 (down from 1.7% in 2024), 1.4% in 2026, and 1.5% in 2027. The GDP of the emerging market and developing economies is forecasted to increase by annual rates of 3.8% in 2025 (down from 4.2% in 2024) and 2026, and 3.9% in 2027.

As regards the macroeconomic performance in the largest economies in the world, the World Bank (2025) forecasts point to the increase of the United States' GDP by annual rates of 1.4% in 2025 (down from 2.8% in 2024), 1.6% in 2026, and 1.9% in 2027. The annual growth rate of the Chinese economy is forecasted to slow down from 5.0% in 2024 to 4.5% in 2025, 4.0% in 2026, and 3.9% in 2027. On the other hand, the economic activity in the Eurozone would increase by annual rates of 0.7% in 2025 (down from 0.9% in 2024), 0.8% in 2026, and 1.0% in 2027.

Last, but not least, the summer forecasts of the World Bank (2025) indicate prospects for the economy of the Republic of Moldova to increase by accelerating annual rates from 0.1% in 2024 to 0.9% in 2025, 2.4% in 2026, and 4.4% in 2027.

In the Spring Regional Macroeconomic Report, the experts of the European Bank for Reconstruction and Development (EBRD) (2025) forecasted an improvement of the annual growth pace of the economic activity in the Republic of Moldova from 0.1% in 2024 to 1.8% in 2025, and 3.8% in 2026, a scenario also supported by the implementation of the Growth Plan for Moldova approved by the European Commission (2024) (EUR 1.9bn, out of which EUR 385 million in grants for the period 2025 – 2027).

Furthermore, the European Commission (2025a) also revised on the downside the forecasts for the annual rate of economic activity in 2025 and 2026, due to the intensifying trade tensions and the high level of uncertainty. In the Spring macroeconomic scenario of the Brussels-based institution, the world economy would increase by annual rates of 2.9% in 2025 (slowing down from 3.3% in 2024), and 3.0% in 2026. According to these forecasts, the developed economies would increase by annual rates of 1.5% in 2025 and 1.7% in 2026 (lower than 1.9% in 2024). For the emerging and developing economies, the experts of the European Commission (2025a) forecast an increase in economic activity by annual rates of 3.9% in 2025 and 4.0% in 2026 (lower than 4.3% in 2024).

As regards the main economies in the world, the European Commission (2025a) forecasts an increase in the United States' GDP by an annual rate of 1.6% in both 2025 and 2026, slowing down from 2.8% in 2024. The

annual growth pace of the Chinese economy is forecasted to decelerate from 5.0% in 2024 to 4.1% in 2025 and 4.0% in 2026. In this macroeconomic scenario, the GDP of Euroland may increase by annual rates in consolidation at 0.9% in 2025 and in acceleration to 1.4% in 2026. Last, but not least, the economy of the Republic of Moldova is forecasted to increase by annual rates accelerating from 0.1% in 2024 to 0.9% in 2025, and 2.8% in 2026 (downwardly revised from 2.6%, 3.8%, and 4.2%), as represented in the following chart.

Figure 5. The economic activity in the Republic of Moldova (volume, annual rate)
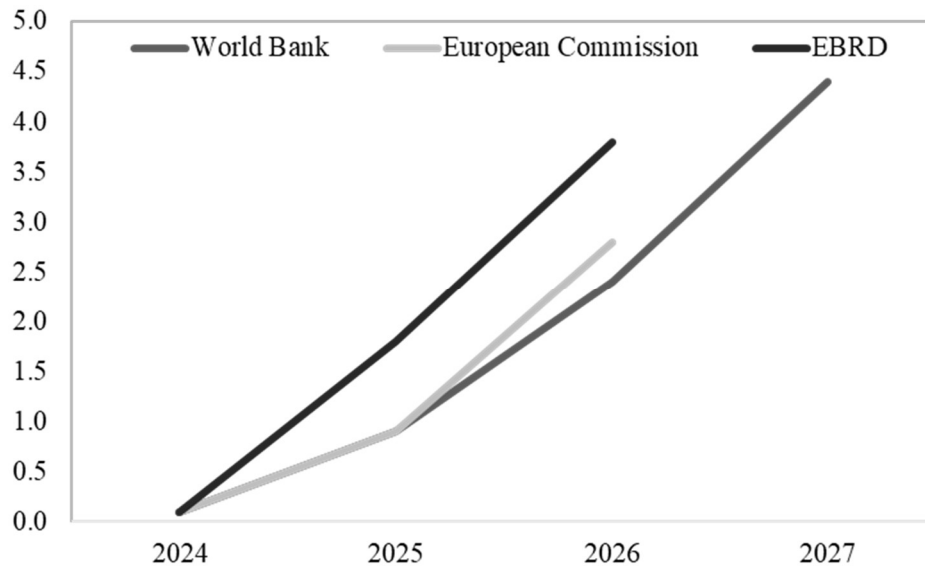
Source: representation of the author considering the databases of the World Bank (2025), European Commission (2025a), and EBRD (2025)

In other words, the forecasts of the international institutions indicate a difficult and challenging macroeconomic climate in the world economy in the coming quarters. At the same time, the gaps in terms of the annual growth pace among the largest economic blocs in the world economy may persist at high levels in the short and medium run, due to the structural forces. These forecasts express the fact that the economy of the European Union would continue to underperform the developments in the United States and China.

On the other hand, according to the forecasts of the international institutions, the macroeconomic climate in the Republic of Moldova may gradually improve, after the weak developments in the previous years, determined by the consequences of the regional geopolitical tensions.

We point out that the economy of Moldova has been increasingly integrating with the European economy and world economy circuits in the past decade, since the signature of the EU–Moldova Association Agreement, as emphasized by the analysis of the European Parliament (2025). In fact, in 2024, the EU was the main trading partner of Moldova, with 54% of the total trade in goods, according to the European Commission (2025b). This degree of integration is expected to improve in the future, due to the implementation of the Programme launched by the European Commission (2024).

3 Methodology

In this paper standard econometric tools (the Hodrick-Prescott filter) are implemented and the databases of the Netherlands Bureau for Economic Policy Analysis (2025) and the National Bureau of Statistics of the Republic of Moldova (2025) are used (monthly observations) to distinguish between the structural and the cyclical components of the volume of the industrial production, from world economy, to the United States, China, Eurozone and the Republic Moldova.

Afterwards, we estimate the correlation between Moldova (on the one hand) and the largest economic blocs (on the other hand) in terms of the gap between industrial production and its trend component for two intervals: 2012-2020 (pre-pandemic period), and 2021-2025 (post-pandemic period).

The volume of industrial production has been one of the most used proxy macroeconomic indicators for the overall economic activity in the past decades. Using this indicator presents several advantages, including the fact that it is released on a monthly basis.

As regards the Hodrick-Prescott filter, this is one of the most implemented methods in the literature over the past decades in order to distinguish between the cyclical and the structural components of the macroeconomic variables, due to its transparency and simplicity. This method is based on the following formula:

$$\mathbf{Min} \sum_{t=1}^{T} \left(\ln Y_t - \ln Y_t^*\right)^2 + \lambda \sum_{t=2}^{T-1} \left(\left(\ln Y_{t+1}^* - \ln Y_t^*\right) - \left(\ln Y_t^* - \ln Y_{t-1}^*\right)\right)^2 \tag{1}$$

In relation (1), Y_t, Y_t^* and λ represent the macroeconomic variable (in our case the volume of the industrial production in the world, the United States, China, Euroland, and the Republic of Moldova), its structural component (the trend), and a smoothness parameter.

This smoothness parameter has the following characteristic: the lower its value, the closer the macroeconomic indicator is to its trend component.

In this paper, we worked with monthly observations: therefore, we considered a value of 14400, as recommended by Hodrick and Prescott (1997).

On the other hand, we underline the main shortcomings of the Hodrick-Prescott filter, including the arbitrariness, imposition of symmetry on the gap, and the end-of-sample bias, as emphasized by de Castro Souza (2005).

In this paper we considered the annual rate of the volume of the industrial production (12 months moving average), with data for world, the United States, China, and Euroland for the period December 2012 – June 2025 from the Netherlands Bureau for Economic Policy Analysis (2025) and statistics for the Republic of Moldova from the National Bureau of Statistics of the Republic of Moldova (2025).

The econometric software E-Views was used in this analysis.

4 Results

According to the results of our econometric analysis, the world industrial production grew for the sixth month in a row in June 2025 by an annual rate above its potential, as represented in the following chart.

This evolution was determined by the acceleration of the world industrial production in recent months, a consequence of the front-loading process, before the full implementation of the new trade tariffs for the imports of goods by the United States.

On the other hand, our econometric estimates indicate the continuity of the downward trend for the annual potential growth rate of the volume of the world industrial production, in the month of June 2025, recording the weakest rate since May 2021 (1.6%), as can be noticed from Figure 6.

These results, corroborated with the prospects for the deterioration of the international trade in goods in the short run, indicate the persistence of the difficult climate in the world industry in the coming months, in a context also characterised by a high level of real financing costs.

In this respect, we point out that according to the database of the Federal Reserve (2025), the real interest rate for the long-run maturity (10 years) in the United States hovered around the highest levels since the period before the outbreak of the Great Financial Crisis.

However, unless other shocks occur in the world economy and/or on the international financial markets, the annual potential growth pace of the world industrial production is expected to initiate an upward trend by the summer of next year, when the impact of the increased trade tariffs by the United States is going to fade out.

Figure 6. The world industrial production vs. its trend component (volume, annual rate, %, MA12)
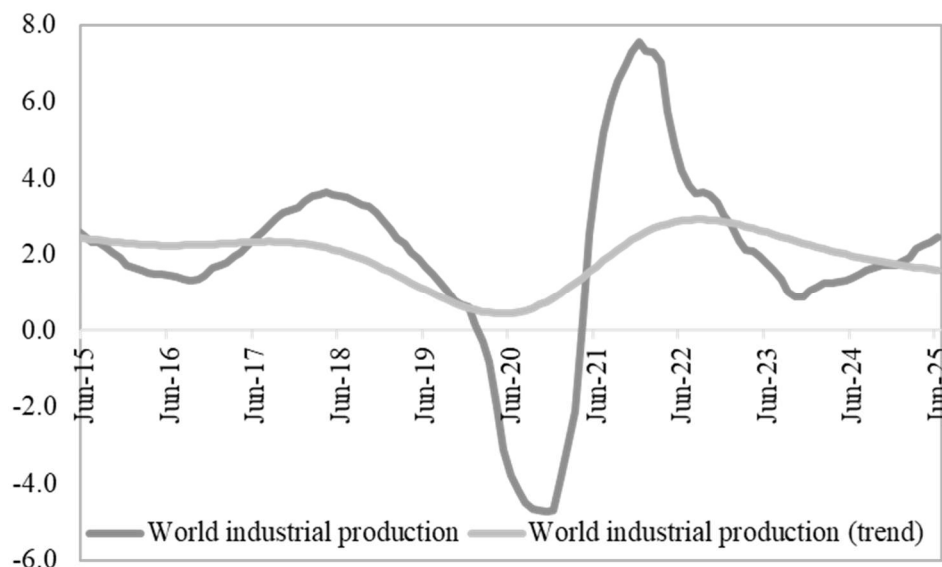
In the United States, the volume of industrial production presented an annual rate above its trend component for the fourth month in a row in June 2025, according to the results of our econometric analysis, as reflected in the following chart.

However, we point out that the annual potential growth pace for the volume of the industrial production in the largest economy in the world has hovered around 0% in recent months. Our results indicate that in June 2025, this structural component hit the lowest level since May 2021.

Figure 7. The industrial production vs. its trend in the United States (volume, annual rate, %, MA12)

The recent increase in trade tariffs and the dependence on the imports of intermediate goods are factors expressing a high probability for the deterioration of the climate in the United States industry, as emphasized by the Washington Centre for Equitable Growth (2025).

In this respect, we point out that the tariff revenue as a percentage of total value of imports for the intermediate goods rose from 2.3% in January – February 2025 to 3.6% in March, 6.6% in April, 8.7% in May and 9.7% in June 2025, according to the estimates of the Peterson Institute for International Economics (2025),

represented in the following chart (Figure 9). At the same time, in the case of capital goods, the tariff revenue as a percentage of the total value of imports climbed from 1.2% in January – February 2025 to 5.7% in June 2025. Last, but not least, in the case of consumer goods, this indicator rose from 3.6% in January to 13.5% in June 2025.

Figure 8. Tariff revenue as % of the total value of imports of goods by category in the United States

Source: representation of the author based on the data of the Peterson Institute for International Economics (PIIE, 2025)

In the case of China (the second largest economy in the world, with a nominal dimension forecasted above USD 19 trillion this year by the IMF (2025)), the results of our econometric analysis indicate an evolution of the industrial production by an annual rate above its potential for the 17th month in a row in June 2025.

At the same time, the annual potential growth rate of the volume of the industrial production in China has presented an upward trend recently, in June 2025 reaching a level of 5.4%. This is the highest level since October 2022, as represented in the following chart.

The improvement of the industrial production in China in the recent quarters was supported by several factors, including the structural transformations of the economic growth model, with a strong focus on innovation (especially after the outbreak of the Great Financial Crisis), as reflected by the significant increase of the R&D expenditure, which contributed to the expansion of the innovative capacity, according to Ates and Jeon (2025).

Furthermore, since 2023, China's focus on the new quality productive forces has contributed to the improvement of the resilience of the industrial chains, especially if corroborated with the implementation of digital finance, according to Zhu *et al.*, (2025).

Last, but not least, the Belt and Road Initiative (launched more than 10 years ago) supported the industrialisation of China, through innovation, market integration, and improvement of the industrial structure, as emphasized by Wei *et al.*, (2025).

These developments express prospects for a strong degree of resilience of the Chinese industry to the increase of trade tariffs on imports in goods in the largest economy in the world, in our view.

Figure 9. The industrial production vs. its trend in China (volume, annual rate, %, MA12)
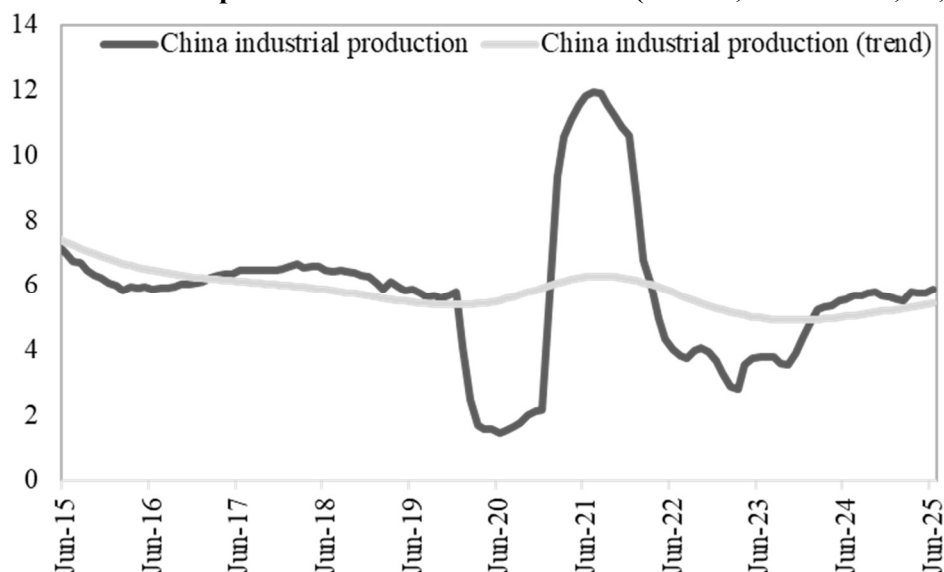
In Euroland, the volume of the industrial production also recorded an annual rate above its potential in the recent months (for the fifth month in a row in June 2025), according to the results of our econometric estimates, represented in the following chart (Figure 10).

On the other hand, we point out that the annual potential rate of the volume of the industrial production in this region continued on the downward trend in the recent months (in June 2025, reaching the lowest level since March 2010).

According to our results, this downward trend for the volume of the industrial production in the Eurozone started in the Spring of 2022, due to the consequences of the intensifying geopolitical tensions following the outbreak of the crisis in Ukraine.

On the other hand, the EU policymakers have recently implemented several measures that would support the industrial production in the region in the medium run, in our view, including the Competitiveness Compass and the program ReArm EU. However, in the short run, the industrial production in Euroland would be affected by the increase in trade tariffs on imports of goods in the United States.

Figure 10. The industrial production vs. its trend in the Euroland (volume, annual rate, %, MA12)

In the Republic of Moldova, the results of our econometric estimates indicate an evolution of the volume of the industrial production above its potential for the second month in a row in June 2025, as represented in the following chart (Figure 11).

This evolution was determined by the recent improvement of industrial production in the European Union/Euroland, the main economic partner of the Republic of Moldova.

Figure 11. The industrial production vs. its trend in the Republic of Moldova (volume, annual rate, %, MA12)
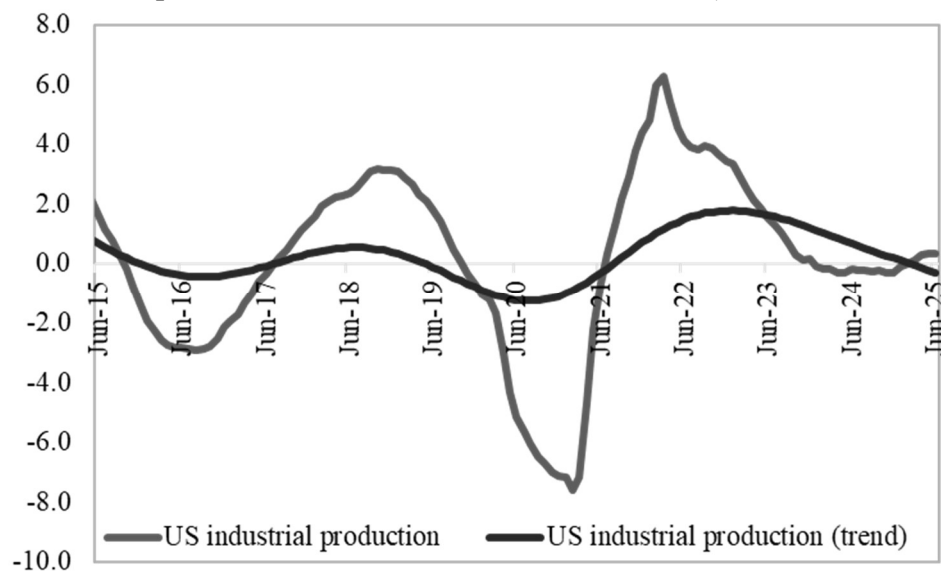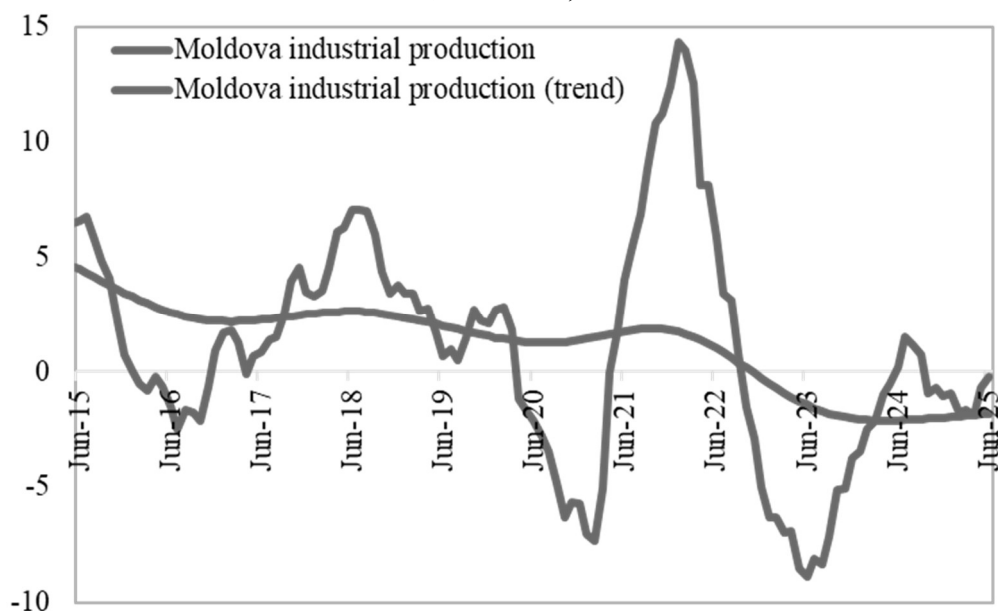

Source: representation of the author considering the econometric estimates, considering the database of the Netherlands Bureau for Economic Policy Analysis (2025)
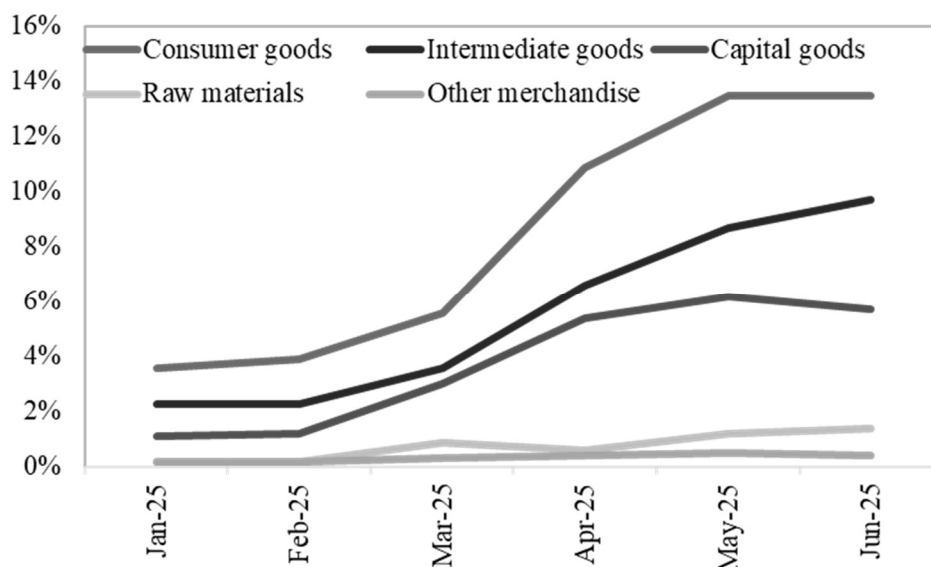
At the same time, according to the results of our analysis, the annual potential growth rate of the industrial production in Moldova has recently improved, in June 2025 reaching the highest level since August 2023.

In our view, these evolutions express a high probability for the industry of the Republic of Moldova to be at the beginning of a new cycle, following the severe adjustment determined by the consequences of the intensification of the regional geopolitical tensions, including the significant increase in the prices of energy.

This scenario is consistent with the recently updated forecasts of the international financial institutions and is further supported by the implementation of the EUR 1.9 billion programme agreed with the European Commission for the period 2025–2027 (European Commission, 2024).

Furthermore, the results of our analysis indicate an increase in the correlation of the industry of Moldova with the industry of Euroland in the post-pandemic period, compared to the pre-pandemic period. As mentioned in the methodology section, we estimated the correlation between Moldova (on the one hand) and the largest economic blocs in the world (on the other hand) in terms of the gap between industrial production and its trend component. According to the results, the coefficient of correlation between Moldova and the Euroland for this indicator increased from 51.1% in the period 2012-2020 to 65.5% during 2021-2025.

On the other hand, the coefficient of correlation between Moldova and the United States in terms of the gap between industrial production and its trend component declined from 66.5% in the interval 2012-2020 to 61.6% in the period 2021-2025.

Last, but not least, the coefficient of correlation between Moldova and China in terms of the gap between industrial production and its trend component diminished from 58.1% in the interval 2012-2020 to 56.3% in the period 2021-2025.

These results confirm the fact that the industry of Moldova has been increasingly integrating with the European industry. This trend is expected to continue, given the implementation of the Programme launched by the European Commission in 2024.

5 Conclusion

In this paper, we analysed the macroeconomic climate, from the world economy to the Moldovan economy, by focusing on the developments in terms of the volume of industrial production, one of the most used proxy indicators for overall economic activity.

This analysis is very important nowadays, as the economy of Moldova is increasingly more dependent on the developments in the EU economy (the main economic partner). The moment of this research is also important, given the efforts of Moldova to join the EU in the future, as emphasized at the EU–Moldova summit in July 2025 (European Council, 2025).

According to the results of our econometric analysis, the volume of industrial production recorded an annual rate above potential in recent months, at the world level, but also in the United States, China, Euroland, and the Republic of Moldova.

However, these results also emphasize the divergent evolutions of the structural component of the volume of industrial production in recent months. On the one hand, there can be noticed the downward trend at the world level, in the United States, and in the Eurozone, more pronounced in Europe, where the economy is the most affected by the recent global shocks (including the geopolitical tensions) and their consequences. On the other hand, the trend of the volume of industrial production has recently improved in China (given the implementation of the new industrial policy, focus on the new quality productive forces), and in the Republic of Moldova (following a severe adjustment induced by the consequences of the crisis in Ukraine).

Last, but not least, we point out the increasing correlation between the industry of Moldova and the industry of Euroland in the post-pandemic cycle, an evolution strongly supported by the efforts of the Eastern European country to join the European Union.

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RELATIONSHIP BETWEEN EDUCATION AND ECONOMIC GROWTH: A COMPARATIVE STUDY BETWEEN ROMANIA AND POLAND

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Abstract: Through this paper, we aim to address a topic whose origins date back to the 1960s, when the economist Theodore W. Schultz laid the foundations of human capital theory and argued that: if both physical capital and human capital develop together, then economic capital can also grow (T.R. Breton, 2014). In line with this statement, the present study aims to highlight the extent to which certain indicators, closely related to education, are connected to a country's economic growth. Our analysis will focus on two Eastern European countries that have undergone a period of both economic and social transition, namely Romania and Poland. The main hypothesis from which we start our research is that the educational component of human capital has a positive relationship with economic growth. Thus, in the first part of the paper, we will present a comparative overview of the values for the selected indicators of education and economic growth for both countries. Subsequently, we will test two more auxiliary hypotheses, based on the primary one, through simple linear regression models, which will provide some interesting perspectives.

Keywords: education, economic growth, simple linear regression models, Romania, Poland

1. Introduction

Throughout history, education has been perceived and used in different ways, reflecting the social structures and economic needs of each era. Since ancient times, in societies such as Egypt and Mesopotamia, education was seen as a privilege reserved for the upper classes, managed by priests or ruling authorities. In this context, learning meant not only acquiring basic skills such as writing and reading, but also access to advanced knowledge such as law, medicine, religion or astrology, according to the standards of the time. The educational process often took place in knowledge centers, such as libraries, and pedagogical methods were based on memorization, rewriting or oral repetition.

Moving on to the classical periods, such as Ancient Greece and the Romans, we see a gradual opening up of education to the middle classes and not just to the elite. At the same time, the focus begins to shift from religion and manuscripts to oratory and the training of jurists, as in ancient Rome, or to critical thinking, philosophy and art in Greece. An interesting aspect of this period is the emphasis on physical education, especially in Sparta, where the training of citizens was seen almost exclusively from a military perspective.

While these historical developments laid the foundation for how education is structured and valued, it is important to note that its form and function have continued to evolve up, often in different directions, depending on the country, cultural background, political system, or religious influence. In today's world, education is no longer a uniform process, but one that adapts to the needs and aspirations of both individuals and societies.

In this paper, we approach education from our own contemporary perspective, which sees it as the process through which knowledge and skills are transmitted by qualified professionals, in formal or informal settings, including public, private, or online environments. This process helps individuals gain clarity on how to shape their personal and professional paths, aligned with their needs and ambitions. Thus, through the process of education, both formal and self-directed, a country prepares competent individuals who are ready to be integrated into the labor market, contributing to the creation of a foundation for sustainable and balanced economic growth.

From this definition and from the historical examples illustrated above, we observe a common aspect which is that: education has always been shaped by, and in turn helps shape, the socio-economic context in which

it operates. This leads us to the central question of our paper: what is the relationship between education and the economy, and how do they influence each other in contemporary society?

2. Literature review

In this context, starting from the early '60s, interest in a possible connection between education and economic growth began to bloom significantly. Among the pioneers of this field of study, we can highlight the economist Theodore W. Schultz, one of the founders of human capital theory, who argued the following: the economic growth of a country can occurs only if physical capital and human capital grow together. (T. R Breton, 2014; T.W. Schultz,1961).

To better understand what Schultz intended to say in the cited statement above, we first need to familiarize ourselves with the terms he used in this 'definition'. In this regard, Romanian sociologist Bogdan Voicu, in his comprehensive analysis of human capital, offers an extended definition compared to Schultz's, one that captures the true essence of the concept "human capital". He emphasizes that it is composed of the totality of personal skills each individual possesses, which retain their utility regardless of the social context in which they are placed (B. Voicu, 2004). Regarding the second part of Schultz's definition, more precisely the economic growth, it refers to a country's capacity to stimulate the production of goods and services over a specific period of time. Traditionally, this growth is measured using a classic aggregate indicator: Gross Domestic Product (GDP), in its various forms.

Now that both concepts from Theodore W. Schultz's statement are clearly defined, we took a closer look at them and explored the connection between the two.

Starting with human capital and returning to Bogdan Voicu's study, the two main components of human capital are educational capital and biological capital. The first is represented by the educational process described earlier, while the second refers to an individual's health status (B. Voicu, 2004; T. W. Schultz, 1961). In line with the main theme of this study, we have chosen to focus solely on the educational component, leaving the opportunity for future research to explore the second component as well, in parallel with economic growth, as previously mentioned, represented by GDP and its variations.

This niche area of study, concerning the relationship between education, previously referred to as educational capital, and economic growth, has been intensively researched over the past six decades, highlighting new working hypotheses and diverse conclusions. However, for the purpose of our analysis, we have chosen to focus on those studies that examine investments in education, under various forms, and other relevant educational indicators in relation to economic growth. These studies served as the foundation for the methodology and hypotheses formulated in our analysis. But before addressing these aspects, we invite you to review several of the key studies identified below.

A significant starting point in this field of research is represented by Barro's studies from 2002 and 2013, as well as those conducted in collaboration with Lee (Barro & Lee, 1993; Barro & Lee, 1996), in which the considerable influence of education on economic growth was emphasized by comparing approximately 100 countries over a specific time period. Returning to Barro's individual work, he demonstrated that there is a direct causal relationship from education, measured through school enrollment rates, and that education has a positive effect on economic growth (Barro, 2002; Barro, 2013; Bogdan Oancea et al., 2017)

These studies intrigued many other researchers to analyze more deeply the causal relationship between education and economic growth, focusing on their own countries. A good example from Europe, more precisely from Greece, is represented by Agiomirgianakis et al. (2002), who measured education through enrollment rates in primary, secondary, and tertiary education, in relation to economic growth. Their results indicated a direct causal relationship for the first two levels of education, and a reverse causal relationship for the third (Bogdan Oancea et al., 2017). In Asia, there are also many similar studies. A few examples include: the study by Huang et al. (2009), which found that in China, between 1972 and 2007, there was a positive relationship between the tertiary education enrollment rate and economic growth; and the study conducted by Hussin and Muhammad (2012), which emphasized that educational capital positively influences economic growth in Malaysia (Ștefan Cristian Ciucu, 2015).

Transitioning toward the studies that serve as direct foundation and inspiration for our methodology. We begin with the work conducted by Bogdan Oancea et al. (2017). In their research, they carried out a comparative analysis between Romania and the Czech Republic, two countries that experienced a transitional period, both economically and socially. The study illustrates the causality and long-term relationship between education, measured by the number of students enrolled in tertiary education per 100,000 inhabitants, and government

expenditure on tertiary education, and economic growth. Their findings indicate a positive influence of the selected education-related indicators on economic growth during the analyzed period.

The second study, which, alongside the previous one, helped us define our working hypothesis, is authored by Ștefan Cristian Ciucu and Raluca Dragoescu (2015). They conducted a parallel analysis of Romania and Hungary, again focusing on countries that went through a transitional period, on the same topic. Education was represented by the number of persons enrolled in primary, secondary, and tertiary education, as well as by government investment in the education sector, measured as percentage of GDP, in comparison with real GDP, which reflects economic growth. This study found both short-term and long-term relationships between the mentioned variables, emphasizing that the higher number of individuals enrolled in tertiary education is a positive indicator of an evolving economy.

3. Methodology

Based on the studies discussed above, particularly the last two, the following section outlines the research methodology, the variables employed, the main hypotheses, and the expected results. This comparative study of Romania and Poland over the period 2000–2022 investigates whether education directly influences the economic growth. We expect this hypothesis to be positive.

For this purpose, education is operationalized as general government expenditure on education as a percentage of GDP, whereas economic growth is measured by the annual GDP growth rate. In addition to these two metrics, tertiary school enrollment rate, as percentage, was employed in the stationarity and multicollinearity tests.

The origin of the data for each variable is presented below:
General government expenditure on education, expressed as a percentage of GDP – Eurostat.
Annual GDP growth rate – Eurostat.
Tertiary school enrollment rate – World Bank.

Regarding the methodology applied to these metrics, the primary objective is to conduct a time-series simple regression between general government expenditure on education and annual GDP growth. To ensure the validity of the results, a series of preliminary tests were performed prior to the regression. The statistical tests employed are listed below, together with their general purpose:

Heteroscedasticity Test:

This kind of test examines whether the variability of the errors differs across values of the explanatory variable, or whether the error variance is constant across observations (homoscedasticity).

The specific test employed in this study is the Breusch–Pagan test, which assesses whether the variance of the residuals depends on the explanatory variables. This test involves running an auxiliary regression that includes the residuals obtained from the main regression and the explanatory variable. Based on this regression, we can calculate the LM (Lagrange Multiplier) statistic as $LM = n \times R^2$, where n is the number of observations and R^2 is the R square from the auxiliary regression. If $LM > \chi^2(\alpha, df)$ (the critical value), where α is the significance level and df the degrees of freedom, then we accept the alternative hypothesis H1: the errors are heteroscedastic, else we accept the null hypothesis H0: the errors are homoscedastic.

Thus, the heteroscedasticity test verifies whether the regression errors have constant variance, that is, whether homoscedasticity is present. If not, the standard errors and p-values are no longer reliable, and in this case, corrections need to be applied.

Autocorrelation Test:

This kind of test verifies whether the errors are independent from each other. If autocorrelation is present, the coefficients become inefficient and the standard errors are no longer valid, which means there is a risk of drawing incorrect conclusions about the significance of the coefficients. To test for this, the Durbin–Watson (DW) test and the Breusch–Godfrey test are commonly used (the latter being applied when testing for autocorrelation in an ARDL model).

If a DW test is applied to a simple model without lags and it indicates the presence of autocorrelation (DW > 2 or DW < 2), the issue can be corrected by estimating an ARDL model, where one or more lags of the variables are included (introducing more lags reduces the number of observations, which in turn increases the p-value).

On this model, the Breusch–Godfrey test is then applied. Similar to the Breusch–Pagan test, the LM statistic is calculated, from which the p-value = f(LM, df) is obtained, where df = the number of lagged residuals. If p-value > 0.05, the null hypothesis H0 (no autocorrelation) is accepted; otherwise, the alternative hypothesis H1 (autocorrelation is present) is accepted.

Stationarity Test:

This kind of test verifies whether the statistical properties of a series do not depend on time (constant mean and variance, and autocovariance depending only on the distance between observations rather than on the specific point in time).

Thus, if the values of a series fluctuate around a constant mean and the variations have the same amplitude, the series is stationary. However, if the series increases steadily over time, it is non-stationary (it has a trend). When a series is non-stationary, it can lead to misleading results (spurious regressions). Therefore, stationarity is important to ensure the stability of the estimated relationships and to demonstrate that they do not depend on the particular years chosen. In this regard, it was verified whether the mean, variance, and autocovariance of the series remain constant over time.

Multicollinearity Test:

Multicollinearity refers to the situation where two or more explanatory (independent) variables are highly correlated with each other (ex: r > 0.8). In short, this test checks whether the independent variables in the model are too strongly correlated, which would make the estimated coefficients unstable, difficult to interpret, and associated with inflated standard errors. As a result, variables may appear statistically insignificant even though they seem important.

In this case, the aim was to analyze the tertiary education enrollment rate to verify whether it can be introduced as an independent variable alongside government expenditure on education, and to check whether these two variables exhibit a high correlation. To perform this test, the correlation matrix between the two explanatory variables is constructed. If the correlation value exceeds 0.8, the variables are considered correlated and cannot be used simultaneously in the regression. If the correlation is below 0.8 but still relatively high, raising suspicions of multicollinearity, the Variance Inflation Factor (VIF) indicator is used. If VIF < 5, multicollinearity is not a concern; if VIF > 10, there is severe multicollinearity, and the coefficients become unreliable.

Based on these tests, it is possible to determine whether the DLM (Distributed Lag Model) or the ARDL (Autoregressive Distributed Lag Model) is more appropriate for this study.

The DLM is a regression model that captures the lagged effects of an explanatory variable on the dependent variable. Its equation is:

$$Y_t = \alpha + \beta_0 X_t + \beta_1 X_{t-1} + \beta_2 X_{t-2} + \cdots + \beta_k X_{t-k} + u_t$$

Y_t = the dependent variable at time t (in this study, represented by the annual GDP growth rate, expressed as a percentage);

X_t, X_{t-1}, …, X_{t-k} = the current and lagged values of the independent variable (in this case, government expenditure on education);

β_0, β_1, …, β_k = the lag coefficients, i.e., the extent to which the current and past values of the explanatory variable influence the dependent variable;

u_t = the error term;

Long-run effect = $\beta_0 + \beta_1 + \ldots + \beta_k$ (the total long-term effect of the explanatory variable).

The ARDL is a more general version of the DLM which, in addition to the lagged effects of the explanatory variable (government expenditure on education as a % of GDP), also includes the lagged effects of the dependent variable (annual GDP growth rate). An advantage of this model is that it captures the fact that the current value of the dependent variable depends not only on the explanatory variable but also on its own past values. The ARDL is often used when the aim is to study both short-run and long-run relationships between variables (especially in economic time series). Its equation is:

$Y_t = \alpha + \phi_1 Y_{t-1} + \cdots + \phi_p Y_{t-p} + \beta_0 X_t + \beta_1 X_{t-1} + \cdots + \beta_q X_{t-q} + u_t$

Y_t = the dependent variable at time t (in this study, represented by the annual GDP growth rate, expressed as a percentage);

X_t, X_{t-1}, …, X_{t-k} = the current and lagged values of the independent variable (in this case, government expenditure on education);

β_0, β_1, …, β_q = the lag coefficients of the explanatory variable, i.e., the extent to which the current and past values of the explanatory variable influence the dependent variable;

ϕ_1, …, ϕ_p = the lag coefficients of the dependent variable, i.e., the extent to which the current value of the dependent variable is influenced by its own past values;

u_t = the error term;

Long-run effect= $\frac{\beta 0+\beta 1+\cdots+\beta q}{1-(\phi 1,+ \ldots+ \phi p)}$, which captures the long-term impact of the explanatory variable, taking into account that the dependent variable also depends on its own past values, meaning that the effects of the explanatory variable propagate both directly and through the dynamics of the dependent variable;

4. Results

This section presents the results obtained from the methodology described above, applied to the selected data, together with their interpretation and relevance to the main working hypothesis.

Starting off with the Breusch-Pagan test, which was used for evaluating the presence of heteroscedasticity in the desired regression model. The two hyphotesis for this test were the following:

H0: it exists omoscedasticity.
H1: it exists heteroscedasticity.

Figure 3.1 −The graph with predicted values for the annual GDP growth rate and residuals for Romania
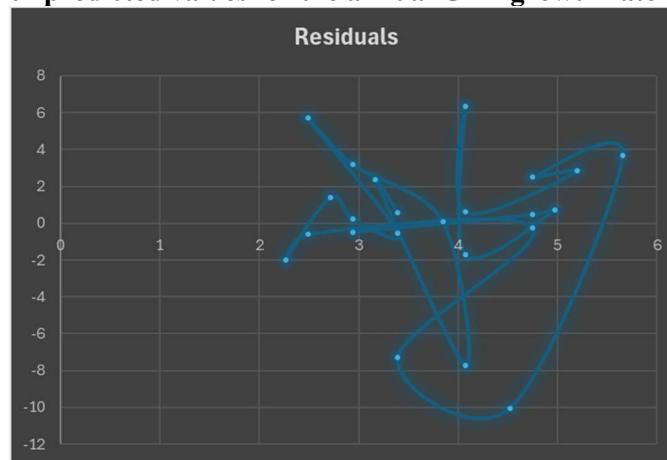
In the case of Romania, the figure 3.1, which contain the graph plotting the predicted values of annual GDP growth against the residuals from the regression of government expenditure on education on GDP growth suggests a slight fan-shaped heteroscedasticity. Nevertheless, the Breusch–Pagan test indicates that LM = 0.336812, which is below the critical value of $\chi^2(0.05;1) = 3.841459$. Thus, the null hypothesis cannot be rejected. The test was performed at a 5% significance level, equivalent to a 95% confidence level, ensuring the robustness of the results.

Figure 3.2 −The graph with predicted values for the annual GDP growth rate and residuals for Poland
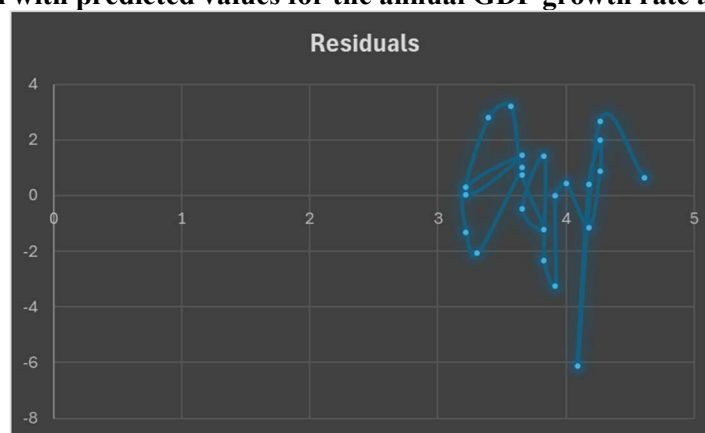
In the case of Poland, the graph from figure 3.2 displays similar patterns. Here too, the LM statistic is lower than the critical value, with a value of 0.32802. Consequently, the null hypothesis is not rejected, which suggests that the dispersion of errors remains constant across all observations.

The following test applied to analyze the dynamics of the two variables under this study is the autocorrelation test, conducted using the Durbin–Watson (DW) statistic. The formula is given by:
$$DW=\frac{\sum(Ut-Ut-1)^2}{\sum Ut^2}$$, where:

Ut = regression's residuals.
Ut-1 = the lag coefficient of residuals.

For Romania, the calculation above yields a DW value of 1.740334, which is less than 2, indicating positive autocorrelation. To address this issue, a new regression is estimated using an ARDL model that incorporates one lag for the dependent variable and one for the explanatory variable. In this context, the Breusch–Godfrey test is applied, since the DW statistic cannot be used with ARDL models that include lagged dependent variables.

The hypotheses are defined as follows:
H0: autocorrelation doesn't exist.
H1: autocorrelation exists.

To test these hypotheses, an initial regression is estimated using the ARDL model, from which a new set of residuals is obtained. These residuals are then used in an auxiliary regression including their lags, along with the lags of both the dependent and explanatory variables, as well as the explanatory variables themselves.

This procedure yields R^2 =0.0024, which is then used to compute LM=0.0505, and a corresponding p-value of 0.824779. Since the p-value is greater than 0.05, the null hypothesis cannot be rejected. This indicates that no autocorrelation is present, and the standard errors are therefore valid.

In the case of Poland, no issues were encountered in applying the DW test. The test produced a value of 2.01979, differing from 2 by only 0.01979, which indicates no evidence of autocorrelation. Consequently, the residuals are not correlated with those of previous years and do not bias the regression model.

After obtaining the positive results for both countries following the application of the heteroscedasticity and autocorrelation tests, which were carried out using the basic model (annual GDP growth rate and government expenditure on education), since these tests verify the assumptions of the estimated specification, the next tests are those of multicollinearity and stationarity. However, the variable "tertiary school enrollment rate" was additionally introduced to test for potential multicollinearity with government expenditure on education, given that the two may be strongly correlated.

The results indicate a weak positive correlation in the case of Romania, with a coefficient of 0.16225655. This suggests that the variables move in the same direction but do not strongly influence each other, meaning they can be used simultaneously as independent variables in the regression model without multicollinearity issues. In the case of Poland, minor complications arose, as the correlation coefficient was –0.621290475, relatively close to the critical threshold of –0.80. To verify the potential multicollinearity issue, the Variance Inflation Factor (VIF) was calculated using the formula $VIF=\frac{1}{1-R^2}$.

The results yielded values of approximately 1.62 for both variables (government expenditure on education and tertiary school enrollment rate). Since these values are well below the critical threshold of 5, the results indicate the absence of multicollinearity.

Finally, a stationarity test was applied to the time series in order to verify that the data are not time-dependent and to avoid spurious results. Since no specialized statistical software was available to perform the Augmented Dickey–Fuller (ADF) test, alternative methods were employed. Specifically, the dataset was divided into two subperiods (2000–2010 and 2011–2022), and the mean and variance of each were calculated and compared. If the values were similar across the two subperiods, the series was considered stationary; if they differed substantially, the series was considered non-stationary.

For Romania, government expenditure on education and the annual GDP growth rate displayed similar means and variances across both subperiods, suggesting that these series are stationary. By contrast, the tertiary school enrollment rate showed significant differences in variance, indicating non-stationarity. In addition, correlation was computed within an ARDL model including the explanatory variables (tertiary enrollment and government expenditure on education), the dependent variable (GDP growth), and the lags of both expenditure and GDP growth. Since most coefficients were below 0.8, the results confirmed no risk of non-stationarity.

Figure 3.3 – The evolution of the 3 selected variables in Romania

Evolution of time series - Romania

— % School enrollment, tertiary (% gross)
— % General government expenditure on education
— % Annual GDP growth
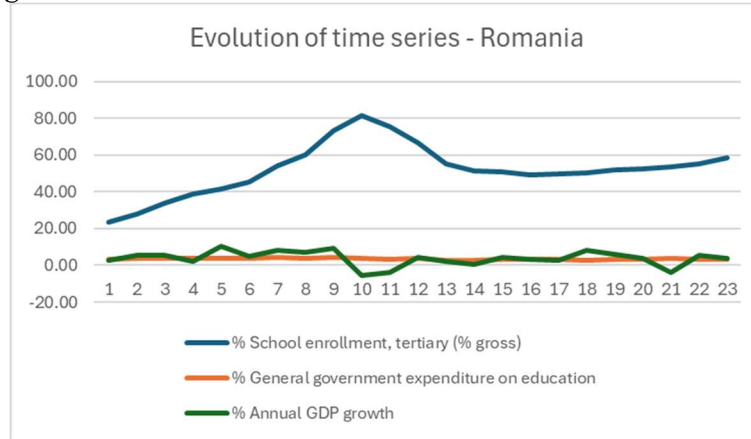
The graph from figure 3.3 was also produced to visualize the trends. It shows that both the GDP growth rate and government expenditure on education fluctuate around a stable mean, while the tertiary enrollment rate exhibits large variations with differing amplitudes. Considering the evidence from these three approaches, we can conclude that government expenditure on education and GDP growth are stationary, whereas the tertiary enrollment rate is not. To avoid spurious regressions, the tertiary enrollment variable was excluded from the final analysis, despite the absence of multicollinearity with government expenditure on education.

For Poland, similar results were obtained, with minor differences. In the comparison of means and variances across the two subperiods, a significant difference was again observed for the tertiary school enrollment rate, while a smaller difference appeared in the variance of the annual GDP growth rate. However, this difference was not large enough to render the GDP growth variable non-stationary.

Regarding the ARDL model, higher correlations were observed between tertiary school enrollment and government expenditure on education, as well as between the lag of government expenditure and expenditure itself. Nevertheless, since only a few coefficients displayed high values, the correlation matrix alone could not determine whether the series were non-stationary.

Figure 3.3 –The evolution of the 3 selected variables in Poland

Evolution of time series - Poland

— % School enrollment, tertiary (% gross)
— % General government expenditure on education
— % Annual GDP growth
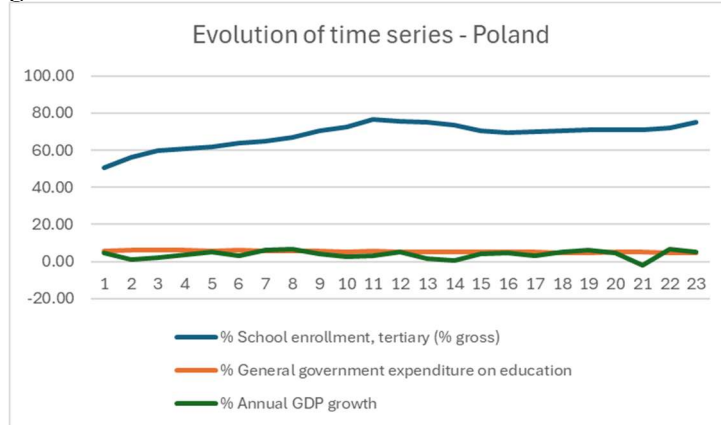
A final element that helps clarify the results is the graphical analysis of the series, represented in the figure 3.4. As in the case of Romania, the tertiary school enrollment rate shows large fluctuations with varying amplitudes, while the other two variables evolve relatively steadily around a mean. Consequently, the tertiary enrollment variable was again excluded from the analysis in order to avoid biasing the regression results.

5. Conclusions

The economic analysis examined whether government spending on education directly influences annual GDP growth, being a comparison between Romania and Poland. The methodology included a number of tests, such as heteroscedasticity, autocorrelation, multicollinearity and stationarity, to ensure the validity of the results.

Their results indicated that both data sets, government spending on education and annual GDP growth rate, are adequate for analysis, with only the variable 'tertiary education enrolment rate' being eliminated, as it has been shown to be unstationary and may lead to erroneous results. In terms of autocorrelation, the results differed between the two countries, the problems identified in the case of Romania being solved by using an ARDL model. In contrast, the heteroscedasticity and multicollinearity tests showed for both countries that there were no major problems, allowing the simultaneous use of variables. Thus, the tests carried out justify the use of DLM and ARDL models to analyze the relationship between government spending on education and the annual GDP growth rate in the long and short term.

Further discussion: As an extension of the present analysis, several directions for future research may be pursued in order to uncover hidden patterns among relevant sets of indicators. Specifically, the comparative methodological framework employed here, which involved testing the adequacy of the Distributed Lag Model (DLM) versus the Autoregressive Distributed Lag (ARDL) model and interpreting the results, could be applied to alternative indicator pairs that may further illuminate the relationship between education and economic growth in Romania and Poland. A few possible avenues include:

- GDP per capita as a measure of economic growth, in relation to general government expenditure on education (as a percentage of GDP), which serves as a proxy for public investment in human capital.
- GDP per capita in relation to population by sex, age, and educational attainment (ages 15–64), with a focus on individuals who have completed higher education.
- GDP per capita in relation to number of researchers in R&D per one million inhabitants, which not only reflects advanced educational attainment but also indicates an economy's capacity for innovation, productivity enhancement, and international competitiveness.

The inclusion of the latter educational indicator, namely the number of researchers per one million inhabitants, is particularly noteworthy, as it provides an additional explanatory dimension for economic growth. By capturing both the qualitative outcomes of higher education and the innovation potential of the labor force, this variable may yield deeper insights into the mechanisms through which education contributes to long-term economic dynamics.

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BANKS AND THEIR ROLE IN SUSTAINABLE SUPPLY CHAIN FINANCE - A CASE STUDY APPROACH[1]

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Abstract: Supply chain finance is a technique that provides working capital to suppliers in the global value chains, under favourable conditions. The key idea behind this financing solution is that suppliers can benefit from the buyer's stronger credit rating. In addition, it supports the integration of smaller suppliers into the global value chains. Its development is correlated with the growth of open-account transactions. Against this background, the purpose of this paper is to offer some insights into how sustainability issues are integrated into supply chain finance. The paper highlights the role that banks play in promoting this innovative financial solution. Offering supply chain finance programs where suppliers are evaluated based on compliance with sustainability standards is one way banks can contribute to promoting sustainable development. The paper contributes to the existing literature by presenting some case studies that illustrate various perspectives on how sustainable supply chain finance is implemented in practice in various countries and sectors. The findings suggest that banks can play a crucial role in fostering responsible global value chains.

1.   Introduction

The development of global value chains (GVCs) and increasingly intense integration of small and medium enterprises (SMEs) into them have created the premises for structural changes in international trade finance. While traditionally trade finance was carried out through documentary letters of credit provided by banks, the development of GVCs has led to the rise of inter-company open account trading (van Wersch, 2019). Supply chain finance (SCF) is closely related to open account transactions. Supply chain finance products contribute to reducing the financing cost for supply chain participants (IFC, 2020). The global financial crisis of 2008 led to an increased interest in SCF solutions. Technology improvements and favourable global regulations are among key drivers of SCF (IFC, 2014). Innovative digital solutions have transformed SCF and allowed even smaller companies to have access to financing. At the same time, they have helped reduce financing costs (IFC, 2020). In addition to digitalization, SCF also undergoes changes as a result of requirements regarding the promotion of sustainability. A company can promote sustainability both by adopting sustainable practices itself and by building sustainable value chains through various means including sustainable supply chain finance (SSCF) (SAP Taulia, 2021). Adopting SSCF is of paramount importance given that, currently, firms integrated into global supply chains face with social and environmental requirements of their production (Boström et al., 2015).

Against this background, the purpose of this paper is to contribute to emerging studies on integrating sustainability into SCF, with a focus on the role played by banks. To achieve this objective, the rest of the paper is structured as follows. Section 2 is dedicated to the literature review. The methodology is presented in Section 3. Section 4 addresses the SCF ecosystem. Some relevant experiences regarding the implementation of sustainable practices within SCF are illustrated in Section 4. The paper ends with concluding remarks.

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[1] This paper further capitalizes on the author's doctoral thesis "Banks and international banking activity".

2. Literature review

SCF is a subject that receives growing attention in the specialised literature given the benefits provided to all parties involved in transactions. Therefore, SCF is considered "as a strategic priority by providers of trade finance solutions" (ICC Global Banking Commission, 2023).

However, the number of studies approaching sustainability integration into SCF is still limited. Bancilhon et al. (2018, p. 11) define the concept of SSCF in this way: "Supply chain finance practices and techniques that support trade transactions, in a manner that minimizes negative impacts and creates environmental, social, and economic benefits for all stakeholders involved in bringing products and services to markets". Jia et al. (2020) contributed to the specialized literature on SSCF by conducting a systematic literature review, which, among other things, highlighted SSCF practices.

The study of Zhou and Masi (2025) has both theoretical and managerial contributions. By using a case study approach, the authors reveal that sustainability across supply chains can be improved through innovative technologies and financial incentives. In addition, the study shows that stakeholders' commitment to sustainability can also be an important factor supporting the adoption of sustainable practices. Medina et al. (2023) used the exploratory case studies methodology to examine the integration between supply chain sustainability practices and SCF. Among other valuable results, the study emphasises that "supplier assessment is currently the most adopted practice in SSCF". Nguyen et al. (2023) provide some insights on sustainability-focused SCF programs in Vietnam. The authors also adopted case studies methodology, justifying this choice by the fact that research in the field regarding this Asian country is limited.

One of the results of the research conducted by Tseng et al. (2019) indicates that SSCF contributes to improving the competitive advantages of companies. Liao et al. (2025) approached the SSCF ecosystem. Edunjobi (2024) focuses on integrating banking institutions into SSCF, highlighting the important role banks play in promoting sustainability including through the provision of green loans.

3. Methodology

The purpose of this paper is to evaluate some ways in which SCF can align with sustainability requirements. The methods used are mixed. Initially, a review of the specialized literature was conducted, which provided a perspective on the state of knowledge and the gap in the literature. Subsequently, the SCF technique and the SCF ecosystem were investigated. Finally, a case study-based approach was adopted. The choice of this research method was based on the fact that case studies can provide an in-depth understanding of this innovative method, which has not yet been sufficiently explored. The works consulted to achieve the proposed objective include publications issued by the Global Supply Chain Finance Forum, the ICC Global Banking Commission, the International Finance Corporation.

4. Banks and the SCF ecosystem

According to Global Supply Chain Finance Forum (2016, p. 24), "Supply Chain Finance is defined as the use of financing and risk mitigation practices and techniques to optimise the management of the working capital and liquidity invested in supply chain processes and transactions. SCF is typically applied to open account trade and is triggered by supply chain events. Visibility of underlying trade flows by the finance provider(s) is a necessary component of such financing arrangements which can be enabled by a technology platform".

Open account transactions imply that the goods are delivered by the seller to the buyer before payment is made, with the seller assuming the risk of non-payment. Usually, payment is made 30, 60, or 90 days after delivery. In order to fill this financing gap, the seller can resort to SCF solutions. The supplier can directly contact the financial service provider and sell the invoice or can access a supplier-financing program arranged by the buyer. Thus, the financial service provider offers him short-term financing. At maturity, the buyer will make the payment either to the supplier, who will then return the funds to the financial service provider, or directly to the financial service provider (Bancilhon et al., 2018).

Currently, open account payments are increasingly used worldwide, extending beyond traditional or lower-risk transactions. In this context, SCF solutions have become even more relevant (Global Supply Chain Finance Forum, 2016).

The SCF provides suppliers with the possibility to get payments early (JPMorgan Chase & Co., 2021). In addition, they can benefit from the buyer's better credit rating, usually large corporations (Fitzgeorge-Parker, 2021). This financing solution is crucial for SMEs integrated into GVCs to access working capital (Global

Partnership for Financial Inclusion, 2017). SCF solutions are more advantageous from the perspective of financing costs than traditional working capital lines (IFC, 2020).

Besides buyers and suppliers, banks are prominent players within the SCF ecosystem. SCF programs offer banks several advantages including improving customer relationships and obtaining stable revenues (IFC, 2014). The SCF community also includes logistics service providers, fintechs and governmental agencies (Choi et al., 2023). Technology platform providers have entered the SCF market and have established partnerships with financial institutions (IFC, 2020).

SSCF is a way for companies to reward their suppliers who adopt sustainable practices. Suppliers are evaluated based on some sustainability criteria, and those who achieve higher scores can receive SCF under more favourable conditions (SAP Taulia, 2021). Therefore, stakeholders in SSCF also include Environment, Social, and Governance (ESG) information providers (Liao et al., 2025).

On the other hand, the development of these programmes is a response to the pressure large corporations face to take responsibility for the environmental and social impact of their supply chains (Fitzgeorge-Parker, 2021).

5. International experiences

The selected case studies aimed, on one hand, to present relevant experiences that could serve as standards and best practices, and on the other hand, to illustrate as diverse cases as possible, highlighting the flexibility of this innovative financial solution. Although it did not limit itself to European experience, the focus was nevertheless on this part of the world. In addition, a part of the Romanian experience is presented. One of the motivations behind this choice refers to the fact that Romania is part of Central and Eastern Europe, a region that, to the best of our knowledge, has not received enough attention in the specialized literature regarding SSCF.

Case study: PUMA - BNP Paribas - International Finance Corporation (IFC) - GT Nexus

The launch of a "pioneering initiative" in this field was announced by an important European bank, BNP Paribas, in September 2016. This supplier financing program was developed together with PUMA – a leading sports company, the IFC and the IT platform provider GT Nexus. Similar to the principles of a SCF program, the cost at which suppliers within a value chain are financed depends on the buyer's credit rating, in this case, the rating of the company PUMA. However, in addition, it depends on the suppliers' rating regarding the fulfilment of environmental and social standards (BNP Paribas, 2016).

The PUMA Forever Better Vendor Financing Program that incentivizes suppliers to adhere to the sustainability standards was founded in 2016 (Puma, 2022). According to a press release issued by Puma on April 14, 2016, the partnership concluded with the IFC to finance its suppliers in emerging markets represents the first program of this kind signed by a European brand with the IFC. Puma has launched this innovative program with the aim of encouraging its suppliers in these markets including Cambodia, Indonesia, Vietnam and Bangladesh to adopt sustainability standards (Puma, 2016).

The IFC is a member of the World Bank Group focusing on the private sector development in emerging markets (IFC, 2025a). In order to promote trade finance, the IFC has launched the Global Trade Finance Program (GTFP) that supported more than 188,000 firms over the last 20 years. In addition, the IFC supports sustainable trade through the GTFP Climate Smart Trade initiative (IFC, 2025b). A testimony to its commitment to promoting sustainability in global supply chains is also the partnership with CRX Markets announced on February 12, 2025. CRX Markets is an important European working capital finance platform (IFC, 2025a).

J.P. Morgan - Bridgestone EMIA - Taulia - EcoVadis

J.P. Morgan is, according to the presentation posted on its website, "a leader in investment banking, commercial banking, financial transaction processing and asset management". With assets of $3.9 trillion, the financial services firm operates in over 100 countries and has over 300,000 employees. It is also worth noting that it has been operating for a long period of time, having over 225 years of service (JPMorgan Chase & Co., 2025).

At the request of Bridgestone EMIA, one of the world's leading tire manufacturers, J.P. Morgan designed a supply chain financing program in line with the company's ambitious ESG agenda. To accomplish this mission, J.P. Morgan collaborated with Taulia and EcoVadis (JPMorgan Chase & Co., 2021).

Taulia is a fintech company that provides companies with solutions to optimize working capital and build sustainable supply chains. The company serves businesses around the world and processes significant amounts of money, exceeding $500 billion each year (SAP Taulia, 2022). Through the platform provided by Taulia, the

suppliers of Bridgestone EMIA can easily integrate into the SSCF program, with very fast access to the platform (JPMorgan Chase & Co., 2021).

EcoVadis is a provider of business sustainability ratings founded in 2007 that assesses how companies integrate sustainability in their activities. The ratings given by EcoVadis cover four themes: "Environment"," Labor & Human Rights", "Ethics", and "Sustainable Procurement" (EcoVadis, 2025).

This program offers the suppliers of Bridgestone EMIA the opportunity to receive their payments more quickly and at favourable costs compared to borrowing lines (JPMorgan Chase & Co., 2021).

Bridgestone EMIA's commitment to promoting sustainability is also reflected in the fact that it has been evaluated by EcoVadis since 2015 (Bridgestone, 2020). In recognition of the progress made in the field of sustainability, in 2021, Bridgestone EMIA received the Platinum rating from EcoVadis for the second consecutive year. This ranking places it in the top 1% of 100,000+ companies across various industries and corners of the world (Bridgestone, 2023).

European Bank for Reconstruction and Development (EBRD) - Banca Transilvania - Profi Rom Food SRL

In December 2024, the EBRD announced the partnership established with Banca Transilvania in Romania to support the SCF programme of Profi Rom Food SRL (Bennett, 2024).

The parties involved in this partnership are active regarding initiatives that support sustainability. The EBRD is a multilateral development bank established in 1991 with the aim of facilitating the transition to a market economy in the Central and Eastern European countries, but its scope has later expanded. The bank's activities focus on the private sector. Promoting sustainability is also at the heart of its work (EBRD, n.d.). Over time, the EBRD has been involved in various projects that promote sustainability in Romania. To illustrate, recently, in May 2025, the EBRD announced that it is lending the bank Garanti BBVA Romania €50 million to finance green investments (Bennett, 2025a). The bank's investments in Romania are important, exceeding €12 billion (Bennett, 2025b). Moreover, according to its new strategy, the green economy transition will be one of the priority areas of the EBRD in Romania over the next five years (Bennett, 2025b).

On the other hand, Banca Transilvania is the most important bank in Romania, accounting for 20.90% of the net assets of all credit institutions (end-2024) (BNR, 2025). At the same time, Banca Transilvania is a financial institution that adopts sustainable practices. Its actions to promote sustainability include the provision of green mortgage loans that in 2024 accounted for 13% of the total mortgage loans it granted that year. It is also important to note the attention it pays to sustainability reporting. In this regard, the latest sustainability report published by the Financial Group Banca Transilvania (which includes Banca Transilvania) is aligned with the European reporting standards (the Corporate Sustainability Reporting Directive and the European Sustainability Reporting Standards) (Banca Transilvania, 2025).

At the same time, Profi Rom Food SRL is a Romanian retail company that has been operating for over 20 years, enjoying a large network of stores (1708 stores, end-2023), spread across 875 localities (Profi, 2023). The company's commitment to promoting responsible practices is reflected in its annual sustainability reports, highlighting the progress and achievements it has made in this area. The 2023 sustainability report emphasizes that Profi promotes the partnerships with local producers, which improves relations with community and reduces the carbon footprint of the supply chain (Profi, 2023).

According to the partnership established between the EBRD and Banca Transilvania, the EBRD will contribute the equivalent of €10 million in local currency to enhance the SCF programme of Profi Rom Food SRL managed by Banca Transilvania SRL. It is relevant that suppliers participating in this SCF programme also receive assistance from the EBRD and external consultants, which, among other things, helps them to prepare green transition plans and publish Science Based Targets initiative (SBTi) commitments. Ultimately, suppliers who publish SBTi commitments are eligible to receive cash incentives from the Horizon Europe programme (Bennett, 2024).

ING Bank N.V., Amsterdam, Bucharest Branch

Regarding Romania, the initiatives of ING Bank N.V., Amsterdam, Bucharest Branch are also noteworthy. It holds a significant market share, namely 8.85% (end-2024) of the net assets of all credit institutions (credit institutions, Romanian legal entities and branches of credit institutions, foreign legal entities) (BNR, 2025). It was established in 1994 and operates as a universal bank covering all categories of clients (ING Bank N.V., Amsterdam, Sucursala București, 2025a).

A report on its sustainability achievements in 2023 reveals that it has diversified its offerings by including the sustainable supply chain financing product in its portfolio, which is a wholesale financial product. It is important

to emphasize that, in this case, the bank correlates its supplier factoring program with EcoVadis sustainability scores (ING Bank N.V., Amsterdam, Sucursala București, 2025a).

The branch in Romania is part of ING Group, an international financial institution that provides services to clients in Europe as well as in other parts of the world (North America, Latin America, Asia, Australia) (ING Bank N.V. Amsterdam, Sucursala București, 2025b).

Santander - Sonae – EcoVadis

On May 11, 2022, Banco Santander announced a first for the market in Portugal: the launch of the first sustainability-linked supply chain finance program for a Portuguese retailer - Sonae. The program is dedicated to Sonae's suppliers in Portugal and Spain and benefits from the ESG ratings provided by EcoVadis. According to these sustainability ratings, Sonae's suppliers will receive preferential discount rates (Banco Santander S.A., 2022). On the same day, the event was also reported by Sonae, which stated that, initially, the agreement would be open to certain of its suppliers including Continente, Worten and MO (Sonae SGPS, 2022). The Santander's commitment to promoting sustainability is reflected, among other things, in the fact that the bank is a founding member of the Net-Zero Banking Alliance (Banco Santander S.A., 2022). Besides, encouraging sustainable supply chains is also at the heart of Sonae's sustainability strategy for 2023-2026 (Sonae SGPS, 2023).

Conclusions

SSCF, located at the intersection of sustainability and finance, is one of the innovative ways through which sustainability is integrated into trade finance, an effective means of promoting sustainable trade transactions.

The presented case studies highlight the complexity of operations, which, in addition to a traditional SCF, also involve the participation of third parties such as companies specialized in providing sustainability ratings. At the same time, it is worth noting the importance of digital platforms that facilitate the execution of the process.

A central actor within the SCF ecosystem is the bank that manages the SCF program. By participating in such programs, the respective banks express their commitment to promoting sustainable development, but they can also earn some additional income. The use of SSCF internationally could also be promoted by taking measures that encourage banks to offer such solutions. The international experiences presented highlight not only the role played by commercial banks, but also by multilateral development banks. These efforts are part of the broader initiatives of banks in promoting sustainability, which also include offering other sustainable products such as green loans.

Last but not least, it is worth noting the role of the incentives available to suppliers in the value chains participating in such an SCF program, through the provision of preferential interest rates. However, the benefits of these suppliers can be varied, as illustrated by the EBRD-Banca Transilvania-Profi Rom Food SRL case study, in which suppliers can receive financial incentives under the European Horizon program. Furthermore, as illustrated, SSCF can be applicable both at the level of value chains with only local suppliers and at the level of GVCs.

All of this highlights the complexity and the flexibility of this innovative financial solution, which can play a crucial role in promoting sustainability in GVCs.

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THE ROLE OF MENTORING AT THE BEGINNING OF A PROFESSIONAL CAREER IN ADVERTISING

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Abstract: This paper explores the role of mentoring at the onset of a professional career in advertising, focusing on college students and recent graduates. Following a theoretical overview of key concepts and theories related to mentoring and career development, the study presents statistical data describing the organizational climate of the advertising industry and its openness toward young professionals, both internationally and in Romania. The empirical section includes a qualitative analysis based on in-depth interviews with two categories of participants: graduates of mentoring programs and their organizers—mentors and employers within the Romanian advertising field. Findings highlight that young participants benefit from mentoring through opportunities that foster professional growth, guidance from senior professionals, and effective knowledge transfer. Mentoring programs yield mutual advantages: for mentees, a valuable career foundation; for mentors, personal satisfaction and professional recognition; and for employers and the industry, improved performance and talent development.

Keywords: mentoring, advertising agencies, professional career, mentoring program, students, university graduates.

1 Introduction

In the advertising industry, the topic concerning the importance of mentoring programs at the beginning of one's professional career is highly relevant due to the dynamics and competitiveness that characterize the field. The labor market is in continuous and rapid development from a technological perspective, which inherently requires increased efficiency and the constant adaptation of young professionals to industry demands. The integration of young talent through these type of programs provides a secure starting point within a framework tailored to the needs of both the young professionals and the industry, thereby creating a link between the academic environment and the requirements of hiring companies.

Companies require a diverse and well-educated workforce in order to successfully adapt to rapidly changing technology-based practices. The extremely rapid pace of technological advancement increases the need for employees to possess diverse specializations and to be well-prepared professionally. To remain competitive, organizations must invest in human capital, in the education and training of their own employees, investments that yield long-term benefits for companies. This is a shared responsibility: students must actively participate in acquiring new skills; universities must provide well-structured academic programs; and employers must engage in the practical training of future employees (Schambach & Dirks, 2002, pp. 1-2).

2 Literature Review

The term originates in Greek mythology, deriving from the figure of Mentor, a wise and trusted friend of Odysseus. When Odysseus departed for the Trojan War, he entrusted Mentor with the care of his son, Telemachus. Mentor assumed responsibility for shaping Telemachus's character, overseeing his education, and instilling virtuous values. The attributes and duties associated with Mentor constitute the defining traits of the contemporary mentor: wisdom, experience, trustworthiness, and full dedication to guiding a novice (Barondes, 1997, p. 347). The concept of mentoring has evolved over time to facilitate the achievement of objectives arising within one's professional career. Collaboration with a mentor inherently fosters the development of competencies in a specific field. Regardless of the stage of the professional career in which the protégé finds themselves,

mentoring must play an equally significant role in ensuring their proper development (Pender Greene, 2015, pp. 1-3).

Mentoring is defined as "a one-to-one learning relationship between two individuals, one of whom is more mature (the mentor), though not necessarily older than the other. It is a relationship based on role modeling and engagement in extended dialogue between them" (Crașovan, 2005, p. 64). The one-to-one relationship enables direct and tailored interaction in each case between the mentor and the protégé. The mentor must be a person with greater experience and more advanced competencies. It is not necessary for the mentor to be older; rather, their professional position is of primary importance. The mentor thus becomes a role model for the mentee (Barbaroș, Bocoș, 2023, p. 316). Other authors (Trieu et al., 2025, pp. 4-7) also emphasizes the role of peer mentoring and collaboration in shaping professional branding, in the early career stages. Successful mentoring is based on establishing open communication between the two parties involved. A safe environment is created for the mentee, in which transparent discussions take place regarding emerging situations (Boldea, Sigmirean, Buda, 2018, pp. 145-146).

Mentoring programs bring numerous visible benefits to the mentee. The early stages of a professional career can be stressful; the guidance of a mentor alleviates professional stress. The mentor's presence and intervention contribute to shaping the intern's professional identity (Pop, 2018, p. 145). One such benefit is the exposure gained within a diversified professional network, which contributes to increased visibility in the industry through networking opportunities. Additionally, the mentee gains access to practical knowledge and strategic insights, enabling the acceleration of their professional growth. Moreover, the mentor introduces the mentee to organizational norms, values, and culture, thereby facilitating their integration and adaptation to the work environment. Repeated interactions with the mentor help the mentee develop empathy and interpersonal communication skills, which in turn support the effective management of complex situations and foster the mentee's maturation. The open communication relationship and safe framework established between them contribute to the protégé's increased self-esteem. Owing to their relevant professional position, the mentor supports the mentee's career development through involvement in projects, conferences, training programs, and by identifying employment opportunities for the mentee. On the other side, for the mentor, a primary benefit is the satisfaction derived from fostering growth and assisting individuals in their professional advancement. The mentor can delegate certain tasks to the mentee, thereby freeing up time for themselves when they work collaboratively. Moreover, due to the open relationship between the two, there is a reciprocal exchange of ideas and perspectives, which may even be novel for the mentor, creating a relationship of mutual support. This dynamic can lead to improvements in the mentor's profession and contributions to advancing their field of interest (Pender Greene, 2015, pp. 3-4).

The benefits of the mentor-mentee relationship are often perceived as being solely for the mentee; however, in reality, the mentor also derives numerous advantages from the relationship, representing an opportunity to refine their professional knowledge and experience (Stănculescu, 2015, p. 31). Mentoring also provides long-term benefits for the organization: these programs cultivate future valuable employees for the company. Additionally, they enhance employee performance, reduce turnover among valuable staff, and increase productivity at the organizational level (Randstad, 2020).

The advertising industry underwent numerous changes during the pandemic, and the Romanian Union of Advertising Agencies (UAPR) conducted a study aimed at understanding how employees adapted to the pandemic situation and identifying their specific needs. One difficulty encountered by employees while working from home was separating professional and personal life, with 62.6% of respondents affirming this challenge. Despite the difficulties, there were also benefits: 53.7% of respondents indicated that flexibility was the greatest advantage offered by remote work (UAPR, 2021).

The organizational climate in small, Romanian-owned advertising agencies is primarily based on interpersonal and friendly relationships, whereas in large multinational agencies, employee interactions are more competitive, with the organizational atmosphere focused on task completion and achieving corporate objectives (Leovaridis, Cismaru, 2016, p. 45). Communication within small advertising agencies is predominantly informal, while in multinational companies in the advertising industry, communication tends to be mainly formal (Leovaridis, 2013, p. 195).

According to a recent study, measuring job satisfaction among employees in the industry, conducted by Romanian Union of Advertising Agencies (UAPR), employees in the communications sector are generally satisfied with the field in which they work. 80% of participants take pride in their work and wish to pursue a long-term career in this domain. 60% intend to continue working in this field for at least the next five years. Over three-quarters of respondents (77%) would recommend the industry as a sector where one can have a very good

job, and 90% consider their current employment to be secure and very secure. The social aspects of the workplace are highly valued by employees and are considered essential for overall job satisfaction. Friendships among colleagues, both formal and informal, play a significant role in creating a pleasant and motivating work environment. Young professionals aged 18-24 exhibit particularly high enthusiasm, but as they gain experience, their perspective becomes more nuanced: individuals with longer tenure in the industry tend to adopt a more realistic view of the social aspects of their job, recognizing both the benefits and challenges that come with accumulated experience (UAPR, D&D Research, 2024, p. 5). Other authors also show that cooperation, along with other individual career adaptability traits (concern, control, curiosity), influence the retention of talented employees in the advertising sector (Ferreira, Mujajati, 2017, pp. 405-411).

A significant percentage of respondents express satisfaction and contentment with the agencies in which they work. They generally value the social aspects of their workplace, feel appreciated by both colleagues and employers, consider their job attractive and authentic, and are passionate about their work. The study also identifies a weakness in the industry: only 61.1% of participants believe that all their professional training and development needs are met (UAPR, D&D Research, 2024, p. 24).

Work performance is influenced by the employee's emotional state and stress level, which has led organizations to adapt to employees' needs (Leovaridis & Păun, 2022, p. 26). The work schedule is flexible, with hybrid arrangements in place: 7% of respondents work full-time from home, while 10% work full-time from the office and 68% come to the office at least two days per week. Respondents indicate that the hybrid work schedule helps them maintain a balance between professional and personal life, with 69% agreeing with this statement. The greatest benefit of the hybrid system is the elimination of commuting to the office, with 80% of respondents endorsing this view (UAPR, D&D Research, 2024, pp. 27, 29, 30).

Regarding a highly relevant contemporary dimension in organizations—namely, sustainability, expressed through diversity, equity, and inclusion—studies conducted in the marketing and advertising sector at the European level indicate that (EACA, 2021, pp. 1-2) the marketing industry surpasses other sectors in terms of inclusion; however, significant challenges remain. The marketing industry scored 64% on the inclusion index, higher than the health sector, which scored 60%. The EACA study surveyed a sample of 10,000 respondents from the marketing sector across 27 countries, identifying significant differences in employees' experiences. According to the study, 69% of men feel more included in the workplace than women. Differences also exist among ethnic minorities, who report feeling less integrated than the majority of employees; in the United States, 17% of marketing employees experienced discrimination based on their ethnic background.

In Romania, recent research (UAPR, D&D Research, 2024, pp. 7, 33) indicates that gender distribution within agencies is becoming increasingly balanced, according to more than half of the respondents (56%). Regardless of their level of experience, respondents assert that the communications industry plays a crucial role in promoting diversity in Romanian society, a view strongly supported primarily by respondents in leadership/director positions (85% of them share this opinion). "Skills Training" initiatives are considered beneficial to the industry by 80% of participants: those at the Junior Management level (86%) and Starter level (84%) most frequently recognize advantages in this type of program. Promoting the industry among students is viewed positively by 82% of respondents, with the greatest acknowledgment coming from Junior Management (86%) and Starter level participants (84%) (UAPR, D&D Research, 2024, pp. 42, 43). The employment of creative graduates who show interest in working in the advertising industry, and who often represent a cheaper workforce, contributes to improving the economic performance of agencies, especially in the current context of economic recession, in which advertising agencies' clients usually reduce their investments in advertising, which negatively affects the financial situation of the agencies (Sobotková, Švarcová, 2013, pp. 707-717).

"Some authors (Sanchez-Sancez et al., 2017, pp. 53-75) observe that in the current context, marked by the emergence of new technologies, the constant updating of advertising sector employees' knowledge in this field has become an entirely personal responsibility; in view of this situation, mentoring becomes all the more necessary in order to prepare future professionals to navigate a complex and predominantly digital environment. Professional mentoring programs create safe learning and practice environments, operating under the guidance of mentors, who are professionals in the field. Interpersonal relationships, communication, cooperation, knowledge enhancement, motivation, and employee performance are all improved through these programs within the communications industry (Losîi, 2014, p. 3).

The IAA School, *Pepiniera de Talente* IAA (IAA Talent Nursery) and MentorIAA are initiatives of the International Advertising Association (IAA) Romania. Their primary objective is to contribute to the development of the marketing and communications industry. The programs are complementary, with the main distinction among them being the age group of young participants they target.

The IAA School is an educational program recognized across the MarComm industry in Romania. The program includes several specializations: Fundamentals of Marketing and Communication, Digital, Strategic, Media, and Leadership, tailored according to the participants' level of experience. Its purpose is to enable participants to acquire essential knowledge and apply it in real-world contexts through case studies and with the support of instructors, who are industry professionals. This program targets both individuals with 1-3 years of experience, who are building their foundation in the field through the Fundamentals Module, as well as specialists seeking to deepen their expertise through the other modules (IAA, 2023).

Pepiniera de Talente IAA is a program aimed at university students in marketing, communication, advertising, or related fields, as well as recent graduates starting their careers in these domains. Its objective is to help them enter the marketing and advertising industry. Through this program, participants establish connections with industry professionals and gain direct exposure to current trends and working practices in the field (IAA, 2022).

Another IAA initiative was MentorIAA, a mentoring program that connected students, as mentees, with senior industry professionals, who served as their mentors, thereby forming mentor-mentee partnerships. The program consisted of six one-on-one sessions between the mentor and the mentee. The mentor helped the participant understand the industry and acquire new knowledge in the specific area of advertising that the student chose to explore, assigning a senior advertising professional specialized in that particular field as a mentor (IAA, 2022). MentorIAA was organized by IAA Romania within the framework of the first partnership in Romania between the business sector (IAA member advertising agencies) and the academic sector (specialized faculties in Bucharest) in marketing and communication, called AcademIAA. The mission of AcademIAA is to increase the employability of graduates from marketing and communication programs.

The School of Big Ideas (SOBI) is an educational program initiated by Publicis Groupe Romania, specifically designed to nurture and develop young talent. SOBI targets final-year students from relevant faculties and recent graduates who aspire to a career in the advertising and communication industry. Participation in SOBI cultivates practical experience and provides feedback sessions from senior advertising professionals within the Group. The program offers benefits such as valuable hands-on experience, networking opportunities, constructive feedback from industry experts, and potential career opportunities within Publicis Groupe. SOBI supports mentoring, through which young participants receive guidance and advice from professionals, serving as the primary learning mechanism (Publicis Groupe, 2024).

Școala ADC (The ADC School) is an initiative of the Art Directors Club Romania (ADC*RO), an educational program created for young aspiring professionals in advertising and communication. The program aims to discover and cultivate new talent through a practical and industry-relevant approach. The ADC School program is a mentoring-based program that combines theoretical courses with practical sessions led by active industry professionals. Beyond the courses and practical mentoring, the program also includes visits to some of the largest advertising agencies in Romania (IQads.ro, 2023).

The Alternative School is a program founded in 2005, it is a non-formal and unconventional school of creativity that offers participants experiences designed to stimulate creativity and innovation, with a focus on the creative industries as a whole. The program targets young professionals in marketing, communication, advertising, and other related fields, as well as talented students with creative skills. The program features short, intensive modules focused on specific topics. The uniqueness of this mentoring program lies in the presence of internationally renowned trainers alongside local experts from the creative industries, who share their extensive experience and provide valuable perspectives on their respective fields. A distinctive feature of The Alternative School is its connection with the Cannes Lions International Festival of Creativity (The Alternative School, 2025).

3 Research Methodology

Based on the overarching objective of "identifying the role of mentoring at the onset of a career in advertising", this study aims to examine both the perceptions and experiences of individuals involved in mentoring programs, including graduates, mentors, organizers, and employers. A qualitative research approach was employed, utilizing in-depth interviews as the primary technique. The data collection instrument was a semi-structured interview guide, which enabled the collection of detailed and nuanced information from respondents belonging to groups relevant to the study.

To obtain a comprehensive perspective on the topic, two groups of participants were selected. The first group comprised eight graduates of at least one of the mentoring programs previously presented: School of Big Ideas, Mentor IAA, Pepiniera de Talente IAA, ADC School and The Alternative School. These participants had

direct experience with both the benefits and challenges of these programs, providing valuable insights into the role mentoring plays in the early stages of their professional development. These respondents were aged between 21 and 28, with the majority being students or graduates of university programs such as Communication and Public Relations or Advertising. Some of them are also employed in advertising agencies, both in creative and media departments, holding junior positions such as Copywriter, Digital Media Trainee, Account Executive and Social Media Expert. All respondents had participated in at least one of the following mentoring programs: IAA School, MentorIAA, School of Big Ideas etc. Most completed these programs recently, in 2024, with only one respondent having participated in 2020. The most common ways they learned about these mentoring programs were through the academic environment (from certain professors), recommendations from friends and colleagues who had completed the programs, and online through advertisements seen on Instagram and LinkedIn.

The second group consisted of organizers, mentors and employers involved in mentoring programs, totaling seven participants: R1, a mentor in the School of Big Ideas program; R2, Program Director and organizer of IAA School; R3, coordinator of educational programs organized by Publicis Groupe Romania, School of Big Ideas; R4, mentor in the School of Big Ideas program; R5, Senior Account Manager and part of the teams where young graduates undertake internships; R6, mentor and instructor at IAA School; and R7, teacher in the Şcoala ADC program. These respondents are active in the advertising industry, working in various agencies and holding positions in client service, strategy, creative, human resources, or educational management departments. In addition to their active involvement in agency life, they participate in mentoring programs either as organizers, employers, or mentors; they are specialists in the advertising industry with over 15-20 years of experience. The professional trajectories of most respondents have been progressive, starting from junior positions and advancing to leadership roles: "I have over 15 years of experience in the advertising industry, starting as a Project Manager and evolving to my current position as Strategy & Branding Director, passing through intermediate roles such as Brand Planner and Senior Brand Planner in various agencies" (R1); "I am a teacher at ADC School, specifically teaching a copywriting course" (R7); "I am part of the Talent department, which is responsible for developing and managing initiatives aimed at attracting, training, and integrating new talents into the organization. The activities include coordinating educational and mentoring programs, such as the School of Big Ideas" (R3).

These two groups (graduates of mentoring programs and the program organizers, mentors, and employers) facilitate a nuanced and comprehensive understanding of the research topic. Separate interview guides were developed for each group. Interviews were conducted between March 10 and April 4, 2025. Each interview with graduates lasted approximately 40 minutes on average, while interviews with mentors, organizers, and employers averaged 50 minutes.

For the first group, the following research questions were formulated: 1. How did the mentoring program they attended support their development?; 2. What recommendations or suggestions do they have to enhance the effectiveness of mentoring programs?; 3. How does their actual experience in the mentoring program compare with their initial expectations?. For the second group, the research questions were: 1. What objectives do they pursue through the mentoring programs they organize or promote? (Why are these programs implemented?); 2. What benefits do mentors and employing organizations derive from these programs?; 3. How do they evaluate the development of young professionals who have participated in mentoring programs?.

4 Research Results

4.1 Analysis and interpretation of data obtained from interviews with graduates of mentoring programs
Motivation and benefits of participating in mentoring programs

The young respondents' main motivations were the desire to apply the theory learned at university, curiosity about the field, and the aspiration to achieve their dream of working in the advertising industry. They perceived these mentoring programs as opportunities to enter the industry: "For both programs, the motivation was that I really wanted to work in this field, and these programs were opportunities to deepen my knowledge and later to launch my career" (Respondent A). Many young students or graduates faced difficulties entering the industry before completing the mentoring programs: "I didn't know how to get into the industry; I was at an impasse in this regard. I was sending my CV to many agencies, but no one contacted me. So, the desire to enter the industry motivated me to participate in these mentoring programs" (Respondent B).

The mentoring programs in which the respondents participated provided multiple and diverse benefits for both their professional and personal development, with mentors playing a crucial role in their journey: "Before this program, I had a general idea of what advertising is, but not in detail. I can say that this program laid the foundation of my advertising knowledge. From how to conduct a brainstorming session, what it means to be a

copywriter, art director, or strategist, understanding a brief, finding insights around you, to the complete analysis of all communication media" (Respondent C).

Depending on individual performance, some respondents received job offers after completing the mentoring programs. Most participants obtained an internship first, followed by a job after completing the programs, while only one respondent did not receive any internship offers. The mentoring programs increased the visibility of our young respondents for advertising agencies: "Yes, following my participation in this mentoring program, I received a job at the agency where I did my internship, in the position I currently hold" (Respondent D), "I got a job as a junior copywriter at an advertising agency" (Respondent E), "After the three-month internship I completed through the ADC School, I received multiple offers from different agencies, including the one where I started my internship and where I ultimately decided to stay. I progressed from being just an intern, probably the only one at the time, to junior and then mid-level copywriter" (Respondent C).

From the relationship with their mentors to interactions with other participants, interpersonal communication is a significant benefit of mentoring programs. The relationships that young participants have with their mentors are described as open, based on trust, respect, and transparent communication. Participants received support from their mentors and found it easy to actively engage in discussions with them: "I had two important mentors throughout my career. One was my mentor during ADC School, who offered me the internship position, and the other took me under their wing and helped me grow. (...) I know that without their trust in me, I wouldn't be where I am today. Maybe I would have never had these opportunities. And with the mentor who shaped me as a copywriter, I stay in daily contact. This is the person I turn to when I'm stuck, because I know that a simple conversation with them will help more than a week of overanalyzing the problem. This is one of the reasons I'm still anchored in this agency" (Respondent C). Most respondents also stated that they formed friendships with other participants, emphasizing that interacting with young people passionate about the same industry is a positive and valuable experience: "I can say yes, both professional connections with mentors and friendships with other participants. Many of us have remained friends and we meet at industry events. With a few from IAA School, I also met again at SOBI" (Respondent A).

Recommendations and suggestions for improving mentoring programs

Respondents expressed overall satisfaction with the mentoring programs, but they also identified areas for improvement related to both the program schedule and course structure: "I think the program is a bit long, eight hours a day. In the last few hours, I could no longer focus on the information" (Respondent F), "I would suggest that student groups or meetings be smaller so that more time can be dedicated to each individual. I think this would always help, especially at the beginning" (Respondent E). Regarding the organizers, participants encouraged the continuation of these programs, highlighting their value and importance for young professionals: "I think the program was very well structured, but it would have been more effective if the daily duration had been shorter. Eight hours per day was quite demanding, and a more condensed format would have helped maintain focus and energy. Also, better-distributed breaks would have made the experience more relaxed and productive" (Respondent G), "They should definitely continue this; these programs are very important for young people like me who want to enter the industry. There are still some minor organizational issues, but nothing too disruptive" (Respondent E). One respondent, who participated in the program in 2020, noted: "Many things have already changed in this mentoring program since I attended. I still think a bit more practical work would be helpful. Yes, the assignments help you practice in the advertising world, but I believe that a brainstorming session with a creative team on a real idea would add extra value" (Respondent C).

Mentors play a fundamental role in the learning process and beyond, acting as guides for young professionals by offering support and practical advice that aids their career development: "From my point of view, mentors have the most important role; they provide support and guide young people. Without them, the process of learning and integrating young professionals into the industry could not be so natural" (Respondent B), "I believe mentors should act as guides and provide support by offering project guidance. They should not give direct answers but help the mentee discover solutions, clarify their goals, and build confidence in their own potential" (Respondent F). Advice for future participants is simple and precise: respondents encourage them to actively engage, gather as much information as possible, and participate in all activities proposed by the mentors. They also emphasize the importance of being open and asking questions whenever there is uncertainty: "I advise future participants to pay close attention to what their mentor and employer suggest, without stubbornness, because they have a lot to learn from them. It is important to observe everything around them and learn as much as possible" (Respondent H).

Young participants' expectations vs. experiences in mentoring programs

Comparing the expectations that graduates had with their real experiences highlights the degree of satisfaction with the mentoring programs. Participants generally perceive the programs as well adapted to the needs of young professionals; however, some areas could benefit from further improvement. For instance, participants suggested placing greater emphasis on brainstorming activities, considered central to agency work: "More focus should be placed on brainstorming, as it is the core of every company" (Respondent C); others recommended practical training on portfolio presentations, which was lacking in some programs: "In my year at ADC, portfolios were sent electronically rather than presented. Therefore, we didn't have the opportunity to learn 'tips & tricks' on how to present effectively to clients" (Respondent E). Among the most appreciated activities in programs for juniors are those that are practical and interactive. Several young participants emphasized that greater attention should be given to interpersonal communication and presentation skills, which are essential when pitching ideas: "Although it may not be the first thing that comes to mind, aspects like communication nuances should be more thoroughly addressed and practiced within mentoring programs. In the rush to acquire new concepts, we sometimes forget that we are all human and must learn to understand each other, especially when we haven't yet developed these skills" (Respondent D); "I would have benefited from more presentation skills courses, but this is purely my subjective opinion" (Respondent B). These insights suggest that while these programs largely meet the expectations of young professionals, incorporating more structured practical exercises focused on communication and presentation could further enhance their effectiveness.

A positive assessment of a mentoring program by respondents is reflected in their willingness to recommend the experience to friends and acquaintances. Participants unanimously described the program as a significant support during the early stages of their professional careers, while also contributing positively to their professional development. Graduates of these programs perceived them as valuable opportunities to enter the industry and advance professionally. For a substantial portion of respondents, the mentoring programs exceeded their initial expectations. They highlighted the welcoming and collaborative environment, the practical applicability of the content, and the constructive interaction with mentors as key factors: "I was pleasantly surprised by the interactive teaching methods and the freedom to think creatively; we were not constrained by any limitations" (Respondent B); "I believe these programs had the greatest impact on my professional development; they enhanced all the knowledge I gained during university and facilitated my entry into the industry I aspire to work in" (Respondent A). All respondents reported that they would recommend the program to friends or colleagues, reflecting their overall satisfaction with the mentoring experience. They perceive the program as a professional launching pad, providing a simulation of real agency work: "Yes, especially for those who are passionate or curious about the field, because they interact directly with agency professionals. It never felt like a traditional classroom experience; there was nothing purely theoretical. It is a kind of simulation of working in advertising" (Respondent E); "Yes, I recommended it to others; some enrolled and participated. I recommended these programs because participation brings only benefits and provides direct exposure to an industry populated by highly competent professionals" (Respondent A). Participants also emphasize the importance of active engagement for future mentees, they encourage prospective participants to remain open to learning, to seize all opportunities, and to manage their time and energy effectively, as mentoring programs can be intense yet highly valuable: "Engage actively both in the courses and in additional activities and opportunities" (Respondent E); "I would advise prospective mentees to be receptive to learning and to take full advantage of every opportunity offered. It is essential to be prepared to manage one's time and energy, as these programs can be intensive but extremely valuable. Most importantly, maintain patience and appreciate the process of continuous learning" (Respondent G).

4.2 Analysis and interpretation of data obtained from interviews with mentoring program organizers, mentors, advertising employers

Objectives of mentoring programs

Mentoring programs are well integrated into the industry, and most respondents stated that they have engaged with mentoring programs either directly or informally, often when supporting younger colleagues. Only one respondent mentioned that this is their first official experience as a mentor: "I have been involved in several mentoring programs, which are initiatives of the IAA. Beyond these programs, in so many years of industry experience, I have often found myself in situations where I guided people, offered advice, and provided my support" (R6). Respondents identified various reasons for participating in mentoring programs. Some stated that their involvement stems from professional responsibility, as well as a desire to share knowledge gained over years of experience and to support the development of younger generations. Some respondents emphasized the pleasure of interacting with younger generations and the new ideas they bring: "I got involved in this program

through my workplace and because of my desire to help young people integrate into agency life" (R5); "I believe that as we get older, we feel the need to pass on accumulated knowledge; it is said to be humans' way of achieving a form of immortality. Additionally, as I mentioned, I enjoy working with 'new' people in this field because they bring a fresh perspective" (R7); "The industry needed and still needs people who know more than just theory. There was a need for programs organized at the industry level, as individual agencies' programs were not as well developed" (R6).

The success of mentoring programs can be measured in different ways, according to the respondents, such as by evaluating the quality of projects completed by graduates at the end of the courses, through general feedback from all participants involved in the mentoring program, and by tracking the graduates' career paths after completing the program: "I believe success depends on the context or on a case-by-case basis. But, in general, I define it as follows: mentees want to continue in creative work, they manage to carry a project from start to finish, they succeed in getting employed, and they manage to produce quality creative work that is recognized and appreciated accordingly" (R7); "As mentees, the program should expose students to possible careers in marketing and communications, so that would be a qualitative criterion for measuring success. (…) The entire mentoring program was somehow monitored in terms of feedback from both students and mentors; evaluation forms were used" (R2). During the organization of mentoring programs, challenges inevitably arise. Respondents noted that the main challenges included creating relevant content, maintaining participants' attention throughout the program, and the limited time availability of mentors: "There were challenges, which is normal. I think the mentors' time was a challenge; they are industry professionals holding important positions in agencies, and it is clear that their free time is quite limited. There were other challenges, but I believe that when you are aware of the value a project brings, you can find solutions for any challenge because you know it's worth it" (R6); "We faced challenges in developing the courses and tests, as well as in maintaining and adapting the online platform to make it as efficient as possible and to meet both the participants' needs and our requirements. We overcame them through continuous improvements, content optimization, and platform adjustments to create a smoother and more interactive learning experience" (R3).

According to the respondents, mentors are selected based on their professional experience, but they must also have a willingness to volunteer in these programs as well as strong communication skills: "Mentors are industry professionals. They are people from mid- and top-management positions. They choose to participate out of their own desire. Mentors add value to this program, are dedicated, and happy to share what they know with young people" (R2). Participant selection varies depending on the specifics of each program, but the most important and frequently used criteria are motivation, curiosity, willingness to learn, and good results during the selection process: "There is a registration period for courses that combine theory and practice, and afterwards, the selected participants come to the agency for a week to solve a brief. After that week, a selection is made, and those chosen receive an internship within the agency. From the last stage, when the graduates come to the agency, I am involved in guiding and supporting them" (R5). Logistical resources are limited in all mentoring programs included in our research, so the focus is on optimizing existing resources to maximize the programs' impact on young graduates, as well as on the development of the industry.

Benefits for mentors and employers from mentoring programs

Mentoring programs are primarily participant-centered; however, the benefits are reciprocal for all parties involved. Even though mentoring programs often focus on the participants, mentors also gain advantages: they can develop both professionally and personally through their involvement in these programs. Some of the mentors who responded to these questions indicated that the main benefit they receive is the development of the people they have encouraged and supported throughout the process: "I was not materially rewarded, but I felt rewarded when a participant came to tell me that they had received an internship on my team, so we would be colleagues, that was the most important reward" (R4); "Mentors volunteer in these programs, but we try to acknowledge them by showing how much good they do for a person, as well as for the industry. We appreciate the values they bring, which are evident in their willingness to dedicate their free time to something that has a significant impact" (R6). Employer organizations are direct beneficiaries of mentoring programs, according to the respondents. Through these programs, organizations have direct access to young professionals who have received quality training and are motivated to enter the industry: "Both the organization and the industry gain many benefits from these mentoring programs. They are the direct beneficiaries of young professionals with a fresh perspective" (R7); "The program contributes to developing future talents in the industry, supports the Employer Branding strategy, and facilitates the recruitment process by ensuring better-prepared candidates for integration into the organization" (R3). By organizing mentoring programs, organizational culture is strengthened through the promotion of education, intergenerational collaboration, and professional development: "The

program promotes collaboration across teams and generations, encouraging the exchange of ideas and continuous development. It also facilitates a learning and innovation environment, aligned with the organization's values" (R3). Mentors have the opportunity to develop their interpersonal communication, guidance, and leadership skills. Through interactions with young participants, they gain new perspectives and can enhance their empathy, patience, and cognitive flexibility: "Even though mentors are already experienced professionals, participating in the program helps them understand new perspectives and engage in continuous learning due to the way the program is structured" (R2).

Employers play an important role in supporting the program by facilitating young graduates' entry into the industry, through internships or even direct employment: "Employers are involved in all stages of the program, providing mentoring, guidance, and professional development opportunities for participants. They play a crucial role in integrating young people into the industry and easing their transition into the labor market" (R3). To gain an overall understanding of the mentoring programs' implementation, organizers collect feedback from all parties involved, according to respondents: "Yes, we always ask for and pay close attention to feedback from mentors, participants, and employers. Their opinions are very important; understanding their experiences after the program helps improve the structure and make the necessary adjustments" (R6).

The effects of mentoring on the development of young professionals

A comparison between the performance of graduates of mentoring programs and those who have not benefited from such guidance reveals the clear advantages that mentoring initiatives bring to the lives of young people aspiring to enter the advertising industry. Respondents view the experiences gained through these programs with optimism, stating that young participants gain numerous long-term benefits due to the solid foundation of knowledge and skills developed during the program, representing a valuable starting point: "The program offers participants a clear perspective on the industry and helps them better shape their professional direction. Although one week is not enough for a complete transformation, the experience gained can serve as a valuable starting point in their development" (R3); "After completing the program, young people have more self-confidence, feel more certain about what they want to do, and, to be honest, they seem more enthusiastic yet also more realistic at the same time" (R6).

Respondents do not possess information regarding research studies that demonstrate the differences between young people who have access to mentoring programs and those who have not participated in such initiatives; however, they refer to real-life situations in which the differences between these two categories of young people are evident. The respondents unanimously consider that graduates of these type of programs integrate into the field more easily, learn faster, understand the industry better, and are more open to learning: "There is a significant difference between young people who do not participate in this type of program and those who are involved in it, ranging from knowledge to skills, and even to behavioral differences" (R1); "Mentoring programs contribute significantly to enhancing the professional competencies of young professionals. These programs help young people connect theoretical knowledge with practical skills, with the mentor guiding this process. Every meeting between mentors and students is a gain for both parties" (R2).

Following these programs, young participants may receive the opportunity to undertake an internship within an advertising agency; however, this depends on their individual performance, according to the respondents: "Such a program generally helps with employment. Whether this happens or not also depends on each participant's results" (R7). Mentoring programs undoubtedly add value to graduates' résumés, potentially leading to future employment, while the relationships built during these programs serve as long-term benefits for graduates: "Those selected for internships benefit from a structured onboarding process, with a dedicated mentor to facilitate their integration. Additionally, for those who do not continue within the organization, we provide recommendations for other relevant opportunities in the industry" (R3). Respondents recommend the mentoring experience to young people at the start of their careers and encourage them to be proactive, participate actively in the program's activities, ask questions whenever they have doubts, and maintain their curiosity: "Be open, give your best, and take it as an opportunity, because that's what it is. But most importantly, do not believe that if you are not selected further, you are not good enough and should give up. Remember that you decide what you want to do next" (R7).

5 Conclusions and discussions

The responses received to the interviews conducted with the first group highlight the importance and impact that mentoring programs have on the professional initiation of young people: these programs have contributed to the professional development of recent graduates, facilitating the transition from the theoretical knowledge acquired in universities to the practical requirements of the advertising industry. Professional

mentoring provides a solid foundation of knowledge, ranging from practical skills to specialized information, significantly increasing the value of graduates in the labor market while also fostering personal development through enhanced self-confidence. Therefore, the results obtained from the analysis of the interview responses confirm the information presented in the theoretical section of the study.

Overall, respondents are satisfied with these programs but suggest specific adjustments, such as shorter sessions, improved scheduling of breaks, smaller participant groups, and, in some cases, placing greater emphasis on practical skills. Nevertheless, young people recognize the value and positive impact that mentoring programs have on their professional development. These programs help students secure employment in the industry, increase their visibility in the labor market, and serve as a launchpad for entering the field. The benefits perceived by program graduates are both professional and personal. From a professional standpoint, these programs provide them with a solid foundation of information, such as the industry-specific language and knowledge related to creating successful advertising campaigns.

Graduates consider the mentoring programs they attended to be well tailored to their needs, meeting their initial expectations and, in many cases, exceeding them. The subjective responses provided by the participants helped to identify both the strengths and weaknesses of mentoring programs from the perspective of recent graduates, who are the primary beneficiaries of such initiatives. As a result of participating in mentoring initiatives, young people achieved many valuable outcomes, such as gaining access to the industry: all respondents, except for one who did not have this opportunity, gained internships in major agencies within the field and subsequently obtained junior-level positions. Moreover, the specialized literature also confirms that internships are considered a very useful practical stage for students and graduates, a necessary step before future employment (Leovaridis, Ciochină, Tănasă, 2019, pp.10858-10859). The professional development of young people who have completed at least one mentoring program has followed a natural progression, with the opportunities available to them being directly influenced by their involvement and performance. In addition to professional advancements, graduates of mentoring initiatives also report significant personal growth, with increased self-confidence and a strengthened belief in their ability to develop their professional careers.

Regarding the second group of respondents, there is a combination of factors motivating professionals engaged in mentoring initiatives, whether as mentors, organizers, or employers: they express a sense of professional responsibility toward the industry, a commitment to contributing to the career development of young people, and the satisfaction derived from interacting with younger generations. They unanimously believe that graduates of these programs integrate naturally, more easily, and more quickly into the work environment, better assimilating industry-specific knowledge and being better prepared to manage challenges compared to those who have not had this experience. Professionals in the advertising industry involved in structured mentoring programs – whether as mentors, organizers, or employers – pursue a complex set of objectives, with a central aim being the assumption of professional responsibility for the sustainable development of the industry through the training of new generations of specialists.

The benefits of mentoring are shown to be reciprocal, with all parties engaged in the process (mentors, young participants, organizers, and employers) deriving value from it. Mentors themselves can grow professionally, but especially personally, as a result of their involvement in these programs, with the most rewarding aspect being the personal fulfillment they feel when witnessing the development of the individuals they have encouraged and supported. Organizations, on the other hand, gain direct access to young professionals who have received high-quality training and are motivated to enter the industry, thus creating a bridge between academia and the advertising sector. Furthermore, their organizational culture is strengthened through the promotion of education, intergenerational collaboration, and professional development.

Mentoring programs have significant effects on both the professional and personal development of young people. Graduates have also developed social skills through interactions with mentors and other participants. The relationships formed between young professionals and mentors are described as being based on support, trust, and mutual respect, and they can be long-lasting, with mentors continuing to provide guidance even after the conclusion of the programs. Additionally, through communication with fellow participants, young people form both friendships and valuable professional connections, which represent long-term benefits.

The research results showed that the mentoring programs under consideration (MentorIAA, IAA School, School of Big Ideas, The Alternative School etc.) serve as true launchpads for young people beginning their careers in Romania's advertising industry. These programs do not merely provide theoretical information; they aim to help young professionals bridge the gap between the knowledge acquired in academic settings and the concrete requirements of advertising agencies, linking theory with practice. Mentoring initiatives have a significantly positive impact, and it is essential to continue and expand such initiatives to create tangible benefits

for young professionals, as well as for industry professionals, employing organizations, and the advertising industry as a whole.

In conclusion, through the qualitative research conducted and the interpretation of responses from interviewees in both the first and second groups, the overall objective of the study (identifying the role of mentoring at the beginning of a career in advertising) has been achieved. A comprehensive picture has emerged regarding the role and effects of mentoring programs on the professional trajectory of young individuals starting their careers in the advertising sector.

A limitation of the research is the exclusion of young respondents who have not participated in mentoring initiatives; analyzing their perspective on the role of mentoring at the beginning of a professional career in advertising would have been beneficial. Another limitation observed is the reduced focus on the long-term effects of mentoring programs on early advertising careers. Most respondents are recent graduates of these programs, from the past one or two years. It would have been important to also interview former participants from the earliest editions of these programs. Consequently, we faced difficulties in locating and convincing graduates from six to seven years ago to participate; even when contact was made, their responsiveness was low. Challenges were also encountered in obtaining interviews with organizers of certain mentoring programs, which narrowed the perspective provided by program organizers.

A new direction for research on the topic "The Role of Mentoring at the Beginning of a Career in Advertising" could examine the effects of mentoring programs across different industries. This line of inquiry could analyze how mentoring initiatives are structured in other sectors, identify sector-specific differences, and assess their impact on the development of young professionals at the start of their careers.

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REPUBLIC OF MOLDOVA'S ECONOMIC RESTRUCTURING AND GROWTH AMIDST EUROPEAN INTEGRATION PROCESS[1]

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Abstract: The European integration of the Republic of Moldova is an ongoing process that has materialized through a multitude of democratic and economic reforms. They involved liberalizing markets, privatizing state-owned enterprises, aligning with EU single market regulations, improving the business environment, and fostering a market economy. These reforms have determined important changes in the structure of the national economy, with the agrarian economy gradually being replaced by one oriented towards trade and services, while economic growth continued to be fuelled by consumption and imports. The article investigates the structural transformations of the Moldovan economy amidst European integration and the level of economic convergence with the Central and Eastern European (CEE) countries. Using qualitative and quantitative analysis, it tracks the dynamics of economic growth under important disruptive factors starting with the first years of transition until the present, and carries out a comparative analysis with the CEE countries regarding the level of economic convergence. In addition, it presents the contribution of the main economic activities and sectors to the formation of gross value added and the factors that determined GDP growth in the Republic of Moldova. The results obtained show important structural changes in the Moldovan economy, with the consolidation of the services sector, which has become the main engine of gross value added. More than that, it unveiled the existence of significant discrepancies in relation to the CEE countries, generated by structural vulnerabilities, but also a slow and fragile real convergence.

Keywords: Republic of Moldova, structural changes, European integration, GDP growth, economic sectors
JEL Classification: L16, O14, F15

1 Introduction

Thirty years ago, the first framework for cooperation between the European Union (EU) and the Republic of Moldova was set, with the Partnership and Cooperation Agreement. Based on this framework, a detailed roadmap was designed in February 2005 to deepen the relationship between the Republic of Moldova and the EU, namely, the Moldova-EU Action Plan. It outlined a comprehensive set of political, economic, and social reforms that Moldova committed to undertaking, aimed at bringing Moldova closer to EU standards and values. This political document set out the programme, strategic objectives, and priorities for relations between the Republic of Moldova and the EU for the period 2005-2007. Furthermore, opting for a common geostrategic vector and based on the Action Plan, the Moldovan political parties signed in March 2005, the Declaration on Political Partnership for the Achievement of European Integration Objectives, which stipulated that „the further development of the Republic of Moldova can only be ensured by consistently and irreversibly promoting the strategic course towards European integration". Thus, the implementation of the Moldova-EU Action Plan began under conditions of unprecedented political consensus between the main political forces. Two years later, in December 2007, the authorities adopted the Communication Strategy on European Integration of the Republic of

Moldova, with the aim of ensuring public information about the EU and providing opportunities for citizens to participate more actively in the European integration process.

Furthermore, in January 2010, the negotiation process of the Association Agreement between the EU and the Republic of Moldova was launched, which was to replace the Partnership and Cooperation Agreement, concluded in 1994. The dialogue on the creation of a free trade area between the Republic of Moldova and the EU, as well as the liberalization of the visa regime, was also officially launched. Given the political support for the European integration by the parliamentary majority, the negotiations on the Association Agreement advanced rapidly in the period that followed. The official conclusion of the negotiations on the agreement was marked at the Eastern Partnership summit in Vilnius, held in November 2013. The agreement was ratified by the Parliament of the Republic of Moldova in July 2014 and by the European Parliament in November 2014. Entering into force in July 2016, the agreement recognized the Republic of Moldova's membership of the European space, with the objective of European integration as its final goal. However, despite the majority presence of pro-European parties in parliament, relations with the EU have undergone a period of significant deterioration, since the Association Agreement was ratified, driven by a series of disruptive political and economic events that took place between 2014 and 2018. Specifically, the Republic of Moldova faced a major banking fraud, which led to the insolvency of three Moldovan banks and a deep political and financial crisis. The total losses generated by this fraud were estimated at $1 billion, representing 12% of GDP (IMF, 2022).

During the Russian Federation's military attack on Ukraine in February 2022, the pro-European government has demonstrated its resilience and commitment to the Association Agreement agenda, while taking measures to mitigate the impact of the war. The government has managed to overcome a series of unprecedented challenges, including the large flow of Ukrainian refugees, high inflation, significant threats to energy security, foreign interference, and information and cyber manipulation. Moreover, with the support of Romania and the European Union, a series of important steps have been taken to increase the country's energy independence.

In June 2022, the Republic of Moldova received the status of an EU candidate country, and in November 2023, EU leaders decided to open accession negotiations with the Republic of Moldova. According to the European Commission report, between June 2022 and June 2023, the authorities in Chisinau made important progress both in the political field, to strengthen democracy and the rule of law, and in the economic field, maintaining their commitment to ensuring macroeconomic stability and economic reforms, in a difficult economic and social environment. Given the status of a candidate country, in June 2023, the EU and the Republic of Moldova agreed on an Action Plan with the objective of accelerating the implementation of the DCFTA and increasing access of Moldovan products to the EU internal market. The undertaken reforms during the European integration process have determined important changes in the economic growth factors and the structure of the national economy, with the agrarian economy gradually being replaced by one oriented towards trade and services, while GDP continued to be fuelled by consumption and imports.

2 Literature review

There is broad consensus in the specialised literature about the major factors that contribute to economic restructuring and growth, namely, economic policies and institutions (industrial policy, fiscal discipline, monetary stability, stable exchange rate etc.), openness to trade and investment (trade liberalization, foreign direct investment), robust legal and regulatory framework, strong institutions, human capital and innovation, physical and digital infrastructure, developed financial sector, natural resource endowments, political stability and social cohesion, etc. Thus, the report of the Commission on Growth and Development (2008) states that sustained growth does not happen spontaneously, requiring long-term commitment by the political leaders. More than that, one of the key conclusions of the Commission is that there is no universal set of rules to guide policy-makers, recommending instead less reliance on elusive „best practices" and more focus on the binding constraints to growth in each country. Szirmai and Verspagen (2011) analyse the role of manufacturing as a driver of growth in developing countries and found a moderate positive impact of manufacturing on growth in line with the engine of growth hypothesis. Lin (2012) suggests that the main feature of economic development is continuous technological innovation and structural change, while the optimal industrial structure is that will make the economy most competitive domestically and internationally. The role of industrial policies in guiding economic restructuring and promoting growth is underlined by Lin and Treichel (2014). The study emphasizes that for achieving dynamic growth, a country should develop industries according to its comparative advantage, in accordance with the endowment structure. Industrial upgrading and diversification are essential elements that allow a developing country's resource structure to align with that of developed economies. Another study that

explores how Asian countries have used trade and investment to restructure their economies and achieve rapid growth, highlights that industrialization is a step that, in general, is difficult to bypass on the path to becoming a high-income economy (Asian Development Bank, 2013).

More than that, there is evidence that services sector can be as powerful an engine of growth as industry (Asian Development Bank, 2012; Nordås and Kim, 2013; Ghani and O'Connell, 2014). For instance, Ghani and O'Connell (2014) conclude that the comparative advantage can be both in services and in manufacturing. They point out that as services produced and traded across the world expand with globalization, the possibilities for low-income countries to develop based on their comparative advantage expand also. Key findings of Alagidede et al. (2020) show that although there has been a structural transformation that has contributed to growth in sub-Saharan Africa, its nature varies, with some countries moving directly to services instead of traditional manufacturing, as noted in other related studies.

It is worth noting the empirical studies focusing on the Republic of Moldova that highlighted the most important structural problems the country continues to face in the European integration process. For instance, Markevych and Marinkov (2024) mention that corruption remains a significant challenge in the Republic of Moldova, impeding growth and EU convergence, stressing the importance of specialized anti-corruption agencies, robust prosecution, civil society involvement, and international expertise. However, Petroia (2024) concludes that all the crises the country has gone through in the last thirty years served as catalysts for significant policy reforms, while each disruptive event leading to a strategic reorientation aimed at enhancing economic stability and resilience. However, the study points out that ongoing challenges remain, requiring sustained attention to structural reforms, and financial regulation. Another research that investigated the structural changes in the foreign trade of the Republic of Moldova in the context of the pre-accession process to the EU unveils that Moldovan exports continue to be dominated by agricultural products and raw materials with low added value, which limits its competitiveness in international markets (Colibaverdi, 2024).

Concluding, although structural transformation stimulates economic growth, the trajectory of the transformation varies from country to country, with some countries skipping traditional manufacturing to move directly to a service-based economy. This new model is characterized by growth fuelled by a shift to higher-value and higher-skilled service-oriented activities, rather than relying solely on industrialization. However, this transformation is not universal and depends on specific factors, such as the level of sophistication of the service sector, the quality and level of education of the workforce, and the effectiveness of public policies.

Against this backdrop, the article has the aim to investigate the structural transformations of the Moldovan economy amidst European integration and the level of economic convergence with the CEE countries. In doing so, the first objective is to track the dynamic of economic growth under important disruptive factors starting with the first years of transition until present, and to analyse the level of economic convergence with the CEE countries. The second objective is to investigate the contribution of the main economic activities and sectors to the formation of gross value added and the factors that determined GDP growth in the Republic of Moldova.

3 Methodology and data

Using qualitative and quantitative analysis, we investigated the trajectory of structural transformations in the Republic of Moldova during the European integration process. In doing so, we tracked the contribution of the main economic activities and sectors to the formation of gross value added and the factors that determined GDP growth. In addition, we conducted a comparative analysis of the level of economic convergence with the CEE countries, using GDP per capita. The data were extracted from the database of the National Bureau of Statistics of the Republic of Moldova, and the IMF database, covering the 1995-2024 period.

4 Economic growth and the catching up process in the Republic of Moldova

In the first decade of its existence, the Republic of Moldova went through one of the deepest and longest economic recessions, caused by the collapse of production as a result of the restructuring of industrial and agricultural collective enterprises, the drastic reduction of exports as a result of the loss of trade ties with strategic partners from the former USSR countries, the significant increase in prices for energy products and other important raw materials, but also the lack of infrastructure specific to a market economy (CSSR, 1997; World Bank, 1998; Ronnas and Orlova, 2000). The decline ended in 2000 (Figure 1), a sign that the efforts made by the Republic of Moldova during the period of profound transformations were successful. Consequently, nine years of economic recovery followed, the longest period of growth in the country's history. Thus, between 2000 and 2008, the Moldovan economy experienced an average growth rate of 5.9%, with the most significant advance

being recorded in 2008, at 7.8%. During this period, the inflation rate and the budget deficit were reduced, the country's investment attractiveness significantly increased, the financial sector was consolidated, while exports and imports recovered rapidly.

Figure 1: Evolution of GDP growth rate in the Republic of Moldova, between 1995 and 2024 (% growth)
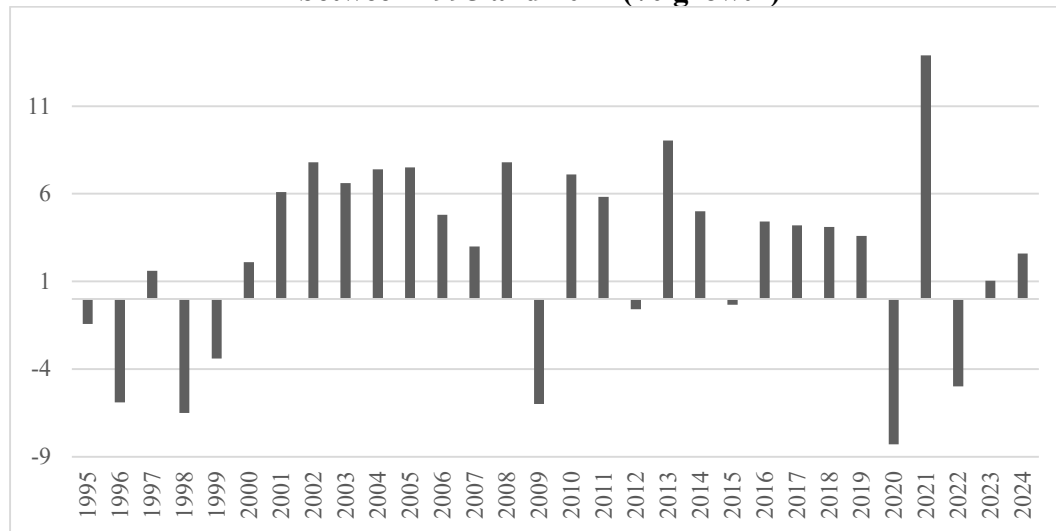
Source: Author's representation based on IMF (2025).

The growth of the Moldovan economy was affected by the international financial crisis of 2009, so that the deterioration of the global economy led to a dramatic decrease in export revenues, a reduction in remittances from Moldovan citizens working abroad, a decrease in foreign investment flows, but also in loans granted by commercial banks, etc. Despite this crisis, the national economy recovered quite quickly, being fuelled by the return to an upward slope of external demand, the provision of consistent international financial support by international partners, but also by the appropriate macroeconomic policies promoted by the executive in the immediate post-crisis period, positioning the Republic of Moldova among the countries in the region with the highest growth rate. The upward movement was interrupted by the negative consequences of the sovereign debt crisis that took place in 2012, with a GDP reduction of -0.1% compared to the previous year. However, it recovered in 2013, when the economy advanced by 9.0%, followed by another increase of 5.0% in the year in which the Republic of Moldova signed the Association Agreement with the EU.

After an economic recovery between 2013 and 2014, the overlap of several internal and external factors, namely, the banking fraud with severe economic and social effects, the severe drought in 2015, the reduction of remittances from Moldovan citizens working in the Russian Federation and the trade restrictions imposed by it led again to a downward economic path. The economy returned to an upward trend from 2016 to 2019 period, followed by the pandemic shock, which caused the most severe economic contraction since 1995 to date.

The pandemic and the post-pandemic period tested the resilience of the Moldovan economy again, the energy crisis, the drought, and the war in Ukraine directly influenced the economic growth trend. During this period, the evolution was marked by pronounced fluctuations, reflecting the vulnerability of the economy to external shocks. The dynamic of GDP was distinguished by major fluctuations after a severe contraction of -8.3% in 2020 and an optimistic return to growth in 2021, of 13.9%. It went down again in 2022, being severely affected by the Ukrainian war, which caused a series of overlapping crises, inducing a stagnation between 2023 and 2024. Despite all disruptive events that the national economy has faced, we can note that the country has managed to recover quite quickly from major shocks.

However, under major fluctuations in GDP and an increased exposure to internal and external shocks, the Republic of Moldova has lagged far behind in terms of economic convergence with the CEE countries. More precisely, the data reveal that the level of the Republic of Moldova' GDP per capita is the lowest among this group of states, totalling only 14,295 international dollars in 2024 (Figure 2).

Figure 2: Evolution of GDP per capita in the Republic of Moldova and other CEE countries, between 2007 and 2024 (expressed in PPP, 2017 international dollar)
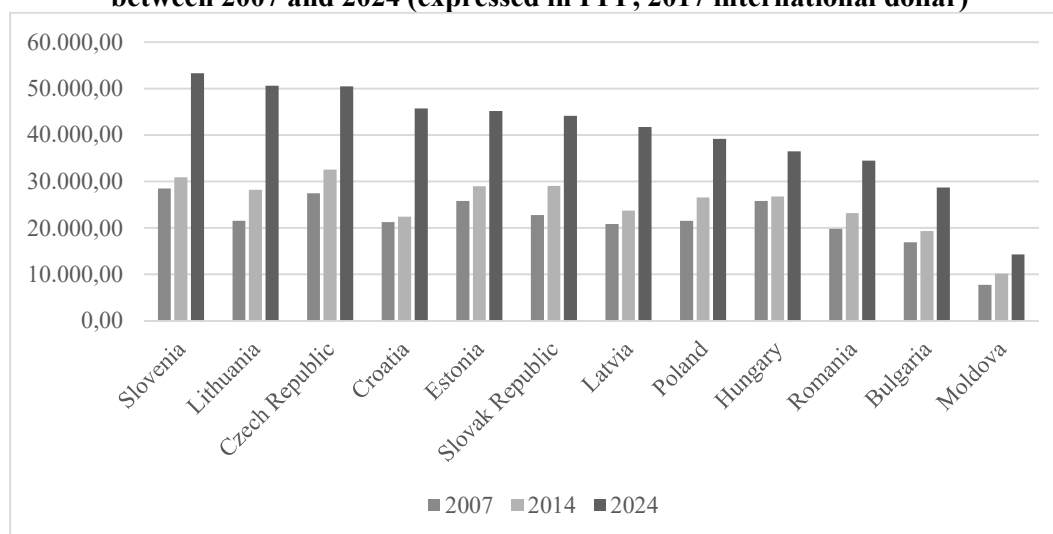
Note: We have opted for including data from 2007, considering the fifth enlargement of the EU, and data from 2014, the year when the Republic of Moldova signed the Association Agreement.
Source: Author's representation based on IMF (2025).

Despite visible progress recorded since 2007 until now by the Republic of Moldova (during this period, the GDP per capita almost doubled), the process of catching up is quite slow. Compared to the highest level of GDP per capita achieved by Slovenia in 2024 (53,286 international dollars), the level reached by Moldova is almost four times lower. Moreover, states with a size close to that of the Republic of Moldova, and with a common historical background, such as Lithuania, Estonia, and Latvia (former USSR republics), have achieved important progress. These gaps reflect profound structural, institutional, and economic development differences between the Moldovan economy and other CEE states. Moreover, limited industrialization, the dependence on agriculture and remittances, reduce the capacity to create added value and raise domestic revenues. Against this background, the Republic of Moldova needs faster and sustainable rates of economic growth to reduce differences and advance in the convergence process.

5 Changes in economic structure during the integration process

Given the shocks that the Moldovan economy has gone through, but also the multitude of reforms implemented during the period 1995-2014, the structure of the economy of the Republic of Moldova has undergone significant changes. First, it can be noted the significant reduction in the role of the two main sectors of the Moldovan economy in the first years of transition, i.e., agriculture and industry. Thus, the contribution of agriculture to the formation of gross value added (GVA) decreased in the 19 years by 17.5 percentage points, while industry experienced a decrease of 10.3 percentage points. Secondly, all other sectors recorded an advance in the respective period. The largest increase in the contribution to the formation of GVA is observed in the case of trade, transport and storage services, hotels, and restaurants, of 10.2 percentage points. As a result, the contribution of this sector exceeded that of agriculture and industry in 2014, by 7.9 percentage points and 5.5 percentage points, respectively. Third, the role of the public administration, defence, education, and health sectors increased by 3 percentage points during the period under review. In conclusion, if in 1995, the largest sectors of the economy of the Republic of Moldova were agriculture, industry, public administration, and trade, in descending order, their role changed in 2014 (the year when the Republic of Moldova signed the Association Agreement with the EU). Thus, the largest contributions came to be made by trade, industry, public administration, and agriculture, with shares of 23.4%, 17.9%, 16.6% and 15.5%, respectively.

Since the signing of the Association Agreement, the national economy went through three major crises, i.e., the banking fraud, the pandemic, and the war in Ukraine, which led to other structural changes. First, it can be noted the reduction in the contribution of agriculture and industry to the formation of GVA between 2015 and 2024. Agriculture reduced its share by 6.4 percentage points, to 8.3% in 2024, and industry dropped from 15.6% to about 11.3% (Figure 3). The most obvious increases were highlighted in the sectors of public administration and defence; education and health, professional, scientific, and technical activities, information and

communications and trade, transport, and related services. Construction, financial activities, and real estate transactions remained practically unchanged.

It is worth noting the consolidation of the services sector, which is becoming the main engine of the economy, contributing to the growth of GVA. Trade, information and communications, financial activities, real estate transactions, art, and leisure activities total 68.1% of GVA, increasing by 7 percentage points compared to 2015, unlike agriculture which holds only 16.9% in GVA. An advance was recorded by the public administration, defence, education, and health sector, increasing from 12.7% to 18.6%. On the one hand, this also confirms the increased role of social spending and the budget sector in the formation of GVA. So, we can see that the structure of the economy continued to change over the last ten years. More exactly, the process of tertiarization of the economy is outlined, with a visible repositioning towards commercial, social, and professional services, to the detriment of the primary and secondary sectors.

Figure 3: Contribution of the main economic sectors to the formation of GVA, between 1995 and 2024 (% in the total value of GVA)
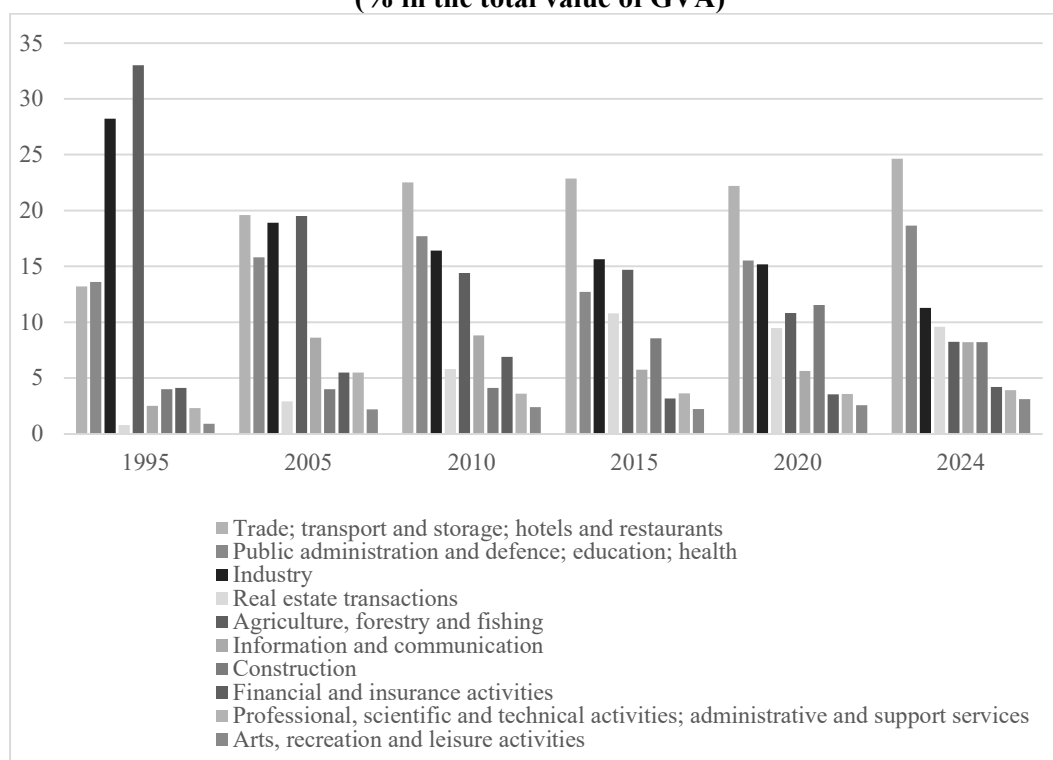
Source: Author's representation based on data from the National Bureau of Statistics of the Republic of Moldova (2025).

The analysis of the contribution of the main components to GDP formation in the 1995-2024 period highlights the main changes in the factors that made the national economy to grow. Household consumption experienced a strong upward trend along with the increase in living standards. It became the main factor of national economic growth, gradually increasing from 57% in 1995 to 93.6% in 2010, going slightly down to 85% in 2024. At the same time, public administration consumption decreased by 8 percentage points. However, after the pandemic crisis it recorded a slight upward trend in connection with the expansion of social spending and support measures amidst the crises that occurred during this period (Table 1).

At the same time, imports became the second factor in GDP formation, reaching 57.3% in 2024, while the role of exports decreased substantially from 60.1% in 1995 to only 31.4% in 2024. The decline of exports' contribution was caused by a series of disruptive events specific to this period, including the embargoes imposed by the Russian Federation, the international financial crisis of 2009, but also frequent episodes of drought.

Table 1: Contribution of the main components to GDP formation, between 2015 and 2024 (% in the total value of GDP)

Indicator	1995	2005	2010	2015	2020	2024
Final consumption. including:	82.9	109.9	115.8	105.6	102.9	104.7
Household consumption	57.0	93.5	93.6	90.2	84.1	85.0
General government consumption	25.9	16.4	22.2	13.8	17.3	17.9
Gross capital formation. including:	24.9	30.8	23.5	22.9	23.8	21.1
Gross fixed capital formation	16.0	24.6	22.6	24.9	26.9	20.0
Inventory change	8.9	6.2	0.9	-2.0	-3.1	1.1
Exports	60.1	51.2	39.2	32.6	29.0	31.4
Imports	67.9	91.9	78.5	61.0	55.7	57.3

Source: Author's representation based on data from the National Bureau of Statistics of the Republic of Moldova (2025).

Moreover, gross fixed capital formation that shows how much the country is investing in its future productive capacity has increased during the crisis periods, maintaining an average share of 23.8% of GDP overall, except for 2024 when the indicator dropped to 20%. The variation in inventories has recorded more pronounced fluctuations, which reflects the cyclical adjustments of enterprises.

We can notice a positive trend in the structure of fixed capital investments, which highlights a gradual rebalancing through the increase in the share of equipment and the emergence of intangible assets, signalling a rapprochement with the European model (Table 2).

Table 2: Structure of fixed capital investment, between 2015 and 2024 (% in the total value of fixed capital investments)

Indicator	1995	2005	2010	2015	2020	2024
Structure of fixed capital investment, including:	100	100	100	100	100	100
Construction and installation	64.1	50.2	51.3	50,9	53.9	45.6
Machinery, equipment, and inventory	27.7	44.9	41.3	42,6	39.1	44.3
Other capital expenditures (including intangible assets)	8.3	4.9	7.4	6.4	6.9	10.1

Source: Author's representation based on data from the National Bureau of Statistics of the Republic of Moldova (2025).

The dynamics of the investment structure reflects the gradual restructuring of fixed capital investments, by decreasing the share of construction and installation and maintaining investments in machinery and equipment on a general growth trend, although with oscillations in the reference period. At the same time, it is noted the increase in other capital expenditures up to 10.1% by 2024, consolidating productive investments and the orientation towards intangible assets, essential for structural convergence with the economies of the EU. These changes signal an intensification of the technological modernization process and the gradual approximation to the European investment pattern, where the share of technological capital and intangible assets plays an essential role in increasing competitiveness and supporting real convergence.

In conclusion, the analysis highlights important economic structural changes in the Republic of Moldova, as the contribution of agriculture and industry to the formation of GVA has dropped substantially between 1995 and 2024, by 24.8 percentage points, and by 16.9 percentage points, respectively. Moreover, the role of trade, transport and storage, hotels and restaurants went up by 11.2 percentage points during the reference period, unveiling a consolidation of the services sector, which has become the main engine of the economy. In addition, population consumption experienced a strong upward trend along with the increase in living standards, becoming the main factor of national economic growth in the analysed period, while imports became the second factor in GDP formation. The contribution of exports has decreased, being influenced by a series of risks specific to this period, including the embargoes imposed by the Russian Federation, the international financial crisis of 2009, but also frequent episodes of drought. On a positive note, the contribution of gross fixed capital formation can be noted, after the decline recorded in the first years of transition. Against this background, the process of technological modernization of enterprises through investments was intensified during the last years, uncovering

a gradual rebalancing through the increase of equipment and intangible assets. These dynamics are essential for structural convergence with the economies of the EU, facilitating the process of economic convergence.

6 Conclusions

The article aimed to investigate the structural transformations of the Moldovan economy amidst European integration and the level of economic convergence with the CEE countries. To achieve this objective, we tracked the dynamics of economic growth under important disruptive factors starting from the first years of the transition until present, and analysed the level of economic convergence with the CEE countries. Furthermore, we investigated the contribution of the main economic activities and sectors to the formation of GVA and the factors that determined GDP growth in the Republic of Moldova. Despite visible progress recorded since 2007 until now by the Republic of Moldova (during this period, the GDP per capita almost doubled), the process of catching up has remained quite slow. Compared to the highest level of GDP per capita achieved by Slovenia, the level achieved by Moldova is almost four times lower. Moreover, states of a similar size to the Republic of Moldova, and with a common historical background, such as Lithuania, Estonia, and Latvia (former USSR republics), have achieved important progress. These gaps reflect profound structural, institutional, and economic development differences between the Moldovan economy and other CEE states. In addition, important structural changes have been recorded, with the consolidation of the services sector, which has become the main engine of the Moldovan economy.

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FOREIGN DIRECT INVESTMENT DYNAMICS IN THE RUSSIAN FEDERATION AMID THE WAR IN UKRAINE

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Abstract: The war in Ukraine has brought about a major geopolitical shift in international relations. While most states sided with the attacked country, the Russian Federation—perceived as the aggressor—faced unprecedented backlash from the West and the broader international community. Its main Western partners, notably the United States and the European Union (EU), imposed economic sanctions at an unprecedented scale, targeting not only the energy trade but also other sectors, in an effort to cut off the financing of the Russian war. Given this strained economic environment, most foreign investors froze or even closed their operations in the Russian market, triggering a massive foreign direct investment (FDI) exodus. This paper investigates the impact of the war on FDI flows and stocks in the Russian Federation through a comparative analysis of pre- and post-sanctions periods, using data from UNCTAD. The findings show that disinvestment in the Russian Federation amid sanctions has deprived the economy not only of technology transfer and know-how but also led to its growing isolation in the international arena.

1 Introduction

Following the launch of the illegal and unprovoked military invasion of Ukraine in February 2022, the Russian Federation has faced pronounced international isolation. Its former trading partners—particularly within the European Union (EU), but also beyond—have imposed successive waves of economic sanctions designed to compel the Russian Federation to halt its aggression against a sovereign state. These measures, unprecedented since World War II, have severely disrupted regional and global stability, heightening threats to international security.

Most sanctions directly targeted trade with the Russian Federation, especially in the energy sector, which represents a crucial source of revenue for the federal budget and one of the main instruments for financing the war. In addition to comprehensive trade embargoes on dual-use technologies and other strategic goods, strict restrictions were imposed on foreign investment. These measures either prohibited Western companies from continuing existing projects or prevented them from entering new ventures in the Russian market.

The EU progressively expanded these sanctions to foreign direct investment (FDI), initially restricting access to its financial and capital markets, and later banning new investments in strategic sectors such as energy and mining, as well as transactions with key entities like the Russian Direct Investment Fund. Through these actions, the EU sought to block Western capital channels that could have supported the technological modernization and economic diversification of the Russian Federation.

By extending sanctions to financial services, consultancy, and the enforcement of court decisions, the EU further reduced the predictability of the investment climate, increasing perceived risk and discouraging private investors. In the medium term, these restrictions are expected to reduce FDI inflows to the Russian Federation, both formally and informally, while accelerating disinvestment. This dynamic accentuates the structural vulnerabilities of the Russian economy by limiting access to technology, know-how, and long-term capital.

2 Literature review

In recent years, the impact of the Ukrainian war on FDI has been discussed in a series of studies from the recent literature (Gladkov, 2025; Hosen et al., 2024; Kalotay, 2022). Gladkov (2025) shows that the full-scale invasion of Ukraine triggered a profound restructuring of the Russian Federation's outward foreign direct investment (FDI). Comprehensive sanctions, disconnection from SWIFT, and asset freezes led to an over 50% decline in outward FDI during 2022, with activity falling to only 10–30% of pre-war levels in subsequent years. Investments in Europe and the United States collapsed entirely, while flows shifted toward the CIS, Asia, and Africa. Gladkov argues that outward FDI, once a tool for global expansion, has become an instrument of adaptation and risk management under financial isolation. The study also highlights the Russian Federation's attempts to reconfigure its investment strategy through capital controls, deoffshorisation policies, and relocation to "friendly" jurisdictions such as the UAE and Singapore, while still facing severe losses due to frozen assets and forced divestments. Overall, the war accelerated the Russian Federation's geo-economic fragmentation and turned its outward FDI model from expansionist to defensive (Gladkov, 2025).

Hosen (2024) points out that the Russian Federation–Ukraine war, alongside the COVID-19 crisis, significantly disrupted inward foreign direct investment (IFDI) in both developed and developing economies. Using a panel dataset from 13 countries between 2018 and 2022, the authors find that macroeconomic instability—rising inflation, interest rate volatility, and exchange rate fluctuations—was exacerbated by the conflict, leading to lower FDI inflows. According to the study, Europe experienced substantial contractions in IFDI following the onset of the war, while developing Asian economies such as Bangladesh faced additional pressures on currency and GDP growth. The research concludes that geopolitical uncertainty stemming from the war amplified economic risk perceptions and weakened investor confidence globally, reshaping patterns of international capital movement and reducing the attractiveness of several host economies (Hosen, 2024).

Kalotay (2022) emphasizes that the war in Ukraine dealt a severe blow to both inward and outward FDI linked to the Russian Federation. The study predicts a drastic fall in FDI flows beginning in 2022, as sanctions, counter-sanctions, and war-related uncertainty discouraged new investments and forced existing ones to unwind. Kalotay notes that the Russian Federation's FDI integration, already weakened by the 2014 sanctions, deteriorated further, contributing to slower GDP growth and a widening economic gap with leading global economies. The decoupling of the Russian Federation from Western investment networks, he argues, is only partial and comes at a high cost, undermining the economic foundations of the war effort itself. The paper concludes that prolonged isolation and restrictions on financial operations will continue to erode the Russian Federation's FDI links and global competitiveness (Kalotay, 2022).

The literature published after 2022 clearly highlights that international economic sanctions have had a devastating effect on foreign direct investment (FDI) flows in the Russian Federation, both in terms of capital inflows and investments generated by Russian companies. Kalotay (2023) shows that the collapse of FDI flows to the Russian Federation after the outbreak of the war in Ukraine is part of a continuity with the negative effects recorded after the annexation of Crimea in 2014, but the current scale of restrictions is much more severe, leading to an exodus of investors and a sharp decline in the attractiveness of the Russian market for Western capital. At the same time, the study emphasizes that the sanctions were not limited to trade but were designed to directly hit foreign investment, depriving the Russian Federation of financial resources, technologies, and know-how brought by foreign companies (Kalotay, 2023).

Bulatov (2024) confirms these trends by comparatively analyzing the Russian Federation and Iran, two economies subject to extensive sanctions regimes. The author shows that the stock of attracted FDI in the Russian Federation contracted by almost a quarter in 2022, and the negative flows continued in 2023 amid the massive withdrawal of Western companies. At the same time, it is emphasized that the sanctions also had a symmetrical impact on generated FDI, limiting the ability of companies from the Russian Federation to maintain their presence in developed markets, as the restrictive regimes in the European Union and G7 states blocked access to new investments and even led to the expropriation of existing assets (Bulatov, 2024).

Another aspect investigated by the recent literature refers to the resilience of the Russian Federation's economy in the face of this shock. Drăgoi (2024) argues that although the initial effects of the sanctions were severe, the Russian Federation managed to partially mitigate the decline by reorienting economic relations toward Asian partners, especially China, and by strengthening energy exports. However, the study draws attention to the structural limits of this resilience, as the lack of Western investment equates to reduced opportunities for industrial modernization and the perpetuation of dependence on extractive sectors, to the detriment of higher value-added branches (Drăgoi, 2024).

From the perspective of generated investments, Drapkin, Fedyunina, and Simachev (2023) show that the sanctions not only dramatically reduced FDI inflows to the Russian Federation but also affected its capacity to expand its investments abroad. The authors highlight that the Russian Federation's FDI potential remains largely unrealized, as sanctions and financial isolation have drastically restricted investment opportunities in developed economies and even in emerging countries, suggesting an almost complete investment isolation (Drapkin, Fedyunina, & Simachev, 2023).

The literature on FDI generated by the Russian Federation highlights several major directions. Analyses emphasize that FDI generated by the Russian Federation is closely linked to the institutional and political specificities of this state (Szunomár, Peragovics, & Weiner, 2024; McLean, Ryu, & Whang, 2024; Gupta, Yadav, & Jain, 2024), being dominated by large state-owned companies in the energy and financial sectors (Panibratov & Kalotay, 2009). In parallel, some studies show that the international expansion of Russian firms did not follow a classic model of internationalization but was rather conditioned by geopolitical factors and the need to secure access to external resources and markets (Liuhto & Majuri, 2014).

Comparative studies also highlight the imbalance between FDI inflows and outflows, emphasizing that the Russian Federation, while remaining dependent on attracting foreign capital, has tried to compensate by expanding investments in other emerging economies (Hanson, 2010). Analyses focused on the relationship with China indicate that Russian investments abroad have centered on strategic partnerships, especially in sectors of geopolitical importance (Panibratov & Ermolaeva, 2015).

Overall, the literature confirms that FDI generated by the Russian Federation is more an expression of political strategies and state control than the result of an organic process of corporate internationalization, which explains its high volatility and dependence on external conditions.

In conclusion, the post-2022 literature paints a coherent picture of the Russian Federation's forced decoupling from international investment flows through a combination of external sanctions, foreign capital withdrawals, and domestic countermeasures such as the nationalization of assets belonging to "unfriendly" companies. These studies highlight not only the magnitude of the decline in FDI flows and stocks but also the secondary effects, such as reduced technology transfer and limited opportunities for economic diversification, which in the long run diminish the Russian Federation's ability to maintain its relevance as a global investment destination (Kalotay, 2023; Bulatov, 2024; Drăgoi, 2024; Drapkin, Fedyunina, & Simachev, 2023).

3 Methodology

The present analysis is based on statistical data published by UNCTAD through the country sheet for the Russian Federation, included in the *World Investment Report 2025*. These data allow the tracking of the annual evolution of foreign direct investment (FDI) flows and stocks.

In order to highlight the structural changes generated by the recent geopolitical context, the analysis is organized around several key indicators:
• Annual FDI inflows and outflows, expressed in millions of dollars, which reflect the capacity of the Russian Federation to attract foreign capital and, respectively, to invest abroad;
• FDI stocks (inward and outward), which provide an image of the accumulated volume of investment capital at a given time and the degree of integration of the Russian Federation into international financial circuits;
• The dynamics of cross-border M&A and greenfield projects, used as indicators of investors' appetite for acquisitions and new investment initiatives in the Russian Federation.

From a methodological point of view, the assessment is carried out in two stages:
✓ Analysis of pre-sanctions developments (2020–2021), a period in which the Russian Federation was still feeling the effects of the COVID-19 pandemic but maintained relatively high levels of FDI attraction compared to other emerging economies.
✓ Analysis of post-sanctions developments (2022–2024), marked by the massive withdrawal of Western companies, a sharp decrease in capital flows, and the implementation of internal countermeasures such as the so-called "masked nationalization" of foreign assets.

4 Results and discussions

The analysis of inward FDI flows attracted by the Russian Federation in the pre- and post-sanctions period (Chart 1) illustrates a steep decline after 2022, larger even compared with the pandemic one.

Chart 1: Inward and outward FDI flows in the Russian Federation (2020-2024, USD million)
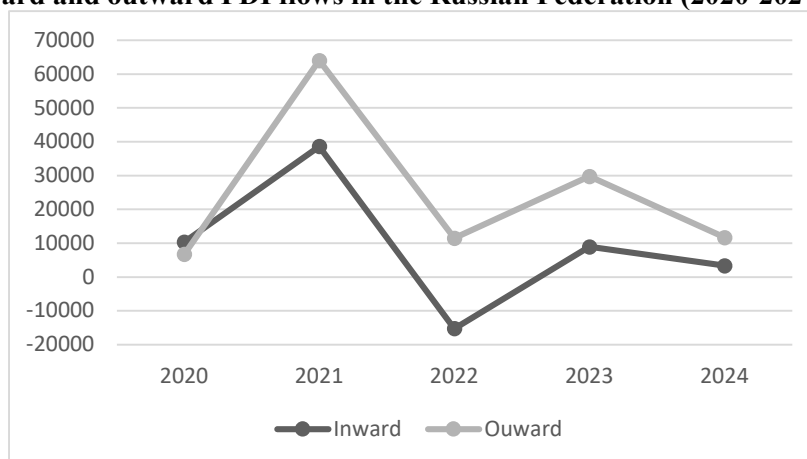
Source: Author, based on UNCTAD data.

Chart 1 highlights an extremely volatile evolution of FDI inflows and outflows in the Russian Federation during the period 2020–2024, showing divergent trends but convergence in terms of the post-2022 decline. On the inflow side, 2021 marks a peak of USD 38.6 billion, followed by a sharp collapse in 2022 to –USD 15.2 billion, indicating massive capital withdrawals and a strong disinvestment trend. This negative dynamic reflects the accelerated withdrawal of Western companies and the absence of new investment projects amid the implementation of international sanctions. Subsequently, the figures for 2023 and 2024 (USD 8.9 billion and USD 3.3 billion, respectively) suggest relative stabilization, but at levels far below pre-sanctions, confirming the reduced capacity to attract foreign capital.

FDI outflows from the Russian Federation follow a similar trajectory: from USD 64 billion in 2021—a level that still reflected the integration of Russian companies into developed markets—they decreased to USD 11.5 billion in 2022 and only USD 11.6 billion in 2024. In just three years, the capacity of Russian companies to invest abroad contracted almost sixfold, reflecting their financial isolation and the extensive restrictions imposed by the European Union and G7 states.

A simultaneous comparison of the two series shows a structural decoupling of the Russian Federation from global capital circuits: after 2022, both FDI attraction and outward investment remained at historically low levels, with trends converging toward marginal relevance in global terms.

Chart 2 illustrates a clear downward trend in the Russian Federation's FDI stocks over the period 2020–2024, both in terms of inward capital and outward investment. The stock of inward FDI declined from almost USD 450 billion in 2020 to just over USD 216 billion in 2024—a reduction of more than half in only four years. This massive contraction reflects the successive withdrawals of Western investors and the absence of reinvestment, confirming the loss of attractiveness of the Russian market for international capital. Similarly, the stock of outward FDI recorded a sharp decline, from USD 381 billion in 2020 to only USD 230 billion in 2024. This evolution indicates both the blocking of Russian companies' expansion in foreign markets and the loss of previously owned assets as a result of expropriations and sanctions.

Chart 2: Inward and outward FDI stocks in the Russian Federation (2020-2024, USD million)

Source: Author, based on UNCTAD data.

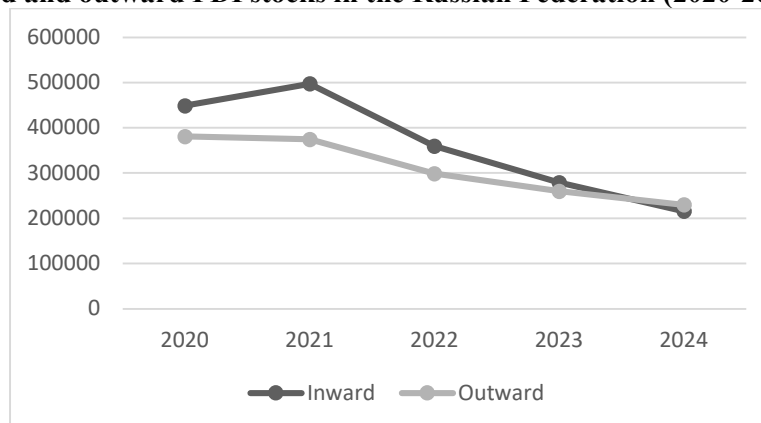Chart 3 highlights the dynamics of foreign direct investment (FDI) flows in the form of mergers and acquisitions (M&A) in the Russian Federation during the period 2021–2024. The data indicate a strong imbalance between net sales and purchases, reflecting the cumulative impact of international sanctions, geopolitical uncertainty, and the accelerated withdrawal of foreign investors.

Net sales recorded negative values throughout the period, with a sharp decline in 2023 (–USD 4,992 million), suggesting an intensification of the disengagement process of international companies. Although net purchases remained positive, they decreased significantly—from over USD 2 billion in 2021–2022 to only USD 307 million in 2024—indicating a severe decline in the attractiveness of the Russian market for foreign investors.

The general trend confirms that, in the context of the Russian Federation–Ukraine conflict and its growing international isolation, M&A activity has become a channel dominated by "exits," with negative effects on corporate ownership structures and on the ability of the Russian economy to integrate into global value chains.

Chart 3: M&A FDI in the Russian Federation (2020-2024, USD million)
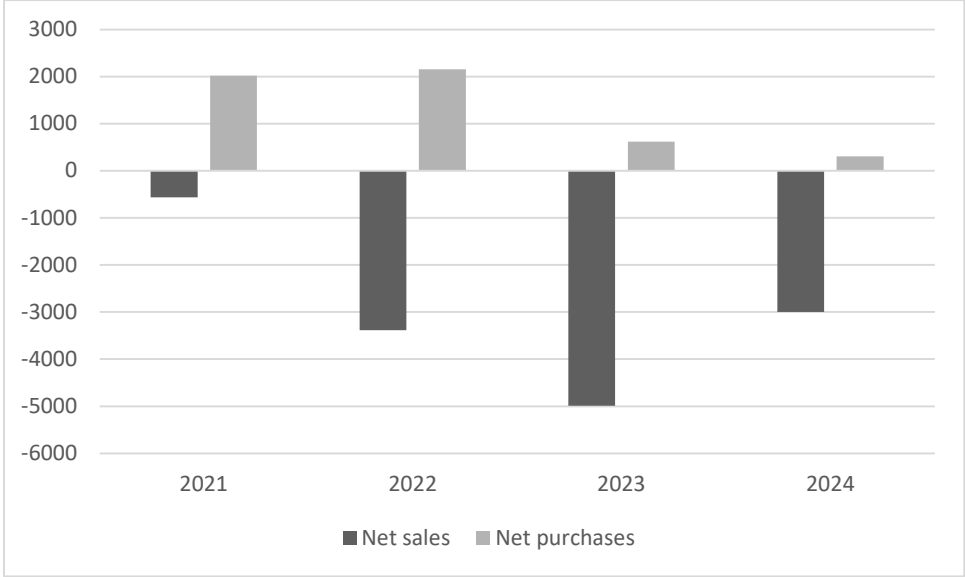
Source: Author, based on UNCTAD data.

Regarding the evolution of Greenfield FDI, Figure 4 shows that the Russian Federation has experienced strong oscillations between its role as a destination and a source for such investments in the period 2021–2024.

After an exceptionally high level of Greenfield projects as a destination in 2021 (USD 14,925 million), inflows fell sharply to just USD302 million in 2022, reflecting the direct effects of international sanctions and the isolation of the Russian market. Subsequently, the values remained at a low level, with only USD 1,414 million in 2024, which confirms the collapse of the attractiveness of the Russian Federation as a location for new productive investments.

In contrast, the Russian Federation has stood out as a source of Greenfield projects abroad, with a peak in 2023 (USD 8,717 million). This development suggests a reorientation of Russian capital towards foreign markets, possibly as a strategy of diversification and protection against domestic constraints. Overall, the trends highlight a reversal of the balance: from a major receiver of Greenfield investments before 2022, the Russian Federation has become, rather, an exporter of capital, which has major implications for the structure of its industrial base and long-term development prospects.

Regarding the evolution of Greenfield FDI, Chart 4 shows that the Russian Federation experienced strong oscillations between its role as a destination and as a source of such investments during the period 2021–2024.

After an exceptionally high level of Greenfield projects as a destination in 2021 (USD 14,925 million), inflows fell sharply to just USD 302 million in 2022, reflecting the direct effects of international sanctions and the isolation of the Russian market. Subsequently, the values remained low, reaching only USD 1,414 million in 2024, which confirms the collapse in the attractiveness of the Russian Federation as a location for new productive investments.

In contrast, the Russian Federation stood out as a source of Greenfield projects abroad, peaking in 2023 at USD 8,717 million. This development suggests a reorientation of Russian capital toward foreign markets, possibly as a strategy for diversification and protection against domestic constraints. Overall, the trends highlight a reversal of the balance: from being a major recipient of Greenfield investments before 2022, the Russian

Federation has become rather an exporter of capital, which has major implications for the structure of its industrial base and its long-term development prospects.

Chart 4: Greenfield FDI in the Russian Federation (2020-2024, USD million)
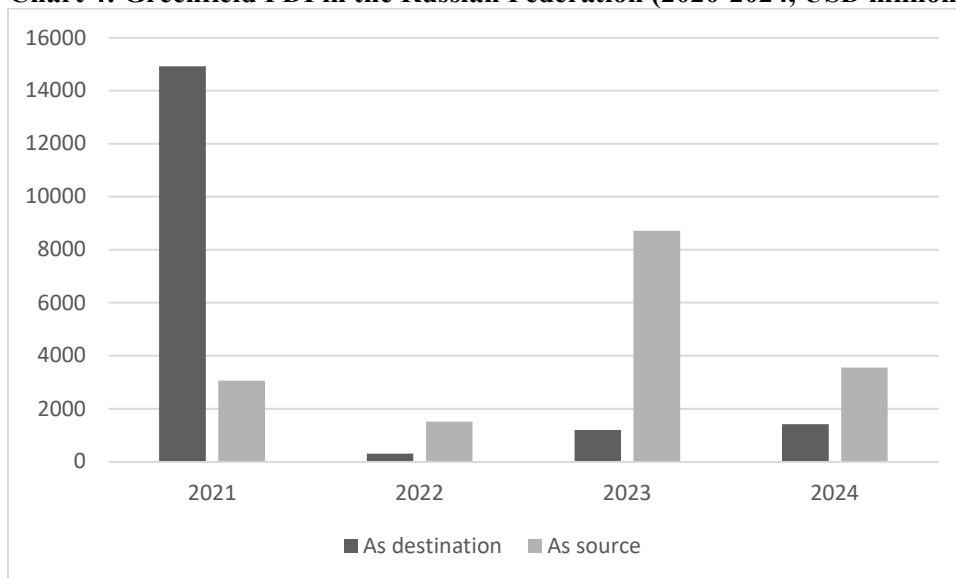
Source: Author, based on UNCTAD data.

Regarding the net investment position of the Russian Federation, for both inward and outward FDI, IMF data indicate that after a decline in FDI following the first wave of sanctions imposed after the annexation of Crimea in 2014, there was a clear recovery prior to the imposition of new sanctions in 2022 (see Chart 5).

Chart 5: Russian Federation's net investment position regarding FDI, 2013-2021 (USD dollars)
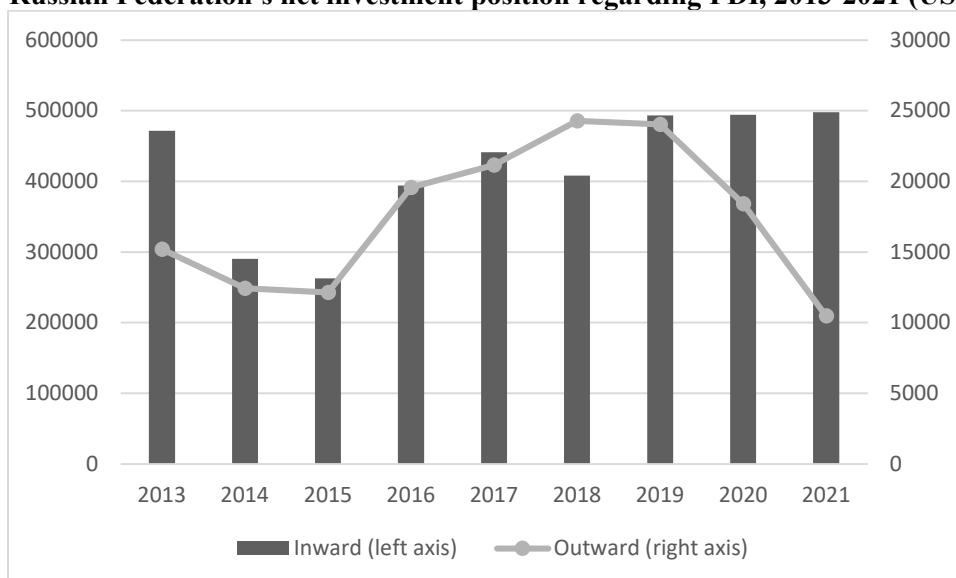
Source: Author, based on IMF data.

Chart 5 shows that inward FDI experienced a sharp decline after 2013, falling from USD 471 billion to USD 262 billion in 2015, against the backdrop of international sanctions and falling oil prices. Subsequently, the investment position returned to an upward trend, reaching almost USD 498 billion in 2021, which suggests the Russian Federation's relative capacity to retain foreign capital despite the tense geopolitical environment.

In contrast, outward FDI generated by the Russian Federation in foreign markets remained modest compared to inflows, fluctuating between USD 10 and 24 billion. The peak was reached in 2019–2020 (USD 24 billion), but in 2021 the value fell to USD 10 billion, indicating a reduced capacity of Russian companies to invest abroad. The ratio between the two types of flows confirms a structural imbalance: prior to the sanctions of 2014

and 2022, the Russian Federation continued to depend on attracting FDI while gradually diminishing its role as a source of external capital—a reflection of both geopolitical constraints and internal financial vulnerability.

The evolution of foreign direct investment in the Russian Federation between 2020 and 2024 demonstrates that the shock of international sanctions represented a turning point that transformed the country from an economy capable of attracting and generating substantial FDI volumes into a marginalized actor in the global capital market. A comparison between pre-sanctions data (2020–2021) and the post-2022 period reveals not only a major decline but also a structural shift in the Russian Federation's status within the international economy.

In the pre-sanctions period, the Russian Federation recorded relatively significant volumes of inward FDI—USD 10.4 billion in 2020 and a peak of USD 38.6 billion in 2021. Although these values were far below those of major economies—China attracted between USD 149 and 181 billion in the same years, while the United States attracted between USD 93 and 386 billion—they nonetheless indicated that the Russian market retained some degree of attractiveness for international investors. In the post-sanctions period, however, this situation changed dramatically. In 2022, the Russian Federation recorded a negative value of –USD 15.2 billion, signaling an accelerated withdrawal of foreign capital. By comparison, China continued to attract USD 189 billion and the United States USD 316 billion, confirming the resilience of the two major economic centers. Europe experienced an atypical year, with –USD 61 billion, but recovered rapidly in 2023 and 2024. The following years show stagnation at extremely low levels—USD 9 billion in 2023 and only USD 3.3 billion in 2024. During the same period, China attracted more than USD 116 billion annually, while the United States registered between USD 234 and 279 billion. The structural gap thus becomes evident: the Russian Federation attracts flows representing less than 2% of those of major economies.

Outward FDI followed a similar pattern. In 2020, the Russian Federation recorded USD 6.8 billion, and in 2021 it reached a peak of USD 64 billion. Although this value was substantially lower than the outward investments of China (USD 179 billion) or the United States (USD 242 billion), it still positioned the Russian Federation among relevant actors in global capital flows. After the imposition of sanctions, the situation deteriorated rapidly. In 2022, outward FDI fell to USD 11.5 billion, temporarily increased to USD 29.7 billion in 2023, and returned to a modest level of USD 11.7 billion in 2024. During the same period, China consistently invested between USD 163 and 177 billion, the United States between USD 266 and 360 billion, while Europe continued to record massive outward flows exceeding USD 487 billion in 2024.

The analysis of FDI stocks confirms this structural erosion. The stock of inward FDI in the Russian Federation decreased from almost USD 498 billion in 2021 to USD 216 billion in 2024—a contraction of more than 50% in just three years. By contrast, in 2024 China reached a stock of USD 3.65 trillion, the United States over USD 15.5 trillion, and Europe nearly USD 16 trillion. Outward FDI stock followed the same trajectory, declining from approximately USD 375–381 billion in 2020–2021 to USD 230 billion in 2024. In comparison, China accumulated over USD 3.1 trillion, the United States nearly USD 9.8 trillion, and Europe more than USD 17 trillion.

The comparison between pre- and post-sanctions periods shows that the Russian Federation lost, within an extremely short time frame, the competitive advantages it once held in attracting and generating FDI. Before 2022, the Russian economy could be viewed as a volatile but still relevant destination for international capital; after 2022, it increasingly appears as an economy almost isolated from global financial flows. The effects are twofold: on the one hand, the lack of FDI inflows limits access to capital, know-how, and technology; on the other, the decline in outward investment capacity reduces the presence and influence of Russian companies in international markets. While China, the United States, and Europe continue to occupy central positions in the global investment network, the Russian Federation has been repositioned at the periphery, with incomparably smaller FDI flows and stocks.

The decline of FDI in the Russian Federation after 2022 is not merely a temporary consequence of sanctions but marks a structural rupture between the dynamics of this economy and global trends. The scale differences compared with the United States, China, and Europe—already visible in the pre-sanctions period—have dramatically widened, confirming the marginalization of the Russian Federation as both an FDI destination and source. This marginalization carries long-term implications for economic modernization and for the country's ability to integrate into global value chains.

6 Conclusion

Our first finding shows that the decline of FDI in the Russian Federation epitomizes a series of predictable developments rooted in accumulated geopolitical tensions and long-standing structural fragilities that

have progressively undermined the country's attractiveness to international capital. While the sanctions and restrictions imposed after 2014—and intensified following the 2022 invasion—precipitated the collapse of investment flows, the underlying causes lie in the Russian Federation's asymmetric integration into the global economy. Excessive reliance on natural resources, coupled with limited structural diversification and pervasive state intervention, has amplified perceptions of risk and unpredictability, eroding investor confidence and deterring long-term engagement.

Our second finding highlights that a fundamental consequence of this process has been the massive loss of technological and managerial capital associated with the withdrawal of foreign enterprises. Beyond financial inflows, FDI serves as a conduit for the transfer of knowledge, innovation, and global business standards. The exodus of Western investors has therefore not only depleted the Russian Federation's access to capital but also severed critical linkages with international production and innovation networks. The country's growing dependence on a narrow set of partners—chiefly China—underscores the paradox of its proclaimed "strategic autonomy," which in practice deepens technological and economic dependence.

Lastly, we argue that, in the medium and long term, investment isolation is likely to entrench the structural weaknesses of the Russian economy. The absence of significant FDI inflows constrains prospects for modernization and productivity growth, while the substitution of Western partners with a limited pool of political allies cannot compensate for the loss of advanced technologies and diversified capital sources. Overall, the trajectory of FDI in the Russian Federation reveals the structural vulnerability of an economic model built on state dominance and resource dependence—one that risks transforming investment isolation from a temporary condition into a defining feature of its long-term development path.

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HOW HAVE RECENT ADVERSE CONDITIONS AFFECTED ROMANIA'S INVESTMENT ATTRACTIVENESS?[1]

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Abstract: The last few years have been characterized by adverse conditions that have substantially affected the Romanian economy, with major implications for investment attractiveness. Against this background, the objective of the paper is to investigate how Romania's capacity to attract foreign capital has evolved, in the light of the most recent unfavourable economic and political dynamics. In this context, the article pursues several important objectives. The first objective is to review the literature that emphasized the relation between the macroeconomic environment and FDI flows. The second objective is to analyse the level of investment attractiveness of Romania, through the evolution of the country rating and investors' perceptions of Romania as a destination country for FDI. The third objective is to identify the structural changes in FDI flows, but also of the factors that contributed to this evolution. Using both qualitative and quantitative approaches, the study evaluates Romania's investment attractiveness through the evolution of its country rating and the perceptions of investors regarding Romania as an FDI destination. The results reveal that the investment attractiveness of the Romanian economy have slightly declined, under increased macroeconomic uncertainty, significant deterioration of public finances, and military conflicts taking place in the country's immediate proximity. Moreover, they indicate a qualitative and structural change in foreign investments, more specifically, we are witnessing a diversification of the FDI portfolio and a shift towards areas with higher added value or with a lower initial capital requirement.

Keywords: - FDI, Romania, investment attractiveness, country rating, investors' perceptions
JEL Classification: F00, F21, F30

1 Introduction

The past few years have been characterized by a series of disruptive events that have substantially affected the global economy, with major implications for Romania. The Covid-19 pandemic, the multiple crises caused by the war in Ukraine, the tightening of monetary conditions by central banks in the fight against rising inflation, have had seriously affected the Romanian economy. The effects of all these turbulent events were amplified by some internal unfavourable economic and political changes, generating a slowdown in the pace of economic growth, a worsening of the country's fiscal position, an increase in the trade deficit, an increase in inflation, consequently deteriorating the country's investment attractiveness. Specifically, after a period in which Romania experienced relative macroeconomic balance, the pandemic crisis caused a substantial contraction of the Romanian economy. Despite the economic recovery in 2021 (growth determined by the reopening and restarting of economic activities suspended during the pandemic), Romania experienced a slowdown in growth in the following years. Moreover, after a budget deficit that already exceeded the threshold of the Stability and Growth Pact, Romania's fiscal position has experienced a continuous deterioration, with the country entering the excessive deficit procedure starting in 2020. In addition, the multiple crises caused by the war in Ukraine caused substantial price increases and aggravated inflationary pressures, with the inflation rate reaching a 15-year high in 2024.

2 Literature review

The literature has extensively analysed the relationship between the macroeconomic environment and FDI flows, as well as how economic and financial crises affect investment decisions. There are several reasons

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why foreign investors prefer markets that grow faster. First, higher levels of economic growth generate a higher level of profitability (Blonigen et al., 2007; Greenaway et al., 2007), but also a higher possibility of increasing efficiency (Agosin and Machado, 2007), thus raising the attractiveness of the market for foreign investors. Second, a higher economic growth rate signals the possibility of increasing the size of the market, i.e., of domestic demand, favoring a long-term commitment on the part of the foreign investor. Thus, a high level of aggregate demand attracts FDI by increasing opportunities to earn higher profits (Zhang, 2001a; Iamsiraroj and Doucouliagos, 2015). The confidence of foreign companies in the host economy is also promoted by economic growth, encouraging long-term commitments through FDI (Noorbakhsh et al., 2001; Ernst and Young, 2010). Specifically, higher economic growth rates generally imply more stable macroeconomic conditions, positive economic prospects, and lower levels of political risks (Morisset, 2000; Dunning, 2006; Aisen and Veiga, 2013). Higher rates of economic growth often indicate an accelerated pace of economic development, a favorable investment climate, strengthening institutions and infrastructure and the availability of skilled human capital (Zhang 2001b; Nunnenkamp și Spatz 2004). Moreover, Ghazalian (2024) found important variations in the magnitude of the significant positive effects of economic growth on FDI flows in different geo-economic regions, depending on several relevant economic variables. In this context, the author emphasizes the major role of public policies to stimulate economic growth, coupled with those of openness to international trade and foreign investment.

At the same time, recent disruptive events have revealed the vulnerability of FDI flows to adverse global and regional geopolitical conditions, significantly undermining investment decisions and increasing risk aversion. Tighter credit conditions have limited the funds available for new investments and diminished their capacity to invest, increasing uncertainty about future returns. Increased uncertainty related to the economic recession, unstable economic conditions and pessimistic forecasts have made firms hesitant to engage in new, long-term projects, leading to reduced aggregate demand and diminishing the appetite for FDI. Although crises may create opportunities for FDI in certain sectors or economies due to lower asset prices, they ultimately affect the investment climate. Saleh (2023) reviewed the literature examining the effects of economic and financial crises on FDI and found two main effects of crises on FDI, i.e., indirect effects and direct effects. Indirect effects refer to the impact that deteriorating macroeconomic indicators (e.g., economic slowdown, trade disruption, and exchange rate volatility) have on the investment climate and, respectively, on foreign investors' decisions. While direct effects manifest themselves at the microeconomic level, affecting the balance sheets of foreign companies. Declining demand is one of the main direct effects of economic crises and recessions, causing a decrease in sales, production, and profits. Ghazalian (2023) revealed the severe impact of the Arab Spring on FDI flows in the MENA region, revealing significant variations in the effects of this event on FDI flows and distinct patterns over different time periods. These findings imply that the role of political stability is overwhelming for foreign investors' decisions.

Given the close relationship between the macroeconomic environment and FDI, we will analyse how Romania's capacity to attract foreign capital has evolved, given the most recent disruptive conditions. In this context, we will pursue several important objectives. The first objective is to review the literature that emphasized the relation between the macroeconomic environment and FDI flows. The second objective is to analyse the level of investment attractiveness of Romania, through the evolution of the country rating and investors' perceptions of Romania as a destination country for FDI. The third objective is to identify the structural changes in FDI flows, but also of the factors that contributed to this evolution.

3 Methodology and data

Using both qualitative and quantitative approaches, the study evaluates Romania's investment attractiveness through the evolution of its country rating and the perceptions of investors regarding Romania as an FDI destination. In addition, we conducted a quantitative analysis of the structural changes in FDI flows under recent disruptive conditions. The analysis relied on data from the National Bank of Romania for FDI flows and their main components, while country rating information was obtained from the official websites of rating agencies. Furthermore, the information regarding the perception of foreign investors was retrieved from Ernst&Young Attractiveness Survey and the data for macroeconomic indicators and economic sentiment from IMF and Eurostat.

4 The main risks affecting the investment sentiment in Romania

After the pandemic crisis that led Romania to enter the excessive deficit procedure and the multiple crisis generated by the war in Ukraine, the country faced a continued deterioration of its fiscal position. The unfavourable evolution was amplified by substantial increases in public sector wages and pensions, in the context of the 2024 elections, combined with the increase in interest payments on public debt. This unfavourable situation was amplified by subdued economic growth (of 2.1% in 2023 and 2.7% in 2024), political instability, the cancellation and resumption of presidential elections in May 2025, causing the postponement of fiscal reforms in the first half of the year and creating significant pressure on public finances. Against this backdrop, the level of budget deficit culminated in a value related to GDP of 9.3% in 2024 (the highest budget deficit level in the EU recorded in 2024) (Figure 1), but also with a continuous rise in public debt, reaching 54.8% of GDP in 2024 (up by 19.8 percentage points compared to 2019).

Figure 1: Evolution of GDP growth rate (%) and budget deficit (% of GDP) in Romania, between 2015 and 2024
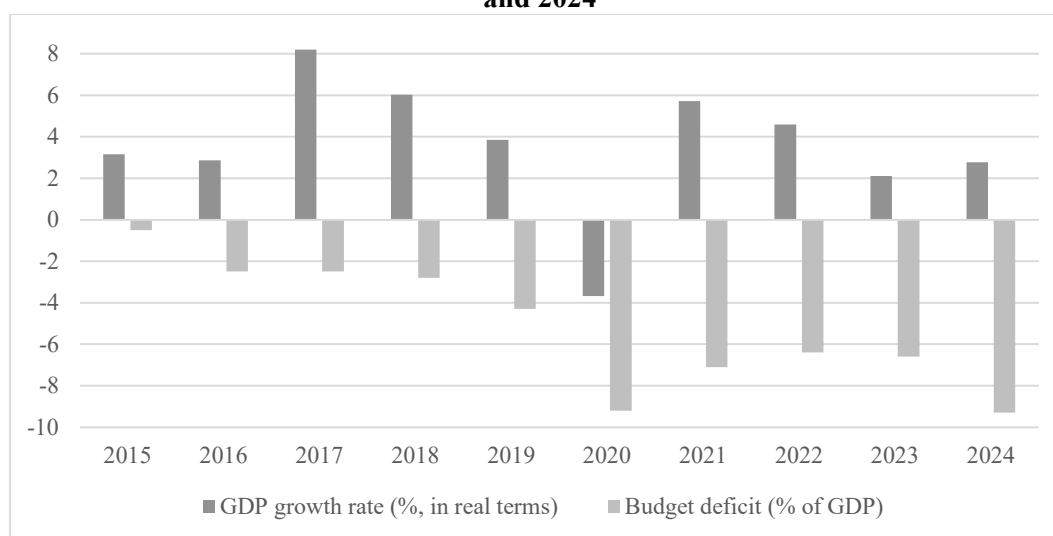
Source: Author's representation based on IMF (2025) and Eurostat (2025a) data.

These negative economic developments have had a major impact on Romania's investment attractiveness, damaging the country's financial credibility (measured by its country rating). Thus, given the fragile macroeconomic situation, the largest rating agencies (Standard & Poor's, Fitch, and Moody's) have warned that the fiscal and political risks currently facing Romania could lead to a downgrade of the country rating in the future. A brief analysis of the evolution of the rating granted to Romania reveals that it has remained at BBB- (on the Standard & Poor's and Fitch scales) and Baa3 (on the Moody's scale) in recent years, with a stable outlook. However, the most recent disruptive events that Romania has faced, namely the presidential elections of November 2024, which were cancelled and resumed in May 2025, the challenges related to reducing the budget deficit, but also the slow pace of economic growth, have determined the rating agencies revising the sovereign risk outlook of Romania from BBB- with a stable outlook to a negative one in 2025[2]. The negative outlook suggests that the rating could be downgraded in the future, if economic or political conditions worsen, with the risk of entering the "junk" or "non-investment-grade" category, a category that implies the possibility that the sovereign bond issuer will not be able to honour its payment obligations.

Thus, maintaining the rating at the "investment grade" level is paramount and depends on prompt and committed actions by the Romanian authorities, i.e., implementing fiscal reforms, maintaining political stability and the budgetary consolidation trajectory. The importance of predictability in economic policies to ensure a stable and attractive business environment is also highlighted by the Foreign Investors Council of Romania (FIC, 2025), which considers it necessary to identify priority sectors for attracting FDI, in line with the directions assumed by Romania in the National Recovery and Resilience Plan, but also other areas of the economy that have a high potential to grow, generate innovation and create new jobs, having a broad positive impact on the entire economy.

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[2] All three largest rating agencies, Standard & Poor's, Fitch, and Moody's, revised the sovereign risk outlook of Romania from a stable outlook to a negative one. Standard & Poor's revised it in January 2025 (S&P, 2025), Fitch in December 2024 (Fitch, 2024), and Moody's in March 2025 (Moody's, 2025).

At the same time, the long-term perception of foreign investors regarding Romania's attractiveness has worsened during the last year (Ernst&Young, 2025). Although 58% of the executive directors surveyed believe that Romania's attractiveness will improve in the next three years, this value is decreasing compared to 2024 (67%). According to Ernst&Young survey[3], macroeconomic uncertainty, determined by the slowdown in economic growth, high interest rates, high levels of public debt, etc., but also geopolitical tensions are considered the biggest risks affecting Romania's attractiveness in the next three years, representing latent concerns of investors (Figure 2). Moreover, foreign investors are concerned about the increase in the costs of doing business (including energy costs) and political instability, which is manifested by a continued polarization of political parties and populist policies.

Figure 2: Risks affecting Romania's attractiveness in the next three years (% of respondents surveyed)
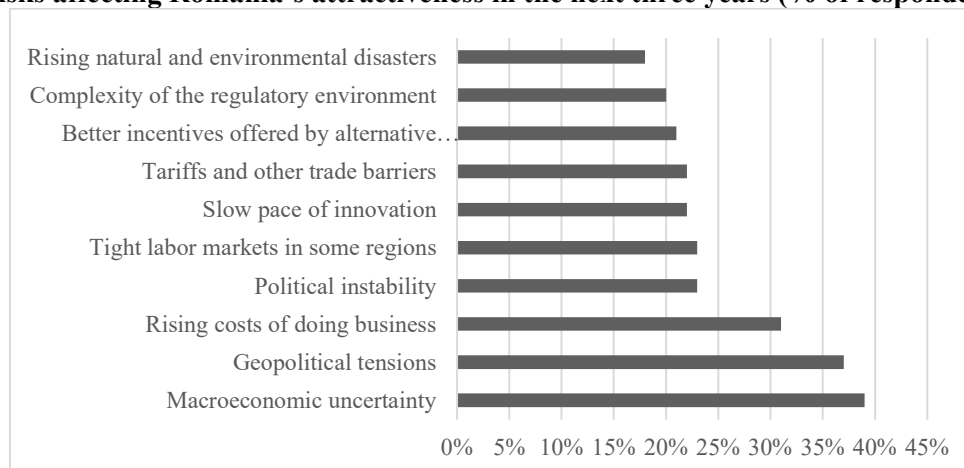
Source: Author's representation based on Ernst&Young data (2025).

In the context of increasing macroeconomic, political and geoeconomic risks, which have generated an increase in the costs of conducting business, the economic sentiment in Romanian has experienced a constant decline since April 2025 (Eurostat, 2025). Compared to other countries in Central and Eastern Europe, Romania currently has the lowest value of the economic sentiment, at only 94.2, while Bulgaria experienced the highest level, at 103.2 (Figure 3). This unfavourable evolution of confidence is set to test the government's capacity to stabilize the economy and consolidate the fiscal position, but also to reduce the level of political fragmentation in the coming period.

Figure 3: Economic sentiment in Romania and in other Central and Eastern European countries, between 2023 and 2024 (monthly evolution)
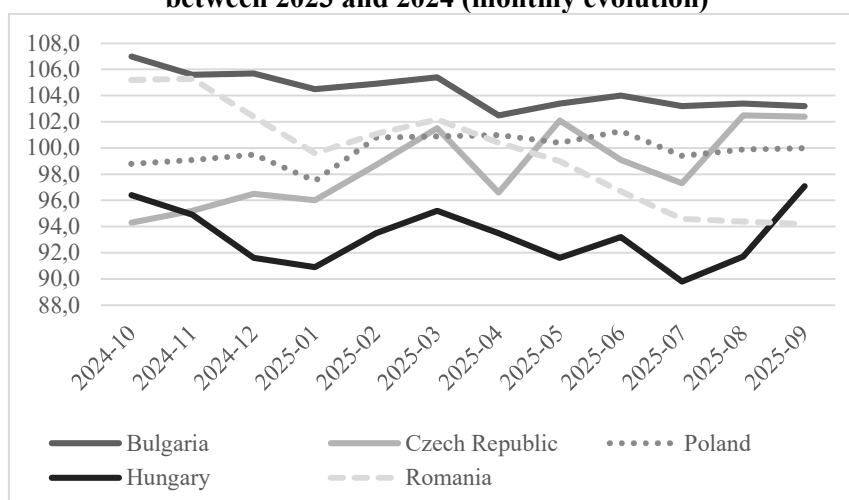
Source: Author's representation based on Eurostat data (2025b).

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[3] The EY Attractiveness Survey Romania 2025 is based on the results of a survey conducted between March and April 2025, on a representative sample of 100 executive directors. Approximately 60% of respondents represent companies headquartered in Europe, and 40%, companies headquartered in other regions. The responding companies operate in six broad sector categories and were distributed across a full spectrum of sizes based on turnover.

These risks are further amplified by the European Commission's decision in June 2025 to initiate actions to suspend payments under the European Structural and Investment Funds and the Recovery and Resilience Facility for Romania, given that it has failed to correct its budget deficit (European Parliament, 2025). Such a suspension will have significant economic and social repercussions, maintaining a rather pessimistic economic outlook for the coming years. Although the inflation rate is expected to gradually decline, it will remain high (at 5.1% in 2025, falling to 3.9% in 2026), the forecast for real GDP growth has been revised downwards to 1.4% in 2025 (an increase of 2.2% in 2026), while the budget deficit will remain substantial (being forecast at 8.6% of GDP in 2025 and 8.4% in 2026) (European Commission, 2025). At the same time, the increase in customs duties by the US is expected to limit the recovery of Romania's exports, indirectly, as a result of the negative impact of these tariffs on Romania's trading partners in the European Union. These developments underscore the importance of implementing fiscal reforms and political consolidation so that the long-term confidence of foreign investors in the Romanian economy increases.

5 Evolution of FDI flows in Romania under recent economic developments

Given the unfavourable economic developments, the delicate balance of FDI flows has been affected, experiencing a decrease for two consecutive years, of 36.3% in 2023 and, respectively, of 17% in 2024. Moreover, a substantial decrease in profit reinvested by foreign companies can be noted, by 25% in 2023 and by 37% in 2024 compared to the previous year.

**Figure 4: Evolution of FDI flows attracted by Romania,
between 2015 and 2024 (in million euros)**
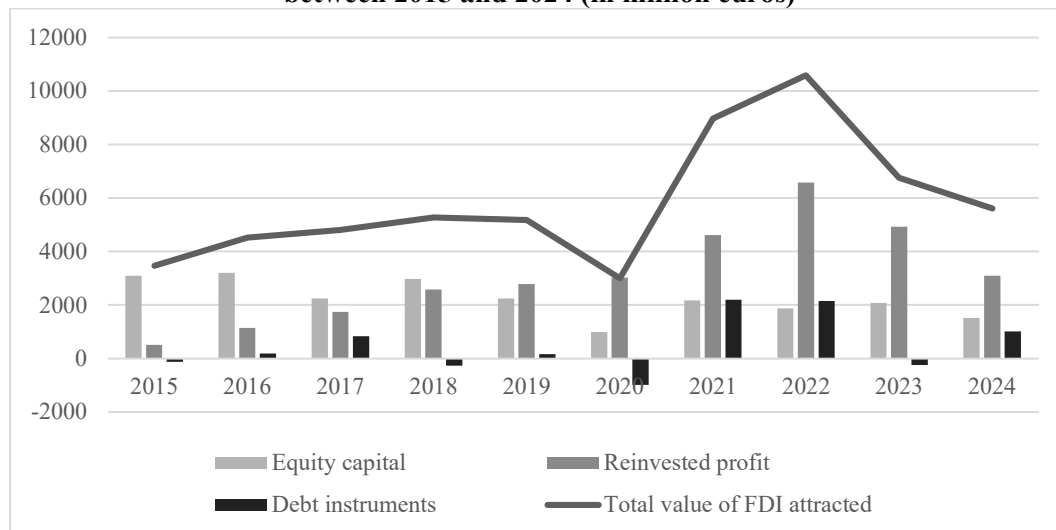
Source: Author's representation based on NBR data (2025).

This development suggests a trend of repatriation of earnings by investors, against the backdrop of a negative perception of Romania's future economic prospects and increased uncertainty regarding the ability to collect additional profits under current conditions. At the same time, the contribution of debt instruments to FDI inflows increased by 17.8% in 2024 compared to the previous year, reflecting an increase in loans contracted by foreign companies located in Romania from parent companies and other partners within the group. This financial support granted to local subsidiaries by multinational groups is interpreted as a need to strengthen financial flexibility in an uncertain and challenging international context (ECB, 2024).

However, despite a period marked by macroeconomic difficulties and geopolitical tensions, Romania experienced a 57% increase in the number of FDI projects in 2024 compared to the previous year, from 60 to 94 projects (Figure 5). This is the highest number of FDI projects in Romania since 2018 and one of the most dynamic recoveries among the Central and Eastern European countries, surpassing the dynamics recorded by Poland (13% increase in the number of projects) and Hungary (4% increase in the number of projects) (Ernst&Young, 2025). Moreover, an increase in the number of people employed by foreign companies can be noted between 2022 and 2023, with a moderate decrease being recorded in 2024 (the total number being 1,299 thousand employees, down from 1,325 thousand employees in 2023), as a consequence of digitalization processes of activities, as well as cost optimization.

Figure 5: Number of FDI projects and number of people employed by foreign companies in Romania, between 2015 and 2024
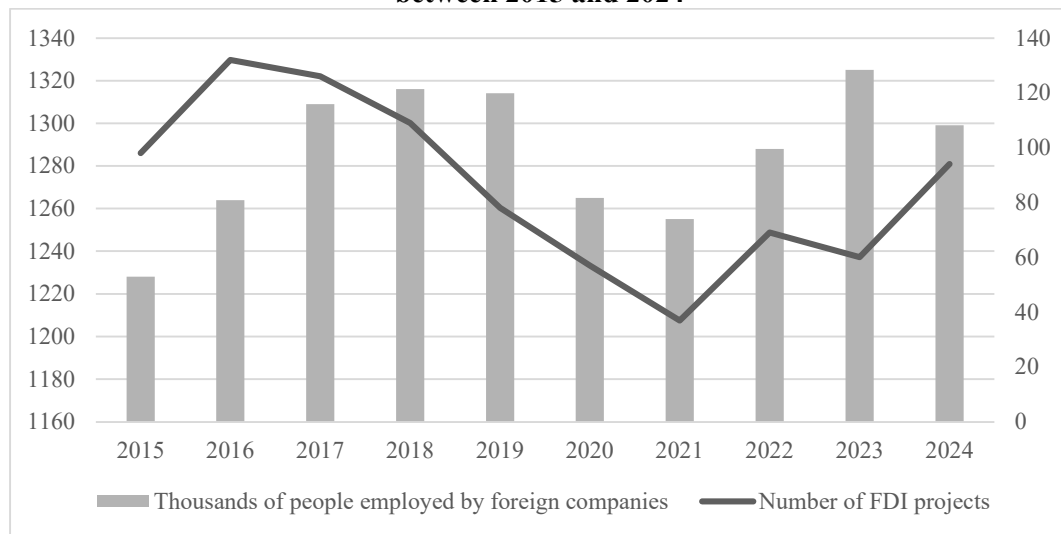
Source: Author's representation based on NBR data (2025) for the number of people employed by foreign companies in Romania and Ernst&Young (2025) for the number of FDI projects.

The rise in the number of FDI projects, while the value of FDI flows has decreased, indicates a qualitative and structural change in foreign investments. More specifically, we are witnessing a diversification of the FDI portfolio and a shift towards areas with higher added value or with a lower initial capital requirement.

Conclusions

The analysis uncovered that the most significant risks to FDI in Romania relate to macroeconomic uncertainty, the significant deterioration of public finances, determined by the high level of the budget deficit and the rapid increase in public debt relative to GDP, but also to the geopolitical tensions and conflicts taking place in the country's immediate proximity. These challenges led to the rating agencies revising Romania's sovereign risk outlook from stable to negative in 2025, meaning that the rating could be downgraded to the "junk" category in the future if economic or political conditions worsen. Moreover, in the most recent country rating assessment by Fitch, in August 2025, it highlighted the persistence of significant risks to medium-term fiscal consolidation, generated by the low pace of economic growth, the difficulties in implementing the new package of fiscal consolidation measures and the heightened political polarization. Such a perspective could significantly affect foreign investors' perception. The risks affecting the country's investment attractiveness must be addressed as soon as possible, to avoid a possible downgrade of Romania's country rating.

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INSOLVENCY OF COMPANIES IN ROMANIA – LEGAL, ACCOUNTING AND TAX ASPECTS

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Abstract: The purpose of the paper is to analyze the main aspects regarding the insolvency of companies in Romania. The main objectives considered were the theoretical presentation of the concept of insolvency, the principles of insolvency, legislative regulations, the report of the judicial liquidator. In the case study presented for the company X SRL, we presented some accounting records, the statement of payments and receipts, as well as information related to the liquidation balance sheet.

Keywords: insolvency, debitors, liquidation balance sheet, payments, reorganization

1.Introduction

Insolvency is a state of a debtor's patrimony that is characterized by insufficient funds available to pay debts.

At the level of Romania, the National Office of the Trade Register publishes in electLeiic format the Bulletin of Insolvency Procedures. It ensures the service of subpoenaing parties, communication, summons, notification of procedural documents issued by courts and judicial administrators/liquidators in the context of insolvency proceedings.

The insolvency proceedings bulletin contains all the procedural documents issued by the courts and the judicial administrators/liquidators in the course of the insolvency proceedings of legal entities, namely: summonses; communications; Notifications; summonses; court decisions; other procedural documents provided by law (reports issued by the administrator/judicial liquidator, judicial reorganization plans, announcements).

The publication of the Insolvency Procedures Bulletin brings clear benefits:

• accelerates the insolvency procedure and simplifies the communication of subpoenas, summonses, notices, court decisions and other procedural documents issued by courts and judicial administrators/liquidators, thus establishing an electic communication procedure.

• unifies and standardizes procedural documents issued by courts and judicial administrators/liquidators.

• contribute to the development of a national database of procedural documents issued by courts and judicial administrators/liquidators (namely subpoenas, communications, court orders, summonses, notices, reports, reorganization plans)

• facilitates quick registration in the trade register / other registers with regard to insolvency mentions which are provided by Law no. 85/2014 on insolvency prevention and insolvency procedures to be registered in the register.

• provides interested persons access to procedural documents issued by courts and judicial administrators/liquidators (https://e-justice.europa.eu/).

According to a study carried out by HotNews, the number of Romanian companies in financial difficulty increased by over 30,000 in the last 2 years, problems being in the field of trade, distribution and construction.

2. Theoretical background

The specialized literature in the field of insolvency has published numerous studies over time, some of which we will stop in the following. Insolvency means the inability to pay one's debts or collect one's obligations (Rochon M., et.all, 2017. p.22).

According to a study by Bates and Pavel (2019), "insolvency risk is a vast field of study, investigated for over 50 years. The promoter of the studies is considered to be the researcher Edward I. Altman, who used statistical methods as a basis for investigating the risk of insolvency, his activity being developed and later used in other researches (Balteș N., et. al, 2019, p.58).

According to lawyer Sandu (2023), the state of difficulty is a state generated by any circumstance, which causes a temporary impairment of the activity that gives rise to a real and serious threat to the debtor's future ability to pay his debts when due, if no appropriate action is taken (Sandu F., 2023, p.84).

Insolvency practitioners are, for example, obliged to communicate relevant information to the insolvency practitioners of other group members and to analyze whether there are possibilities to coordinate the insolvency proceedings of the group members (Pepels S., 2020, p. 97).

According to Barton and Taylor (2020), "insolvency can affect a trust structure in a number of ways, some more directly than others. Consider the case of a judgment creditor who may have spent two or three years in litigation against an apparently wealthy individual before obtaining a substantial money judgment. The debtor pleads personal poverty. Their apparent wealth is in fact that of a trust that they settled some years previously" (Barton Z., et al, 2020, p. 445).

A study by Pindado and Rodrigues (2004) deals with the problem of insolvency on a diagnostic basis. It has been shown that in small companies, the relevant information for the preventive diagnosis of insolvency can be synthesized in a model built with a smaller number of economic and financial reports(Pindado J., et. al, 2004, p. 51).

In the insolvency of a group of companies, it clearly makes more sense to find substantive group insolvency rules that are able to prevent the insolvency of all group members, rather than to optimize urisdictional rules, leading to or at least not prevents insolvency of all group members (Siemon K,et. al, 2013, p. 61).

In all legal systems, the most traditional device for addressing the problem of insolvent debtors consists in collecting the debtor's assets, selling them on the given market and distributing the proceedings among the claimants in proportion to their credits (Martino P., et al, 2010, p. 139).

The legal basis in Romania regarding insolvency is Law no. 85/2014 on insolvency prevention and insolvency procedures, with subsequent amendments and additions. According to art. 2 of law no. 85/2014, the purpose of this law is to establish insolvency prevention procedures that debtors in difficulty can resort to and, respectively, collective insolvency procedures to cover the debtor's liabilities, in which the debtor benefits, when possible , of the chance to recover his activity.

Law 216 of July 14, 2022 amends and supplements Law 85/2014 on insolvency prevention and insolvency procedures and transposes the business prevention mechanisms introduced at European level by Directive no. 2019/1023. Through the amendments to the insolvency law, the business prevention mechanisms imposed by Directive no. 2019/1023 and certain concepts and methods of action that were up to this point left to the discretion of the parties or different interpretations by the courts are clarified.

The amendments brought to the Insolvency Law by this normative act aim at:

A. Introduction of the early warning procedure:

- professionals are alerted by the fiscal body regarding the non-execution of certain obligations and information is made available to them free of charge regarding the recovery solutions provided for by law through a website (Law no. 216//2022, art. 51) .

- alert notifications are sent automatically through the electLeiic communication system developed by the Ministry of Finance/National Fiscal Administration Agency in relation to nonexecution of obligations to the state budget, to the state social insurance budget or to the unemployment insurance budget. The procedure for communicating alert notifications, including the amount of outstanding obligations that trigger the issuance of the alert message, by categories of debtors established according to fiscal legislation, the date of issuance of the first alert message and, if applicable, the frequency of the alert message and its format, is approved under the provisions of Law no. 207/2015 regarding the Fiscal Procedure Code, with subsequent amendments and additions (Law no. 216//2022, art. 52).

B. Another change concerns the insolvency prevention procedure:

If an insolvency prevention procedure resulted in a definitive discharge of obligations, the debtor cannot access another insolvency prevention procedure within a period of 12 months from the date of closure of that procedure.

The debtor cannot access an insolvency prevention procedure who, in the last 3 years prior to submitting the request for confirmation of the restructuring agreement or the request to open the composition procedure, has been definitively convicted for committing an intentional crime against patrimony, corruption, service , forgery, for the crimes provided by the Companies Law no. 31/1990,
republished, with subsequent amendments and additions, Law no. 129/2019 for the prevention and combating of money laundering and the financing of terrorism, as well as for the amendment and completion of some normative acts, with subsequent amendments and additions, Law no. 227/2015 regarding the Fiscal Code, with subsequent

amendments and additions, Law no. 241/2005 for preventing and combating tax evasion, with subsequent amendments and additions, Competition Law no. 21/1996, republished, with subsequent amendments and additions, as well as for the crimes provided for in art. 240 and 241 of Law no. 286/2009 regarding the Criminal Code, with subsequent amendments and additions.

The debtor retains his right of administration under the conditions of common law. The individual and collective rights of employees, including the rights to information and consultation, provided for by law or collective labor contracts, are not affected by the procedures provided for in this title. In case of subsequent insolvency of the debtor, the new financing provided in the restructuring agreement or in the restructuring plan, as well as the intermediate ones, cannot be canceled unless it is proven that they are fraudulent.

After the confirmation of the restructuring agreement and until the closure of the procedure, the debtor will not be able to access another insolvency prevention procedure.

After the confirmation of the restructuring agreement and until the closure of the procedure, the insolvency procedure against the debtor cannot be opened at the request of an affected creditor.

For a period of 3 years after confirmation, quarterly, the restructuring administrator will monitor the implementation of the agreement, even if the period provided for its execution is longer.

If the period of the agreement is less than 3 years, then the monitoring period is reduced to its period. If the confirmed agreement provides for debt reductions, any taxes owed by the debtor become due on the date of the pLeiouncement of a decision by the syndic judge confirming the fulfillment of the agreement.

The procedure of the restructuring agreement ends with the reiouncement of a decision to close the procedure by the syndic judge, in a closed file.

3. Research methodology

The scientific approach is based on information from the national and international literature, as well as from the practical documentation made through the presented case study. In the elaboration of the paper, we chose to combine quantitative and qualitative research in order to obtain the expected results. Following the research undertaken, the research tools belong to the two categories of methods, namely: literature review, comparison, descriptive analysis, case study method, data interpretation. In carrying out the case study, I presented the way of recording in accounting some operations regarding the sale of fixed assets during the period when the company X SRL is in insolvency proceedings, the presentation of a centralizing statement of the receipts and payments made by it, as well as a liquidation balance sheet. In another aspect presented is the one related to the judicial liquidator's report on the state of the company X SRL.

The main method used to achieve the research objectives is the case study method, which presents the main accounting aspects within X SRL, an insolvent company.

4. Findings

Next, we will present some accounting records related to X SRL, an insolvent company.

All documents issued by company X SRL state that the company is in bankruptcy.

These accounting entries are as follows:

- sale of land with an area of 1700 square meters with a value of 206825 Lei and material storage worth 108313 Lei. The accounting value of the land is 226555 Lei and the deposit is 118645 Lei. The deposit was fully amortized.

deposit was fully amortized.

4111 ”Customer”	=	7583 ”Income from the sale of assets and other capital operations”	206 825 lei
6583 ”Expenditures regarding the transferred assets and other capital operations”	=	2111 ”Lands”	226 555 lei
6583 ”Expenditures regarding the transferred assets and other capital operations”	=	212 ”Buildings”	118 645 lei

- the sale of commercial space with an area of 36.89 square meters in the amount of 96254.42 Lei, the book value being 141330 Rn, fully amortized.

4111 "Customer"	=	7583 "Income from the sale of assets and other capital operations"	96254,42 lei
6583 "Expenditures regarding the transferred assets and other capital operations"	=	212 "Buildings"	141 330 lei

- the sale of a drilling machine worth 1260 Lei, VAT 239.40 Lei. Book value 2050, fully amortized.

4111 "Customer"	=	7583 "Income from the sale of assets and other capital operations"	1 260 lei
4111 "Customer"	=	4427 "VAT collected"	239 40 lei
6583 "Expenditures regarding the transferred assets and other capital operations"	=	2131 "Technological equipment"	2 050 lei

The situation of cumulative payments and receipts since the beginning of the liquidation period is presented as follows:

1. available at the beginning of the period: 721.91 Lei of which available in the cashier: 619.94 Lei, available in the bank: 101.97 Lei.

2. receipts: 1232150.88 Lei: sales of goods 1124450.38 Lei, debit receipts 18127.94 Lei, receipt of rent 33834.01, receipt of good performance guarantee 27611.35 Lei, receipt of utility bills 28127.2 Lei, receipt of interest 76.17 Lei.

3. Payments 1232872.79 Lei: postal expenses 5691.52 Lei, salaries 30228 Lei, suppliers 24179 Lei, liquidation fund 40125.39 Lei, liquidator's fee 125131.5 Lei, etc.

4. Available at the end of the period 0 Lei.

This statement of income and receipts, as well as any other document: invoice, receipt, salary statement, are signed by the judicial liquidator.

Also, the verification balance of the company X SRL and the liquidation balance are drawn up.

From the liquidation balance sheet of the company X SRL, the indicators are presented as follows:

- Fixed assets - 1611839 Lei
- Current assets - 722 Lei
- Short-term debts - 2682350 Lei
- Negative working capital - 1069787 Lei
- Paid-up capital - 200 Lei
- Loss of the financial year - 1069989 Lei
- Equity - 1069789 Lei.

What is the liquidator's report? According to art. 59 of Law no. 85/2014, the judicial administrator will submit a monthly report describing how he fulfilled his duties, justifying the expenses incurred with the administration of the procedure or other expenses incurred from the existing funds in the debtor's estate, as well as, if necessary, the stage of the inventory . The report will also mention the

fee collected by the judicial administrator, specifying the manner of its calculation. This report is submitted to the case file and published electLeiically in the Insolvency Proceedings Bulletin.

Next, we will present, synthetically, the content of the judicial liquidator's report, made by company X SRL, the company entered into insolvency.

The structure of the insolvency report of X SRL includes the following sections:

1. Identification data of the debtor: company name, address, including information on the appointment of the judicial administrator; it is appointed by the court within the locality where the debtor is from;

2. Measures taken in the procedure by the judicial administrator: reference is made to

financial statements from the last 3 financial years, the trial balance, the list of creditors, the list of assets, etc.

Based on the list of creditors made available by the debtor company, notifications were made pursuant to art. 61 of Law no. 85/2006 regarding the opening of insolvency proceedings and the submission of debt statements. The notification was made through the Bulletin of Insolvency Proceedings, through correspondence sent to each creditor, and for unknown creditors, an announcement was published in a local circulation newspaper. According to the notification, the following terms were established:

- the deadline for registering the application for the admission of claims on the debtor's assets;
- the deadline for the verification of claims, the preparation, display and communication of the preliminary table of claims;
- Any objections to the preliminary table shall be submitted to the court within 5 days from the date of publication in Insolvency Proceedings Bulletin of the preliminary table according to art. 73 para. (2) from the law on the insolvency procedure;
- the deadline for resolving any appeals filed against the preliminary table of claims.

The first meeting of creditors was set on a specific date at the judicial administrator's headquarters, with the following agenda: presentation of the debtor's situation; appointment of the creditors' committee; confirming the judicial administrator and establishing his remuneration; other mentions.

During the creditors' meeting, the following were approved: the creditors' committee was appointed, consisting of 3 members; the receiver was confirmed and the receiver's fee was approved.

3. Measures taken by the judicial liquidator

The court of the locality where company X SRL is located ordered its entry into insolvency proceedings and the liquidator Y was appointed. The meeting of creditors was convened for a specific date, at the headquarters of the judicial liquidator with the following agenda: confirmation of the judicial liquidator and determination of remuneration. During the meeting of creditors, Y SRL was confirmed as judicial liquidator and the remuneration of the judicial liquidator was approved.

4. Information about Total active

According to the last financial reports drawn up by the debtor X SRL before the opening of the insolvency procedure, the company's patrimony includes the following:

- Other intangible assets in the amount of 5825 Lei - of which the value of 5742 Lei is amortized;
- Lands worth 777762 Lei;
- Constructions worth 898,523 Lei - of which 65591 Lei is amortized value;
- Technological equipment, devices and technical installations, means of transport in the amount of 864229 Lei - of which 833769 Lei is amortized value;
- Office furniture worth 65072 Lei - of which 47222 Lei is amortized value;
- Raw materials in the amount of 48298.3 Lei;
- Consumable materials 5635.29 Lei;
- Services in progress 349976.91 Lei;
- Finished products worth 2714 Lei;
- Goods 9112 Lei;
- Debtor suppliers 38802 Lei;
- Customers worth 174585 Lei;
- Shares held in entities 31259 Lei;
- Current bank accounts 27156 Lei;
- Available at home 6390 Lei;
- Treasury advances -2973 Lei.

An inventory of the assets of the debtor's estate was carried out.

Information related to the passive mass, refers to the total of registered receivables in the amount of 2682350.05 Lei. Each creditor is then presented with the corresponding amount.

6. The situation of receipts and payments. Distribution plans

According to the situation of receipts and payments drawn up during the liquidation period, receipts were made in the amount of 1232150.88 Lei, as follows:

- 124450.38 Lei - from the capitalization of goods;
- 18127.94 Lei – debt recovery;
- 33834.01 Lei - rent receipts;
- 28127.2 Lei – utility re-invoicing;

- 27611.36 Lei - collection of good performance guarantees;
- 76.17 Lei – interest.
The amount available at the beginning of the period was 721.91 Lei.
From the collected amounts, payments were made in the amount of 1232872.79 Lei, as follows:
- 5691.52 Lei - postal expenses, advertisements, bank commissions;
- 7021 Lei – evaluation services expenses;
- 17947 Lei – current obligations to the salary budget;
- 1467 Lei – current microenterprise tax: 30228 Lei – current VAT; 24179 Lei - salaries;
- 40125.39 Lei – utility suppliers;
- 23947.8 Lei – 2% liquidation fund;
- 125131.5 Lei – administrator/judicial liquidator fee;
- 929000 Lei - amounts distributed to creditors according to distribution plans no. 1-5;
- 2549.58 – guaranteed credit accessories;
- 25585 Lei - expenses for taking over and keeping the archive.
In the bankruptcy procedure, 5 distribution plans were drawn up.

7. Proposals and requests addressed to the syndic judge

Considering that the debtor does not own any assets to capitalize on and no longer has receivables to be collected, it is proposed to the syndic judge, after the approval of the final report, to order, based on art. 132 paragraph 2 of Law 85/2006, the closure of the bankruptcy procedure and the deletion of the debtor from the records of the Trade Registry Office.

Also, according to art. 136 of Law 85/2006 requires the discharge of the judicial liquidator from any duties and responsibilities regarding the procedure, the debtor and his assets, creditors, holders of guarantees and associates.

The final report, accompanied by the liquidation balance sheet, will be notified to the creditors and the debtor, and a copy has been posted at the court registry, art. 129 paragraph 1 of Law no. 85/2006.

5. Conclusions

A company becomes insolvent when it can no longer pay its debts. Insolvency should not be confused with bankruptcy, bankruptcy being the last stage of insolvency, companies reaching this situation only when they cannot pay their debts within a certain period, a period imposed by law.

Insolvency is of two types: general and simplified. The general procedure provides for judicial reorganization actions, while the simplified procedure provides for direct entry into bankruptcy.

Summarizing the above, we can state that insolvency is a measure by which the debtor's liabilities are covered. The insolvency procedure is a collective procedure, essentially judicial, transparent, generally applicable, a procedure of compromise and sacrifice. It is a measure to relieve the company of the financial difficulties it is facing, to recover it, and in case of impossibility of recovery, to liquidate the assets and remove the company in question from the market (Piperea, 2008, p.33 -34).

A legal liquidator is appointed both in the case of the admission of a liquidation plan and in the case of bankruptcy proceedings.

In case of the opening of the insolvency procedure, the outstanding fees of the insolvency practitioner chosen in an insolvency prevention procedure are entered in the table of creditors, similar to new and intermediate financings.

As future research directions, we propose to further study the activity of the company X SRL in order to be able to observe the final result of the insolvency procedure, its recovery or entry into bankruptcy.

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THE INTERACTION BETWEEN FOREIGN INVESTORS AND NATIONAL ENTERPRISES IN THE ROMANIAN SERVICE SECTOR[1]

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Abstract: Over the last three decades, the attractiveness of the Romanian business environment, bolstered by favourable national policies, has generated substantial inflows of foreign direct investment (FDI), which in turn have contributed to Romania's economic transformation. As an important destination for FDI, the service sector has come to contribute significantly to the value added in Romania's GDP, employment, and foreign trade The main objective of this paper is to highlight the service sector as a beneficiary of the relationship between foreign investors and national enterprises, taking into account the different forms of business partnership, in accordance with the characteristics and dynamics of the Romanian service market. The research results are deployed in a quantitative dimension focused on the macroeconomic perspective related to service developments indicators, where FDI has had a considerable direct and indirect contribution, especially to the trade in services of Romania, as well as a qualitative approach of the most relevant forms of collaboration between foreign investors and national companies along the transformational processes in the Romanian economy depending on and in accordance with the particularities of the service domains. The statistical approach is based on data of national and international institutions, covering the period between 2015 and 2024, while the analysis of foreign-local collaborations and interactions is built on various studies and reports developed over time by institutions and companies, related to foreign projects and partnerships within the service markets in Romania. The concluding remarks in the last part of this paper emphasize that as a recipient of FDI, the service sector has been considerably transformed, with transfers of capital, technology, and know-how being multiplied by the spillover effects generated by interactions between foreign investors and domestic enterprises, contributing to Romania's specialization, especially in information and communications technology services.

Keywords: foreign direct investment, services, trade in services, Romania, spillover effects, economic development.
JEL Classification: F21, F23, F43, L8, O14.

1 Introduction

During the last decades, foreign direct investment (FDI) has had a central role in sustaining the development processes. Due to its capacity to provide capital, create jobs, transfer technology, introduce management practices, and getting access to foreign markets, FDI contributes to increasing competitiveness of many national economies, particularly the developing ones. Besides many advantages for a host economy, FDI makes it possible for a new economic actor to enter the national market, generating changes, particularly at the level of specific industries, both in expanding collaboration with local companies, as well as in stimulating competition between foreign and national enterprises. FDI has been considered to have an important impact on local enterprises, generally appreciated as positive, given the multiplier effects in the national business environment, with increased activities, employment, productivity, and significant upgrading of skills and competencies in accordance with international standards. At the same time, foreign investors have often been criticised for potential marginalization or even elimination of local businesses from their national markets, due to their capacity to provide high-quality and cost-effective goods and services.

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[1] This article further capitalizes on the field of the author's doctoral thesis entitled "The role of foreign investments in the economic recovery of Romania".

The international experiences reveal that the relationship between foreign investors and national enterprises exists on a spectrum from strategic collaboration to intense competition, their interaction generating the concept of "dynamic coopetition" where firms cooperate and compete simultaneously (Xia et al., 2023). In this context, national enterprises may benefit from foreign partnerships through shared resources and knowledge or face challenges from direct competition and unequal power dynamics (Yeboah & Boateng Prempeh, 2023). FDI can boost national competitiveness through capital and technology transfer, driving innovation and creating job opportunities, while also posing risks such as technology leakage, market fragmentation, or suppressing and discouraging local entrepreneurship.

FDI inflows have played a substantial role in Romania's economic growth, from the perspectives of their contribution to the development of all industries and integration into the global markets, as well as of their impact on local businesses they interact with on the national market. The service sector has benefited significantly from all inputs brought by FDI projects, currently dominating the Romanian economy and its foreign trade relations, supported by foreign companies operating into the economy and also national enterprises, the development strategies of the latter ones being driven by FDI. The upward trend of the Romanian service sector has had an important contribution in sustaining the entire economy, in accordance with its level of development and economic policies, considering its international connectivity through FDI, as well as the national enterprises benefiting directly and indirectly from the FDI influence.

2 Research methodology

The methodological design used in this article is a mixed one, combining a qualitative approach with a quantitative analysis focused on the contribution of FDI to the expansion of the Romanian economy between 2015 and 2024, particularly from the perspective of the interaction between foreign investors and national enterprises in the service sector. The qualitative assessment is based on the relevant literature consisting in scientific articles and official reports presenting results about the role of FDI in Romanian economy development and particular aspects related to the interaction between FDI and local enterprises. Throughout the analysis, personal observation and interpretation of the particular case of the evolution of the service sector in Romania are made. The quantitative analysis accompanies the qualitative approach, aiming to highlight Romania's progress in the service industries, to which foreign as well as local investors have contributed. The data examined are provided by the official national institution, particularly the National Bank of Romania (NBR), as well as the statistical divisions of European and international institutions, such as Eurostat of the European Commission, the World Bank database, and the Global Services Trade Data Hub of the World Trade Organization.

The research aims to identify the particular Romania's progress in the field of the service sector from the perspective of the interaction between FDI and local enterprises, after more than three decades of opening up the economy, which created the conditions for the expansion of foreign investment and trade flows. To this end, our analysis was focused on the following categories of indicators: services development (the share of service sector of gross domestic product/ GDP; the share of employment in services of total employment at the national level; the contribution of trade in services to GDP); FDI in services (the inflows of FDI in the service sector, totally, as share of total FDI, and by service categories); trade in services related to FDI (the contribution of FDI to trade in services; the structure of exports and imports of services of foreign investing companies in Romania); other relevant indicators related to FDI and trade in services (trade in intermediate services; trade in digitally delivered services, totally and by categories of services). The analysis of the indicators covers the decade between 2015 and 2024, with some indicators presenting only data in 2024 compared to 2015, as well as some special references to more distant years to highlight the progress of some indicators under certain influencing factors. The particular investigations are focused on the services with the largest shares in FDI destinations and trade flows, such as business services and information and communication technology (ICT) services, where many forms of foreign-local collaboration and interaction have developed.

The analysis focuses on the effects of FDI on services in Romania, from the perspective of national enterprises as partners in service businesses, taking into account some personal observations and opinions related to the effects of foreign-local interaction and prospects of service industries in Romania. The most important limitation of this research is related to the shortages of specific data for emphasising a more accurate statistical dimension of the effects of FDI on national enterprises operating in services, given the difficulties in collecting specific data for the wide variety of services, providers, and especially business models in this sector, and aggregating them into sectoral or national indicators. For example, the official statistics reports the total employment in foreign-owned companies (NBR, 2016-2025), but without a sectoral repartition, while different

analyses conducted by private entities cover particular industries, such as the business services sector focusing on those related to ICT (ABSL, 2024). Given the growing development of businesses related to ICT services, at the level of national authorities, specific reports are released on this particular field, which also involve various related studies conducted by private companies to outline the main trends in this area (RAIFT, 2023). Consequently, the extension of the research as soon as more data become available is considered.

The research results are structured into two main sections: (i) the contribution of FDI in supporting the development of the service sector in Romania, emphasised by the evolution of relevant indicators; as possible, there are made appreciations related to the different contribution of foreign and national companies in services to specific indicators, such as foreign trade; (ii) the service sector in Romania as a beneficiary of the relationship between foreign investors and national enterprises; within this section, the variety of collaboration forms between foreign investors and national companies are investigated, underlying the specific characteristics of their cooperation and their effects on national markets; considering the literature related to the topic of this paper, there are taken into account different specific business models (such as outsourcing) and effects (such as demonstration effects and crowding out effect). The concluding remarks in the last part of the paper synthesize the contribution of FDI in sustaining the service industries and trade in services of Romania, underlining their role in the development of national enterprises in services as a result of their association and also competition in the market.

3 Literature review

The effects of the increasing FDI flows on host economies have been intensively analysed in specialised literature and reports related to economic development. Recent relevant contributions in this field can be remarked at Adelakun and Ogujiuba (2023) finding that FDI is viewed as a major driver of economic development of developing economies, due to the transfers of capital and knowledge, as well as productivity spillovers generated by the FDI inwards. Emako et al. (2022) identified that FDI's growth effect is influenced by its sectoral composition in developing countries. As well, Borensztein et al. (1998) developed an investigation identifying that FDI enhances economic growth by transferring technology and fostering knowledge spillovers in developing countries, arguing that its impact on growth depends on human capital, which helps in absorbing new technologies brought in by foreign investors.

Ghauri and Firth (2011) focused on the linkages occurring between multinational companies in services and local suppliers in emerging economies, examining backward and forward linkages, the influencing factors, and the effects of these linkages on domestic firms. As well, they argued that the main factors which facilitate these linkages in the service sector are related to the FDI mode of entry into the local market, subsidiary autonomy and role, as well as the government regulation and policy with a major impact on the development of these linkages.

Related to the growing contribution of the service sector in the economy, Banga (2005) explored the shifting of global FDI from manufacturing towards services, highlighting the rise of FDI role in increasing the business integration at the level of the world economy. In this regard, Chakraborty and Nunnenkamp (2008) also noted considerable changes in the composition and type of FDI over time in emerging markets, particularly from manufacturing to the service sector. Moreover, Shah and Raza (2022) found that FDI in services stands out for its role in connecting local service suppliers to the global value chain and boosting service exports. Similarly, Sen (2011) identified the propagation role of FDI in service industries from the perspective of its contribution to economic growth, but also of the vulnerability of host countries considering their dependence on FDI in sustaining the services developments.

Analysing the dynamic relationship between trade openness and FDI inwards, Zhang (2007) found that trade liberalization creates a more attractive environment for foreign investors by providing better market access and reducing barriers to business operations. Minh and Trinh (2023) underlined the role of the coherence of FDI attraction and trade liberalization policies in order to improve the benefits of FDI, particularly in the case of developing countries. The relationship between FDI and export and import flows depends on the regional policies, market conditions, and the level of trade openness (Lakshani et al., 2023). Given that FDI has an important contribution in boosting the competitiveness of national firms by providing access to technology and expertise, especially in developing and emerging countries, Lakshani et al. (2023) and Albiman et al. (2022) demonstrated that FDI raises the growth of export-oriented sectors, particularly by improving firms' productivity and enabling them to compete globally.

The investigation of the particular interplay between foreign investors, typically multinational companies, and domestic firms within host countries, examining its multifaceted implications for economic

development and industrial structure adjustment, has been a topic of interest to many researchers. This interaction often turns around the direct and indirect impacts of FDI on local enterprises, frequently focusing on knowledge spillovers, technological transfer, and competitive dynamics (Dishon & Yabs, 2017; Gao & Sammartino, 2022). Resource dependence theory postulates that multinational corporations leverage their superior control over advanced resources, including technology and management systems, to gain a competitive advantage over local competitors, thereby enhancing their market dominance (Wu et al., 2022). The presence of multinational enterprises inherently offers learning opportunities for local firms through direct observation, demonstration effects, and the establishment of upstream and downstream linkages, facilitating the enhancement of local innovation capabilities and patenting. Such linkages involve the sharing of information regarding products and processes, thereby providing ways for suppliers and distributors to acquire technological knowledge, which subsequently diffuses to other local firms (Gao & Sammartino, 2022). FDI spillovers can increase the export potential of domestic companies by transferring knowledge and technology from foreign investors, particularly where foreign companies establish linkages with local companies (Sahoo and Dash, 2022).

In terms of host economies' attitude towards foreign presence in their markets, Yang and Meyer (2020) explored the relationship between foreign and local firms from the perspective of their competitive actions in emerging markets. Thus, these actions depend on local technological capabilities (when these are limited, the competitive aggressiveness of local firms is weaker) and on the attitude of host governments (when this is reduced, the aggressiveness of the competitive actions of multinational subsidiaries is reduced). Another interesting perspective was identified by Yeboah, S. et al. (2023) exploring the specific relationship between FDI and local entrepreneurial ecosystems, focusing on their impact on startups and small and medium-sized enterprises. Besides numerous advantages, they also identified many challenges, particularly for local startups, such as increased competition, dependency risks, unequal partnerships, and potential loss of intellectual property, in this case, national policies and strategies being needed to mitigate these risks. Cabral et al. (2024) analysed another interesting perspective of the foreign-local collaboration, namely improving the international reputation of national companies, with a high potential in attracting new foreign investments partners and consequently in increasing their presence on the global market.

Considering the increasing interest in identifying new perspectives of the role of FDI in the service business developments, our paper focuses on the interaction between foreign investors and national enterprises in the particular case of the Romanian service sector. By examining this topic, we bring together the relevant aspects of the role of FDI in the expansion of the service sector in Romania, underlying the increasing contribution of services in the economic development.

4 Research results
4.1 The contribution of FDI to the development of the service sector in Romania

Since the fall of the Iron Curtain, the Romanian economy has gone through a period of major transformations generated by the national reforms through its transition from a planned to an open and market-based economy. The restructuring processes including privatisation of state-owned enterprises, liberalisation of foreign trade and implementation of a favourable foreign investment regime, had positive effects on Romanian economy. All these considerable changes have had a significant impact on the service sector, during the last years, service industries having a major contribution to the macroeconomic indicators. As revealed in Figure 1, in 2024, the service sector contribution to Romania's GDP reached 62.5% (a significant evolution during the last decade, from 52.6% in 2015, but a spectacular progress form 24.2% in 1990), service activities providing 49% of jobs at the national level (compared to 26.6% in 1991), while the contribution of trade in services to GDP was 19.2% (WBG, 2025).

Figure 1: Services development indicators of Romania, during 2015-2024 (%)
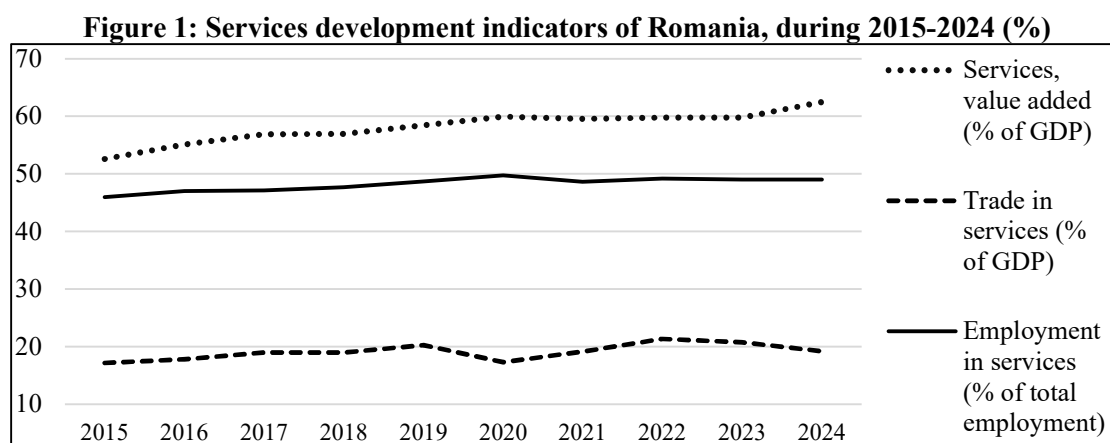
Source: Author's representation based on data published by WBG (2025).

After three decades of intense transformations, the current service sector performance encompasses the results of the activities of foreign companies investing and operating in Romania, as well as developing a variety of forms of collaboration with national enterprises. The favourable regulatory conditions and competitive advantages have attracted many multinational companies to expand their activities in the service industries in Romania. The FDI inflows into the Romanian economy have played a crucial role in its modernization, contributing to the most important changes in the national development model, within services having stood out. As illustrated in Figure 2, despite the fluctuating trend during the recent years, service industries have dominated the total net FDI in the Romanian economy, the maximum share being reached in 2015 with 75.8%, while the maximum value was reached in 2021 with EUR 5,599 million. The data covering the last decade have emphasised the continued attractiveness of services for foreign companies investing in Romania, even in difficult times as those after COVID-19 pandemic crisis in 2020 (NBR, 2016-2025).

Figure 2: FDI in the service sector in Romania, during 2015-2024 (EUR million, %)
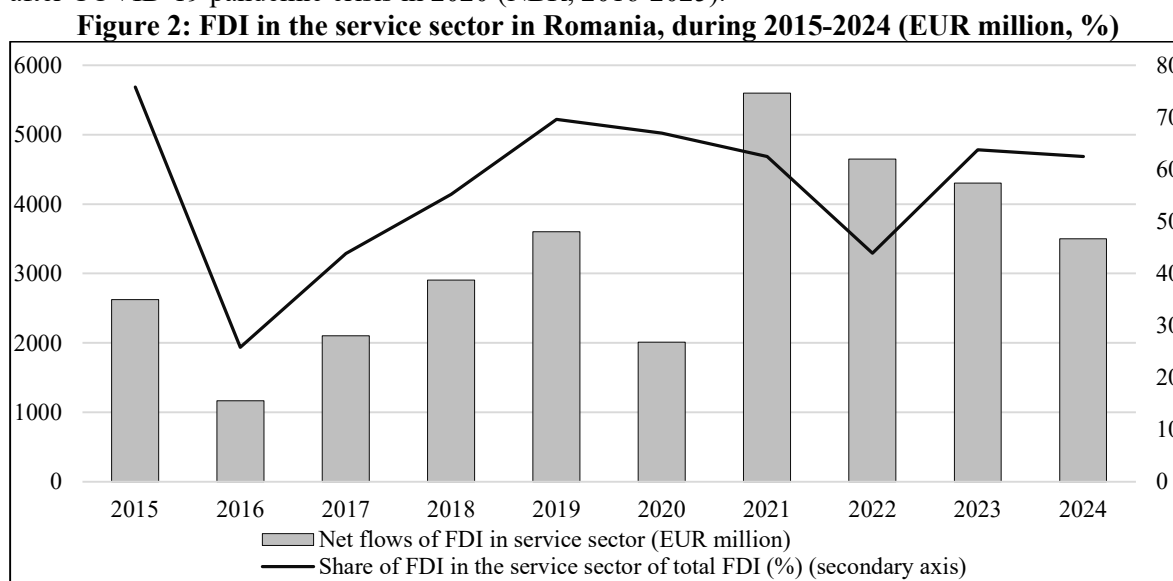
Source: Author's representation based on data released by NBR (2016-2025).

Both service industries and FDI are sensitive to a series of influencing factors, consequently, the sinuous evolution of net FDI in services in Romania during the last decade is explained by various external and internal conditions. Thus, the most recent significant external disrupting factor, namely the COVID-19 pandemic crisis with severe restriction measures affecting service activities where human interaction is indispensable, also generated a decline in the FDI net inflows in services. However, after the end of the pandemic, the service industries have continued to be an important destination of FDI in Romania, despite the difficult times of recovery processes and geopolitical tensions generated by the Russian-Ukrainian conflict. The data presented in Figure 3 highlight the dominance of FDI in financial intermediation and insurance services (with 46.7% of total FDI in services in 2024), followed by trading services (with 36.3% of total FDI in services in 2024). The FDI net flows of ICT services decreased in 2024, the best recent year being 2021, with 11.2% of total FDI in services.

Figure 3: FDI net flows in the main service industries in Romania, during 2015-2024 (EUR million, %)
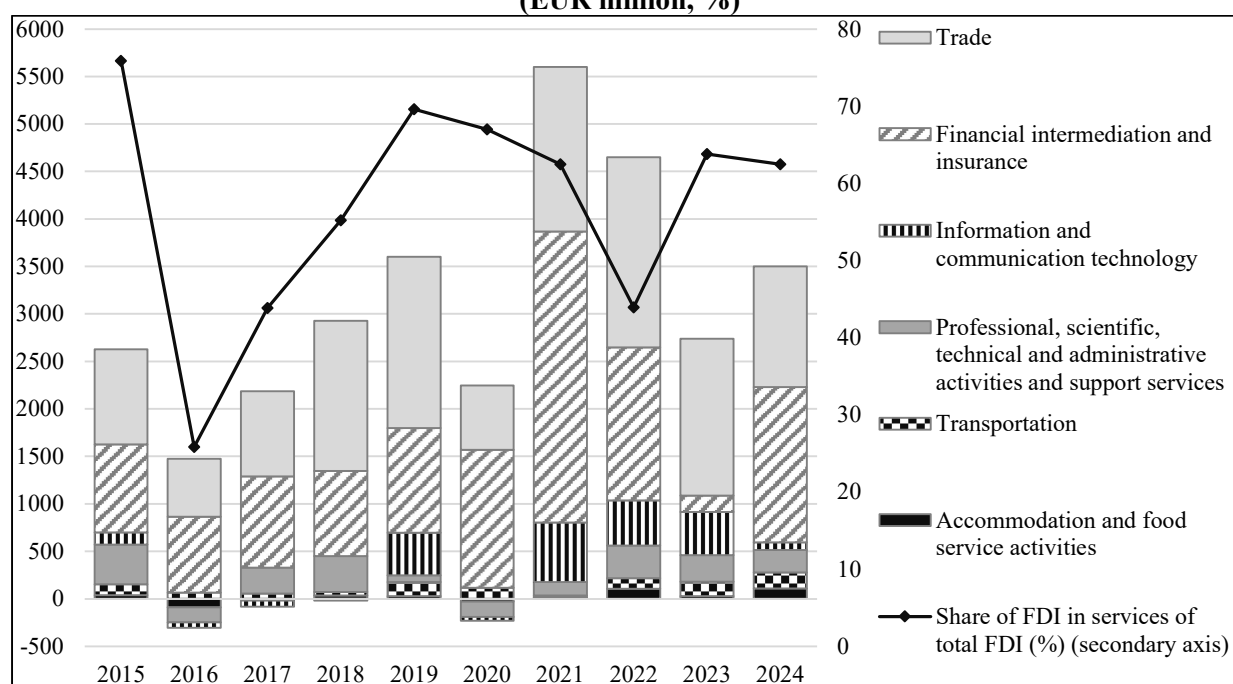
The strategies of foreign companies investing in service industries have been developed considering the competitive advantages of the Romanian business environment, where service exports have been one of their objectives. Consequently, the expansion of foreign companies investing in service industries in Romania has had an important impact on its trade in services. As revealed in Figure 4, during the last years, the exports and imports of services generated by the foreign investing companies in Romania have followed a positive trend, in 2024 the share of service exports made by foreign companies operating in Romania rising at 61.17% of total services exports, while the share of service imports serving the foreign companies in Romania recorded a slow decrease during the last years, in 2024 achieving 43.19% of total services imports (NBR, 2016-2025). As well, the data emphasise a constant significant surplus of total trade in services, totally sustained by foreign companies in Romania: in 2024, the service trade surplus of foreign companies was EUR 12,036 million (following the previous positive trend, in 2023 the service trade surplus of foreign companies was EUR 11,243 million), while the service trade balance of national companies registered a deficit of EUR 679 million (after the surplus of EUR 2,064 million in 2023 and EUR 2,772 million in 2022).

Figure 4: The contribution of foreign and national companies to trade in services of Romania, during 2015-2024 (EUR million, %)
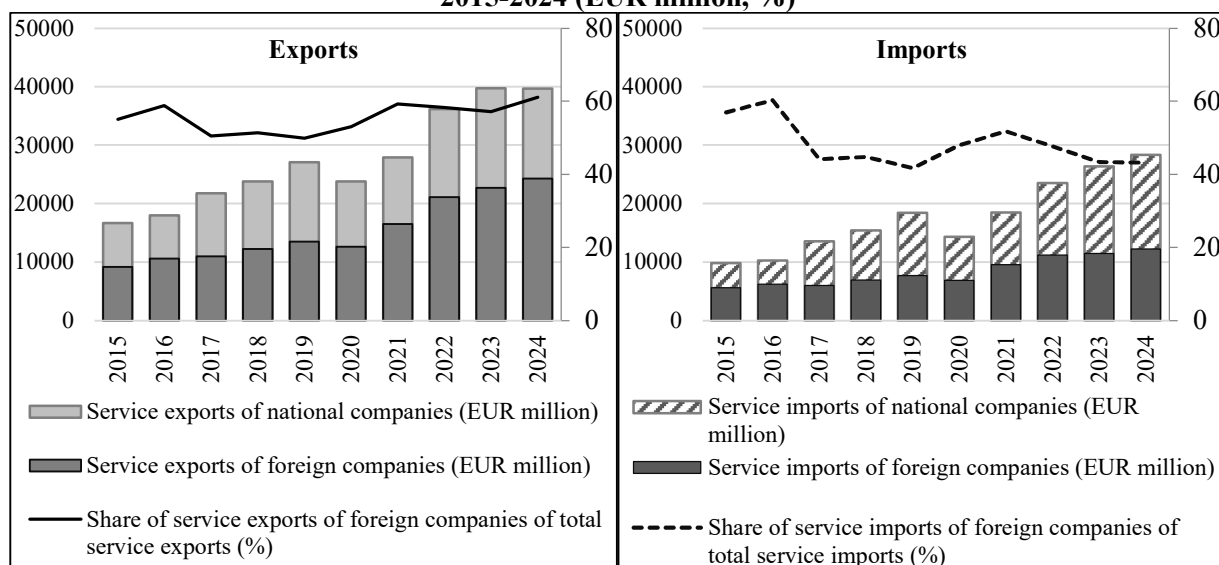
Source: Author's representation based on NBR (2016-2025).

The analysis by the main categories of services traded by foreign companies in Romania discloses surpluses in all groups of services, except for charges for the use of intellectual property. The data showed in Figure 5 offer a relevant perspective of the evolution of the main categories of services traded by foreign companies in 2024 compared to 2015, emphasising their structural transformation during the last decade. As revealed, in 2024, telecommunication, computer and information services, and other business services represented 70.6% of service exports of foreign companies in Romania (an important increase compared to 2015, with 53.2%), and 66.2% of service imports of foreign companies in Romania (in this case, an increase from 53.3% in 2015).

Figure 5: The structure of exports and imports of services of foreign investing companies in Romania, in 2024 compared to 2015 (EUR million)
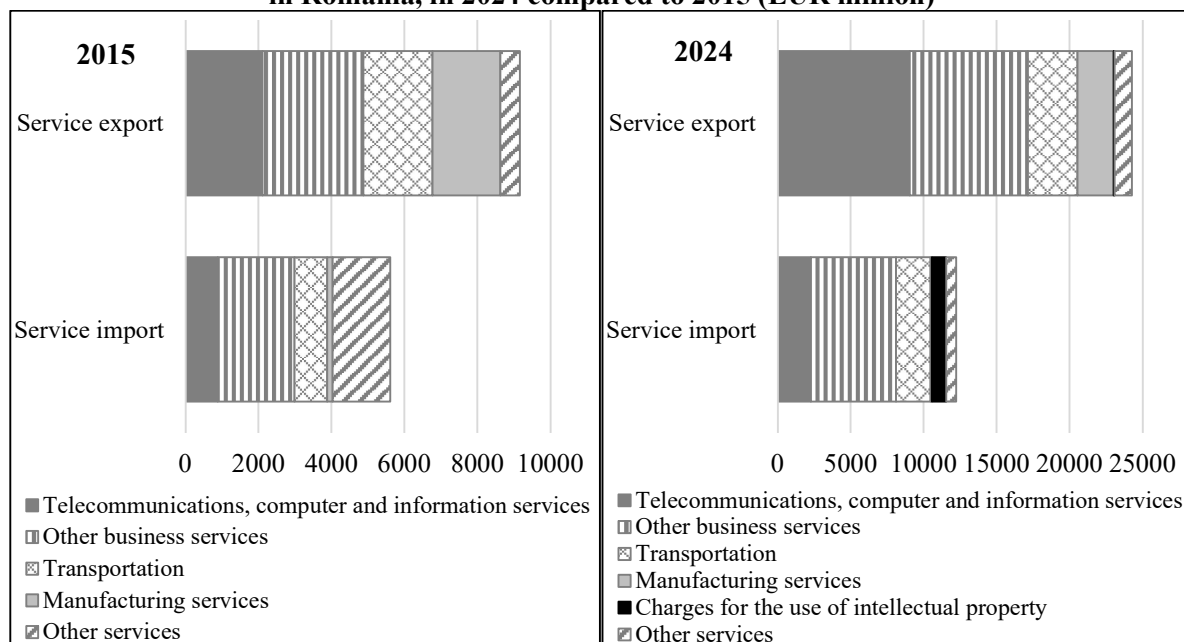
Source: Author's representation based on NBR (2016, 2025).

The high share of foreign companies in Romania's trade in services, as well as their important surplus, have revealed the contribution of foreign companies investing in Romania in the integration of national service industries into the world trade, and particularly into the global value chains of services. Foreign-owned service companies can facilitate the integration of the Romanian service sector into global value chains and international

markets, including for domestic firms that become their partners or suppliers. The recent expansion of global service value chains has been supported by the increasing of digitally delivered services, where the new digital technologies are used especially for the trade in professional services (particularly in ICT and other business services). Data presented in Figure 6 emphasise the increasing trends of exports and imports of digitally delivered services, supported by foreign companies investing in Romania, as well as national companies that have expanded into the digital service domains (WTO, 2025; Eurostat, 2025). Digitally delivered services are usually traded as intermediate services within global value chains. So, even during the recent years, a slight fluctuation in the Romanian trade in intermediate services has registered, the general appreciation related to the good contribution of trade in services to the integration of national service industries into the international value chains can be made, the maximum share being registered in 2020 with 76.9% (explained by the situation of pandemic crisis), while in 2024 the percentage of the intermediate services in the total trade decreased at 66.7% (Eurostat, 2025).

Figure 6: Trade in digitally delivered services and trade in intermediate services of Romania, during 2015-2024 (USD million, %)
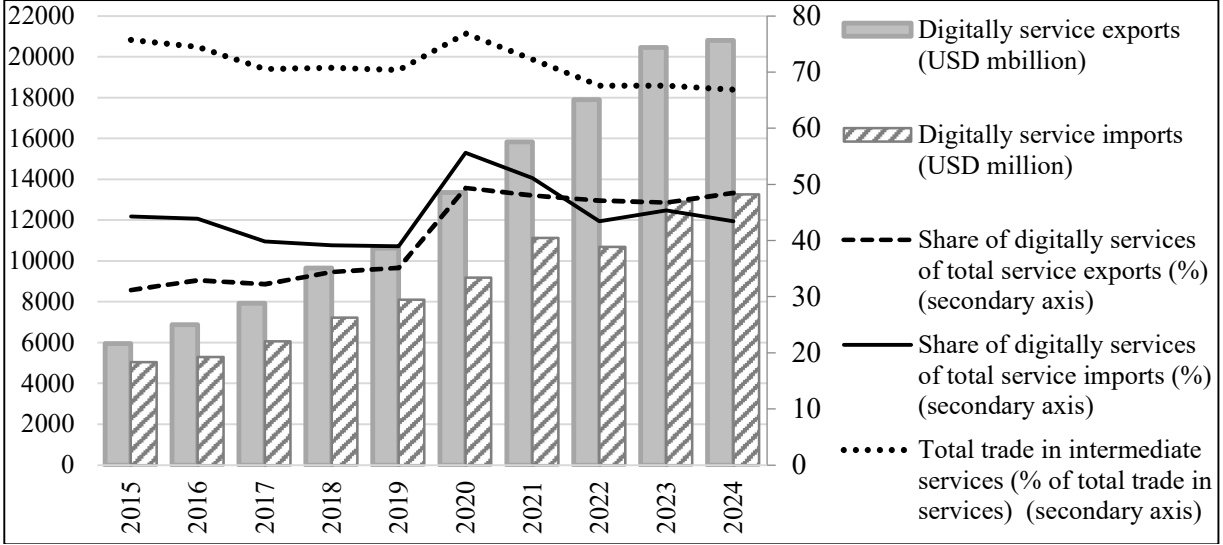
Source: Author's representation based on WTO (2025) and Eurostat (2025).

Considering the main categories of services traded by digital means, Figure 7 reveals the continued dominant representativeness of the other business services and computer services, in 2024, their combined share achieving 83.4% total exports of digitally delivered services and 72.3% total imports of digitally delivered services. Their high share of trade in digitally delivered services is due to the powerful influence of factors that have made Romania a major regional hub for business process outsourcing, shared service centres, software development, and information technology services outsourcing. The computer services and business services form the backbone of Romania's digital trade balance because they are based on the country's most internationally competitive advantages, such as the highly skilled, multilingual workforce operating within a cost-effective, time-convenient, and technologically advanced environment (Jobava, 2025).

Figure 7: The structure of digitally delivered services exports and imports of Romania, in 2024 compared to 2015 (% of total)
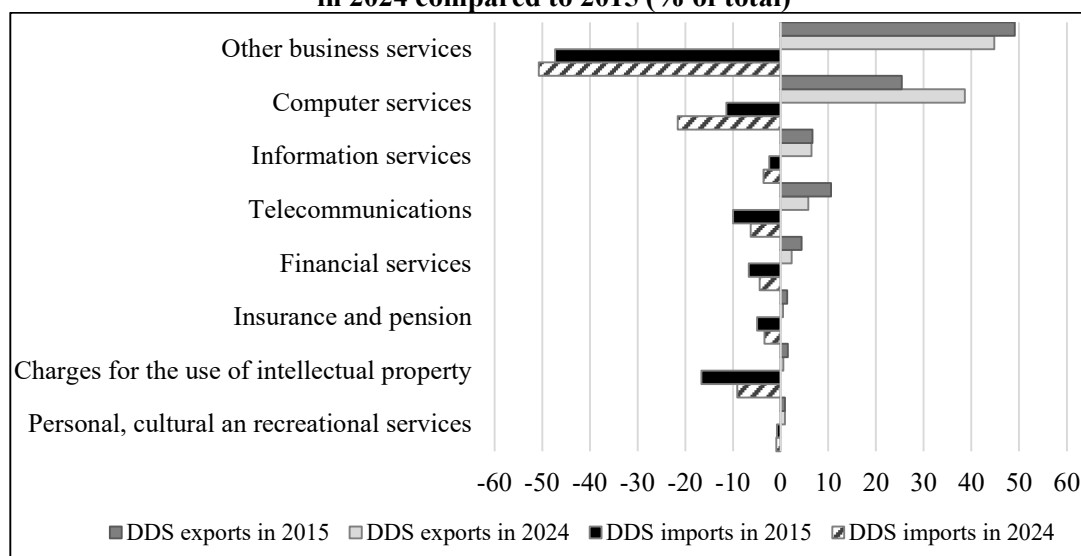
Note: DDS – Digitally delivered services.
Source: Author's representation based on WTO (2025).

Summarising, the development of the service sector in Romania has followed the international trend in this field, the outcomes being the result of the activities of national and foreign service companies, which supported each other, creating a solid macroeconomic structure. The service sector in Romania has experienced considerable growth, with FDI being a key determinant. Sectors like ICT, professional, financial, telecommunications, and trade services particularly benefitted from foreign capital, along with all the accompanying valuable transfers.

4.2 The service sector in Romania as a beneficiary of the relationship between foreign investors and national enterprises

Considering the international experiences of many countries, it is generally agreed that FDI can have a considerable impact on local companies, both by involving them in their activities and also by creating a competitive environment in the market, the latter motivating them to implement development strategies in order to keep pace with international advances. Over the last two decades, the positive trends of Romanian macroeconomic indicators related to the service sector have reflected the results of both national enterprises and foreign companies. In the particular case of the Romanian service sector, FDI has had a significant impact on the market, with the participation and implication of national enterprises, encompassing positive benefits, but also challenges. The relationship between foreign companies and national enterprises has implied a variety of cooperation forms, according to the particularities of service domains and foreign investors specific strategies. Also, in assessing the results of this relationship, the characteristics and dynamics of the national market, as well as the regulatory framework promoting the national strategic interests, should be taken into account, strongly depending on the different periods of time along the transformational processes of the Romanian economy. Foreign-local cooperation in the service sector has had different levels of achievement, from the perspective of their level of specialization and differences in the intensity of the use of capital, technology, and knowledge.

The first major stage of interaction between foreign investors and the Romanian market was achieved through **privatization** projects, where the strategic service sectors were encompassed, such as financial and telecommunications services. In these areas, collaboration between foreign investors and national public enterprises was developed on the particular aspects of the acquisition projects (respectively sales of state assets to private and foreign investors), aiming to restructure, modernize, and develop the commercial services in accordance with international sectoral advances.

In the case of banking services, the privatization projects of the major state-owned banks mainly with Western European financial institutions (such as Romanian Commercial Bank with Erste Bank from Austria, Romanian Development Bank with Societe Generale Group from France, Bancpost with Eurobank Group from Greece, or Agricultural Bank with Raiffeisen Bank from Austria) marked the end of state domination in the commercial banking sector, the foreign capital becoming prevalent in the Romanian banking market (David, 2012). The privatization process of banking services in Romania, which largely involved the entry of foreign

strategic investors, has been associated with important advantages, reflecting the typical benefits of privatization in the financial sector in a transition economy. This has conducted to boosts of financial services offered to national clients, but to major improvements in the utilization of physical and human resources, leading to efficient management and financial performance, including increased profitability (Cocris & Sarbu, 2017). Investments in banking services have facilitated transactions specific to the development of other foreign investment projects in the economy. In this regard, it is observed that the most important investors in Romania come from countries that have made significant investments in banking services (namely France, Italy, the Netherlands, or Austria). Also, the consolidation of the banking system has represented an important support in the development of other categories of collaboration between foreign and local companies. In addition, the banking services provided by these banks were not only aimed at serving local clients and facilitating transactions with international partners, subsequently creating important business service centres, as well as a large network with local service enterprises. A notable example in this regard is the company Societe Generale, which in recent years has developed business service centres serving its clients throughout Europe (SGG, 2025). All these activities and partnerships have generated positive effects for the service sector performance and consequently for the Romanian economy.

As well, mergers and acquisitions have had an important contribution to the consolidation of the Romanian insurance sector, where foreign financial groups have relied on national partners to reach customers, and strengthened their market position. In this sector, local companies, mainly insurance brokers, as the most important partners for foreign insurers, have been implied in providing the distribution channels and market access. The largest players in Romania are subsidiaries of major European financial groups, among them the most representative being: Allianz Group (from Germany) acquiring majority stake in Asigurari Ion Tiriac in 2000 and creating the current Allianz-Tiriac brand (Allianz-Tiriac, 2025); SIGNAL IDUNA Group (from Germany) acquiring majority stake in Garanta Asigurari in 2025 and consolidating its position by combining its expertise in health and life insurance with Garanta's general insurance portfolio (Romania Insider, 2025); and Groupama (from France), through a series of acquisitions and organic growth during the last years becoming a market leader by premium income (Groupama, 2025). The current Romanian insurance sector is characterized by strong competition, predominantly between foreign-owned major players with their national extensive alliances, particularly in the form of bancassurance partnerships and distribution networks, for all insurance segments.

The foreign financial investors, mainly major international banks and insurance groups operating as subsidiaries or branches in Romania, have developed and modernized the national financial infrastructure and services. As subsidiaries of large European financial groups (such as those from Germany, Austria, France, and Italy), the local institutions have the possibility to rapidly transfer the technology and know-how to the Romanian market, as well as to adopt the global best practices, especially in the area of digital services. The foreign presence can be considered a major catalyst for the Romanian financial sector's digital transformation, by providing the necessary capital, technology, and professional expertise required to upgrade infrastructure and implement digital customer interfaces at a pace that is challenging for domestic institutions.

The Romanian telecommunications sector has also been one of the major beneficiaries of FDI, in all its segments, where Western European companies have developed important investment projects, involving also national companies, both from the same industry and others, all of them sustaining the consolidation of this strategic sector. Nowadays, the telecommunications sector is dominated by the presence of foreign players, especially large and multinational groups that have invested massive amounts of capital for modernization and development of this sector in Romania. The impact of FDI on this sector has been predominantly positive, transforming Romania's telecommunication landscape, as the effects of privatization projects, as it was the case of RomTelecom, as well as the greenfield investments of companies such as Orange and Vodafone, bringing in the latest-generation of technology, management expertise, and international best practices that local companies could not have had the capacity to develop. Major projects in this field are constantly evolving, so a significant acquisition project involving major foreign and national companies was completed at the beginning of October 2025, as the joint acquisition of separated parts of Telekom Romania Mobile Communications by Vodafone Romania, as foreign investor, and Digi Communications, as national and regional investor (Telecom, 2025). As a result, through strategic investment projects, foreign capital has helped the construction of national networks, resulting in one of the highest internet speeds in Europe, particularly in fibre optics and mobile data, this infrastructure supporting the development of the digital economy and digital services trade. As demonstrated in section 4.1, the recent growth of digitally delivered services trade in Romania has been strongly sustained by FDI, particularly in the telecommunications and financial services sectors. The rise of digital services has made services trade a major engine of economic growth, with digitally delivered services accounting for almost half of trade in services of Romania in recent years (as detailed in Figure 6).

A common and specific cooperation between foreign investors and local enterprises in the service industries has been developed through the **outsourcing** model, the Romanian companies being recognised and well appreciated by foreign companies for quality inputs in the service sector. Outsourcing has stood out as a significant business model in the service sector in Romania, focusing on providing services to international clients, particularly from Western Europe countries and the United States (Sterescu, 2024; Statista, 2025). Foreign or multinational service companies operating in the fields of financial, information technology, or business services have identified the major competitive advantages of the Romanian market, mainly related to the skilled and multilingual workforce, good telecommunication infrastructure, and overall cost-effective solutions. However, within the projects carried out in Romania, investments in human capital by foreign investors are notable. During the last years, they have developed strong collaboration with local enterprises for performing tasks or providing specialised services in the business process outsourcing (BPO), mainly call centre services and support services in the areas of customer services, marketing, IT, human resources, or accounting, for their global activities. The Romanian outsourcing market, especially for IT and BPO, covers a large variety of segments, such as software development, cybersecurity, customer support, and automation, with a significant growth in recent years, supported by foreign investment and stimulated by government incentives. As a result, many global technology and business giants, such as Google, Microsoft, Amazon, Oracle, Dell and Adobe, have established operations or utilize outsourcing services, while Bucharest, Cluj-Napoca, Timișoara, and Iași becoming major hubs in BPO and positioning Romania as a key European player in the global outsourcing landscape (Jobava, 2025; rinf.tech, 2021; Zabor, 2024; StartupBlink, 2025).

In terms of government support, for many years, the IT sector in Romania has benefited from significant tax exemptions applied to both IT employees (exemptions from some taxes and contributions withheld from salaries) and companies (profit tax exemptions for companies involved in innovation and research and development), with effects on accelerating the development of the software industry (Drăgan 2025).

A particular form of collaboration of foreign companies with local companies in service industries in Romania has been developed in the area of **backward linkages,** respectively, by contractual relations with local suppliers for intermediate services. In the first stage of foreign investors, mainly medium-sized foreign firms, entering the Romanian market, local sourcing has provided essential inputs for their activities, this being the context for positive spillover effects. Considering the foreign companies' demand for specific inputs, local suppliers have increased their activities, also being interested in meeting the international standards. As a result, they have made efforts to improve the quality of their services and adopt better management practices, focusing on human resource development and technological upgrade. A particular motivation of foreign companies for association with local enterprises in Romania can be related to the national regulatory framework and bureaucratic procedures. Thus, in the particular fields of legal services (such as labour law, contract law, consumer protection regulations, fiscal regulations, or intellectual properties), marketing, logistics or maintenance services, collaboration of foreign companies with local enterprises for specialised services has brought an essential advantage, due their capacity to provide critical inputs associated to their ability to deal with local bureaucratic regulations. As well, collaboration with local companies for support services, although reduced in value (such as maintenance or security services) is indispensable for investors operating in a foreign market. For local service suppliers interacting with foreign companies on the national market, the benefits of the increasing volume of activity are accompanied by other advantages, including reputation. The collaboration with foreign investors has contributed to improving the international notoriety of service companies in Romania, where professionalism, trust, and stability are going to attract new investment partners, generating an increase in the presence of local companies on the global market. However, as many foreign companies gain experience in the Romanian business environment, they become less integrated into the local economy, being able to cover the support services they need on their own. In addition, some of them are more likely to import intermediate inputs and use their own global suppliers, which limits the potential for backward linkages with local suppliers. Thus, local supplier companies must be constantly concerned and make efforts to remain in the portfolio of foreign investors in their own market.

In the particular case of service industries, the collaboration with a foreign investor has allowed many Romanian firms to improve without FDI, benefiting of the demonstration effect (Sugiharti et al., 2022), as well as labour mobility. Thus, the advanced technologies, efficient work methods, and modern managerial and organizational practices brought by foreign companies have led to the **demonstration effect**, where domestic service enterprises have observed and adopted these practices, enhancing their own productivity and competitiveness. A relevant example in the Romanian service sector is noticed in business support services, mainly IT and BPO services, where the foreign investors served as best trainers or school of modern business

management for Romanian service providers, raising the overall professionalism, technical sophistication, and competitiveness of the entire industry. The local Romanian IT and software companies have observed the complex and high value added services developed by the global IT giants, such as Microsoft, IBM and Oracle, established in Romania, and have adopted these new technologies and shifted their business models away from simple collaboration based on hiring a professional to complete a software development project (typically on a freelance or contract basis) to offering comprehensive services that provide complete or single provider systems, and developing specialized niche competencies, especially in the field of financial technology (FinTech) and education technology (EdTech). Consequently, the entry of foreign firms has created a more competitive environment, compelling local service providers to innovate, increase the quality of their services, and boost operational efficiency to be able to compete with the international players.

Another effect of the FDI in Romania can be noticed from the perspective of **labour mobility** from foreign companies to domestic ones, the employees benefiting from training and specialization programs, bringing knowledge and expertise to the local businesses. After gaining a few years of experience and training, a significant number of these highly skilled and trained employees left to join local companies or, more frequently, found their own local service companies and startups. This phenomenon is directly responsible for transforming Romanian cities into well-recognized European IT hubs, with the knowledge brought by previously multinational employees acting as a powerful engine for local business growth and innovation (Jude, 2015; StartupBlink, 2025).

While FDI has been crucial in the modernization and growth of Romania's service sector, in some specific situations, it has acted as a double-edged sword for national enterprises. Thus, the entry of foreign investors possessing greater financial power and market influence has created an unequal playing field that can put national enterprises at a disadvantage. The foreign investors competing directly with national enterprises or acquiring local companies have raised challenges for domestic players, with the potential of market fragmentation. As well, the overall benefit is largely conditioned by the ability of local firms, particularly small and medium-sized enterprises, to absorb the knowledge and effectively compete in the market created by the presence of foreign investors. The ability of domestic firms to benefit from FDI spillovers is limited by their own capacity of **absorption**, mainly explained by the deficiency of modern technology or human capital. Thus, the entry of large, efficient foreign competitors has led to some negative horizontal spillovers, the competition intensification rising difficulties for those less-resilient domestic firms, with the effect of market share decrease, reduced profits, or even liquidation. This phenomenon is known as the **crowding out effect** (Farla et al., 2016). A relevant example of the crowding-out effect in the Romanian services sector has been observed in retail trade services. The entry and aggressive expansion of large, efficient foreign retail chains (namely hypermarkets, supermarkets, and discount stores) led to the competitive exclusion of numerous smaller and less efficient domestic Romanian stores. As a result, many small, traditional Romanian-owned food and general merchandise stores were forced to shut down due to the intense and overwhelming competition from the technologically and financially superior foreign chains. Another challenge of foreign-local coexistence has been related to the competition for skilled and professional human resources, the wages paid by foreign companies, often higher than domestic enterprises, attracting the best employees. This behaviour has put upward pressure on labour costs for domestic service companies, leading to brain drain of the most skilled employees towards multinational companies, and leaving domestic firms with a less-skilled workforce.

The foreign-national collaboration in strategic services can also generate tensions and market pressure. A particular example is related to the Huawei company involvement in Romania's 5G infrastructure, which sparked national security concerns. While the company has developed different collaborations with local companies, Romanian authorities have moved to restrict Huawei's role in critical networks, aligning with European Union (EU) and NATO partners (Pai, 2021).

Considering the advantages and challenges of the partnership between foreign companies and local enterprises in services in Romania, the most appropriate approach is of "**dynamic coopetition**". Thus, the interaction between foreign investors and national enterprises can be considered as a blend of collaborative and competitive relationships, where cooperation is leveraged to gain a competitive edge. Achieving an optimal balance between cooperation and competition is crucial, so the moderate competition can drive performance, while excessive competition can damage trust and hinder progress. Governments and policymakers play a critical role in managing this relationship by implementing strategies and regulations to mitigate negative impacts, promote fair partnerships, and foster interoperability to ensure innovation and sustainable economic growth.

In the particular case of Romania, the interaction between the two major players, foreign investors and national enterprises, had been considerably supported and shaped by **Romania's integration into the EU**, primarily through the establishment of a stable legal framework, increased access to the single market, and the

provision of substantial EU funding (Simionescu, 2018). Romania's accession to the EU in 2007 helped to solidify institutional reform and align its legal and regulatory environment with EU standards. This included the adopting of the EU provisions on the free movement of capital and ensuring national treatment for foreign investors, the EU membership offering an extra trust to foreign investors in Romania by providing a stable and predictable legal environment. The Romanian service industries have benefited from EU membership, granting national enterprises unlimited access to the vast EU service market. This integration has been a primary driver for foreign investors, making Romania an attractive location for export-oriented activities, not only in goods but also in services. Although the liberalization of the market and the presence of multinational companies have naturally increased competition for national enterprises. While challenging, this pressure has encouraged local firms to innovate, upgrade, and become more competitive in the European market. In summary, the EU integration has acted as a catalyst, providing the framework and funding to attract foreign capital and, at the same time, offering resources and market access to help national enterprises modernize and integrate into the global economy.

5 Conclusions

The analysis of the collaboration between foreign investors and local enterprises in the service industries is a complex process, combining analytical approaches and market observations, especially from the perspective of statistics support. During the research process, we tried to verify the general approaches identified in the specialized literature related to foreign market penetration and its implications for local firms, from a dual perspective. On the one hand, there have been recognised the positive effects generated by the transfer of capital, technology and knowledge of foreign investors to local enterprises, as well as the latter's integration into the businesses of foreign service companies. On the other hand, there have been identified the possible negative effects of foreign investors on local firms caused by increased competition in the market, or their limited ability to collaborate with foreign companies.

The capturing of a comprehensive set of effects of the interaction between foreign investors and national enterprises has proved to be a difficult research endeavour, especially in the service sector, explained by its heterogeneity, as well as the variety of forms of relationship between all the economic entities involved. However, the investigation carried out led to some relevant results, corresponding to the objective of this paper. Within the first part of the research results, we confirmed the increasing role of services in the economic development of Romania, with the particular contribution of foreign investment and trade during the last decade. Accordingly, services have a dominant role in the Romanian economy, from the perspective of their contribution to GDP (over 60%), employment (almost 50%), and foreign trade relations (the trade in services of GDP is approximately 20%). An important contribution to the growth of the service sector has been brought by FDI. In recent years, over 60% of FDI has been directed towards services (mainly, financial intermediation and insurance services, trading services, and ICT services). The service trade plays an important role in total Romania's foreign trade, with growing trends and surpluses, our analysis identifying that Romania's service trade surplus is actually generated by the activities of foreign companies in Romania (for example, in 2024, the service trade surplus of foreign companies was EUR 12,036 million, while the service trade balance of national companies registered a deficit of EUR 679 million). This situation is explained by the fact that services trade flows carried out by foreign companies operating in Romania are dominated by high value-added services, such as telecommunications, IT, and other business services (these three categories representing more than 70% of exports and 66% of imports of services generated by foreign companies in Romania). Statistical data reflecting the predominance of foreign-owned service companies in investment and trade in services underline their role in integrating the Romanian services sector into global value chains and international markets, involving also the domestic partners or suppliers. This was confirmed by the high share of intermediary services in trade in services, respectively, around 70%.

During the last decades, the overall impact of foreign investors on national businesses in services has depended on specific particularities of service fields, considering the market characteristics and the regulatory framework adopted in the complex process of Romanian economy development, where the integration into the EU stands out. The coexistence of foreign-owned enterprises and domestic enterprises in the Romanian services sector can be generally characterized by complementary relationships in the production factors (as labour as capital, as well as technology and organizational capabilities) and supply markets (generated by the synergy and interdependence between service companies and their suppliers), combined with intense competition in some markets. As revealed in the first part of our analysis, the FDI has an important contribution to the development

of the service sector in Romania, contributing to GDP and employment, and sustaining also an important share of trade in services.

The analysis of the collaboration between foreign investors and local enterprises from the perspective of the particular case of the service sector has led to the identification of a few main conditions of successful partnerships. First, government policies have played a critical role in opening the national environment for FDI and shaping the competitive landscape to ensure the appropriate environment for economic activities. As well, the government stimulus and incentives, as was the case with IT services providers, sustained their development perspective and contribution to the national economy. Second, the impact of foreign investors on domestic enterprises depended on different stages of economic development, respectively in 1990's and before the EU accession, and recently, when the service sector environment has followed the global trends, from the perspective of technological development, especially in ICT, and expansion of trade in digitally delivered services. Third, a skilled workforce is crucial for absorbing and utilizing the new technologies and knowledge brought by FDI, multiplying their effects in service industries.

Throughout the second part of our analysis, we tried to identify the main coordinates of the interaction between foreign investors and local enterprises in some representative services and in accordance with international appropriate business models specific to services. Therefore, the following aspects have emerged. The major starting point in the opening and foreign-local interaction was the privatization of services with a strategic role at the level of the national economy, such as banking and insurance services or telecommunications services. Moving on, the collaboration between the two categories of economic entities has intensified, in line with the evolutions in the world economy, so that at present this relationship brings these areas into the global trend of the digitalization of services. This fact is demonstrated by the indicators related to trade in services and digitally delivered services exposed in the first part of the analysis. In recent years, it is also noteworthy that the Romanian business environment in the service sectors has experimented with specific models such as outsourcing, backward linkages, demonstration effects, and even labor mobility. These support the view that FDI has been crucial in the modernization and growth of the Romanian service sector. However, like any economic phenomenon, it has not been without challenges, the interaction foreign-local companies also generating negative effects on last ones, the most relevant being related to the limited capacity of absorption and the crowding-out effect of national services markets.

Summarizing, considering the advantages and challenges of the relationship between foreign companies and local enterprises in services in Romania, the main advantages for the latter can be appreciated in terms of valuable transfers of capital, technology, know-how, innovation, and international best practices in services from foreign partners. All of these have the capacity to accelerate the modernization and digitalization of the Romanian services market. As well as the variety of partnership models with foreign entities has given the local company access to international markets and bolstered their reputation. The prospects for collaborations between foreign and local companies will depend on regulatory and administrative measures, the complexity and instability of some of which, in the context of the emergence of major economic challenges, may affect all economic activities in Romania. At the same time, while compatible, the local business culture may still require foreign management expertise to adapt to decision-making processes, specific communication styles, and employee expectations to ensure team integration and effective operations. Recent developments in the startup market represent a good and vital signal for the Romanian service sector, especially for high-value digital and knowledge-based services, which dominate its trade balance and can make an important contribution to its long-term health and sustainable growth.

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THE ASIAN TIGERS' DEGREE OF PARTICIPATION IN THE NEW SILK ROADS INITIATED BY CHINA[1]

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Abstract: The primary objective of this paper is to synthesize the positions of nine key actors relevant to the world economy, specifically the Asian Tigers, regarding China and its Belt and Road Initiative (BRI). The literature review and official positions underscore that the first four Asian Tigers, Hong Kong-China, Singapore, South Korea, and Taiwan, together with five countries considered the Asian Tigers of the second generation, namely Malaysia, Indonesia, Thailand, the Philippines, and Vietnam, have different positions and interests in relation to China alongside the New Silk Roads. They also offer various levels of attractiveness for China from the perspective of cooperation opportunities in the framework of the BRI. Hong Kong, as a Special Administrative Region of China, is described in the literature as a "key driver and value creator in advancing the BRI". In its turn, Singapore, a member of the Association of Southeast Asian Nations (ASEAN), has emerged as one of China's most consistent and reliable partners. The engagement of the other five ASEAN members with China is unevenly distributed. Striking the right balance between benefits and costs is a key objective of these countries. At the same time, they have as priorities both the alliance with the United States and economic ties with China. Among the nine Asian Tigers, Taiwan is the only one that does not participate in China's BRI. It aims to counter China's influence in the region and reduce its economic dependency on China. It has launched various policies, including the New Southbound Policy, to develop strong relationships with both China's partners, but especially with critics of China, such as the Philippines and India. As regards South Korea, in the literature are revealed "repeated setbacks in the BRI cooperation between South Korea and China", as well as South Korea's inclination towards "avoiding as much as possible too much involvement".

Keywords: Asian Tigers, China, Belt and Road Initiative, infrastructure development, functional multipolarity
JEL Classification: F14, F50, F55, G11, H54, H77

1. Introduction

The Belt and Road Initiative (BRI), launched by China in 2013, is described as "a long-term strategy that will play out over decades, not simply years" and as "one of the clearest manifestations of China's vision and influence" (Knight Frank, 2018). Over the past decade, the BRI has deeply transformed, and "five dominant trends are evident: the greening of the BRI, a shift from grandiose projects to smaller, more refined ones, mounting concerns regarding debt sustainability, an increasing presence of private enterprises, and varied international responses" (Nedopil Wang, 2023a).

Cumulatively, the Chinese BRI engagement, both in construction contracts and investments, has surpassed USD 1 trillion (USD 1.175 trillion from 2013 to 2024) (Nedopil Wang, 2025a). This represents only a small portion of the necessary bill of infrastructure needed in Asia from 2016 to 2030, according to the Asian Development Bank (USD 26 trillion) (ADB, 2017; Quah, Tan, & Nursultan, 2025), as well as of that at the level of emerging economies (estimated at USD 66 trillion) (World Economic Forum-PwC, 2022).

"Xi Jinping's signature foreign policy initiative that has attracted substantial international attention" has also generated various concerns, for instance, in terms of increasing China's influence in the international relations system or sovereignty erosion among developing states, especially via the so-called "debt trap" channel (Atkins et al., 2023).

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[1] This paper further capitalizes on the author's doctoral thesis "The place and role of the Asian Tigers in international trade at the end of the 20th century and the beginning of the 21st century".

All these *pros and cons* explain the rationale for the existence of two main groups of countries: one seeking the benefits of the BRI, and the other strongly opposing this large-scale initiative. The United States (US) has been openly skeptical of the BRI since its inception. Therefore, most of its security partners are more likely to view joining as a risk to their ties with Washington (Atkins et al., 2023). Two countries have exited the BRI: Italy in December 2023 (following the alignment with the US and de-risking from China) and Panama in February 2025 (as result of intense pressures from the US), while actors such the US, Japan, Australia, India, and Taiwan have not joined the BRI, as they have not signed any Memorandum of Understanding (MoU) with China (Nedopil Wang, 2025b).

China is "the most important great-power rival for the United States in the 21st century", and "the Indo-Pacific region is a key area where US-China strategic competition takes place" (Hu, 2020). Although the BRI is seen as a global project, it is focused on the Asia-Pacific and especially on cooperation with countries of the Association of Southeast Asian Nations (ASEAN) (Ujvari, 2019) and may be seen as an alternative source of infrastructure financing in the region to traditional sources (Damuri et al., 2019a).

Most countries and groups in the Indo-Pacific have adopted the *functional multipolarity* approach. The best option «lies not in being pulled into competing camps but in building what might be called "functional multipolarity" – APEC[2]-style practical economic integration that safeguards regional interests while keeping doors open globally». This is the way chosen also by ASEAN that does not pick sides, but instead is intensifying cooperation with like-minded countries and accelerating economic integration in order to strengthen its strategic autonomy (Eswaran, 2025).

In this context, we appreciate that bringing to the forefront the BRI experience of relevant actors in the Indo-Pacific is a useful case study. The selected economies are the Asian Tigers, given their strengths in the economic, political, or institutional fields, as well as their internal and foreign policy priorities. Hong Kong is a Special Administrative Region of China, six Asian Tigers are members of ASEAN, while South Korea is the most significant middle power in the Asia-Pacific. Taiwan, together with South Korea, Australia, Japan, and New Zealand, is "one of the few liberal democracies in this strategic geographic space" (Ballbach, 2023). Among the Asian Tigers, it is the actor with the tensest relationship with China[3].

2. Literature review

The BRI "has made significant contributions to global economic growth, mobilising hundreds of billions of USD in investment in infrastructure projects across 151 participating economies" (OECD/EUIPO, 2025).
The successful launch of BRI and its rapid development have propelled China into the position of a "champion of the concept of globalisation 5.0" (Bharti & Kumari, 2024), more pragmatic and less ideology-driven (Gao, 2018). It ignited the large-scale projects competition, as reflected by the subsequent launch of the Global Gateway Initiative by the European Union (EU) and the Partnership for Global Infrastructure and Investment (PGII) led by the US, manifestations of competing strategies "in the quest for global economic and political influence" (Simonov, 2025).

Characterized by large-scale projects in the first years, a decade later, new BRI projects have become "smaller in scale and centred on more economically lucrative sectors (e.g., energy and technology) and geographical area (e.g., middle-income economies)" (Yeung, 2024). The "small and beautiful" or "small yet smart" model (CIDCA, 2025; The State Council, 2023) is preferable from the perspective of faster results, and also to avoid criticism related to "debt trap". More attention has been paid recently to aspects related to environmental, social, and governance (ESG) criteria, as well as transparency and diversification of risks (World Economic Forum-PwC, 2022).

The interpretations of the BRI are various. Chinese scholars consider that the « BRI is more for defensive purposes, primarily serving as a direct response to the Obama administration's "strategic rebalance" » (Gong, 2020). Some authors see the BRI as "a strategic effort to achieve predominance in the Asia-Pacific. China's increased presence and influence in the region, access to and creation of new ports, and strategic moves to overcome its Malacca Dilemma are all important steps toward the achievement of this objective" (Mobley, 2019). The literature on implications in Southeast Asia draws attention that "although the Southeast Asian countries generally welcome China's investment in infrastructure and proposal to expand regional trade and investment linkages, they are divided on the extent to which they should participate in BRI". Some countries

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[2] Asia-Pacific Economic Cooperation.
[3] Taiwan, officially the Republic of China, rejects the "one country, two systems" framework and seeks independence, while China claims that Taiwan is part of its territory and seeks Taiwan's eventual unification with the mainland (Maizland & Fong, 2025).

"overwhelmingly support the initiative and are prepared to participate fully" (Yu, 2017), while others are more cautious (Raymond, 2021).

The receptiveness of these economies to the BRI is due to their own national objectives, included in their infrastructure development programs (Damuri et al., 2019b). However, other countries are taking a more cautious approach toward BRI, due to their concerns about the security risks associated with the economic overdependence on China. They fear that China's push to implement the initiative will result in the emergence of a China-dominated economic circle and a Sinocentric geopolitical order in Asia. Concerns over national security and potential changes to the existing geopolitical order in the region could render Southeast Asian countries such as Vietnam and the Philippines unwilling to participate fully in BRI or to allow Chinese companies to engage in large-scale projects in their territory (Yu, 2017). Even more obviously, Taiwan rejects cooperation with China within the BRI.

3. Methodology

This paper is based on a qualitative analysis in order to achieve its main objective, namely to define *the Asian Tigers' positions towards China and the Belt and Road Initiative (BRI).* We include in this analysis the first-generation Asian tigers, as well as the second-generation Tigers. The latter group of economies is characterized by rapid industrialization, trade, and development of finance, as well as the increasing role of the mobile economy and digital transformation, which has led to high rates of sustained growth. For instance, Indonesia, the fourth largest country in the world by population and the 17th in terms of GDP in current prices, has a significant population of "young, mobile savvy digital natives" (Natanson, 2019; GSMA, 2025).

The literature review and official declarations, strategies, and priorities reveal three main categories. The favourable extreme is the Hong Kong Special Administrative Region (HKSAR), the "key strategic hub of the BRI" (Chow et al., 2025). Most of the other Asian Tigers have nuanced positions towards the BRI, but they do not exclude cooperation. Taiwan strongly opposes China and, consequently, the BRI.

The attitudes towards de-risking from China emphasize that the Asian Tigers have different national interests, which shape their attitude towards the BRI. For most of the Asian Tigers included in this analysis, the "hedging" is still valid, meaning "both containment and engagement" with China (Oehler-Sincai, 2019).

This investigation is complemented by a statistical analysis based on the BRI Investment Reports, emphasizing Indonesia as a key beneficiary of this initiative.

Section 4 underscores three categories of Asian Tigers as regards their attitudes towards China, bilateral cooperation, and the BRI. Section 5 reveals how Indonesia has benefited most from the BRI. Section 7 concludes.

4. Specificity of the Asian Tigers' relationships with China and its influence on cooperation under the BRI

The spectre of participation in the BRI is large, with some economies (especially those involved in South China Sea territorial disputes, such as the Philippines, Vietnam, and Malaysia) taking a more assertive stance in negotiating the terms of BRI undertakings with China (Ujvari, 2019).

Previous investigations underscore that not China comes with "strings attached" to projects in host countries such as Indonesia and Malaysia, but these countries themselves. These are related to the: (1) green transition; (2) encouragement of the use of local labour; (3) transfer of knowledge of technologies to local partners through training programs; (4) value-added creation in order to reduce the still high dependence on extractive industries (Oehler-Sincai, 2019).

Among the Asian Tigers, Hong Kong has a specific position, as a Special Administrative Region of China. It is not only a strategic hub of the BRI, but also a valuable enabler of the BRI. In 2024, HKSAR's trade with BRI partner countries surpassed USD 300 billion – a nearly 60% increase compared to less than USD 200 billion in 2013. At the same time, since the launch of the BRI, Hong Kong's cumulative mergers and acquisitions in partner countries have exceeded USD 90 billion (Chow et al., 2025).

With the exception of Hong Kong-China, which is a SAR and not a state, the other Asian Tigers follow their national interest. They have a high economic capacity, illustrated also by their GDP levels (Chart 1), and are deeply integrated into the world economy.

Chart 1: Asian Tigers' global rankings in terms of GDP in 2025, in current prices (USD billion)
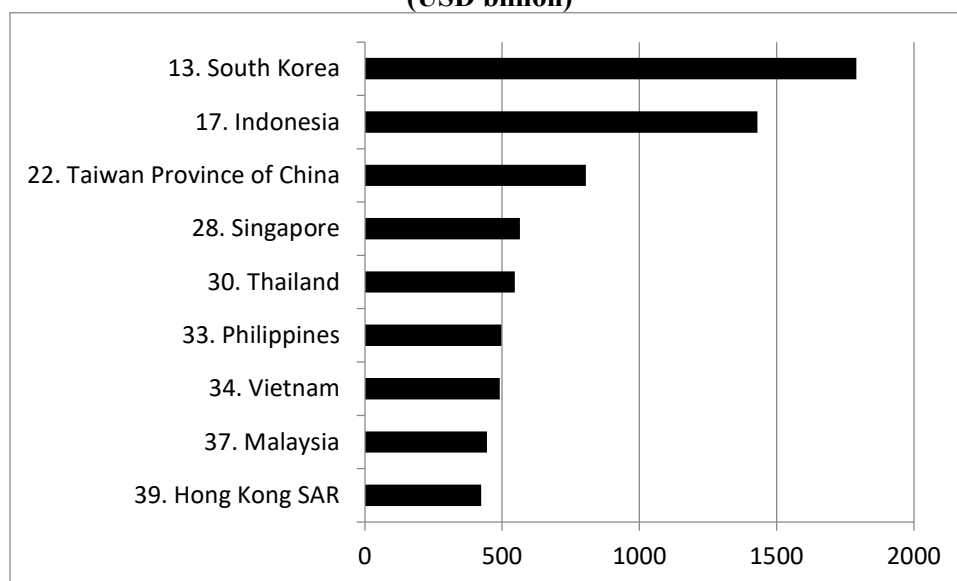
Source: Author's representation, based on IMF (2025).

China is the main trading partner for most of the Asian Tigers. As an investor, its share in the FDI inward flows is still low. For instance, at the level of ASEAN, China's share has increased, but remains around 8% (ASEAN Stats, 2025, Chart 2).

Chart 2: The evolution of FDI inflows from China to ASEAN countries (USD million)
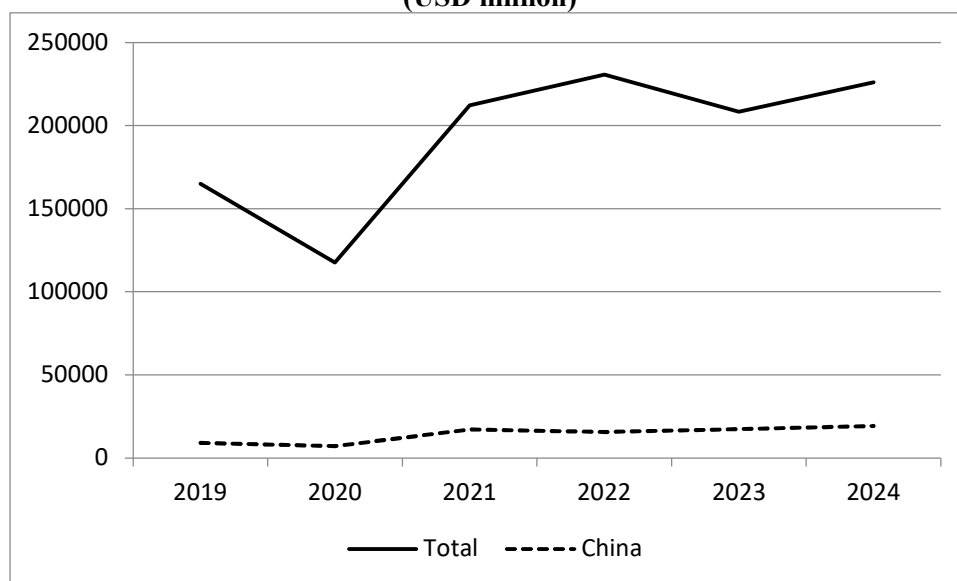
Source: Author's representation, based on ASEAN Stats (2025).

Among the Asian Tigers, *three major categories* can be distinguished. *First*, it is the HKSAR, traditionally known for its conventional role of connecting China and the West through its "One Country, Two Systems" status, and more recently repositioned to serve China's Global South agenda (Au & Wu, 2025). It is a "key strategic hub of the BRI" (Chow et al., 2025). It has built an ecosystem encompassing the five pillars of the Belt and Road ecosystem – policy, finance, industry and trade, professional services, and talent and culture (Chow et al., 2025). The 10th **Belt and Road Summit**, jointly organised by the Government of the Hong Kong Special Administrative Region (HKSAR) and the Hong Kong Trade Development Council (HKTDC) under the theme "Collaborate for change. Shape a shared future", took place between September 10 and 11, 2025. The Summit attracted 6,200 participants from more than 70 countries and regions. The Summit facilitated the signing of 45

MoUs (9 government to government (G2G) and 36 business to business (B2B)), covering countries and regions including Mainland China, Hong Kong, ASEAN (Cambodia, Indonesia, Malaysia, Singapore, Thailand), the Middle East (Kuwait, Oman, Qatar, UAE), as well as Australia, Germany, Hungary, Kazakhstan, New Zealand, Pakistan and the United States (HKTDC, 2025).

Second, it is the group of six Asian Tigers plus South Korea, but divided into two: one more favourable to China, the other more critical as regards cooperation with China. In the first subdivision, there are five countries more inclined towards cooperation with China than to a confrontational stance, in spite of the South China Sea disputes. Among these partners, there are the older strategic partners of China, namely Indonesia (2005), Vietnam (2008), Thailand (2012), and Malaysia (2013), together with Singapore.

In October 2025, Singapore and the People's Republic of China celebrated the 35th anniversary of the establishment of diplomatic relations, after they upgraded in 2023 their bilateral relations to an "All-Round High-Quality Future-Oriented Partnership". The Government-to-Government projects in Suzhou, Tianjin, and Chongqing, as well as the state-level bilateral cooperation project in Guangzhou, reflect the expansion of cooperation into new areas like the digital and green economies, food security, and deepening financial cooperation. Bilateral ties have also been strengthened through study, business, tourism, and cultural exchanges (Ministry of Foreign Affairs, Singapore, 2025).

These countries can be described as both supportive and cautious as regards the BRI, following their national interest and the national development priorities.

The countries ready to contain China form the subgroup made up of the Philippines, also an ASEAN member, and South Korea.

In 2025 are celebrated five decades of official diplomatic relations between the Philippines and China. The Philippines has had a *Comprehensive Strategic Cooperation with China* since November 2018. However, one can remark "the persistent influence of US strategic interests, the inherent asymmetry of power between the two countries and the outsized role of domestic politics in shaping Philippine foreign policy" (Gloria, 2025).

As regards South Korea, at present it is more and more focused on strengthening partnerships with like-minded nations like the US, Japan, Australia, and the EU, while maintaining open dialogue with all countries aligned with its principles of inclusiveness, trust, and reciprocity (Ministry of Foreign Affairs, South Korea, n.d.). South Korea adopted its own Indo-Pacific Strategy in December 2022, marking the transition from a "careful engagement under the Moon administration (2017– 2022), to the now clear support for a distinct Indo-Pacific strategy under the Yoon administration (since 2022)" (Ballbach, 2023). At the same time, it strengthened its partnerships with countries such as Indonesia and Vietnam, as clear examples of a force multiplier (Jin, 2025).

South Korea is trying to find common ground between its regional policies and the BRI at the level of interregional cooperation and joint investments in third countries (in particular, ASEAN). However, it is avoiding as much as possible too much involvement (Pugacheva & Piatachkova, 2021). The BRI cooperation is seen rather as "a product of geopolitical considerations and that it is vulnerable to geopolitical conditions and factors" (Seo & Lee, 2024).
Given President Trump's "transactional approach and imperial tendencies" in foreign policy, the fear of a too strong China, as well as the US-China trade war, the Asian Tigers have intensified regional cooperation (Jin, 2025).

Third, Taiwan sees China mainly through the lens of offensive structural realism, fearing that the ultimate goal of China as a great power is to achieve regional hegemony. This explains its goal of strengthening security ties with the US and avoiding implication in the BRI.

Taiwan's tense relationship with China has become more visible under the rule of the Democratic Progressive Party (DPP) and has reached its peak under Lai Ching-te, who became the eighth president of Taiwan in May 2024. The DPP has consolidated its role since 2016, and its representatives' policies have supported the diversification of Taiwan's trade and investment relationships away from China. Under the New Southbound Policy launched in 2016, trade between Taiwan and the eighteen targeted countries nearly doubled between 2016 and 2022 (Maizland & Fong, 2025). However, Taiwan's economy continues to rely on trade with China (20.4% of its total trade in goods in 2024), its second-largest trading partner after the US (24% of its trade in goods in 2024) (Workman, 2025). One of Taiwan's key strengths is its position as the world's top manufacturer of semiconductor chips. Its largest chipmaker, Taiwan Semiconductor Manufacturing Company (TSMC), is one of two companies in the world (the other is South Korea-based Samsung) that have the technological know-how to produce the smallest, most advanced chips, and it manufactures more than 90 percent of them (Maizland & Fong, 2025). Amid the US trade war, the trust in the "silicon shield" is

diminishing in both of its two main components. First, China is decreasing its dependency on Taiwan as a source of imports, from 61.2% in 2020 to 53.8% in 2023, in parallel with the increase of its own semiconductor production and technological breakthroughs stimulated by the microchip wars led by the US. Second, the US is changing its strategy related to Taiwan, with the goal to force TSMC to increase its production in the country, but Taiwan rejects, for the time being, a deal for half of all semiconductor production to take place in the US (Simov, 2025; Khan, 2025).

5. An overview of the BRI in recent years

Indonesia is the BRI's biggest recipient in Southeast Asia. Through the Chinese initiative was financed the first South Asian high-speed train project and was unlocked a critical mineral asset, nickel, via solid investment into nickel processing (Hood, 2023).

Indonesia launched Southeast Asia's first high-speed rail on October 2, 2023. The 142km Jakarta-Bandung track is a flagship project of China-Indonesia Belt and Road cooperation, and it was built under the Kereta Cepat Indonesia China (PT KCIC) consortium, comprising four Indonesian state-owned companies and China Railway International, a subsidiary of China Railway Group, and cost USD 7 billion (ASEAN Briefing, 2023).

As regards nickel, in 2013, Indonesia-based mining conglomerates partnered with China's Tsingshan Holding Group and established the Indonesia Morowali Industrial Park (IMIP). Indonesia holds the world's largest nickel reserves, with 5.2 billion tons of ore and 57 million tons of metal, constituting 42% of global reserves. IMIP became a flagship BRI project. The strategic shift from raw ore exports to processed nickel products since 2020 has positioned it as a critical player in the electric vehicle (EV) battery supply chain. Over the past decade, China has invested over USD 65 billion, securing control of 90% of Indonesia's nickel mines and smelters, offering China "significant leverage over global EV manufacturing supply chains, as nickel is essential for lithium-ion batteries. The partnership represents one of the most successful implementations of China's resource strategy in Southeast Asia, creating an industrial ecosystem that benefits both nations economically while raising concerns about environmental oversight". The extensive Chinese investments transformed Indonesia into a global leader in nickel production. However, that had significant environmental and social costs (Zadeh, 2025).

The recent shift in the BRI strategy towards the "small-but-beautiful" approach is unlikely to affect Chinese private investment in Indonesia. The focus will be on projects that are of a smaller scale, more efficient, and less risky, led by the profit-oriented private sector (Hood, 2023).

In 2023, Indonesia was also the single largest recipient with about USD 7.3 billion in investments, followed by Hungary (USD 4.5 billion) and Peru (USD 2.9 billion). In Indonesia, Tria Solar, Sinar Mas, Agra Surya Energi, and Indonesia's government-owned power company PLN agreed to construct Indonesia's largest solar cell and solar panel factory in Central Java. One can also remark vertical integration investments by the world's largest battery manufacturer, CATL, which bought the shares for a nickel mining concession in Indonesia from PT Aneka Tambang Tbk (Antam), investments into electric vehicles, such as battery production with Zhejiang Huayou Cobalt in collaboration with LG in South Korea, or Zhejiang Hezhong's EV car manufacturing in Thailand (Nedopil Wang, 2024).

In 2024, Indonesia was again the single largest recipient with about USD 9.3 billion in investments, followed by Saudi Arabia (USD 5.8 billion), and Kazakhstan (USD 4.6 billion). Notable engagements in Southeast Asia include: investments into electric vehicles, such as battery production with BYD's USD 1.3 billion production facility in Indonesia; an agreement on the tram project in Malaysia; some smaller rail contracts in Singapore; in the shipping and port sector, the acquisition of a 51% stake in Singapore's NPH by China Merchant Group (Nedopil Wang, 2025a).

The country with the highest construction volume in 2022 was the Philippines, with about USD 3.3 billion, followed by Argentina (about USD 3.3 billion), and Indonesia (USD 2.5 billion). In January 2022, the Philippines' Department of Transportation (DOTr) awarded a USD 2.8 billion contract to a Chinese consortium to build the first phase of the 565km Bicol rail scheme on the country's main island of Luzon. Regarding BRI investments, Singapore was the third largest recipient (about USD 2.5 billion), after Hungary with about USD 7.6 billion in investments, and Saudi Arabia with USD 5.6 billion (Nedopil Wang, 2023b).

In 2022, Indonesia was the country with the third-highest construction volume (about USD 2.4 billion), after Iraq (with about USD 10.5 billion), and Serbia (about USD 6.8 billion) (Nedopil Wang, 2022).

With the exception of Hong Kong, part of China, Indonesia is the leading Asian Tiger in terms of cooperation with China, BRI being seen as an instrument useful to implement large-scale national infrastructure development and modernization projects.

6. Conclusions and future research directions

In spite of weaknesses in terms of environment, social costs, or lack of transparency, the BRI remains the most advanced global project initiated by a single country. Besides its strategic goals, such as enhancing China's global leadership by investing in infrastructure and establishing closer economic and political ties with participating nations, the BRI is attractive for China's partners, including the Asian Tigers. Taiwan is the only economy analysed that, in spite of deep economic ties with China, does not participate in the BRI.

This paper has emphasized the specificity of the Asian Tigers' relationships with China and its influence on cooperation under the BRI. Three categories have been identified, with HKSAR and Taiwan deeply contrasting with each other, and the other Asian Tigers being included in a group with two subdivisions: one more favourable to China (Indonesia, Vietnam, Thailand, Malaysia, and Singapore), the other more critical as regards cooperation with China (the Philippines and South Korea).

This investigation brings a novelty to the literature, namely the specificity of the Asian Tigers in relation to China and the BRI. It is not an exhaustive research paper, and this is its main limitation. A detailed analysis of the projects developed by the Asian Tigers, with similarities and differences, might bring more light to this research area. At the same time, one of the useful case studies would be that of the semiconductor industry, which strongly differentiates South Korea and Taiwan in their attitude towards de-risking the semiconductor supply chain from China, emphasizing once again that the Asian Tigers have different national interests, which shape their attitudes towards the BRI.

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IMPLEMENTATION STATUS OF STANDARD AUDIT FILE - TAX IN THE EUROPEAN UNION MEMBER STATES AND VALUE ADDED TAX GAP

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Abstract: In Romania and across the European Union member states, steps have been and are being taken to improve the collection of revenues for national budgets, and implicitly for the EU budget. The efficiency of tax administration systems also depends on the electronic reporting used to declare taxpayers' transactions and tax obligations. Thus, in 2010, the OECD's Committee on Fiscal Affairs published the second version of the Standard Audit File for Tax (SAF-T) electronic reporting system, which is designed to contribute to the performance of effective audits by internal and external auditors and by tax authorities. SAF-T version 2.0 electronic reporting has been adopted by the EU Member States under review, in a limited or extended form, as appropriate. This article describes the stages of implementation of electronic reporting in various EU member states and analyzes the correlation between the stage of implementation and Value Added Tax (VAT) collection for the budget, with VAT revenues accounting for a significant share of total budget revenues.

Keywords: Standard Audit File for Tax, Value Added Tax gap, electronic reporting, European Union buget revenues, tax administration systems

1. Introduction

The indirect tax applied to the added value of most goods and services traded or provided in the European Union (EU), Value Added Tax (VAT), is borne exclusively by the final consumer and represents the main source of revenue for the national budget, as well as for the EU budget.

Such revenues finance the activities of administrative authorities in the fields of education, health, transport, and others, which is why it is important that VAT revenues are collected as efficiently as possible and, implicitly, that the VAT gap is reduced.

The VAT gap is the difference between the expected VAT revenue (or 'VAT Total Tax Liability' - VTTL) and the amount actually collected. VTTL is an estimated value, theoretically to be collected, based on VAT legislation and ancillary regulations. (European Commission, 2021)

According to the European Commission's responses on its official website, the VAT Gap is caused by VAT fraud and evasion, taxpayers' use of VAT avoidance and optimization practices, company bankruptcies and insolvencies, as well as calculation and administrative errors. Given the causes of the VAT Gap, the tax authorities have resorted to implementing policies and rules to increase taxpayer compliance and improve the analysis of their transactions.

In Romania, steps have been and are being taken to create a more efficient tax administration system, and progress has been made on automated electronic reporting, such as SAF-T, RO e-Transport, and RO e-

Factura, with the aim of allowing tax authorities access to significant volumes of data on transactions carried out by taxpayers.

The objectives of this article are: to provide a literature review on the emergence of the Standard Audit File for Tax (SAF-T), the data contained in the report, and the benefits targeted by its implementation; to examine the implementation of SAF-T in certain European Union (EU) member states; and to analyze the correlation between the stage of SAF-T implementation and the VAT Gap. Conclusions are focused on the correlation between the stage of SAF-T implementation and the level of VAT revenue collection.

The methods used in the documentation and analysis were a review of the literature on the VAT Gap and the implementation of SAF-T electronic reporting, correlating data from European Commission reports on the VAT Gap with information on the stage of SAF-T implementation in certain EU Member States. Data processing methods involved examining the links between the VAT Gap and the degree of SAF-T adoption at national level in EU Member States, graphical representation – using diagrams to highlight changes in VAT gap in various EU Member States, including Romania.

2. Standard Audit File for Tax – emergence and intended benefits

SAF-T electronic reporting is based on the guidelines developed in 2010 by the Organization for Economic Cooperation and Development (OECD), which includes guidance on its revised version (2.0). The first version of SAF-T was published in May 2005 by the OECD's Committee on Fiscal Affairs and was designed to give taxpayer auditors easier access to data.

The OECD Guidance for the Standard Audit File – Tax Version 2.0 states that the reporting is intended to contain „reliable data on transactions from taxpayers' computer systems covering a specific period of time, be easy to read due to its standardized layout and format, contributing to efficient and effective audits by internal and external auditors and tax authorities".(Forum on Tax Administration, 2010, p. 3)

The first version of SAF-T contained information on entries in the journal register, data on customers and suppliers, such as invoices, orders, payments and adjustments. The revised version (2.0) contains, in addition to the information from the first version, data on inventories and fixed assets.

According to the OECD's Guidance for the Standard Audit File – Tax Version 2.0, standardizing electronic reporting aims to benefit both tax authorities and taxpayers, mainly by: „reducing the costs of complying with regulatory requirements; lowering the administrative costs of tax agencies involved in collecting taxes; improving the results of tax and accounting audits conducted by the authorities". (Andrei & Petraș, 2021, p. 53)

Among the benefits targeted by the Romanian tax authorities through the implementation of SAF-T are „increasing the level of revenues collected in the Consolidated General Budget by increasing compliance with the declaration and payment of all categories of income recorded by taxpayers" (National Agency for Fiscal Administration, 2021, p. 5), including VAT revenues.

VAT revenues account for the largest share of EU member states' budget revenues, according to a 2011 European Commission publication.

3. Implementation of SAF-T in certain Member States of the European Union, correlation between the stage of SAF-T implementation and the VAT Gap

„The globalization of the world economy, including the emergence of e-commerce, has created a new environment in which multinational enterprises are subject to a range of different legislative requirements around the world. Tax authorities are also seeing an increased need for international cooperation through the exchange of information and, where appropriate, through multi-jurisdictional audits".(Forum on Tax Administration, 2010, p. 7) In this context, there is a need for a standardized format for collecting data in order to be analysed by both the auditors of the companies concerned and the tax authorities.

From the data published by the European Commission Directorate-General for Structural Reform Support (DG REFORM) in February 2024, information was extracted on the stages and status of implementation of SAF-T electronic reporting in the following EU Member States: France, Poland, Spain, Lithuania, Romania, and Portugal, as presented below.

On January 1st, 2014, **France** introduced a system with similar purposes to SAF-T developed by the OECD. The system introduced by France is called Audit file for France, and the file that must be submitted within 15 days of the initiation of a tax inspection includes information on the company's accounting records for a given financial year. The persons concerned are „companies based in France that keep their accounts in electronic

format, foreign persons registered for VAT purposes in France, and branches established in France of non-resident natural or legal persons". (DG REFORM, 2024, p. 23)

The VAT gap for France, from 2018 to 2022, ranged between 7.8% and 6%, given that the Audit File for France had been in place for four years. The situation is illustrated in the chart below:

Figure 1. VAT compliance Gap - France
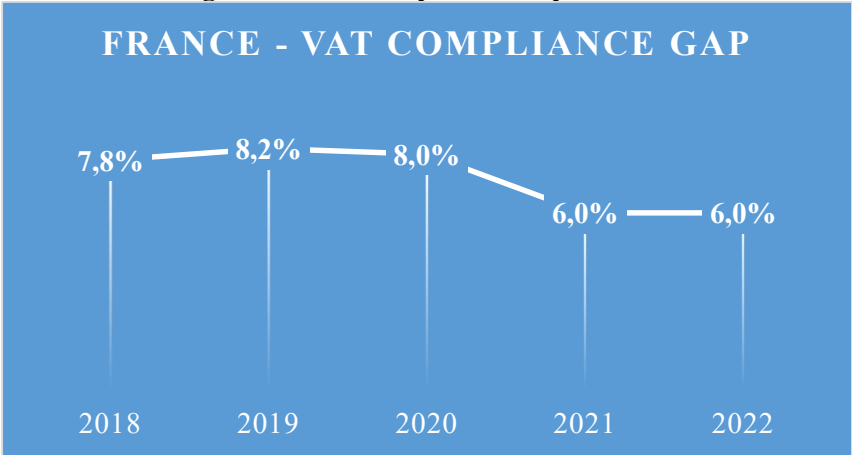
FRANCE - VAT COMPLIANCE GAP

7,8% — 8,2% — 8,0% — 6,0% — 6,0%

2018   2019   2020   2021   2022

Source: authors' processing according to data presentend in VAT gap in the EU – Country report 2024: Romania, p. 6

Another EU Member State, **Poland**, introduced mandatory filling of SAF-T in January 2016 for large economic entities. Medium and small entities, were required, from January 1st, 2017, to submit the SAF-T for VAT only. All information required by this reporting approved by Polish authotities are mandatory from January 2018 for medium and small entities. Also from January 1st, 2018 the filing of the SAF-T is mandatory for micro entities as well. Criteria used to group entities into these categories were turnover, value of assets and number of employees. The main purpose for which the information submitted through the SAF-T file is used is to monitor and control the VAT obligations of taxpayers. The SAF-T VAT file is submitted monthly on the portal of the Ministry of Finance.

The VAT collection deficit in 2018-2022 for Poland has decreased from 14% to 8%, as shown in the following chart.

Figure 2. VAT compliance Gap – Poland

POLAND - VAT COMPLIANCE GAP

14,2% — 13,9% — 11,6% — 5,6% — 8,4%

2018   2019   2020   2021   2022

Source: authors' processing according to data presentend in VAT gap in the EU – Country report 2024: Romania, p. 6

Similarly to France, **Spain** has not introduced the obligation to submit a SAF-T file in the format recommended by the OECD, but a system for submitting information on invoices issued and received in an XML file, structured by the national tax administration, specifically created for the needs of the State. The system,

whose name is Immediate Supply of Information, is an application developed by the tax administration for electronic VAT filing and was introduced on July 1st, 2017. The aim of introducing this system is to simplify tax compliance, lower costs for economic entities by automating the process. The information submitted and the deadlines are: details on invoices issued, within 4 calendar days from the date of invoice issue; on invoices received, within 4 calendar days from the date of entry in the accounts, but not later than the 16th day of the month following the transaction; on intra-Community transactions, within 4 calendar days from the dispatch or receipt of goods; on investments.

In the context described above, the VAT gap, over the period 2018-2022, for Spain was in the range of 6.5% - 4.6% , as shown in the following graph:

Figure 3. VAT compliance Gap – Spain

Source: authors' processing according to data presentend in VAT gap in the EU – Country report 2024: Romania, p. 6

Lithuania has implemented electronic SAF-T reporting, mandatory only for domestic firms, in stages, as follows: from January 1st, 2018 for firms with more than €700 000 net revenues recorded at the end of 2016; then from January 1st, 2019 for firms with more than €300 000 net revenues recorded at the end of 2017; and from January 1st, 2020, for the following financial years, for all firms with more than €300 000 net revenues recorded at the end of the previous year. The data in the electronic reporting, required on request by the tax authorities, includes detailed accounting information enabling them to verify the tax obligations of the entities required to declare and pay them.

The VAT gap, over the period 2018-2022, for Lithuania decreased from 24% to 14.06%.
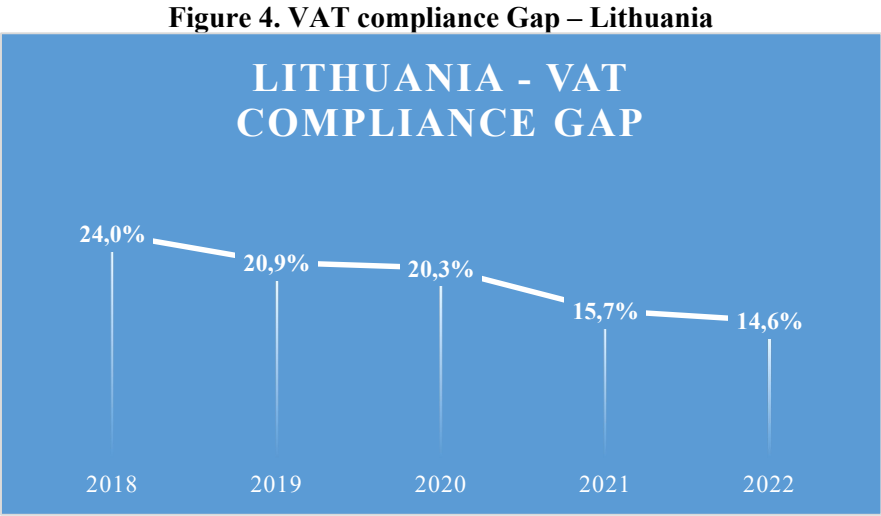
Figure 4. VAT compliance Gap – Lithuania
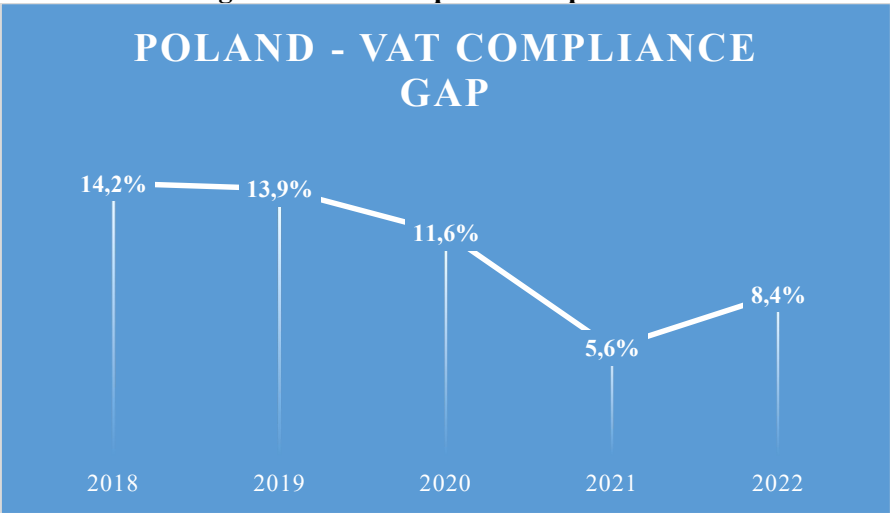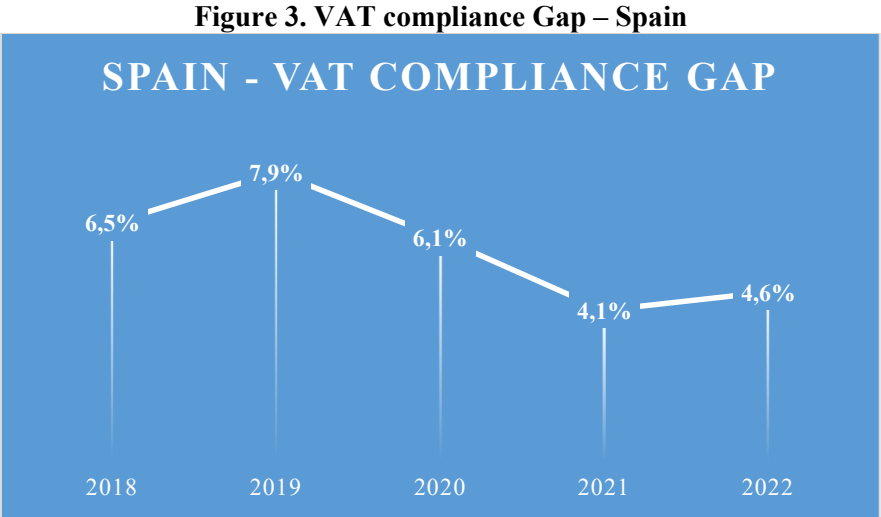

Source: authors' processing according to data presentend in VAT gap in the EU – Country report 2024: Romania, p. 6

In **Romania**, the National Agency for Tax Administration has decided to bring the whole SAF-T system in line with the OECD standard.

The categories of taxpayers who are obliged to submit the Standard Tax Control File (SAF-T) are „Romanian legal entities, units without legal personality in Romania of foreign legal entities that are obliged to keep double-entry bookkeeping, non-resident companies that have a VAT registration code in Romania".(National Agency for Fiscal Administration, 2021, p. 5) There are also exemptions from the obligation to submit the SAF-T file, including public institutions, authorized natural persons, individual medical practices, professional companies of lawyers and individual offices of lawyers, professional notarial companies and individual notarial offices, family associations.

The implementation of the SAF-T file was carried out in stages, as follows: for taxpayers classified as large taxpayers - from 2022, for those classified as medium taxpayers - from January 1st, 2023, for small taxpayers and for non-resident taxpayers, registered for VAT purposes only in Romania, from January 1st, 2025.

According to the Taxpayer's Guide the structure of the SAF-T file for Romania includes:

Table 1. Components and contents of SAF-T, Romania

Section	Components	Contents
Header		general information about the file
Master files	General Leger Accounts	data from General Ledger Accounts, customers, suppliers, inventory, assets etc.
	Customers	
	Suppliers	
	Tax Table	
	Units of Measurement Table	
	Analysis Type Table	
	Movement Type Table	
	Products	
	Physical Stock	
	Owners	
	Assets	
General Ledger Entries		informations on accounting entries made during the reporting period as recorded in the taxpayer's accounting system
Source Documents	Sales Invoices	informations about source documents such as sales invoices, purchase invoices, payments, documents for stock movements and asset transactions
	Purchase Invoices	
	Payments	
	Movement of Goods	
	Asset Transactions	

Source: authors' processing according to data presentend in the Taxpayer's Guide for   Preparing and Submitting the D406 Informative Statement, Standard Audit File (SAF-T),   p. 32-38

SAF-T shall be submitted, in electronic format, in the case of information on inventories, at the request of the tax authorities, and the deadline shall be specified by them and shall not be less than 30 days from the request, and in the case of other information on taxpayers - mandatory.

The SAF-T containing information on assets shall be submitted annually by the deadline for submission of annual financial statements. SAF-T containing other information, other than stock and asset information, shall be submitted by the last calendar day of the month following the reporting period. The reporting period is the month for VAT registered taxpayers and the quarter for non-registered taxpayers.

The VAT gap for Romania, in the period 2018-2022, was between 32.8% and 30.6%, given that the SAF-T was implemented for large taxpayers starting with 2022 and after this year for other taxpayers. The graph below shows the variation in the VAT revenue collection deficit over the period:

Figure 5. VAT compliance Gap – Romania
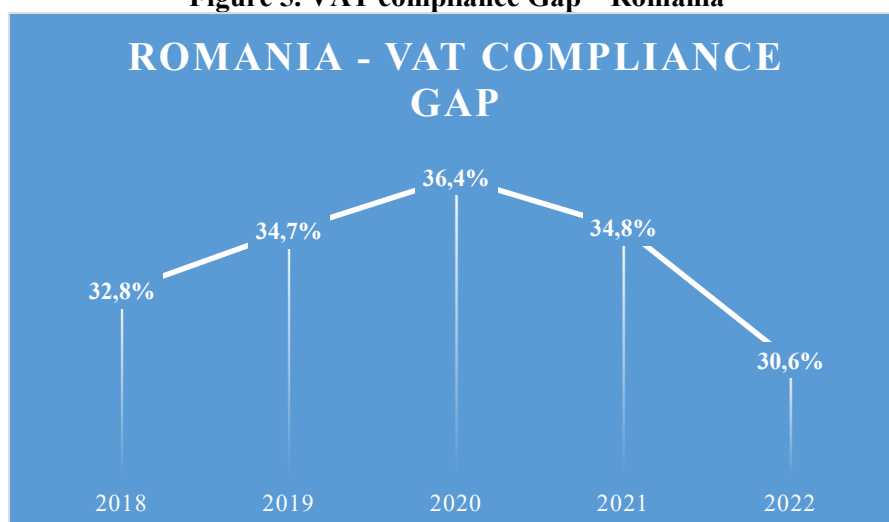
Source: authors' processing according to data presentend in VAT gap in the EU – Country report 2024: Romania, p. 6

According to the above data, the VAT gap will be reduced by about 4 percentage points in 2022 compared to the previous year, 2022 being the first year in which the SAF-T was implemented in Romania only for the large taxpayers category.

The SAF-T version, introduced in **Portugal**, is an XML file that collects both an entity's accounting and tax information. SAF-T can be divided into 4 types: „SAFT-T accounting file, that includes company chart of accounts, accounting transactins, customers, suppliers, tax codes and payments; SAF-T includes basic data (customers, suppliers and products/services), business documents for customers, tax codes, movements of goods, working papers and payments (receipts); integrated SAF-T file (I) - includes all accounting and billing information; Self-billing (S) - includes only business documents to customers, products/services and tax codes" (DG REFORM, 2021, p. 11). The submission deadline, on the Portuguese tax authorities' portal, from 2023 onwards, for Billing SAF-T file is the 8th of the month following the month for which the data is declared. The SAF-T accounting file must be drawn up annually and sent to the Portuguese tax authorities, at their request, in the context of a control procedure. The annual submission of the Accounting SAF-T file is mandatory for resident and non-resident economic entities that are subject to corporate income tax and carry out mainly commercial, industrial and agricultural activities.

The VAT gap, over the period 2018-2022, for Portugal has followed a downward trend from 9.5% to 1.3%, as can be seen in the graph below.

Figure 6. VAT compliance Gap – Portugal

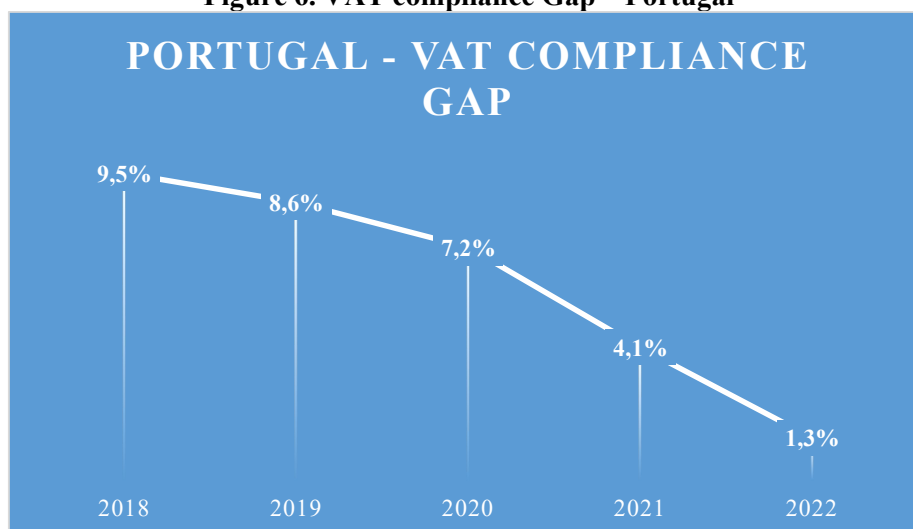Source: authors' processing according to data presentend in VAT gap in the EU – Country report 2024: Romania, p. 6

Portugal, although having implemented the electronic reporting, SAF-T, from 2023 onwards, recorded a decrease in the VAT Gap over the period 2018-2022, which shows that the situation is due to other factors influencing the collection of VAT revenues, such as the efficiency of tax authorities in tax collection, tax policies and legislation adopted at national level, the effort of companies' management to avoid insolvency.

4. Conclusions

In terms of the timeline of adoption of electronic reporting in the EU Member States analyzed, France has implemented electronic reporting since 2014, reaching in the first year of the period studied, i.e. 2018, a VAT Gap of 7.8%. The next Member State to have implemented electronic reporting is Poland (2016), followed by Spain (2017), Lithuania (2018), Romania from 2022 and Portugal from 2023.

From the above, it follows that there are European countries that have implemented electronic reporting SAF-T, „in extended or restricted format, at pre-defined deadlines - in countries such as Poland and Portugal, or on request - in Lithuania" (Darie, Ionescu & Bragă, 2023, p. 394), while others, such as Spain and France, have introduced their own system, but with the same purposes as the OECD developed SAF-T, aiming at reducing the VAT collection deficit. All the European countries analyzed above have recorded a decrease in the VAT gap in the period 2018-2022, i.e. after the implementation of electronic reporting, except for Portugal, which implemented SAF-T starting 2023. This decrease in some countries was achieved with percentages of 1% -2% - France, Spain, as the collection deficit was below 10% throughout the analyzed period and in the case of Lithuania and Portugal, the decrease was achieved with percentages between 8.2% and 9.4%.

The implementation of the SAF-T electronic reporting in Romania, as mentioned above, was made mandatory for large taxpayers from 2022, subsequently extended to medium taxpayers (2023) and generalized from January 2025. Romania's VAT Gap in the first year of use of electronic reporting, only for large taxpayers, was reduced by 4 percentage points. Starting from these aspects, for further research activity, a possible topic to be addressed is the correlation between the VAT gap in Romania after the implementation of the SAF-T for all categories of taxpayers targeted, respectively in the period 2022- 2025, after the publication of official data in the European Commission reports.

On the basis of the above, we can conclude that the implementation by EU Member States of SAF-T electronic reporting has a contribution in taxpayers' tax compliance and implicitly in reducing the VAT Gap. Taxpayers' tax compliance is not the only factor influencing the downward trend of the VAT Gap, other factors such as tax policies adopted at Member State level, more efficient management of companies reducing the number of companies going into insolvency, increased efficiency of tax authorities in collecting VAT also have a contribution to reducing the VAT Gap, as demonstrated by the decrease in the VAT collection deficit in Portugal before electronic reporting was implemented.

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FINANCING THE ROMANIAN ECONOMY THROUGH INNOVATIVE FINANCIAL INSTRUMENTS IN A DIGITAL AND SUSTAINABLE CONTEXT

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Abstract: In a world marked by accelerated digitalization, recurring economic crises, and growing pressures from climate change and the transition to a sustainable economy, national economies must rethink their financing strategies. Given this context, innovative financial instruments are gaining importance, providing flexible and adaptable solutions to the needs of a dynamic and globalized market. Financing the national economy involves mobilizing and allocating the resources required for the development and functioning of key sectors such as infrastructure, education, and health, with the aim of fostering sustainable economic and social progress. This paper examines both public financing (through the state budget and governmental mechanisms) and private financing (through investments, bank loans, and capital markets), using a qualitative approach to assess Romania's position in the field. The findings highlight the need to understand the main sources of financing — internal, such as national savings, taxes, and private contributions, and external, including loans from international financial institutions, foreign direct investment, and grants — in order to boost the sustainable growth of the national economy in the current digital context.

1. Introduction

Romania, as a Member State of the European Union, has the opportunity to leverage innovative financial instruments to accelerate economic development, enhance financial inclusion, and support green, digital, and social infrastructure projects. Innovative financial instruments refer to financing mechanisms that go beyond traditional channels such as bank credit, budgetary funding, or sovereign bond issuance. These instruments include crypto-assets and digital currencies (CBDCs), crowdfunding and peer-to-peer lending platforms, green, social, and sustainable bonds, ESG- or impact-based derivatives, as well as asset tokenization and financial blockchain solutions, including the tokenization of SME assets. What these tools share in common is the use of advanced technology, a strong focus on sustainability, and an openness to broad and inclusive participation by both investors and citizens.

2. Methodology

This study employs a qualitative research approach, aiming to explore the relationship between innovative financial instruments and sustainable economic growth in the digital era, with a specific focus on Romania. The analysis is based on a comprehensive review of scientific literature, institutional reports, and empirical data published by international organizations such as the European Investment Bank, IMF, and World Economic Forum. The qualitative method allows for an in-depth examination of the mechanisms through which digital technologies and financial innovations—such as fintech solutions, crowdfunding, green bonds, and digital currencies—contribute to economic resilience and sustainability. By synthesizing theoretical insights and practical examples, the research highlights how these instruments can enhance financial inclusion, efficiency, and transparency. The study also considers Romania's national context, assessing the current stage of digital financial transformation, the regulatory environment, and the potential of public–private partnerships in accelerating sustainable development. Based on the findings, the paper formulates recommendations for policymakers aimed at fostering innovation-friendly regulation, improving financial literacy, and supporting the integration of sustainability principles into financial strategies.

3. Literature review

The concept of financial technology (FinTech) has become one of the most dynamic and debated topics in recent economic and financial research. It represents the integration of digital technologies into financial services, reshaping the way individuals, firms, and governments access and manage capital. FinTech encompasses innovations such as digital payments, blockchain, artificial intelligence, and alternative financing platforms, which collectively promote financial inclusion, efficiency, and sustainability. Its rapid development has sparked extensive scholarly debate regarding its potential to drive sustainable growth and support the achievement of the Sustainable Development Goals (SDGs).

Early contributions to this discussion include the study of Cen and He (2018), who examined the interplay between FinTech, green finance, and sustainable development, emphasizing how digital financial solutions can channel resources toward environmentally friendly projects. Their work set the foundation for later analyses that linked technological innovation with the green transition. Shortly after, Vovchenko et al. (2019) explored the FinTech ecosystem as a key instrument for achieving sustainable development, highlighting the structural interdependence between financial innovation, digitalization, and economic resilience.

In the same year, Zetzsche, Buckley, and Arner (2019) emphasized FinTech's role in promoting financial inclusion and sustainable growth, arguing that new financial technologies could reduce global inequalities by improving access to finance for underserved populations. This perspective marked a shift in the literature toward considering FinTech not only as a driver of efficiency but also as a tool for equity and sustainability.

The discussion was deepened by Pawłowska, Staniszewska, and Grzelak (2022), who empirically assessed the impact of FinTech on sustainable development. Their findings suggested that FinTech innovations can enhance transparency and efficiency in financial markets while stimulating green investments, thus directly supporting the SDGs. Continuing this line of inquiry, Danladi et al. (2023) investigated collaborative approaches to FinTech adoption in developing economies, demonstrating that partnerships between governments, financial institutions, and technology providers are essential for achieving inclusive and sustainable financial systems.

Recent studies have expanded this focus both geographically and methodologically. Chen et al. (2024) analyzed the Chinese experience, illustrating how FinTech, combined with green finance and natural resource management, can revolutionize sustainable economic growth. Similarly, Dar, Badwan, and Kumar (2024) conducted a bibliometric analysis to map the evolution of research connecting FinTech and sustainable development, identifying a rapid increase in publications after 2020, which confirms the growing academic and policy relevance of the topic.

Finally, Magableh et al. (2025) provided one of the most comprehensive literature reviews to date, synthesizing global evidence on the role of FinTech innovations in driving sustainable development. Their study identified several promising research avenues, such as the digitalization of green finance, ESG-oriented FinTech models, and the use of artificial intelligence in sustainable investment strategies.

Overall, the reviewed literature shows that FinTech is a relatively new but rapidly expanding research field, increasingly recognized as a catalyst for sustainable and inclusive economic growth. However, despite the global proliferation of studies, the application of FinTech to the context of Romania remains limited. The Romanian experience is rarely analyzed in the international literature, especially regarding the interplay between innovative financial instruments, digitalization, and sustainability. Therefore, our research aims to address this gap by examining Romania's progress and challenges in integrating FinTech solutions to support sustainable economic development in the digital era.

4. The innovative instruments and the sustainable growth in Romania in the digitalization era

Digitalization is the main driver of financial transformation. Emerging technologies such as blockchain, artificial intelligence, machine learning, robotic process automation (RPA), and Open Banking facilitate:
- the reduction of transaction costs;
- greater transparency;
- improved access to financial services in disadvantaged areas;
- data-driven decision-making in real time.

In Romania, FinTech solutions such as Revolut, Salt Bank, Pago, and various online investment platforms have rapidly gained ground. These examples demonstrate how innovation can fundamentally reshape the relationship between citizens and the financial system.

Crypto-assets and Digital Currencies: An Opportunity or a Challenge?

Volatile, crypto-assets have shown a remarkable capacity to attract capital. They can serve as valuable tools for crowdfunding initiatives or as digital assets for international trade. At the same time, central bank digital

currencies (CBDCs), such as the forthcoming digital euro, offer stability and regulatory oversight while preserving the efficiency and benefits of digitalization.

Table 1. Presentation of examples Crypto-assets and digital currencies

Type of Crypto-asset/Digital Currency	Description	Examples	Source
Cryptocurrencies	Digital currencies used for financial transactions.	Bitcoin (BTC), Ethereum (ETH), Litecoin (LTC)	CoinMarketCap
Utility tokens	Crypto-assets that give access to products or services on a platform.	Binance Coin (BNB), Uniswap (UNI)	CoinGecko
Security tokens	Tokens that represent a form of investment and are regulated by financial authorities.	Polymath (POLY), tZERO	Investopedia
Stablecoins	Stable digital currencies, tied to traditional assets, such as the dollar or gold.	Tether (USDT), USD Coin (USDC), DAI	CoinTelegraph
CBDC Coins (Central Bank Digital Currencies)	Digital currencies issued and regulated by central banks.	e-Krona (Sweden), Digital Yuan (China)	Bank for International Settlements

Source: author's processing.

For Romania, the use of these types of assets could support the digitalization of public payments, reduce the underground economy, and promote the inclusion of unbanked populations in the financial system.

Green and Social Bonds – Sustainable Financing of the Future

Specific-purpose debt instruments, such as green, social, and sustainable bonds (ESG bonds), are becoming increasingly important for financing projects in areas such as green infrastructure, energy efficiency, education, and healthcare. At the European level, demand for these products has grown exponentially. In Romania, the Ministry of Finance launched its first green bond issuance in 2023, which generated significant investor interest. By diversifying these instruments and involving local authorities, the country can attract external financing without relying exclusively on the state budget or European funds.

Table 2. Main green project plans of the authorities, 2021-2030

Design	Investment required (billion euros)
National Integrated Energy and Climate Change Plan 2021-2030	15.80
National Long-Term Renovation Strategy (according to Scenario 2)	13.78
Investment plan for the development of transport infrastructure for the period 2020-2030	28.4
National Waste Management Plan (2017)	1.15
Total	59.13

Source: National Committee for Macroprudential Supervision, Analysis of the CNSM Working Group for supporting green financing.

According to the CNSM Report, the volume of financing aimed at mitigating the effects of climate change is estimated by the United Nations to reach **USD 830 billion annually by 2050**, in the energy sector alone, with a relatively balanced distribution between developed and emerging countries.

Participatory Financing: Crowdfunding and Peer-to-Peer Lending

For SMEs and start-ups, access to capital is often constrained by the strict requirements of the banking system. Crowdfunding and peer-to-peer lending platforms provide a viable alternative, enabling investors to directly support projects they believe in.

Table 3. Crowdfunding market in Europe (2023)

Type of financing	Traded value (USD billions)	Source
Crowdlending (business)	5.59	statistically
Marketplace lending (consumers)	3.17	statistically
Total crowdfunding in Europe	Almost 10.00	statistically

Source: Author's processing.

The data presented in Table 3 illustrate the growing importance of crowdfunding and peer-to-peer lending in Europe, confirming that alternative finance has become a significant component of the modern financial ecosystem. This trend is further depicted in Chart 1, which highlights the steady increase in transaction values for both consumer and business lending over recent years.

Chart 1. Value of peer-to-peer lending transactions for consumers and businesses in Europe from 2017 to 2023 (USD billion)

Source: https://www.statista.com/statistics/412400/europe-alternative-finance-transaction-value-p2p-lending/
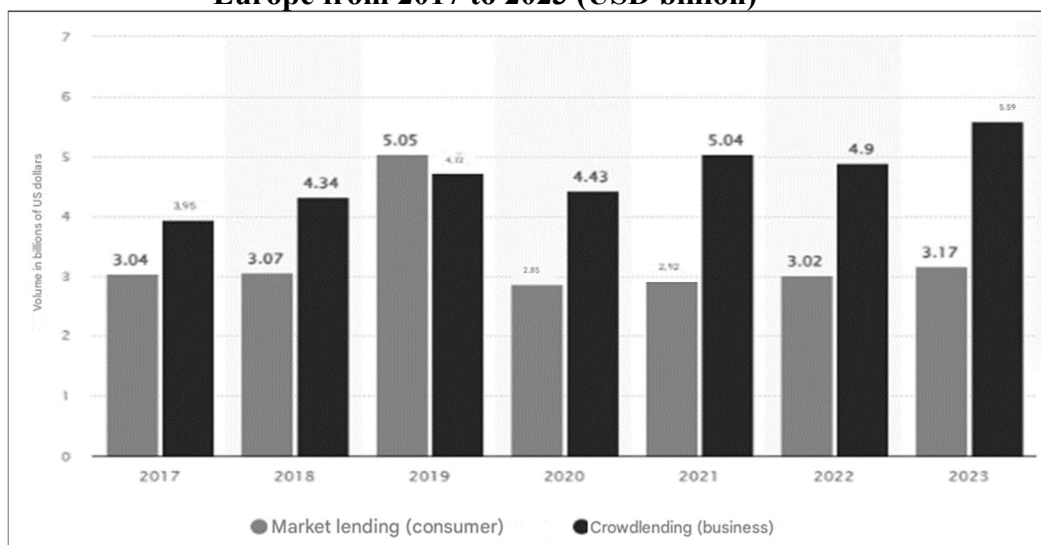
Romania regulated the field of crowdfunding in 2022, in line with European legislation. This step established the legal framework necessary for the development of the sector, which is essential for supporting the entrepreneurial ecosystem.

Challenges and Risks in Adopting Innovative Tools

These instruments are promising, but also present several challenges:
Insufficient or fragmented regulation;
Cybersecurity risks;
High volatility (particularly in the case of crypto-assets);
Limited financial literacy and lack of trust in new technologies.

It is therefore essential for regulators to work closely with the private sector to create a safe, transparent, and flexible framework that encourages innovation without compromising the stability of the financial system.

5. Conclusions and recommendations for Romania

In order for Romania to fully exploit the potential of these instruments, it is necessary to develop a national financial digitalization strategy, attract investments in technological infrastructure and digital education, encourage public–private partnerships to finance strategic projects, support the capital market through fiscal and legislative measures, and promote financial literacy among the population.

Conclusions and Personal Recommendations

Increased Accessibility to Finance. Innovative tools such as crowdfunding platforms and peer-to-peer lending are democratizing access to capital for SMEs and start-ups. They represent an important alternative to traditional financing, enabling small businesses to grow even in the absence of significant resources or access to major banking institutions. For instance, platforms such as Kickstarter and Seedrs have demonstrated the capacity to attract substantial funding for start-ups, channeling capital from a diverse investor base.

Stimulating Innovation and Competitiveness. Innovative financial instruments support the implementation and adoption of emerging technologies such as fintech, blockchain, and artificial intelligence, thereby accelerating the modernization and efficiency of economic processes. These solutions contribute to enhancing enterprise competitiveness and strengthening the entrepreneurial ecosystem. Examples such as Revolut and Klarna have redefined the user experience in payments and personal financial management.

Promoting Sustainability. Innovative financial instruments—such as green bonds and ESG (environmental, social, and governance) funds—play a key role in supporting the transition toward a greener

economy. They allow investors to direct capital toward projects that contribute to environmental protection and sustainable development. For example, several European governments, including the Netherlands, have issued green bonds to finance environmentally friendly projects such as green infrastructure.

Challenges of Integrating Sustainability. Integrating sustainability criteria into the financial system remains complex, primarily due to the lack of standardization and adequate infrastructure. For instance, the absence of uniform ESG reporting standards creates challenges in monitoring and evaluating the environmental and social performance of companies.

Detailed Recommendations for the Implementation of Innovative Financial Instruments

Developing a Supportive Regulatory Framework. It is essential to create a tailored regulatory environment—a controlled space in which fintechs and financial start-ups can test new solutions without being constrained by strict initial regulations. Such an environment would allow the assessment of their impact and the adaptation of rules prior to large-scale adoption. Moreover, ESG standards should be standardized to facilitate comparative assessments of companies and to increase transparency and investor confidence in sustainable financial instruments.

Investing in Infrastructure and Education. The development and improvement of digital infrastructure—including widespread access to high-speed internet and the implementation of modern payment solutions—are crucial for the broader adoption of innovative financial instruments. Education and training are equally vital to preparing human resources to use modern financial technologies effectively. Collaboration with educational institutions to develop programs focused on fintech and ESG topics would strengthen the skills of employees and entrepreneurs alike.

Promoting Public–Private Collaboration. Partnerships between regulators and the private sector are essential to the development of innovative financial solutions. Such collaborations facilitate the exchange of knowledge and resources, accelerating implementation while mitigating associated risks. Establishing incubators and accelerators for fintechs can further support start-ups by providing mentorship, resources, and capital for rapid development.

Addressing Security Risks. Cybersecurity must be a top priority given the rise in cyberattacks and digital threats. A strong regulatory framework is necessary to prevent fraud and safeguard the integrity of the digital financial system. Security regulations should be reviewed and updated regularly to reflect technological advances and emerging cyber risks.

Integrating Sustainability into Financial Policies. Promoting sustainable investments through tax incentives, green bond issuance, and other favorable policies is essential for supporting environmentally friendly infrastructure projects. Dedicated investment funds for sustainable initiatives would attract additional resources to ESG-compliant projects, contributing to the growth of a green economy.

The implementation of innovative financial instruments has the potential to transform Romania's economy, driving improvements in efficiency, competitiveness, and sustainability. However, the success of these instruments depends on a clear regulatory framework, strategic investments in digital infrastructure, and robust security measures. Rapid adaptation to new technologies—such as blockchain, central bank digital currencies (CBDCs), and artificial intelligence—will enable Romania to maximize its potential within the global digital economy. Through well-designed strategic actions, Romania can position itself as a key European player in the adoption and implementation of innovative financing, supporting both sustainable economic development and the transition to a greener, more inclusive economy.

Innovative financial instruments are not merely a temporary trend but an essential component of the economic future. In a context where traditional resources are increasingly difficult to access and pressures for digitalization and sustainability are intensifying, these instruments can become a central pillar of Romania's long-term development. With coherent policies, forward-looking regulations, and openness to innovation, Romania has the opportunity to build a modern, inclusive, and sustainable financial system capable of supporting both the real economy and the well-being of its citizens.

Remarks about the research limitations

While this study highlights the growing relevance of innovative financial instruments in promoting Romania's sustainable and digital economic transformation, it also acknowledges certain limitations. The research relies primarily on qualitative analysis and secondary data sources, which may restrict the depth of empirical validation. Future studies could therefore benefit from quantitative approaches and comparative analyses between Romania and other EU Member States to better assess the measurable impact of these instruments on economic performance and sustainability indicators.

Overall, the findings underscore Romania's potential to strengthen its financial ecosystem by integrating innovation, sustainability, and digitalization into coherent public policies. By continuing this research direction,

we can contribute to a more resilient and inclusive financial system, aligned with both European priorities and global sustainability goals.

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ASYMMETRIC EFFECTS OF ECB MONETARY POLICY ON EMERGING EU ECONOMIES

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Abstract: Following the COVID-19 pandemic, the European Union experienced a period of persistent inflation driven by energy shocks, supply chain disruptions, and the rapid recovery of domestic demand. In 2022, the inflation rate reached a record high of 10.6% in the euro area and 11.5% in the EU, prompting the European Central Bank (ECB) to implement the most restrictive monetary policy in its recent history. Between 2022 and 2023, the ECB successively increased its policy rate to 4%, followed by a gradual easing phase beginning in 2024. This study examines the effects of the ECB's monetary policy on emerging EU economies — namely Romania, Poland, Hungary, the Czech Republic, Bulgaria, and Croatia — which have experienced the policy's impact asymmetrically compared to the core euro area countries. Recent data indicate that while average inflation in the euro area declined to around 2.3% in 2025, it remained between 4% and 6.5% in most emerging EU economies, reflecting structural differences in monetary transmission and domestic vulnerabilities. The paper aims to highlight the degree of nominal convergence after 2022 and the resilience of monetary policy transmission channels in a context of prolonged global uncertainty.Preliminary results suggest that while the restrictive monetary stance contributed to price stabilization, it also deepened growth disparities and imposed higher economic adjustment costs on emerging EU members with partial integration into the euro area.

Keywords: monetary policy, inflation, emerging economies, European Central Bank, nominal convergence

1. Introduction

After the COVID-19 pandemic, European economies faced a rapid and persistent increase in inflation, initially driven by disruptions in global supply chains, rising energy and commodity prices, and the recovery of domestic demand. In 2022, the inflation rate reached its highest level in the last four decades in the European Union — 11.5% at the EU level and 10.6% in the euro area, according to Eurostat data. This inflationary environment marked a fundamental shift in the orientation of European monetary policy, following a decade characterized by extremely low interest rates and quantitative easing programs.

Beginning in July 2022, the European Central Bank (ECB) initiated the most extensive monetary tightening cycle in its recent history, successively raising the policy rate to 4.0% in September 2023. The measures aimed to curb aggregate demand and anchor inflation expectations, but at the same time generated significant side effects on financing costs and economic growth. After a year and a half of restrictive policy, the ECB began a gradual easing process in June 2024, lowering the rate to 3.75%, and throughout 2025 continued the reductions, reaching 2.0% for the deposit facility, a level maintained into the autumn of the same year.

Against this backdrop, inflation in the euro area gradually declined, reaching 2.3% in February 2025, close to the 2% target. However, the emerging economies of the European Union — such as Romania, Hungary, Poland, Czechia, Bulgaria, and Croatia — recorded significantly higher values. In February 2025, annual inflation stood at 5.7% in Hungary, 5.3% in Romania, and 5.0% in Croatia, while in August 2025 Romania continued to have the highest rate in the EU (6.6%). This divergence confirms the existence of structural differences in the transmission of monetary policy between core euro area economies and emerging ones, which are either outside the euro area or still in the process of nominal convergence.

The persistence of these differences reflects several factors: distinct exchange rate regimes (floating currencies outside the euro area), a higher share of energy and food in the consumption basket, labor market rigidities, and varying levels of financial market depth. Consequently, the response of emerging economies to the ECB's tightening cycle was asymmetric — inflation declined more slowly, while financing costs and real interest rates rose rapidly, affecting investment and consumption.

Analyzing these mechanisms is essential to understanding the impact of the common monetary policy on economic convergence within the European Union, as well as to assessing the challenges faced by countries

outside the euro area but highly financially integrated. The relevance of this topic is even greater considering that 2025 marks the transition toward a new phase of monetary policy, in which the ECB aims for a 'soft landing' of the economy, keeping inflation under control without triggering a widespread recession.

2. Monetary Policy Transmission and Inflation Dynamics in Open Economies

The analysis of the effects of monetary policy on inflation and economic performance is grounded in the foundations of modern macroeconomic theory. In open economies, monetary policy generates complex effects transmitted through a series of interdependent channels — the interest rate, the exchange rate, credit conditions, and inflation expectations — all of which influence the aggregate behavior of consumption, investment, and prices. The specialized literature defines this mechanism as the monetary policy transmission process (Mishkin, 2007).

According to the New Keynesian model proposed by Clarida, Galí, and Gertler (1999), monetary policy operates through a Taylor-type reaction rule, whereby the central bank adjusts the nominal interest rate in response to deviations of inflation from its target and differences between actual and potential GDP. In open economies, this framework is complemented by the effects of the exchange rate on import and export prices, which reinforces the transmission of monetary policy to domestic price dynamics. Consequently, the decisions of major central banks — particularly the European Central Bank (ECB) — can generate significant spillovers for countries outside the euro area but financially and commercially integrated into the European space.

The transmission channels of monetary policy are multiple, interdependent, and operate through distinct economic mechanisms. The interest rate channel affects the financing costs for households and firms, influencing the level of aggregate demand and investment. The credit channel captures how monetary policy adjustments influence the supply of loans and financing conditions, being especially relevant in economies with a high degree of financial intermediation. The exchange rate channel is essential in emerging economies that do not use the single currency, as changes in ECB interest rates can trigger capital flow movements and exchange rate fluctuations, directly affecting the prices of imported goods and domestic inflation. In addition, the inflation expectations channel plays a fundamental role in anchoring anticipated price and wage developments, thereby shaping the credibility and effectiveness of monetary policy (Taylor, 1993).

Studies conducted by the European Central Bank and the International Monetary Fund show that changes in the ECB's monetary policy rates have generated contagion effects in yield curves, financing costs, and liquidity conditions in EU emerging economies such as Romania, Poland, Hungary, and Czechia (ECB Working Paper Series, 2023; IMF, 2024). These indirect transmission effects are amplified by the high degree of financial and commercial integration, the presence of euro area banking institutions in local markets, and strong correlations among capital markets.

Another important theoretical aspect is imported inflation, which explains the persistence of high price levels in European economies during the post-pandemic period. According to ECB analyses (Economic Bulletin, 2023) and Eurostat, the dramatic increases in energy prices — particularly natural gas and oil — produced a significant pass-through effect on core inflation, especially in countries strongly dependent on imported energy. Recent studies (ECB Working Paper No. 2902/2024) show that energy price shocks and supply chain disruptions played a decisive role in the rise of consumer inflation between 2021 and 2023, with their effects transmitted more slowly in emerging economies due to structural rigidities and the high share of energy and food in the HICP basket.

The literature also highlights that the ECB's monetary policy has had asymmetric effects across the European Union. While core euro area countries (Germany, France, the Netherlands) experienced a rapid decline in inflation in 2024, emerging economies such as Romania, Hungary, and Poland continued to exhibit elevated levels, ranging between 4% and 6.5% in 2025 (ECB Data Portal, 2025). This high inflation heterogeneity among member states, documented in ECB studies (Economic Bulletin, no. 2/2025), indicates uneven monetary transmission and raises challenges for nominal convergence — a central objective of European economic and monetary integration.

Nominal convergence requires the alignment of key macroeconomic indicators (inflation, interest rates, budget deficits, and exchange rate stability) with the average values of the euro area. The persistence of high inflation in emerging economies suggests that their domestic monetary policies must complement the ECB's policy to prevent price and competitiveness gaps. Accordingly, the literature recommends adopting tailored macroprudential and fiscal measures capable of mitigating external effects generated by European monetary cycles (Égert & MacDonald, 2020).

3. Macroeconomic Context (2022–2025)

At the onset of the crisis triggered by the COVID-19 pandemic, the economies of the European Union began a recovery process accompanied by severe disruptions: supply chain breakdowns, surging energy and commodity prices, and a rapid rebound in domestic demand. This combination generated strong and persistent inflation. Thus, in October 2022, the annual Harmonised Index of Consumer Prices (HICP) inflation rate reached 10.6% in the euro area, while in the EU it climbed to 11.5%.

The European Central Bank (ECB) launched an aggressive cycle of monetary policy tightening. Official data show that by September 2023, the ECB's deposit facility rate had reached 4.00%. Subsequently, as inflation moderated and signs of economic slowdown emerged, the ECB began to ease monetary policy: for instance, on 11 June 2025, the deposit facility rate was reduced to 2.00%.

Regarding inflation dynamics, the general trend was a gradual return toward levels close to the ECB's stability target, although with considerable divergences across member states. In May 2025, the annual inflation rate in the euro area stood at 1.9%, down from 2.2% in April, confirming the growing effectiveness of the restrictive monetary stance. However, the emerging economies of Central and Eastern Europe continued to record higher inflation levels, a phenomenon reflecting persistent structural vulnerabilities as well as a slower and more incomplete transmission of monetary policy impulses compared with core euro area countries.

In addition, the period 2024–2025 was marked by renewed volatility in global energy markets, driven by geopolitical tensions, shifts in gas supply routes, and fluctuations in oil prices. These external shocks placed additional pressure on energy-importing EU member states, particularly in Central and Eastern Europe, where energy dependency amplified the pass-through of global price increases to domestic inflation. As the EU accelerated its green transition and reduced its reliance on Russian energy, the adjustment process generated transitional costs that further contributed to price differentials across member states.

Moreover, the macroeconomic environment was shaped by tightening fiscal constraints, following the reinstatement of the EU fiscal rules in 2024 and the gradual withdrawal of pandemic-era support measures. Many governments in emerging EU economies implemented consolidation strategies to stabilize public finances, which, while necessary for long-term fiscal sustainability, limited their capacity to cushion the impact of high interest rates on households and firms. This interplay between tighter fiscal policies and a still-restrictive monetary stance in early 2025 created a challenging policy mix, slowing the pace of economic recovery and widening the divergence in growth trajectories between core and emerging EU countries.

4. Methodology and Data Framework

The present analysis evaluates the effects of the European Central Bank's (ECB) restrictive monetary policy on inflation dynamics and economic activity in emerging European Union economies between the first quarter of 2022 and the third quarter of 2025. The study employs a comparative and quantitative approach based on official data published by the ECB, Eurostat, and the national central banks of Central and Eastern Europe (CEE).

The sample consists of six emerging EU economies — Romania, Poland, Hungary, Czechia, Bulgaria, and Croatia — selected for their high degree of financial and trade integration with the euro area and their diverse monetary and exchange rate frameworks.While Croatia adopted the euro on 1 January 2023 and Bulgaria operates under a currency board (with the lev pegged to the euro), the other four countries maintain independent monetary policies and managed floating exchange rate regimes. This contrast allows for an assessment of how the transmission of ECB policy varies according to the degree of monetary autonomy.

First, the annual inflation rate (HICP) will be examined and compared with the euro area average in order to highlight differences in price dynamics. This comparison enables the evaluation of nominal convergence and the effectiveness of direct or indirect monetary policy transmission. The persistence of higher inflation rates in emerging economies may indicate weaker anchoring of inflation expectations and a delayed transmission of ECB decisions, particularly through the exchange rate and credit channels.

Second, the analysis of ECB and national policy interest rates offers insights into monetary policy gaps between the euro area and non-euro economies. This allows the identification of adjustment moments and the differentiated reactions of national central banks to the restrictive cycle initiated by the ECB. Differences in real and nominal interest rates can be interpreted as indicators of monetary policy autonomy and effectiveness relative to broader European trends.

The analysis relies exclusively on official and publicly available data from the Eurostat and ECB portals. The selected indicators reflect the main transmission channels of monetary policy: prices, financing conditions, real economic activity, and the exchange rate.

The sample includes six countries with different degrees of monetary integration:
- Croatia – adopted the euro on 1 January 2023;
- Bulgaria – currency board arrangement with the lev pegged to the euro;
- România, Polonia, Ungaria, Cehia – managed floating exchange rate regimes and independent monetary policies.

Table 1. Macroeconomic Indicators in Selected Emerging EU Economies (2022–2025)

Country / Indicator	Monetary Regime	HICP Inflation 2022 (%)	HICP Inflation 2023 (%)	HICP Inflation 2024 (%)	HICP Inflation 2025 (%)	Policy Rate 2022 (%)	Policy Rate 2023 (%)	Policy Rate 2024 (%)	Policy Rate 2025 (%)	Real GDP Growth 2023 (%)	Real GDP Growth 2024 (%)	Average Exchange Rate (vs. EUR, 2025)
Romania (RO)	Managed float	13.8	10.4	6.7	5.0	6.75	7.00	7.00	6.75	2.1	2.8	4.95 RON/EUR
Poland (PL)	Free float	14.4	11.6	6.2	3.8	6.75	6.75	5.75	5.25	0.4	2.3	4.35 PLN/EUR
Ungary (HU)	Managed float	15.3	12.7	6.9	4.6	13.0	13.0	10.75	9.0	-0.8	2.1	385 HUF/EUR
Czechia (CZ)	Free float	14.5	10.7	4.9	3.0	7.0	7.0	6.75	6.25	1.2	2.0	24.6 CZK/EUR
Bulgaria (BG)	Currency board	14.3	8.5	5.0	3.8	1.42	3.75	3.50	3.25	1.8	2.5	1.96 BGN/EUR (fix)
Croatia (HR)	Euro adopted in 2023	10.7	8.0	4.5	2.5	—	ECB rate 4.0	ECB rate 3.25	ECB rate 2.0	2.0	2.8	—
Euro Area	Euro	8.4	5.4	2.7	1.9	0.0	4.0	3.25	2.0	0.5	1.4	—

* The exchange rates are approximate annual averages based on ECB data (2025).

The period 2022 – 2025 captures the full cycle of the ECB's recent monetary policy:

- the aggressive tightening phase (July 2022 – September 2023), during which the deposit facility rate increased from 0% to 4%;

- the stabilization and transition phase (2024), marked by the gradual decline in inflation;

- the beginning of the monetary easing phase (from June 2025 onward), when the ECB reduced the deposit facility rate to 2.0%.

This timeframe allows for the assessment of both the immediate and the lagged effects of the ECB's decisions on emerging economies.

a) Inflation (HICP)

Indicator: the annual inflation rate, measured by the Harmonised Index of Consumer Prices (HICP, year-on-year %,). For quarterly analyses, monthly values are converted into quarterly averages. Average inflation in the euro area reached a peak of 10.6% in October 2022, while Romania and Hungary recorded values exceeding 14%, according to Eurostat data (2024).

Chart no.1 Inflation Rate (HICP) in Emerging EU Economies (2022–2025)

Inflation Rate (HICP) in Emerging EU Economies (2022–2025)
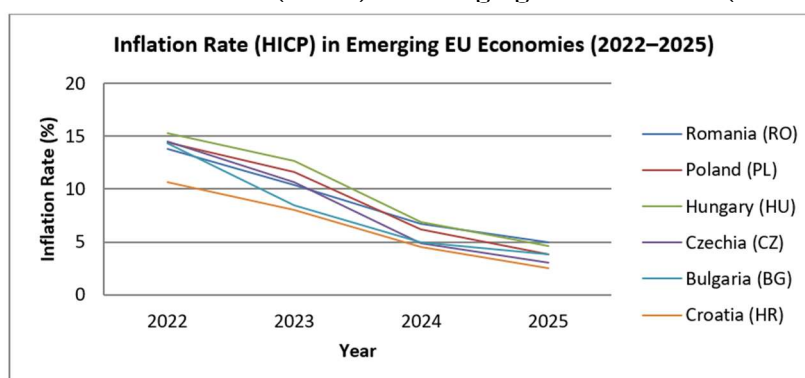
The results of the descriptive analysis indicate significant and persistent differences between inflation in emerging economies and that of the euro area. On average, during the period under review, the largest positive deviations from the euro area average were recorded in Hungary (+5.28 percentage points), Poland (+4.40 pp), and Romania (+4.38 pp). These substantial differences suggest weaker anchoring of inflation expectations in these economies, as well as a delayed and incomplete transmission of ECB decisions, particularly through the exchange rate and credit channels.

In contrast, Croatia, which adopted the euro on 1 January 2023, shows an average deviation of only +1.83 pp, reflecting its direct alignment with the euro area monetary framework. Bulgaria, operating under a currency board arrangement, and Czechia, with a free-floating exchange rate and monetary policy autonomy, display moderate but relatively stable deviations, indicating a partial yet more consistent transmission of external monetary impulses.

The results confirm the hypothesis that the degree of monetary integration decisively influences the efficiency of the ECB's monetary policy transmission mechanisms on price dynamics in emerging economies. The persistence of significantly higher inflation rates in non-euro countries highlights the limitations of indirect transmission channels, as well as the possible influence of domestic structural factors such as labor market rigidities, procyclical fiscal policy, or the degree of dollarization/euroization of the economy..

b) Monetary Policy Rates

A second direction of the analysis examines how central banks in the emerging economies of the European Union responded to the restrictive monetary policy cycle initiated by the European Central Bank (ECB) starting in the third quarter of 2022. The objective was to identify the gaps between the ECB's monetary policy and that of non-euro countries, in order to assess decision-making autonomy and the degree of synchronization with broader European trends.

Comparative results show differentiated reactions, depending on the monetary regime and domestic macroeconomic conditions. Romania (NBR) increased its policy rate from 2.0% in January 2022 to a peak of 7.0% in July 2023, maintaining this level relatively stable until 2024. Poland (NBP) followed a similar trajectory, raising the rate from 1.75% to 6.75% over the same period, with a slight decline thereafter.

Chart no.2 Policy Interest Rates in Emerging EU Economies (2022–2025)
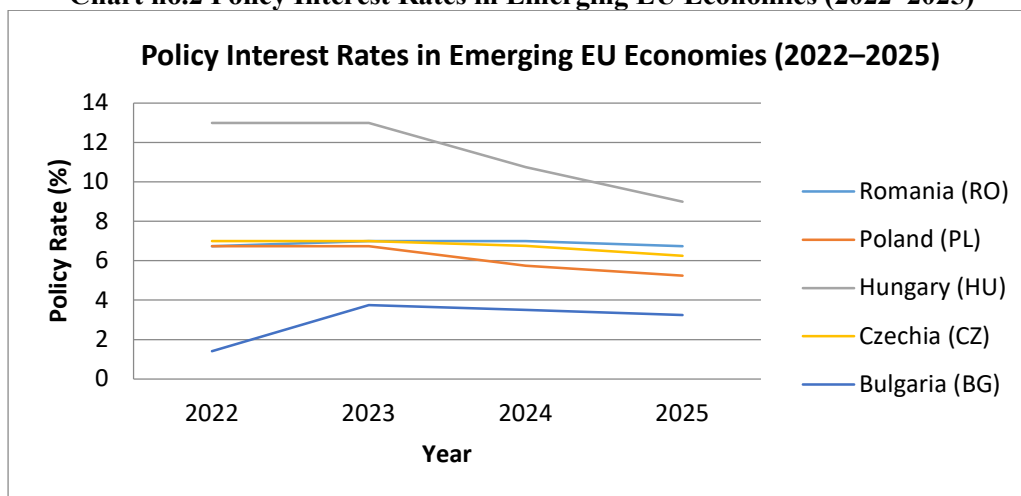
Hungary (MNB) recorded the most aggressive monetary response: the policy rate was rapidly increased from 2.4% to a maximum of 13%, and later reduced to 9% in 2025 as part of a gradual easing process. This behavior reflects greater vulnerability to inflationary shocks and stronger pressure on the national currency.

Czechia (CNB) opted to stabilize its interest rate at a high level (7%) starting in 2022, maintaining it constant until mid-2024. This decision indicates a cautious approach and strong anchoring of inflation expectations.

In contrast, Bulgaria, operating under a currency board, recorded limited changes in its policy rate, remaining around 3%, without the ability to adjust rates independently due to the lev's peg to the euro.

Croatia, through its adoption of the euro on 1 January 2023, fully integrated the ECB's monetary policy framework, automatically aligning with decisions regarding the deposit facility rate, without autonomous intervention from its central bank.

These differences reflect not only the specific features of monetary regimes, but also the degree of autonomy with which central banks respond to the ECB's policy cycle. Countries with managed floating regimes and

independent monetary policies have been able to adjust monetary conditions more rapidly in response to domestic inflationary pressures. At the same time, this level of autonomy requires strong institutional capacity and effective coordination with national fiscal and exchange rate policies.

5. Conclusions

The analysis of the effects of the restrictive monetary policy implemented by the European Central Bank during 2022–2025 highlights an incomplete process of nominal convergence, marked by persistent asymmetries between core euro area economies and the emerging economies of the European Union. While inflation in the euro area gradually returned toward the 2% target starting in 2024, the Central and Eastern European countries continued to record higher rates, between 4% and 6.5% in 2025, confirming a slower and more volatile transmission of monetary policy impulses. These discrepancies reflect significant structural differences — distinct exchange rate regimes, shallower financial markets, a higher share of energy and food in the consumption basket, and greater sensitivity to external shocks.

The degree of monetary integration decisively influences the efficiency of the transmission mechanism. Croatia, recently integrated into the euro area, showed rapid inflation convergence and full alignment with the ECB cycle, while Bulgaria, through its currency board, benefited from a stable but institutionally constrained transmission. Economies with managed floating regimes — Romania, Poland, Hungary, and Czechia — displayed autonomous monetary policy responses, yet with varying effectiveness in anchoring inflation expectations and stabilizing the exchange rate. Hungary illustrated the most pronounced vulnerability, having to adopt the most aggressive tightening to counteract inflationary pressures and currency depreciation.

From the perspective of macroeconomic costs, the analysis indicates that the ECB's restrictive cycle generated significant side effects on economic activity in emerging states. GDP growth remained moderate or even negative in some economies between 2023 and 2024, reflecting a higher elasticity of aggregate demand to interest rate increases and a greater dependence on external financing. At the same time, financial conditions tightened rapidly, and private-sector lending slowed down, which amplified the differences in the pace of disinflation between the euro area core and peripheral economies.

The study's findings confirm that monetary policy transmission mechanisms remain heterogeneous within the European Union, particularly for non-euro economies. Although the ECB's policy succeeded in stabilizing inflation at the aggregate level, its impact was unevenly distributed, widening economic disparities among member states. This reality poses major challenges to the objective of nominal convergence and highlights the need for complementary national policies — including tailored macroprudential measures, fiscal consolidation, structural reforms, and enhanced financial-market resilience.

In the medium term, the ECB's transition toward a more accommodative monetary stance offers opportunities for accelerating convergence, yet its effectiveness depends fundamentally on the ability of emerging economies to strengthen their macroeconomic fundamentals and reduce structural vulnerabilities. Without coordinated adjustments, persistent gaps in inflation and financing conditions risk perpetuating a two-speed Europe, undermining cohesion and the optimal functioning of the Economic and Monetary Union.

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TAXATION OF INTELLECTUAL PROPERTY IN ROMANIA. A QUALITATIVE ANALYSIS OF TAXPAYERS' EXPERIENCES WITH THE FISCAL REGIME

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Abstract: The taxation of income derived from intellectual property rights currently constitutes both a fiscal challenge for authorities and a major area of interest for Romanian taxpayers, as well. Intellectual property represents, for some, an additional source of income, while for others it is their sole means of livelihood: writers, visual artists and musicians, inventors, researchers, designers, and professionals in the creative and educational industries. An evaluation of the legislative framework and current practices in Romania regarding the taxation of intellectual property income highlights both the benefits and limitations of the existing fiscal regime. Most analyses focus primarily on normative aspects, leaving insufficiently explored the direct experiences of those involved. In this context, the present study aims at understanding taxpayers' perceptions and attitudes through a qualitative approach, employing in-depth semi-structured interviews (n=7) to achieve the following objectives: a. assessing the level of knowledge and practices regarding the taxation of intellectual property income in Romania; b. determining the characteristics of an optimal fiscal regime which should respond to both administrative requirements and taxpayers' needs; c. investigating the limitations of current Romanian fiscal provisions, necessary for clarifying applicability and outlining future solutions tailored to specific economic domains such as the creative industries or the educational sector. Hence, this analysis extends the scope of research by emphasizing the taxpayers' behaviours and proposes directions for fiscal reform based on the real experiences of system users.

Keywords: intellectual property; taxation; Romania; taxpayers; qualitative research
JEL Classification: K34, H32, O34.

1 Introduction

In Romania, the taxation of income derived from intellectual property rights (including copyright and similar rights regulated according to Law 8/1996) represents an intricate domain set at the intersection of fiscal regulations, the dynamics of economic creative fields, and taxpayers' experiences. The legislation for the taxation of income and social contributions of intellectual property rights in Romania is consists of: Law 227/2015 on the Fiscal Code, amended and supplemented, Government Decision No. 1/2016 approving the Methodological Norms for the application of the Fiscal Code, Order No. 7.015 of 18 December 2024 introducing the official model, contents, and procedural requirements for the submission and management of Form 212 *Single Tax Return on income tax and social contributions owed by individuals*. These instruments also establish the legislative and administrative basis for the regulation of personal taxation and social security obligations.

In an economy like Romania where intellectual property may constitute either a supplementary source of income or the sole financial resource for numerous professionals like writers, visual artists and musicians, inventors, researchers, designers, as well as specialists in education and creative industries, the method in which

such income is taxed becomes essential for encouraging taxpayers and incumbents to use such rights and to increase both the quantity and quality of intellectual products at the national level.

Although the current legislative framework provides a set of provisions regarding the taxation of copyright and other forms of intellectual property, its analysis reveals both benefits and limitations. Benefits we identified include the recognition of the specificity of such income and its marketability to be used by taxpayers and attempts to integrate it into a fiscal regime adapted to its particularities so as taxpayers would benefit from clear legislation regarding their income. Limitations, however, are, in our view: administrative complexity as perceived by taxpayers, complex clarifications which they do not fully understand, and difficulties encountered in applying the provisions.

Under such circumstances, this study does not focus on the normative and legal dimensions of taxation of such rights, but it presents the direct experiences of those who produce intellectual property and such rights. Moreover, this paper aims to fill in this gap through a piece of qualitative research focused on taxpayers' perceptions, attitudes, and behaviours. The research method of using semi-structured in-depth interviews allows for a detailed investigation of taxpayers' knowledge, practices, and experiences regarding the taxation of intellectual property income, as well as the identification of the characteristics of an optimal fiscal regime that responds to both administrative requirements and to the real needs of system users. Furthermore, the research would highlight the limitations of current fiscal provisions, an essential stage in clarifying their applicability and formulating future solutions adapted to the Romanian economic ecosystem. Hence, through this qualitative approach, the analysis would emphasize taxpayers' experiences and the ways in which they perceive and manage fiscal obligations. The main contribution of the study lies in offering an integrated perspective on the taxation of intellectual property in Romania, combining legislative analysis with taxpayers' experiences and opening the way toward equitable solutions for the future.

2 Literature review

The taxation of income derived from the exploitation of intellectual property rights constitutes a distinct domain within Romanian fiscal framework, with particularities stemming from the specific nature of these rights. The fiscal law emphasizes that income from intellectual property is divided into two major categories:

- industrial rights: inventions, know-how, registered trademarks, franchises, etc., recognized and protected through official documents issued by competent institutions
- copyright and related rights, such as literary, artistic, and scientific works, mostly encouraged and developed within the creative industries (Volintiru & Miron, 2014).

Taxpayers earning revenues from intellectual property rights (assignors) are subject to income tax of 10%, which is considered final in nature. This means that, once calculated and paid, the tax fully discharges the fiscal obligation associated with such income and it does not require any additional adjustments or declarations beyond the statutory framework. Hence, it is guaranteed the clarity and predictability in the treatment of intellectual property revenues within the broader fiscal system. Taxpayers for intellectual property income can operate in two distinctive ways (ANAF, 2021):

- according to a contract of assignment of intellectual property rights, the legal instrument regulating the transfer of rights and the corresponding remuneration between a physical person (assignor) and its assignee. The 10% revenue tax is applied through the flat-rate expenses method, where the net income is calculated as gross income minus flat-rate expenses, set at 40% of gross income.
- as independent legal parties opting to apply the real system of taxation, which allows net income to be determined based on own accounting records. This option is generally valid for two consecutive fiscal years. Consequently, taxpayers engaged in creative or intellectual activities bearing intellectual property rights are integrated into the broader fiscal regime for self-employed individuals, thereby reinforcing uniformity in compliance standards and predictability in the application of tax law.

Moreover, flat-rate expenses mean a range of deductible categories which reflect both statutory obligations and contractual arrangements. The most common such expenses are: social contributions legally owed for health and pension (with some exceptions), commissions arising from contractual relationships, amounts transferred to collective management organizations or other income payers as compensation for the services rendered in administering intellectual property rights on behalf of the rights holders. Such inclusions highlight the dual fiscal and institutional dimension of flat-rate expenses, ensuring that both mandatory

contributions and intermediary service costs are recognized within the broader framework of income taxation and rights management.

According to Article 150 of Law No. 227/2015 on the latest Fiscal Code [2], individuals who obtain income from intellectual property rights are exempt from the obligation to pay the social insurance contribution under specific circumstances. Such exemption applies to persons insured within their own social insurance systems who are not legally bound to contribute to the public pension scheme, to the retired, and to individuals who already earn income from salaries or income assimilated to salaries. This provision reflects the principle of avoiding overlapping social insurance obligations and ensures that contributors are not subject to redundant pension liabilities when they are already covered by alternative insurance arrangements or by virtue of their employment or retirement status.

Thus, the fiscal regime applicable to intellectual property income in Romania is characterized by a dual approach: on the one hand, simplified through flat-rate expenses, and on the other, flexible through the possibility of opting for the real system. The literature (Cernuşca, 2025) on the topic exemplifies different situations, making us conclude that such flexibility seeks to balance the efficient administration of fiscal obligations with the specificities of the economic fields which use and encourage the generation of intellectual property revenues. The impact on taxpayers whatsoever and their opinions and attitudes are to be researched as follows.

3 Research Methodology

The primary aim of this study is to investigate the experiences of taxpayers with the Romanian fiscal methods of taxation of the income derived from intellectual property rights. In a fiscal and economic Romanian context marked by legislative changes (Bostan, 2025) and subsequent social pressures, this analysis seeks to highlight how taxpayers' assignors of intellectual property rights perceive the current fiscal regime, their level of knowledge, and the difficulties encountered in applying the provisions. This approach should provide a solid foundation for formulating fiscal reform recommendations adapted to the specificities of the industries using and encouraging intellectual product development and assignment, as well as for strengthening the economic power of professionals in these fields.

Hence, this study is qualitative and exploratory, designed to clarify the research topic. Qualitative research is based on semi-structured in-depth interviews, aimed at collecting taxpayers' perceptions, attitudes, and behaviours, thus offering direct insight into their real experiences with assigning intellectual property. The specific objectives (SO) of the research are:

SO1. Identify taxpayers' attitudes and opinions regarding the taxation applied to intellectual property income in Romania

SO2. Identify economic sectors which should encourage the generation of intellectual property income

SO3. Highlight the limitations of the current fiscal regime applicable to intellectual property income and determine the characteristics of an optimal taxation system to encourage taxpayers generate intellectual property income.

Moreover, the qualitative method employed was the semi-structured in-depth interview, whose main advantage lies in its sociable and pleasant environment for debate, allowing participants to freely express their opinions (Bărbulescu, Nicolau & Munteanu, 2021) and maintaining study focus (Quillivic & Payet, 2024). The research instrument consisted of a list of topics and sub-topics for open discussion, presented in Table 1.

Table 1. Discussion topics addressed in in-depth interviews

Topics	Sub-topics
1. On the taxation of intellectual property in Romania	1.1. Importance of taxation of intellectual property income 1.2. Role of the legislative framework of intellectual property income in supporting taxpayers
2. On taxpayers earning income from intellectual property	2.1. Taxpayers' practices regarding taxation of intellectual property income 2.2. Industries encouraging income from intellectual property rights 2.3. Difficulties in applying fiscal provisions and perceptions of equity expenses
3. On limitations and perspectives of taxation of intellectual property	3.1. Limitations of the current system of taxation of intellectual property income 3.2. Characteristics of an optimal fiscal regime adapted to taxpayers' needs and administrative requirements

(source: original)

The research population is statistically represented by the taxpayers who owe taxes for their income from intellectual property. Unfortunately, no records of such category could be found at national level. Nor could the

total tax paid to the national budget. We collected primary data by phone interviews at the beginning of November 2025 and we used the snowball as sampling method. Under such circumstances, we used a sample of seven subjects for this research (n=7). Participants were selected to provide relevance to the studied population, in spite of the lack of representativeness caused by the relatively small number of subjects and of not using a saturation method. The depth of the primary data provided by them is the major advantage of this method (Burmeister & Aitken, 2012), whatsoever.

In this regard, the seven participants, aged between 25 and 63 years, held 100% Romanian citizenship, with 14.3% residing in rural areas. Their educational background ranged from Bachelor education graduates (42.7%) to doctoral studies (57.3%), this independent variable providing important insights into the level of knowledge and openness toward the fiscal regime applicable to income derived from intellectual property rights. With respect to their labour market status, 71.4% were members of academic staff whereas 14.3% were operating in the arts field and 14.3%, in industry. The diversity of professional status and educational background provided us with various perspectives on the application and collection of taxation of intellectual property income. The main criterion for their inclusion in the sample was their positive answer to the question whether they had even generated income from intellectual property rights and we consider this sample appropriate for the contextual understanding of human experiences and social phenomena (Christou, 2025). All participants consented to take part in the study, with their identities being only partially identifiable.

4 Research Results
4.1 Taxpayers' attitudes and opinions regarding the taxation applied to intellectual property income in Romania

The majority of participants (85.7%) highlighted the importance of collecting taxation for income generated by intellectual property within the Romanian fiscal system, even if they all admitted that such income is not high. Only one participant (14.3%) stated that such taxation was used by companies to replace individual employment contracts which would be highly taxed, 'with at least 45%' as he said, 'for sportspersons and musicians' – he was against this type of taxation. All the participants highlighted that they received income from intellectual property, of which 42.85% as writers, 42.85% as researchers and 14.3% as painters. While 71.4% had contracts with a company who also withheld at source their income tax and contributions to the health and social security, 28.6% worked as a registered physical person which had their own accounting recordings (and independently paid taxes according to the fiscal law).

Moreover, participants emphasized the role of this taxation in helping the government to correctly collect taxes, the Fiscal Code offering by this means a stable framework for creators and supporting at the same time the creative industries, research and innovations. Subjects also concluded that in order to ensure the extended visibility of cultural industries (music, cinematography, design, visual and performing arts, etc.) and encourage their production, this type of taxation is essential to consolidate the national cultural heritage on the basis of equitable remuneration for authors. At the same time, it is guaranteed the coherence at the national level of the regulatory framework, aiming at Romania's alignment to the international standards. So, it provides clear rules for the declaration and taxation of income, thereby reducing uncertainty for taxpayers and encouraging voluntary compliance with the Fiscal Code.

Furthermore, a subject highlighted the accurate role of taxation of intellectual property income in the prevention of economic practices which exploit legal gaps. Hence, the reduction of the fiscal evasion risk is done by the compliance with clear rules regarding the declaration of the intellectual property income and its corresponding taxes. Finally, the generation of budgetary resources through the taxation of this category of income is particularly significant in the era of perpetual technological development and artificial intelligence, where digital expansion has become a defining feature of cultural production.

Under such circumstances, 85.7% of the subjects considered that this taxation ensured transparency within the Romanian fiscal framework which subsequently, strengthened public trust in national institutions. The role of taxation is to offer clear guidance and explicit presentation of information regarding the determination of the taxable base and the detailed calculations involved, as well as the proper distinction between income of a salaried nature and income derived from copyright. Equally important is the relevant specification of the declarative obligations and the correlated payment deadlines. Thus, the support, encouragement, and protection of authors and their creations can be achieved by applying reduced tax rates, exemptions based on specific criteria and categories of works, as well as grants and subsidies for research and development. Finally, most participants considered that the adaptation of the fiscal norms to the current trends in digitalization and monetization would

grant taxpayers' easier access to new fiscal instruments and mechanisms, such as the virtual fiscal accounts and online payments.

4.2 Industries encouraging generation of intellectual property income

When asked to exemplify the industries which encourage the production of intellectual property and the generation of such income, all the seven subjects named the cultural and creative industries (CCIs) referring to the outcomes which may be defined as cultural or creative and naming 'authorship' or 'copyright' as keywords. In relation with intellectual property, traditional arts ranked the first with 33.3% in absolute values in the total number of answers. The named arts were: music, sculpture, painting and architecture. Then, literature, scholarly work, publishing and print media ranked the second, with 28.2% in absolute values. Content creators received 15.4% in absolute values and we included here the production of all written, visual, video, audio and interactive content, used generally in social media. Moreover, contemporary arts like design, performing arts, cinema and photography were named by subjects, with 12.8% in absolute values. Last, newly emerged industries like video gaming received 5.1% in total responses whereas one respondent included herein pharmacy (2.6%) and another subject, IT and software development (2.6%).

4.3 Constraints and future directions for the fiscal taxation of intellectual property income

The major difficulty encountered with taxation of intellectual property income is given by the fact that taxpayers might not have a clear situation of the amount to be paid or of the fiscal contributions they should pay. Actually, the taxation of such income is of 10% of the net value. There are also two other contributions mandatory to be paid to the national budget: the health insurance (10%) and the retirement insurance (25%), but there are some progressive thresholds which set them to certain values. Actually, 42.9% participants complained about the fact that when they owed income for intellectual property rights, they did not know whether the taxation and contributions were paid by the employer or not. The missing of such payment was perceived as a risk by them, who would need to discharge debts by themselves later, together with consequent penalties. For such reason, they avoid, as a general rule, such contracts.

In order to protect employees of such a risk, the law should stipulate the employers' obligation to present the taxpayer with the official document showing that the payment of due tax and contributions was processed. Moreover, one subject underlined the fact that if the taxpayer was in charge of keeping own accounting records and process the payments (legally acting as a registered physical person), he or she would pay the lowest amount possible, which, on the long term, would result in low pensions at the retirement (encouraging fiscal evasion, too). Such risk of poverty is presented in the literature (Singerman, 2025), so a strategy for raising national awareness on this topic should be implemented.

Another constraint is given by the fact that a taxpayer in contract with a publishing house or art provider cannot check its sales, does not receive a sales report for his or her works and thus, the income is unknown. The lack of transparency was mentioned by 28.6% of the participants. Under such circumstances, there is a need for legal professional training with respect to the intellectual rights so as to help taxpayers work with contracts and fiscal regulations and protect themselves. Moreover, the correlation between art value on the market (sales volumes collected from buyers) and intellectual property contracts with assessors should be better regulated.

Furthermore, we highlight the constraints presented by 71.4% participants with regard to the documents required to calculate taxation of intellectual property rights. The law stipulates the submission of Form 212, the Single Tax Return. Its completion may be difficult for taxpayers with no fiscal knowledge or experience, so payment for external accounting service is needed, especially as there is a high risk that some legislative changes may have occurred and taxpayers would be unaware of them. In addition, physical support and submission is not too much encouraged due to Romania's digitalisation strategy, difficult for people with low digital skills (Petraş, 2024). As online procedure, it may create issues with its submission as the platform fails to properly work or with its completion, if the user does not have licensed software. When asked how satisfied they were with the completion and submission of Form 212, the sample average score was 1.71 out of 5 which shows total dissatisfaction.

A strategy would be that people working in the cultural and creative industries be part of professional unions and associations to receive proper training and consultancy with regard to legal issues with intellectual property rights, to be legally represented, if needed, and to be able to bargain at national level in terms of their rights. This way, authors would reduce financial constraints generated by contracts that stipulate high percentages and commissions related to the logistical support of the work created within the specific circuit of the field. At the same time, authors, who in general seek simplicity and predictability in procedures, would declare income either as copyright or as independent activities and take advantage of fiscal law and facilities with a sense of equity. The fiscal regulations should encourage taxpayers with simpler regulations and procedures easier to be

understood and used, as all the participants in the study stated. They characterized the present taxation for intellectual property income as 'too bureaucratic', 'too complex', 'inconsistent', 'failing keeping up with modern industries and tech' or 'unfriendly with taxpayers. As one subject highlighted, 'fiscal legislation is difficult to interpret, accompanied by bureaucratic procedures and a prevailing perception of inequity in its application'.

To add, subjects also highlighted difficulties in classifying the types of their income, together with the incorrect declaration of earnings, the lack of reporting their full fiscal obligations or the misapplication of taxation rules resulting from the misunderstanding of fiscal information contained in the regulations. The volatility of income owed for intellectual property is low due to its seasonal and irregular character and can create additional obstacles in estimating revenues accurately, thereby 'complicating taxpayers' compliance and fiscal predictability'.

5 Conclusion

The findings of this piece of qualitative analysis shows that taxpayers for intellectual property income acknowledge the importance of complying with fiscal regulations and agree that there is a need for encouraging fiscal law in their economic fields as a means of protecting authorship, consolidating national cultural heritage and ensuring equitable remuneration for authors. At the same time, taxation is perceived as a mechanism that provides coherence and predictability within the fiscal framework, but taxpayers should receive more support and their obligations should be simplified in form. Participants emphasized that clear rules for declaration and payment reduce uncertainty and encourage voluntary compliance, while also contributing to the prevention of fiscal evasion and the generation of budgetary resources in an era of digital expansion.

However, this study emphasizes noteworthy constraints faced by taxpayers, including difficulties in classifying income, the inappropriate or incomplete declaration of fiscal obligations, and the instability of revenues due to their seasonal and irregular character. Administrative complex and bureaucratic procedures as well as the lack of transparency in contracting intellectual property further worsen these challenges, at the same time creating perceptions of inequity and discouraging compliance, moreover when taxpayers lack fiscal knowledge. The dissatisfaction expressed with regard to Form 212 completion and submission shows the pressing need for simplification and digital adaptation of fiscal procedures, particularly for individuals with limited fiscal or digital literacy.

By considering the results hereinbefore presented, we underline the fact that future fiscal reforms should prioritize transparency, simplification, technological change and adaptability to the realities of the taxpayers, mostly working in the cultural and creative industries. However, specialized training, appropriate institutional support, and the involvement of professional unions or associations could empower authorship assignors and assignees to comply with their fiscal obligations more effectively. By taking into account taxpayers' experiences into the design of fiscal policy, Romania will provide a more equitable and efficient taxation system to both secure compliance and foster the sustainable development of intellectual property as a dynamic constitutive part of the national economy.

To conclude, an optimum fiscal system for the taxation of intellectual property should be characterized by: clarity, simplicity, and transparency, whereas ensuring that Romanian taxpayers are able to easily classify their income, declare it correctly, and comply with obligations without experimenting any bureaucratic burdens. Such a system must be governed by logical and clear rules adapted to the volatility and irregularity of intellectual property revenues, while upkeeping equity through balanced social contributions and exemptions that avoid overlapping liabilities. At the same time, this optimum fiscal system should integrate digital tools, transparent reporting from buyers and intermediaries of intellectual property rights as well as accessible online payment mechanisms, thereby reducing uncertainty and encouraging voluntary compliance. By aligning national regulations to international standards and by offering targeted incentives, as for example reduced rates or subsidies for producing intellectual outputs and research to generate proprietary rights, the fiscal system would not only secure significant resources, but would also boost the sustainable growth of cultural and creative industries and reinforce trust in Romanian public institutions. A platform for online completion, thus eliminating physical or digital documents, would be a great solution for taxpayers to reduce time spent with reading and informing themselves on fiscal regulations and working with fiscal documents.

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THE CONSUMPTION DECISION IN RURAL TOURISM AND MODELS OF RURAL TOURISM IN SOUTH TRANSYLVANIA

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Abstract: Rural tourism has developed in the recent years due to the desire of people to return to their roots and to connect more to nature, away from the crowdedness of the city. Moreover, the fact that a lot of entrepreneurs tend to develop their business in the rural area has led to an extension of rural services and products. The growth of tourists' interest for visiting rural areas encouraged the residents of inland villages to the new development and new entrepreneurial orientation-tourism. Regardless of the rural area or the country where the rural tourism is practiced, the rural tourist profile tends to have a series of common elements. These include the desire to escape from the city and to integrate into the rural life from the village, the desire to relax, the desire to spend free time with family or any other person in a natural setting and not least, the desire to know the culture of the rural space, with all that it entails. In Romania the rural tourist bases its consumption decision on the intangible and tangible assets that can represent a heritage to be explored, mainly in the perspective of untouched and well-preserved traditions at which one can assist. As a result, the tourist who visits these places is supposed to be eager to know the Romanian traditions, to participate in an active way in the life of the village, as it is lived by the members of the community and to enjoy beautiful scenery. So, the purpose of the paper is to analyze the rural consumption decision, the factors that can influence it and to recognize some general tourism models that can be applied in rural area.

Keywords: consumption decision; rural tourism; village; rural heritage; tangible assets; intangible assets.

1 Introduction

Tourist villages are picturesque rural settlements, well consolidated from an economic, urban and cultural point of view, located in unpolluted environments, conservative of cultural models (customs, inventory of work-crafts, national outfits and gastronomy) and which, beyond political and administrative functions, fulfill, seasonally or permanently, the function of receiving tourists. Tourist villages are generally those rural localities with special natural and anthropic potential, which offer to tourists the possibility of returning to the natural setting. There are two forms of rural tourism that are highlighted, especially in south Transylvania: rural and agrotourism.

Visit to craft workshops, food production areas, agricultural farms, etc. offers the possibility to witness the process of making handicrafts, food preparations (cheeses, sausages, brandies, wines, bakery and pastry products) or non-food, which are then superimposed on the image of the original product. It is important to mention that rural tourism has special features delimited by the region, country or part of the glob and that is why is difficult to make a clear international delimitation of the rural tourism.

In Finland, rural tourism refers to the rental of peasant houses by tourists or the provision of food and transport services in rural areas. In Hungary, the term "village tourism" is used, indicating that the only activities and services offered in villages are found in this type of tourism, namely accommodation at low prices, involvement in agricultural activities or other types of local activities. In Slovenia the most important form of rural tourism is the tourism at family farms, where guests live either in a family of farmers or in guest houses, but visit the farm to dine or simply to explore. In the Netherlands, rural tourism means in particular camping on farms where most of the services offered are related to activities such as: cycling, walking or horse riding. In Portugal, rural tourism has traditionally been associated with staying on farms with the farming family. In Greece, rural tourism means accommodation in traditionally furnished rooms with a traditional breakfast.

In other southern European countries, rural tourism is closely linked to the idea of cheaper holidays, an alternative to resort holidays. In France, for example, several types of rural tourism products are available, such as the famous rural gîtes (Gîtes de France), guest rooms, camping and caravans, farm stays, equestrian farms, clubs and holiday villages, rural hotels. In some European countries such as Italy, Austria, France or Switzerland, the number of those offering agrotourism services is very high. At present, tourism in the European Union holds 53% of the market, maintaining its leading role in world tourism, being considered important for economic growth and employment [Dorobanțu, 2011].

In Romania, at the moment, the rural tourist product takes the form of some households or of some settlements that offer primary tourist benefits, offering at the same time with generosity the richness of the values of the Romanian village [Firoiu, 2002]. The rural activities refer to the display of popular gastronomic products, leisure and animation specific to rural areas, transport by traditional means, pilgrimages to consecrated places of worship, visiting my workshops, etc.

Romanian rural tourism product, represents "a composition of tangible and intangible elements, concentrated in a specific activity and with a specific destination" [Medlik, 1995].

2 Methodology

Methods such as comparative description, analytical method and graphics have been used. These methods helped to translate data into charts, tables and charts using the Excel program. This paper has three important steps in its development, namely: documentation, analysis of statistical and territorial data research, integration and complex interpretation of information. In the first stage, the documentary we consulted an extensive scientific bibliography which later served as a basis for the present study, providing in particular information regarding the physical-geographic characteristics of the study area. The integration of all information was presented using comparative analysis through complex interpretation of data, statistics and understanding of traditions and customs in Transylvania.

3 Theoretical backgrounds

The Transylvanian villages with Saxon fortified churches offer a lively picture of the landscape cultural heritage in southern Transylvania. Saxon colonization was divided in three main parts, corresponding with the inhabited area. These are the areas around three main big cities in Transylvania: Brașov, Sibiu and Bistrița. German colonization in eastern part of Europe implemented planned settlement founding and regulated division of agrarian land. [Cocean et al. 2002]

One peculiarity of Transylvanian village related to the tangible patrimony is the special architecture of the village with Saxon influences. This can influence the consumer decision having into consideration internal factors such as the ethnicity of the tourists, its interest in Saxon culture or architectural styles, the social background the attitudes and cultural convictions. The Saxon community reflected itself in the village, both the configuration and buildings. The houses are built in strong lines one next to each other, but with a wall fence towards the street. The common spaces are generous and large, emphasizing the fortified church. Spatial continuity is understood as functional and aesthetic space aggregation, homogeneity as formal harmony, stylistic and expression unity, recognoscibility refers to those particular elements, unique, unrepeatable, the necessity for public functions invests space with community nexus, spatial subordination refers to public space hierarchy and historic shape continuity. One essential characteristic of the settlements from Transylvania was the land division in Flemish plotting system [Opincariu and Voinea, 2015]. The fields are situated outside the village. Therefore, houses can be arranged in regular rows. This kind of closeness contributed to community spirit development. Housing, yard and field land was divided between the villagers. The forest, the rivers and the grazing were for common use. German colonists brought modern field cultivation methods (triennial rotation) and livestock [Opincariu and Voinea, 2015]. Traditional household is set on a rectangular plot, narrow and long. With one or two rooms house, a small shed, barn and stable for cereals and animals, chicken coop, fountain, vegetable garden and fruit orchard. Saxon household is a small self-sufficient rural household that even today is adapting to villagers needs [Nistoreanu, 2010].

Nonetheless, on the other hand we can refer to the intangible patrimony of Transylvanian area which is related to customs and tradition.

Customs and traditions are divided on seasons and tourist decision can be influenced by these intangible elements of patrimony depending on the degree of cultural interest. The most known traditions of spring are: Mărțișorul, The Daffodils festival "blooms" the Brașovian tradition in Șercaia commune, the village of Vad. The

Daffodils Festival takes place every year in May in the Dumbrava Vadului Reserve, unique in Europe as a dimension, "Chigala" as a traditional cake made for Easter, the habit of Căluşul is very common in the Transylvanian villages, summer traditions such as: "Harvest House", when the oldest villagers teach the youngest to cut wheat spikes and to bind wheat sheaves, Rusalii; autumn tradition the wretched Sheep is one of the habits of the inhabitants of Bran, symbolizing the end of a pastoral year, the Wailing Sheep is a joyful celebration that tells the arrival of the cold season and the winter traditions such as the casting of evil spirits, the revival of nature and life, traditional songs sang for Christmas, the goat dance is another winter habit, Butea Junilor when The "junkyard" is formed and hosts during the holidays. Then, a week before Christmas, sons of the village bring their homemade dishes for Christmas, Meteleaua, a pagan habit celebrated each year at the winter solstice. On this occasion, the villagers fire fires to drive away the evil, Boriţa, Sumedru's fire, Farsang is a custom specific to the Saxon community, Santilie, etc.
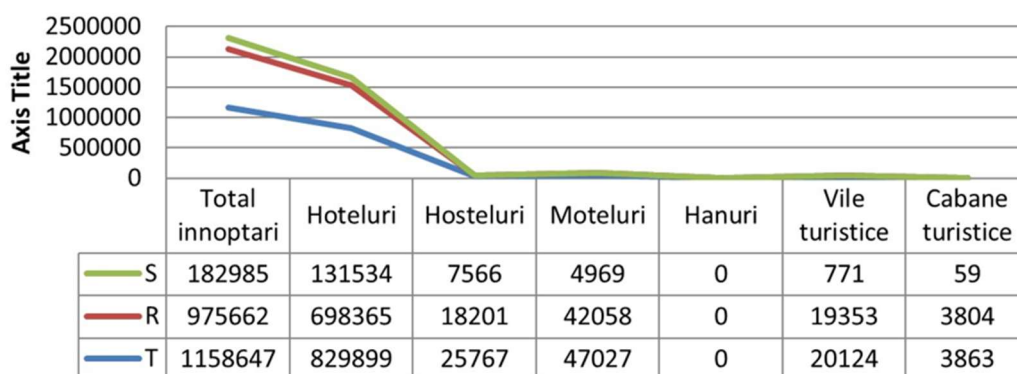
4 Argument of the paper

The study continues with an analysis of the capacity of touristic accommodation of Mureş County integrated in the southern Transylvania Region an analysis upon the southern counties of Transylvania, analysis that shows us that the number of pensions and agrotourism guesthouses are numerous. By counties, the indexes of greater utilization of touristic capacity concerning south Transylvania were in Covasna (46,3%), Mureş (39,3%), Cluj (34,7%), Sibiu (31,7%).

Table 1 Arrivals of tourists in tourist reception structures with tourist accommodation functions in Mureş county years 2023/2024 [8]
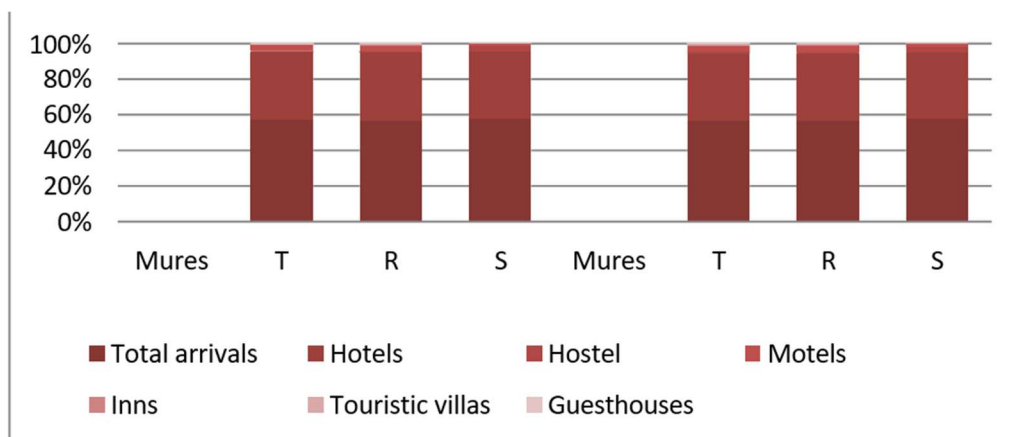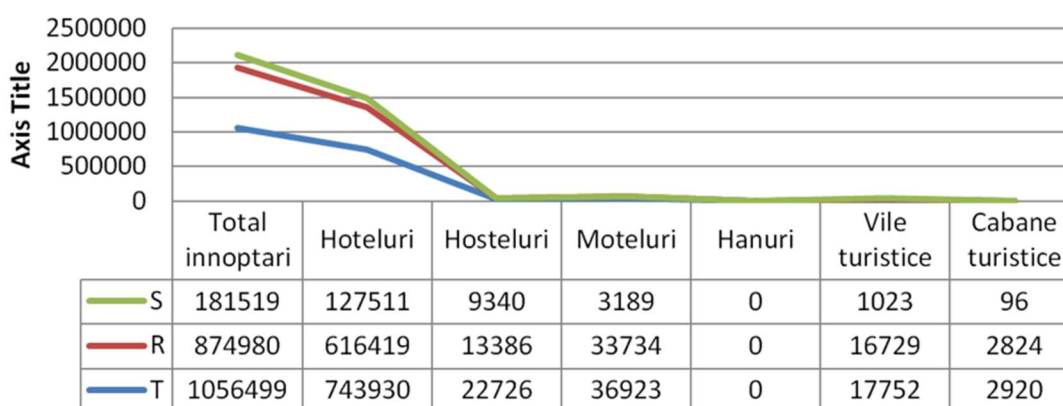

The highest scores are registered in Braşov, Mureş and Sibiu, closely followed by Harghita. The analysis continues with the presentation of numbers for Mureş counties having into consideration that furthermore will follow an analysis of touristic attraction in Saschiz and Idicel-Pădure as representants of cultural heritage in the area. So, we can conclude that the number of hotels, touristic villas, cabanas is continuously rising from 2023 to 2024 as it can be seen in the charts. As well, the touristic has a favorable evolution in which concerns the total number of arrivals (T) in which concerns the Romanian arrivals as tourists (R) but as well the foreign tourists (S). The number of overnight stays also increased in terms of hotels, hostels and touristic villas.

Figure 1 Overnight stays for tourist accommodation units, Mureş County 2023

	Total innoptari	Hoteluri	Hosteluri	Moteluri	Hanuri	Vile turistice	Cabane turistice
S	182985	131534	7566	4969	0	771	59
R	975662	698365	18201	42058	0	19353	3804
T	1158647	829899	25767	47027	0	20124	3863

Source: Adapted from Institutul Naţional de Statistică. Available from: https://insse.ro/

Figure 2 Overnight stays for tourist accommodation units, Mureş County 2024

	Total innoptari	Hoteluri	Hosteluri	Moteluri	Hanuri	Vile turistice	Cabane turistice
S	181519	127511	9340	3189	0	1023	96
R	874980	616419	13386	33734	0	16729	2824
T	1056499	743930	22726	36923	0	17752	2920

Source: Adapted from Institutul Naţional de Statistică. Available from: https://insse.ro/

The existing accommodation structures in Mureş County were, between January 1 and September 30, 2024, the host of a number of 466,832 tourists, with 29,111 more than the corresponding period of 2023, respectively an increase of 6.7%, which made a number of 903,547 overnight stays, with 90,071 more than in the corresponding period of 2023, respectively an increase of 11.1%, and the average length of stay was 1.9 overnight stays / tourist, according to the figures held by the Mureş County Directorate of Statistics. According to the quoted source, the index of net use of accommodation places, between January 1 and September 30, 2024, was 40.6% of total tourist accommodation structures, increasing by 4.9% compared to the corresponding period of 2023. According to the country of origin of foreign tourists, the highest shares were held by those from Hungary (20.6%), Germany (12.3%), Italy (7,3%), Spain (7.3%), Republic of Moldova (6.6%).

Table 1: Natural and anthropic potential

Natural Potential	
Saschiz	Idicel-Pădure
Landforms: plateau, forests, pastures, meadows. Particularity, special relief forms called *glimee-mounds*, formed by landslides, there are people who consider these glimes to be a huge cemetery dating back to ancient times.	Landforms: submountain landform, at the foot of Gurghiului Mountains
Climate: characteristic to Hills Depression of Transylvania, the average annual temperature is 8.5 ° C, and the average annual rainfall is 598 mm	Climate specific to submontane and mountainous areas, with average annual temperatures of 4-6 degrees
Fauna and flora: 18 types of natural habitats, Euro-Siberian forest-steppe vegetation, Pannonian Forest vegetation, muddy volcanoes – formations created by underground natural gas, Cheile Saschizului	Fauna and flora: mixed forest: oak. sessile oak, beech, linden, hornbeam, birch, resin, elm, elm, continued to the heights with spruce and fir. Meadows and medicinal plants
The anthropic potential	
historical vestiges: fortified church, the Saxon fortification built between the 14th and 15th centuries, The Peasant Fortress, Tower of Evangelical Church	Historical vestiges: The Roman camp from Brâncoveneşti, Brâncoveneşti Medieval Castle: Reformed church from Brâncoveneşti village, built in 1727, The village museum from Brâncoveneşti; Kuncz Aladár Memorial Mass, the tomb of the writer Kemény János; the village museum from Idicel-Pădure, "Laleaua Pestriţă" natural reserve

elements of ethnography and folklore: holidays and balls: Ball of Katarina, Christmas Ball, Ball of Women in January, The March of the Gauls special traditions like Saxon wedding, Saxon funeral, Saxon Easter, bees, (gathering between girls that sew, embroidered, twisted hemp or wool) etc. Custom of The Neighborhood = Rihtogul	Elements of ethnography and folklore:" the measure of the sheep", "the feast of the sheep". and the winter holidays, La Alei," Mures Festival"
Local holidays: Feast of Rhubarb, Neighborhood Holidays, Sons of the Village	Local holidays: Cherry Fair, Maiden Fair
Local crafts: pottery, the ceramics workshop in Saschiz using sgraffito technique	
The culinary specifics: rhubarb jam, special bread, honey dew from mint or fir	The culinary specifics: jam of Idicel- Pădure, traditional food

Source: own source

It can be resumed that the tourist consumption can be developed considering the main advantages of the area: number and value of targets built cultural heritage: rural UNESCO site, category monuments in all component villages of the south Transylvania (there is a Zonal Urban Plan made for the protected area / rural site UNESCO) [Pleșoianu et al. 2018]. Furthermore, rehabilitation works were carried out a fortified evangelical church, several actions took place for the promotion and awareness of preserving the traditional landscape of villages, both by the local administration (making a Good Guide practices for traditional architecture and the Local Heritage Code assumed by HCL) as well as by NGOs: ADEPT Transylvania Foundation, MET, Monumento Association, existence of a craft workshop of "Saschiz pottery". Another strength of the analyzed region is that there exists socio-cultural infrastructure and religious at the commune level: orthodox churches in each component village, cultural centers, etc. The drawback would be that the buildings with heritage value are in an advanced condition of degradation, which is harmful the general appearance of the commune and in some cases endanger the safety of passers-by (ex: former German school in the center of Saschiz). On the other side, intangible patrimony identified (local traditions and customs) are less promoted compared to build cultural heritage, lack of necessary construction materials adequate restoration of traditional houses.

Other axis that can be used in order to heighten the touristic consumption refer to the existence of protected areas: Natura sites 2000 SCI and SPA, signaling the tourist objectives from joint project carried out by the EAFRD project, connecting the commune to the bike path made by the ADEPT foundation on the route Viscri – Sighisoara, the possibility to rent bicycles to tourists for practicing cycle tourism,, NGOs active in the area for tourism promotion, the existence of local brands (e.g. Casa de pe Deal, Grandma's Cellar), zonal tourist brand: Târnava Mare, inclusion of the commune in the potential ecotourism destination Transylvania Hills. The implication of the local administration and local entrepreneurs to European and national project in order to include Saschiz area or Idicel-Pădure area in contact with touristic development opportunities is another important point. Saschiz takes part at "Green infrastructure - Promoting an integrated sustainable development of the commune – part of the Natura 2000 sites Târnava Mare and Hârtibaciului Plateau, by taking care of the existing potential and by improving the quality of life of the inhabitants of Saschiz commune". Idicel-Pădure integrates into the Strategy of development of Mureș County.

5 Conclusions

The main directions that where outlined regarding the cultural heritage were ethnographic and folklore tourist villages, tourist villages of artistic and craftsmanship, landscape tourist villages, that focus on the idea that multiculturalism is an undeniable reality and value in both cultural spaces formed in countries with a large contribution of immigrants that can lead to multiple inputs and outputs regarding innovation and the methods in which the touristic potential of a rural area can be valorized.

At the extremes, we can find a mono-cultural model of visiting the cultural heritage, that implies knowing tradition in one place and making the accommodation in a nearby city, for example you visit the surroundings of Sibiu but you choose to make the accommodation in a hotel in Sibiu, so you will "migrate" in order to make the

heritage consumption in the near villages knowing the intangible patrimony as customs, tradition, food in a different place, so you will have a radial consumption model of rural tourism based on rural heritage. At the other extreme, it can be found a more centered model of mono-cultural rural entrepreneurship that has into consideration the village-hotel concept that emphases the collaboration between all inhabitant entrepreneurs of the location that provides separately accommodation, food, culture consumption.

The current situation of the Transylvanian village is related to depopulation, local population disappearance or decrease is due to expatriation, urban migration or aging, degradation, social and economic decline affects traditional built fabric. After the village community fell apart, the decay of the settlements was implicit. Saxon villages are resource for food, shelter and craft, but also exhibit a model of living, hence a certain lifestyle that involves an equilibrium between human and nature. The advantage is that sociologists notice a social phenomenon emerging in the rural areas. People are moving from crowded cities to villages. Not only the survival need determines people to move, but also another view upon life. People that are moving to the rural areas are educated and are determined by the will to change their way of living and the environment. In 2011, about 16.000 Romanians moved to the rural areas. As far as we analyzed the principal attraction in the studied area (Mureș district) are intangible assets in cultural heritage, ethnographic traditions, customs followed by the beautiful scenery, landscape which represents coordinates for leisure tourism. But this can represent the premises as future research regarding the typology of tourism consumption in different country regions.

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FINANCIAL PERFORMANCE OF PHARMACEUTICAL COMPANIES IN ROMANIA

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Abstract: Financial analysis involves applying methods and techniques of analysis to financial reports and other related data to obtain useful information. This information is regarded as a significant relationship between data and their trends, showing a company's performance and financial position, as well as the results or consequences of previous management decisions. Additionally, they are used to make forecasts that can directly impact the decisions of financial statement users. Current and potential investors are interested in a company's future profitability. Therefore, the continuity of a company's past profits should represent a prediction of future profits. Many external users, such as creditors, are interested in knowing the level of a company's solvency rather than its profitability. Performance is a widely used concept in both literature and practice. In many cases, defining this concept is insufficient; often the focus is on measuring performance, which varies for each individual information user, rather than defining the concept of performance. Achieving performance involves meeting a primary necessary condition, namely, developing and implementing a specific system of indicators for measurement. In general, any economic entity, whether it is a micro-enterprise or a corporation, must have a current performance measurement system. This system is very important for the success and continuity of the entity's activities. This paper aims to highlight how a company's performance can be estimated and determined, respectively, measuring the extent to which the company's objectives have been achieved over a period of time. From this perspective, unachieved objectives, the reasons for not achieving them, and possible improvement methods for the future can be observed. The strengths and weaknesses of the company are identified in the performance evaluation stage specific to financial management, resulting in an analysis of behavior and identifying methods to improve activities.

Keywords: performance, profitability, financial analysis, financing, profit, companies.

1 Introduction

Being a versatile concept, financial performance provides the necessary information for interested information users. For example, in the case of companies listed on stock exchanges, the stock market performance of the enterprise is important, calculated using specific indicators such as stock prices and dividend payouts. The increase in the market value of a company is an opportunity for potential investors interested in investing. Profitability can be defined as the ability of an enterprise to make a profit through the use of production factors and owned capital, regardless of their source. Profitability is one of the most comprehensive forms of expressing efficiency.

The two categories of indicators used in expressing and calculating profitability are profit and profitability rates. Profit attests to the absolute magnitude of profitability, while profitability rates show the extent to which the capital or resources used by the enterprise generate profit.

Financial performance is an objective that all managers strive to achieve. Economic information leads to a profound understanding of the situation, the entire economic context, and the factors that determine the

fluctuation of certain indicators. Economic and financial analysis provides all the necessary information for management and leadership decisions. Additionally, it is the scientific discipline that enables the exposure of economic reality and the understanding of the company's current state, compared to previous periods or direct competitors, through the application of specific theories and methods for deciphering the language of accounting. Very important to mention is that "transparent communication and active engagement with stakeholders are essential for building public trust" (Constantin, Modrogan, Dancila, Gavrila, Calinescu, Cirstea, Danciulescu, Tanase, Vasile, 2025).

2 Technical approaches to profitability rates
2.1 Profitability rates
Profitability can be defined as the ability of an enterprise to make a profit through the use of production factors and owned capital, regardless of their source. Profitability is one of the most comprehensive forms of expressing efficiency. Profitability rates are efficiency indicators calculated according to the input/output model, where the output represents various forms of profit, and the input is represented by capital (either own or permanent), resources consumed by the enterprise, parts of assets or total assets, and revenues. The profitability rate is a relative measure and expresses the extent to which a company's capital generates profit. Profitability rates can be expressed in different forms depending on the type of profit desired to be calculated (net profit or gross profit). This rate is useful for different categories of information users. For example, indicators calculated based on capital are of interest to existing or potential investors, while indicators calculated using consumed resources are of interest to managers of the company.

The main profitability rates are:
A. Commercial profitability rate
B. Cost profitability rate
C. Economic profitability rate
D. Financial profitability rate

A. Commercial profitability rate

The validation of a company's management quality is observed in the appreciation of its products in the market in which it operates, by consumers. This situation is highlighted by the turnover.

The commercial profitability rate refers to the efficiency of a company's commercial activity. It establishes a connection between profit and net turnover. Specialized literature (Robu, Anghel & Serban, 2014) presents several models for calculating the commercial profitability rate, with the most commonly used being the following:

a) $R_c = \frac{Pr}{CA} \times 100$

b) $R_{Mb} = \frac{Mb}{CA} \times 100$

c) $R_{cn} = \frac{Pn}{CA} \times 100$

, where:
R_c – commercial profitability rate;
R_{cn} – net commercial profitability rate;
R_{Mb} – gross sales margin rate;
CA – net turnover;
Pr – net profit to turnover;
M_b – gross margin to cost of goods sold;
P_n – net profit.

Current legislation (Ordinul Ministerului Finanțelor Publice nr. 1402/2014 & Legea Contabilitatii nr. 82/1991) states that large companies are recommended to calculate and present, in the explanatory notes of their financial statements, indicators that show economic and financial performance. An example of such indicators is the gross profit margin rate of sales. Considering that these rates are calculated based on accounting profit, they will be influenced by the accounting policies applied by the company in question (inventory valuation method, fixed assets depreciation method, provision policy).

In international literature (Higgins, 1992) the net commercial profitability rate (Return on Sales) is commonly encountered. This is calculated based on information from the Comprehensive Income Statement and can be more easily calculated by external information users, as they do not have access to the management

accounting information of the company in question. One factor that can affect the net commercial profitability rate is the tax policy adopted by the company, which can influence the size of the profit. In addition to this, the net commercial profitability rate can also be influenced by other operations carried out within the company, other than sales.

In order to obtain pertinent and relevant information regarding the company's performance, financial analysts recommend analyzing the evolution of the net commercial profitability rate over a period of 3 to 5 years. This should be compared with the sector's average rate of activity and the net commercial profitability rate for other companies in the same line of business as the analyzed company.

Generally, the commercial profitability rate should be compared with:
• the sector average,
• the commercial profitability rate of the main direct competitor in the market,
• commercial profitability rates from previous periods,
• the level predicted by the Stock Exchange.

The main categories of information users interested in knowing the commercial profitability rate are: managers, investors, and the main competitors in the market.

B. The cost profitability rate

The cost profitability rate (or the rate of return on consumed resources) shows the relationship between the profit related to turnover and the total expenses related to sales. The factors influencing the rate of consumed resources are unit costs, unit selling prices, and the quantity sold across product structures.

Considering the reporting on operating activities, the cost profitability rate is calculated as follows:

$$R_r^{rc} = \frac{RE}{Che} \times 100 \text{ (Robu, Anghel \& Serban, 2014)}$$

, where RE – operating result;

Che – operating expenses.

The factors influencing the rate of consumed resources are unit costs, unit selling prices, and the quantity sold across product structures.

Discussing based on the presented relationship and taking into account the other components of operating income, such as other operating revenues and expenses, variations in inventory production and fixed asset production, and real estate investments. Therefore, these elements should not be included in the calculation of the cost profitability rate since they are not related to the sale of goods.

Therefore, the agreed calculation variant for the rate of return on consumed resources is:

$R_r^{rc} = \frac{Pr}{Ch^{CA}} \times 100$ (Robu, Anghel & Serban, 2014)

, where:

Pr – The profit related to turnover;

Ch – expenses related to turnover.

In specialized literature (Robu, Anghel & Serban, 2014) opinions stating that the optimal level of the cost profitability rate falls within the range of 9% to 15%.

C. Economic profitability rate

Economic profitability rate is one of the most important rates due to the fact that it provides the performance of the total assets usage of the company and the capital invested in obtaining it.

Specialized literature (Robu, Anghel & Serban, 2014) provides more computation methods, out of which we present:

$R^e = \frac{Operating\ result (RE)}{Operating\ assets\ (Ae)} \times 100$

or

$R^e = \frac{Gross\ operating\ result (EBE)}{Total\ assets\ (At)} \times 100$

or

$R^e = \frac{Gross\ Profit}{Total\ assets\ (At)} \times 100$

The economic profitability rate can be constructed using various types of results, as presented in the formulas provided, which leads to a different representation of the outcome:

•   if operating profit is used, an economic profitability rate independent of fiscal policy and financing policy will be calculated;

•   if gross operating surplus is used, an economic profitability rate independent of the policy regarding the depreciation of fixed assets will be calculated;

•   if gross operating surplus is used, an economic profitability rate useful for company managers will be calculated, resulting in a higher rate;

If we were to transpose the calculation relationship of the economic profitability rate into international theory and practice, this rate is known by the formula:

$$ROA = \frac{EBIT}{TA} \times 100 \text{ (Robu, Anghel \& Serban, 2014)}$$

, where:

ROA – *return on assets*;

EBIT – *earnings before interests and taxes*;

TA – *total assets*;

The category of information users interested in the values provided by this rate are creditors.

Factorial analysis of economic profitability rate

$$R^e = \frac{Gross\ profit}{Total\ assets(At)} \times 100 = \frac{CA}{At} \times \frac{Pr}{CA} \times 100 \text{ (Robu, Anghel \& Serban, 2014)}$$

D. The financial profitability rate

The financial profitability rate measures how profitable the investment made by the owners of capital has been. If the financial profitability rate is higher than the cost of equity capital, the company creates additional value for shareholders through its activities.

The financial profitability rate is determined using the following calculation method:

$$Rf = \frac{Net\ profit(Pn)}{Equity(Kp)} \times 100$$

Factorial analysis of the financial profitability rate

After DU PONT, as follows:

, where:

$$Rf = \frac{Pn}{Kp} \times 100 = \frac{Vt}{At} \times \frac{At}{Kp} \times \frac{Pn}{Vt} \times 100$$

$\frac{Vt}{At}$ – Total assets turnover ratio;

$\frac{At}{Kp}$ – The average equity multiplier or the financial leverage ratio;

$\frac{Pn}{Vt}$ – Net profit to RON 1 sales.

Managers can influence the financial profitability rate by monitoring and affecting the following elements:
1. sales generated through asset utilization;
2. the method of financing assets from equity and debt;
3. the net profitability of revenues.

When analyzing and calculating the total asset turnover ratio, it's important to consider the company's industry sector. For better efficiency in total asset utilization, this indicator should have a higher value. Similarly, the higher the equity multiplier, the higher the financial profitability rate, but it's worth mentioning that this indicator also reflects the company's level of indebtedness. A high level of indebtedness poses a significant risk to the company.

Another important point to mention is that this indicator is influenced by the company's industry sector and the assets it holds. For example, companies with a consistent cash flow from operating activities and a high level of predictability may result in a high equity multiplier. Net profit per unit of revenue reflects the company's ability to adopt an efficient pricing policy and its ability to control expenses.

Studies show that companies with a high net profit per unit of revenue tend to have a lower economic profitability rate, while those with a low net profit per unit of revenue tend to have a higher economic profitability rate. This is because of the practice of high commercial markup, which increases net profit per unit of revenue but has a pronounced effect on the total asset turnover ratio, unfavorably influencing it for the company.

The factors influencing investors' interest are:
• the economic profitability rate of assets;

• the company's level of indebtedness.

Regarding the role of financial leverage on the level of financial profitability, we can present two scenarios:

1. "Risk - Profit" case: the company achieves additional economic performance beyond the cost of borrowing, increasing the remuneration of the company's shareholders as the financial leverage increases (Rf > Re);

2. "Risk - Loss" case: obtaining loans increases the level of financial leverage, but does not generate an economic profitability of assets that exceeds the interest rate; thus, the financial profitability is lower than the economic profitability (Rf < Re).

The financial profitability rate provides information to parties who invest in companies not listed on the capital market. Once these companies enter the capital market and become known to external information users, for shareholders, the possibility of making high profits from their investment merges with information about the stock price.

2.2. Breakeven point

The breakeven point (also known as the critical point or equilibrium point) represents the level of activity of a company at which the revenues from the sale of goods or services are equal to the variable expenses related to the volume of activity and total fixed expenses, resulting in zero profit.

Expenses are classified into fixed expenses and variable expenses. Variable expenses remain constant per unit of product because the total variable expenses increase directly proportional to the volume of sales, while fixed expenses vary per unit of product because total fixed expenses are constant and decrease inversely proportional to the increase in the volume of activity.

The breakeven point reflects the relationship between operating expenses and the volume of activity that must be achieved so that the revenues from the sale of goods cover the expenses incurred.

The methods of computation and analysis of the breakeven point varies depending on the study conducted: per product or for the entire enterprise.

The advantages arising from conducting and analyzing profitability based on the breakeven point are:
• determining the production size at which the company's operations become profitable;
• showing the volume of production needed to achieve a certain level of profit;
• indicating the degree of utilization of production capacity associated with the breakeven point;
• calculating the period of time in which the company will recover its expenses;
• highlighting the correlations between production dynamics and cost dynamics;
• determining the maximum profit that will be obtained under certain conditions.

2.3. The impact of profitability rate over a company's development

Many companies use internal analysis systems or standards that divide the impact on decisions affecting performance, total revenues, or shareholder forecasts into components. Regarding the analysis of a company's financial position, focusing on the importance and role of financial profitability rate, it starts from the relationship between assets, capital, and liabilities.

It is important for a company to understand the financial structure on which it can operate profitably, as well as the level of indebtedness it employs without having adverse effects on its financial profitability. Failure to meet this condition can lead to financial imbalance. Financial profitability is an indicator that is directly influenced by the efficiency of the capital employed (the rate of economic profitability), the commercial policy (the rate of commercial profitability), and the financial policy of the enterprise.

Profit reflects a portion of the enterprise's capital and is an important source of financing for the enterprise. It rewards the participation of capital owners through dividends. The growth of profit indicates the efficiency of the activity from the perspective of equity capital.

Rates of economic profitability and rates of financial profitability are extremely important for information users, but there are many difficulties in their use, some of which are represented by the result of the capital taken into account.

2.4. Analysis of Profitability Ratios at ZENTIVA S.A.

Zentiva is a pharmaceutical company. It produces, sales and develops a wide range of generic and OTC (over-the-counter) medicines.

The company's net turnover recorded an increase in 2021 compared to the previous year by approximately 22.57% (Net turnover 2021 = 683,865,264 RON, Net turnover 2020 = 557,960,940 RON). The

average selling price of finished products and goods produced and marketed by ZENTIVA SA per unit sold recorded an increase of 12.74% during the analyzed period (average selling price 2021 = 4.69 RON compared to average selling price 2020 = 4.16 RON).

The company's management categorizes the price increase as a result of changing the product mix by significantly increasing the share of products related to hospitals and chronic diseases.

Table no. 1 – Information on turnover ZENTIVA SA

Element	2020	2021
Net income of goods sales (mln RON)	540,4	667,9
Quantity sold (mln units)	129,8	142,4
Average selling price (RON / sold unit)	4,16	4,69

Source: Workings on the annual report of ZENTIVA SA, at: https://www.zentiva.ro/-/media/files/zentivacom/investors/ro/financial-reports/2021/aprilie

The share of external sales in the total turnover decreased in 2021, from 43.2% (241.1 million RON in 2020) to 42.4% (290.2 million RON in 2021).

A. Turnover net profit analysis

Table no. 2 – Status of operating profit ZENTIVA SA

Element	2020	2021
Turnover	557.960.940	683.865.264
Operating expenses	(506.450.323)	(625.778.854)
Operating profit	73.345.277	116.046.580

Source: Workings on the annual report of ZENTIVA SA, at: https://www.zentiva.ro/-/media/files/zentivacom/investors/ro/financial-reports/2021/aprilie

Model: $Pr = CA \times \overline{pr}$

Absolute change of the turnover profit indicator:

$\Delta Pr = Pr1 - Pr0 = 116.046.580 - 73.345.277 = 42.701.303$ RON

This increase was mainly driven by the growth in turnover.

B. Analysis of the commercial profitability rate

Validation of a company's management quality is observed in the appreciation of its products on the market by consumers. This situation is highlighted by the turnover. The commercial profitability rate refers to the efficiency of a company's commercial activity. It connects profit with net turnover.

In the following, we will calculate the commercial profitability rate for ZENTIVA SA using the information presented above.

Computation formula: $R_c = \frac{Pr}{CA} \times 100$

Regarding 2020:

$R_c = \frac{Pr}{CA} \times 100 = \frac{73.345.277}{557.960.940} \times 100 = 13,15\%$

Regarding 2021:

$R_c = \frac{Pr}{CA} \times 100 = \frac{116.046.580}{683.865.264} \times 100 = 16,97\%$

$\Delta R_c = R_{c1} - R_{c0} = 16,97 - 13,15 = +3,82\%$

The level of commercial profitability rate is influenced by the structure of the sold production, the average selling price (excluding VAT), and the total unit cost. The increase in operating profit during the studied period signifies an enhancement in the commercial activity efficiency of the enterprise, in this case, rising by 58.22% compared to 2020. Generally, the growth in the commercial profitability rate related to operating activity reflects a favorable status and is primarily attributed to the adherence to the equation Sales Index > Expenditure Index. It is worth mentioning that the expenditure index slightly precedes the sales index (Expenditure Index = 123.56%, Sales Index = 122.57%).

Net commercial profitability rate

Computation formula:
$$R_{cn} = \frac{Pn}{CA} \times 100$$
Regarding 2020:
$$R_{cn0} = \frac{65635440}{557.960.940} \times 100 = 14,94\%$$
Regarding 2021:
$$R_{cn1} = \frac{105563554}{683.865.264} \times 100 = 15,39\%$$
$$\Delta R_{cn} = R_{cn1} - R_{cn0} = 15,39 - 14,94 = +0,45\%$$

For the analysis of the net commercial profitability rate, we have selected the indicator "Net Income/Loss for the Financial Year" from the Statement of Comprehensive Income. It can be observed that in 2020, the net commercial profitability rate increases due to the revaluation of buildings and land in amount of 21,227,460 RON, while in 2021, the net commercial profitability rate decreases due to the "Other elements of comprehensive income" element in amount of (337,035) RON. As we have outlined in the first part of the report, the company's fiscal policy influences this indicator. The net commercial profitability rate of ZENTIVA SA increased by 0.45 percentage points from 2020 to 2021, which represents a favorable situation for the company.

C. The analysis of the cost profitability rate

The rate of return on consumed resources, or the rate of return on costs, shows the relationship between the profit related to turnover and the total expenses related to sales. The factors influencing the rate of consumed resources are: unit costs, unit selling prices, and the volume of sales on product structures.

Computation formula: $$R^{rc} = \frac{Pr}{Ch^{CA}} \times 100$$

Regarding 2020:
$$R^{rc} = \frac{Pr}{Ch^{CA}} \times 100 = \frac{73.345.277}{506.450.323} \times 100 = 14,48\%$$
Regarding 2021:
$$R^{rc} = \frac{Pr}{Ch^{CA}} \times 100 = \frac{116.046.580}{625.778.854} \times 100 = 18,54\%$$

$$\Delta R^{rc} = R_1^{rc} - R_0^{rc} = 18,54 - 14,48 = +4,06\%$$
Regarding Zentiva, following the analysis conducted, it is notable that the rate of return on consumed resources increases in 2021 compared to 2020 by 4.06 percentage points, which is a positive outcome for the company. This implies the efficient use of consumptions related to turnover (efforts), yielding the desired results (effects).

D. The analysis of economic profitability rate

The economic profitability rate shows the performance of the total assets used by the enterprise and the capital invested to obtain them.
Computation formula:
$$R^e = \frac{Gross\ profit}{Total\ assets\ (At)} \times 100$$
Regarding 2020:
$$R^e = \frac{Gross\ profit}{Total\ assets\ (At)} \times 100 = \frac{80549018}{1033264019} = 7,80\%$$
Regarding 2021:
$$R^e = \frac{Gross\ profit}{Total\ assets\ (At)} \times 100 = \frac{80549018}{119210366} = 11,36\%$$
$$\Delta R^e = R_1^e - R_0^e = 11,36 - 7,8 = +3,56\%$$
Factorial analysis of economic profitability rate
$$R^e = \frac{Gross\ profit}{Total\ assets\ (At)} \times 100 = \frac{CA}{At} \times \frac{Pr}{CA} \times 100$$

Table no. 3 – Statement of profit before tax for ZENTIVA SA

Element	2020	2021
Total assets	1.033.264.019	1.049.605.515
Turnover	557.960.940	683.865.264
Profit before tax	8.0549.018	119.210.366

The modification of the indicator depending on:

1. The influence of changes in the total asset turnover:

$$\Delta \frac{CA}{AT} = \frac{CA1}{AT1} \times \frac{Pr0}{CA0} \times 100 - \frac{CA0}{AT0} \times \frac{Pr0}{CA0} \times 100 = +1,61\%$$

2. The influence of changes in the commercial profitability rate

$$\Delta R_c = \frac{CA1}{AT1} \times \frac{Pr1}{CA1} \times 100 - \frac{CA1}{AT1} \times \frac{Pr0}{CA0} \times 100 = +1,95\%$$

Based on the analysis conducted, it is noted that the economic profitability rate increased by 3.56% in 2021 compared to 2020, as a result of the significant influence of the increase in commercial profitability, in line with an acceleration of total asset turnover. The increase in the economic profitability rate in 2021 compared to the previous year reflects high performance of the funds invested in the company's activities.

In the analyzed case, the total asset turnover expressed in the number of rotations is attributed to an optimal correlation between the dynamics of total assets (Total Asset Index = 101.58%), compared to that of sales (Sales Index = 122.57%).

As an efficiency ratio, we understand that it reveals appropriate management of economic resources within the company (Sales Index > Current Asset Index).

Thus, the asset turnover calculated as Total Assets over Sales had an influence of +1.61 percentage points on the increase in economic profitability rate. The main causes of this situation could be:
- avoiding excess acquisitions;
- utilizing unused fixed assets;
- assessing the workforce to influence production rhythm;
- timely collection of receivables.

The commercial profitability rate is the main influencing factor, leading to an increase in the economic profitability rate by +1.91%. This is a result of the following:
- increasing sales;
- enhancing the company's bargaining power with suppliers and obtaining advantageous purchase prices;
- improving the sales structure by increasing the proportion of items with higher profit margins;
- accelerating inventory turnover;
- optimizing expenses;
- adjusting commercial policies;
- avoiding excessive acquisitions;
- better asset management to prevent fixed asset depreciation;
- workforce qualification;
- reducing accounts receivable collection periods;
- accelerating current asset turnover;
- improving the return on fixed assets through their intensive use and considering their performance.

E. The analysis of financial profitability rate

The financial return rate indicates the measure to which the investment made by the owners of capital has been profitable. If the financial return rate is higher than the cost of equity, the company generates additional value for shareholders through its activities.

Computation formula:

$$Rf = \frac{Net\ profit(Pn)}{Equity(Kp)} \times 100$$

Regarding 2020:

$$Rf = \frac{Net\ profit(Pn)}{Equity(Kp)} \times 100 = \frac{65635440}{785364075} \times 100 = 8,36\%$$

Regarding 2021:

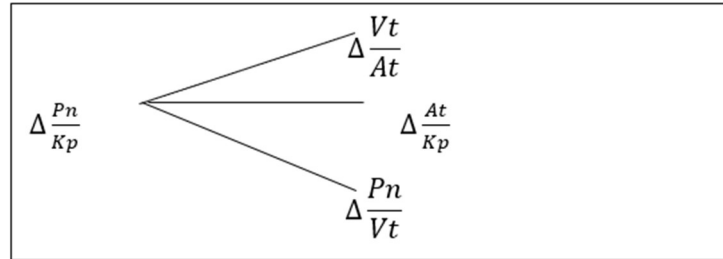$$Rf = \frac{Net\ profit(Pn)}{Equity(Kp)} \times 100 = \frac{105563554}{890772594} \times 100 = 11,85\%$$

$$\Delta Rf = Rf_1 - Rf_0 = 11,85 - 8,36 = +3,49\%$$

Factorial analysis of the financial profitability rate

After DU PONT system, as follows:

$$Rf = \frac{Pn}{Kp} \times 100 = \frac{Vt}{At} \times \frac{At}{Kp} \times \frac{Pn}{Vt} \times 100$$

Figure 1. Model of factorial analysis of the financial profitability rate

Table no. 4 Computation of the financial profitability rate for ZENTIVA SA.

Crt. no.	Indicators	Symbol	2020	2021	Indicator (%)
1	Total revenue (RON)	Vt	591.042.942	748.973.128	126,72%
2	Total assets (RON)	At	1.033.264.019	1.049.605.515	101,58%
3	Shareholders' equity (RON)	Kp	785.364.075	890.772.594	113,42%
4	Net profit (RON)	Pn	65.635.440	105.563.554	160,83%
5	Total asset turnover (number of turnovers)	Vt/At	0,57	0,71	126,72%
6	Equity multiplier	At/Kp	1,32	1,18	126,72%
7	Net profit per 1 RON of total revenue	Pn/Vt	0,11	0,14	126,92%
8	Financial profitability rate (percentage points)	Rf	8,36%	11,85%	141,80%

Source: authors' analysis

1. The influence of asset turnover ratio:

$$\Delta \frac{Vt}{At} = \left(\frac{Vt1}{At1} - \frac{Vt0}{At0}\right) \times \frac{At0}{Kp0} \times \frac{At0}{Kp0} \times \frac{Pn0}{Vt0} \times 100 = 2,068$$

2. The equity multiplier factor:

$$\Delta \frac{At}{Kp} = \frac{Vt1}{At1} \times \left(\frac{At1}{Kp1} - \frac{At0}{Kp0}\right) \times \frac{Pn0}{Vt0} \times 100 = -1,088$$

3. Net profit per 1 RON of total revenue (RON)

$$\Delta \frac{Pn}{Vt} = \frac{Vt1}{At1} \times \frac{At1}{Kp1} \times \left(\frac{Pn1}{Vt1} \times \frac{Pn0}{Vt0}\right) \times 100 = 2,513$$

Financial profitability increased by 3.49 percentage points during the 2020-2021 period, which is a favorable economic and financial situation. This increase was mainly due to a 48% increase in net profit and a 13.42% increase in equity.

1. The asset turnover ratio represents total revenue per 1 RON of total assets. During the 2020-2021 period, this indicator increased by 0.14 rotations, leading to a 2.068 percentage point increase in financial profitability. The total revenue index of 127.72% was higher than the total asset index of 101.57%. The efficiency of total assets increased due to efficiency in the operating and/or financial areas.

2. The equity multiplier or financial leverage ratio decreased by 0.14 percentage points during the 2020-2021 period, resulting in a 1.088 percentage point decrease in financial profitability. The total asset index was

lower than the equity index (101.58% compared to 113.42%). Therefore, there was an increase in the firm's leverage, having a negative impact on financial profitability because the leverage effect of borrowing is negative, indicating that the assumed financial risk is not under control.

3. The net profit margin represents net profit per 1 RON of total revenue and increased by 0.03 during the 2020-2021 period, leading to a 2.513 percentage point increase in financial profitability. In this case, the net profit index was higher than the total revenue index (160.83% compared to 126.72%), reflecting increased productivity and increased commercial profitability.

Managers can improve financial profitability by monitoring and influencing the financing of assets from equity and liabilities. Regarding the role of financial leverage on the level of financial profitability, considering the values of economic profitability rate of +3.56% and financial profitability rate of 11.85%, we deduct that the financial profitability rate is higher than the economic profitability rate. Therefore, we are in the "risk-profit" scenario, meaning that the company achieves economic performance exceeding the cost of borrowing, thus increasing shareholder remuneration.

Conclusions

From the analysis conducted on ZENTIVA SA, it resulted that the company has a stable economic and financial situation, with most of the calculated indicators showing favorable increases for the company.
The most significant increase at the level of fixed assets is represented by the element Rights to use assets, which increased by 62.79% during the studied period. This increase is due to the fact that the company recognized, at the level of fixed assets: the leasing of cars for company personnel, the leasing of the assembly line, and the lease contract for the storage space held by FM Logistic. Overall, fixed assets recorded an increase of 2.27%.

Considering that ZENTIVA SA's main activity is production, current assets have a very high proportion of the company's total assets - 76.77%. An important proportion of current assets is represented by Cash-pooling - receivables from affiliated parties. The company mentioned in the annual reports that in 2020, this category was included in the Cash and cash equivalents element, resulting in a 51.17% share of this element in 2020, transferring to the respective category in 2021.

Most of the Equity elements do not change during the studied period: Subscribed capital, Capital premiums, and Revaluation reserves. Legal reserves and other reserves recorded an increase of 3,397,329 RON. Overall, equity recorded an increase of 13.42% during the studied period.
Regarding the absolute change in long-term liabilities elements, most of them recorded decreases, indicating that the company manages its debts correctly.

The proportion of Long-term liabilities in Total liabilities and equity is 10.87%. The proportion of current liabilities in Total Liabilities is 89.13%. Total liabilities in Total liabilities and equity represent 15.13%. There was a slight increase of 1.58% in the liability side.

Net sales revenue increased by 22.57% during the 2020-2021 period, which is a favorable situation for the company. A significant increase in revenue is represented by the element Other operating income, which recorded a growth of 153.98%.

Marketing expenses decreased considerably in 2021 compared to 2020 by approximately 50%, indicating that ZENTIVA SA did not allocate a large budget for advertising.

As seen in the previous financial statements, provisions were carried forward in 2021, reflected in the profit and loss account, resulting in a 763.13% increase in the element Reversals from/provisions expenses.
Operating profit recorded an increase of 58.22% during the studied period. Gross profit in 2021 was 119,210,366 RON, registering a 48% increase compared to 2020.

In 2020, the net commercial profitability rate increased due to the revaluation of buildings and land in the amount of 21,227,460 RON, while in 2021, the net commercial profitability rate decreased due to the element Other elements of the global result in the amount of (337,035) RON.
Regarding Zentiva, following the analysis conducted, it is noteworthy that the rate of return on consumed resources increased in 2021 compared to 2020 by 4.06 percentage points, which is a positive consequence for the company.

Following the analysis conducted, it is observed that the economic profitability rate increased by 3.56% in 2021 compared to 2020, as a result of the significant influence of the increase in commercial profitability, in line with an acceleration of total asset turnover. The increase in the economic profitability rate in 2021 compared to the previous year practically reflects the high performance of the funds brought in the company's activity.

Financial profitability increased by 3.49 percentage points during the 2020-2021 period, which is a favorable economic and financial situation, a growth that was mainly due to a 48% increase in net profit and a 13.42% increase in equity. The company aims to continue its activity and expand in the pharmaceutical market.

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