FOREIGN DIRECT INVESTMENT IN ROMANIA

Foreign Investors Council

2023 EDITION

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Preamble

One of the main goals of the Foreign Investors Council (FIC), the association of large investors with foreign capital, is to encourage foreign direct investment (FDI) in Romania. The FIC analyses the macroeconomic context and proposes recommendations both to stimulate existing investment in Romania and to attract new investment. FIC members are ambassadors of Romania as an FDI destination and frequently organise discussions with the Government and Parliament in order to find the most appropriate long-term measures to develop Romania's economy and enhance its competitiveness.

In a joint project carried out with the Academy of Economic Studies (ASE) the FIC has been developing applied research analyses focused on the determinants and the effects of FDI in Romania and in the region. The current issue is the third edition of the FDI series[1]. It focuses on the links between FDI and competitiveness and FDI and sustainability. One important method to help determine sustainability is to analyse the share of renewable energy in energy consumption.

The main purpose of the report is to obtain some tentative answers to several questions about FDI, i.e.: How can Romania attract more FDI? What are the sectors and areas Romania should focus on in attracting FDI? How can fiscal policies have an impact on investment? What is the correlation between FDI and sustainability? Is Romania a relevant player in the region when it comes to FDI? As such, this analysis reveals some important directions and findings that could be the starting point for drafting a national strategy on attracting FDI.

1 This issue sums up the results of two research studies commissioned by the FIC and carried out in conjunction with the ASE. The first paper, Study on updating FDI data and investment trends in Romania by Alexandra Horobet and Oana-Cristina Popovici focuses on the link between FDI competitiveness and FDI sustainability, while the second paper, The impact of fiscal and budgetary measures on FDI inflow in the current macroeconomic environment in CEE and particularly in Romania by Dragos Huru, Radu Ciobanu and Raluca-Andreea Popa looks at the impact of fiscal and budgetary measures on FDI inflows. The papers are available on the FIC website: www.fic.ro

Main Findings

- In 2022, FDI inflows into Romania reached a historic high, totalling EUR 10.7 Bn. Romania was the second–highest recipient of FDI within the Central and Eastern European region, after Poland, while in the Southern and Eastern European region, Romania had the highest annual increase in FDI projects (86%) in 2022, as compared to 2021.

- Key factors behind the increase in FDI were the relocation of production activities to Romania due to the conflict in Ukraine, and the easing of restrictions imposed during the pandemic.

- FDI in Romania continues to be predominantly in medium high-tech manufacturing industries, while high-tech industries record the lowest levels. In services, FDI inflows are mostly orientated towards knowledge-intensive financial services.

- The distribution of FDI across sectors in Romania has plenty of room for improvement, especially when compared to the countries in the region. Romania should focus on attracting FDI that leads to increased added value across the entire economy, thus generating spillovers with an impact on both economic and social development.

- FDI contributes more to competitiveness in CEE countries compared to the EU as a whole. In the CEE region a 1% increase in the FDI to GDP ratio leads to a 1.7% increase in competititiveness, while for the EU as a whole, the rise is only 0.3%. This highlights the benefits of having a comprehensive strategy at country level for attracting FDI, including the appropriate policies, institutions, and absorption capacity.

- FDI seems to have a more significant role to play in promoting sustainability in CEE economies than in the EU as a whole. Thus, FDI can lead to investments in renewable energy projects, technology and the transfer of know-how that can boost the development and adoption of renewable energy in the medium and long term.

- Fiscal related variables play an important role in foreign investors' decisions to invest in one country or another. FDI net inflows are negatively influenced by a high cost of doing business, high rates of corporate income tax and low levels of business freedom, while they are positively impacted by a higher share of technology exports in manufacturing, since this adds value to the target investments for FDI.

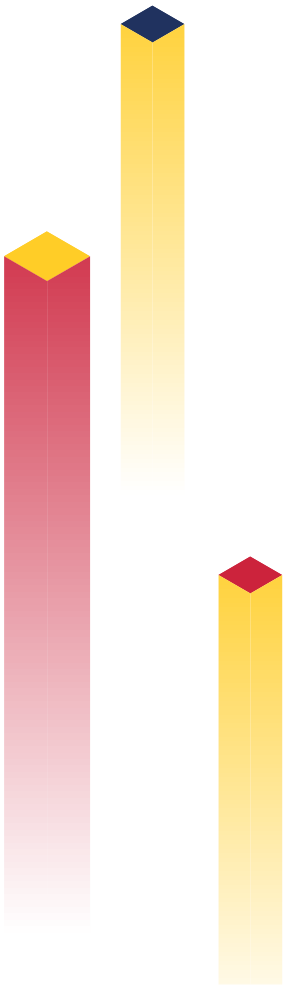
- Investors' perception of Romania has deteriorated significantly due to the package of fiscal measures adopted in October 2023, according to the Business Sentiment Index2 autumn edition 2023 carried out by the FIC. This supports the empirical research findings above and could have an impact on tax revenue. The tax contributions of all 115 FIC member companies were estimated at 84 billion lei, around 20% of the revenue collected by the state, in 2022.

2 https://fic.ro/business-sentiment-index/

Introduction

This FDI report continues the tradition of the previous editions by looking at the most recent information on the evolution of FDI in Romania. However, given the ongoing structural changes in the economy, the analysis has been extended further in several directions.

First, it investigates the link between FDI and economic competitiveness, by taking into account a series of variables that influence the latter. Secondly, it examines the relationship between FDI and sustainability. The analysis is carried out for two groups of countries, one that includes all EU member states (27) and another that covers only the 11 CEE countries (Romania, Bulgaria, Hungary, the Czech Republic, Poland, Croatia, Slovakia, Slovenia, Estonia, Latvia, and Lithuania). This approach offers valuable insights into the particularities of the investigated countries. Finally, the last part of the analysis assesses the influence of fiscal policy on the destination of FDI. This is carried out by employing a panel dataset from 2009 to 2022, covering six European countries: Bulgaria, the Czech Republic, Hungary, Poland, Romania, and Slovakia.



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FDI data and investment trends in Romania

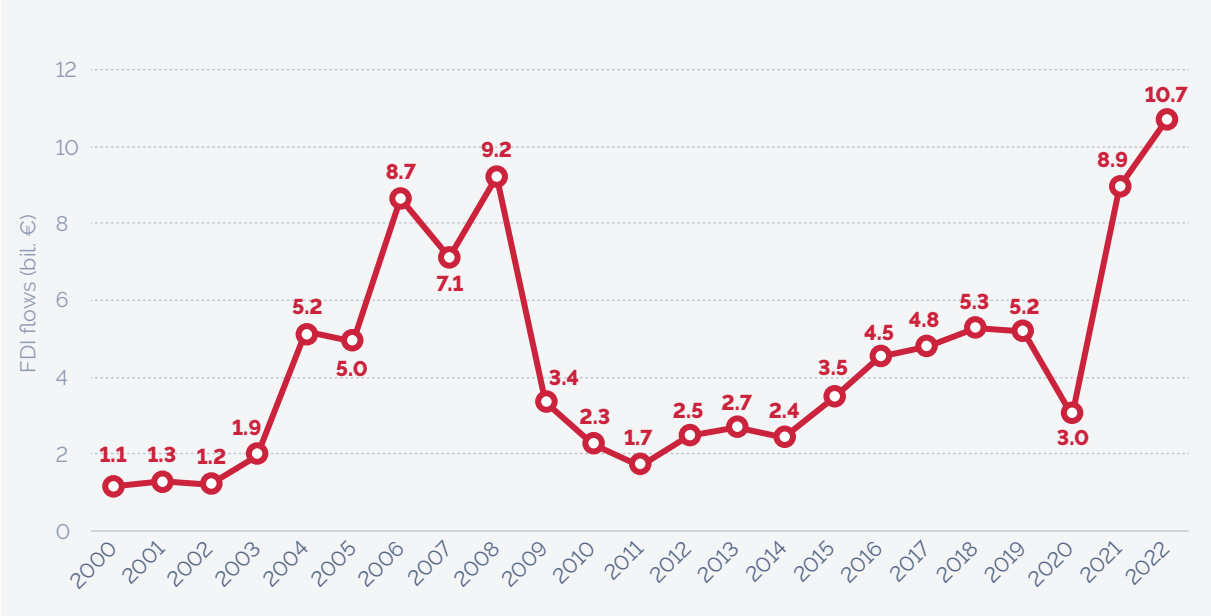
I. 1.

Romania's performance in attracting FDI. A look at FDI inflows and stocks

In 2022, FDI inflows into Romania reached a historic high, totalling EUR 10.7 Bn. Within the Southern and Eastern European region, Romania was the country with the highest annual increase in FDI projects (86%), followed by Portugal (24%) and Poland (23%)[3] as compared to 2021.

FIGURE 1

Evolution of FDI flows into Romania



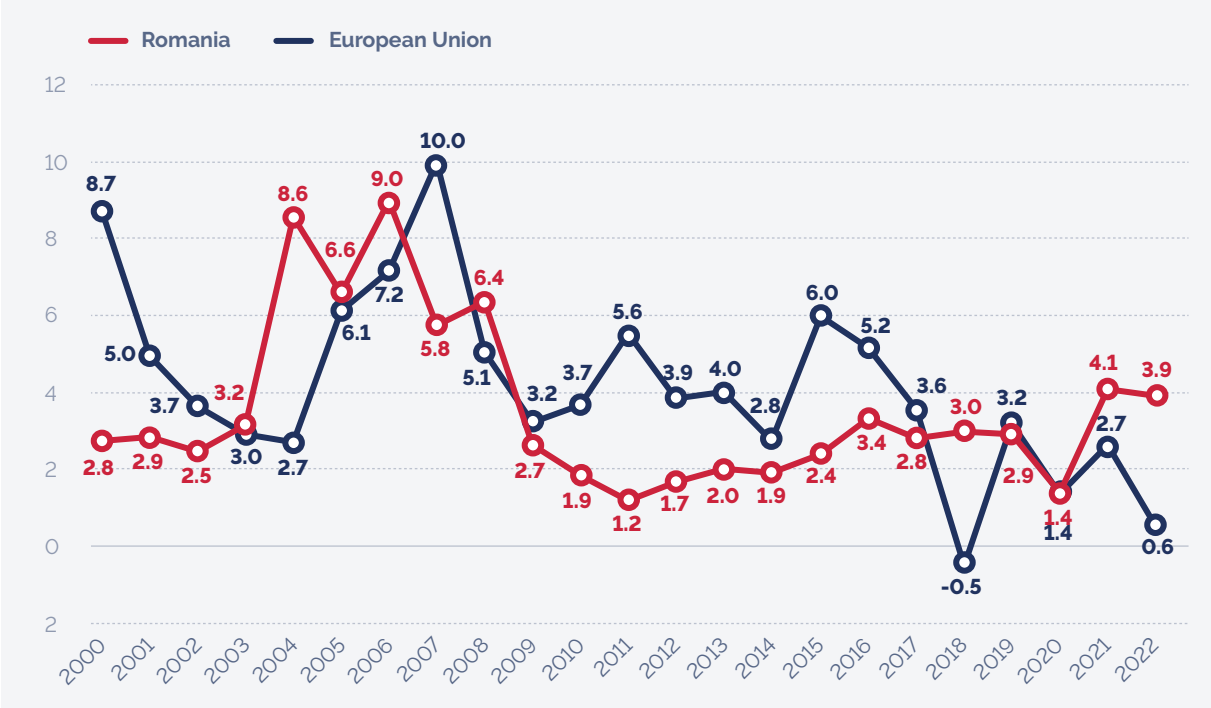
Source: World Bank

However, expressed as a percentage of GDP, Romania's 2022 FDI was below the peak reached in 2008.

3 EY 2023.

FIGURE 2

FDI Net Inflows (% of GDP), Romania and the European Union 2000-2022



Source: International Monetary Fund, International Financial Statistics and Balance of Payments databases, World Bank, International Debt Statistics, and World Bank and OECD GDP estimates

There are several reasons for this evolution:

- Due to the pandemic, in 2021, the tendency was to shorten the value chain and to develop operations that were closer to the home country. This led either to the unlocking of investment projects that had been suspended at the beginning of 2020 or to the initiation of new projects4.
- Following the outbreak of the conflict in Ukraine some production activities were relocated to Romania. In addition, the easing of the restrictions imposed during the pandemic5 favoured the expansion of FDI, as well as the continuation of supply chain reconfiguration (EY, 2023).

Romania ranked fifth in terms of FDI inflows among the EU-23[6] countries, surpassing Germany, which recorded 10.5 billion euros in FDI. Within the Central and Eastern European[7] (CEE) region, Romania was the second-highest recipient of FDI, trailing only behind Poland, where FDI inflows were 2.6 times greater than Romania's.

Larger countries usually have poorer FDI scores due to their size. For instance, Romania registers a loss of competitiveness when compared to other countries in the region. Both the Czech Republic and Hungary, which have a lower level of GDP than Romania, managed to attract a higher level of FDI. The same applies when looking at FDI inflows and population (Figure 3).

4 NBR (2022), Foreign Direct Investments in Romania in 2021

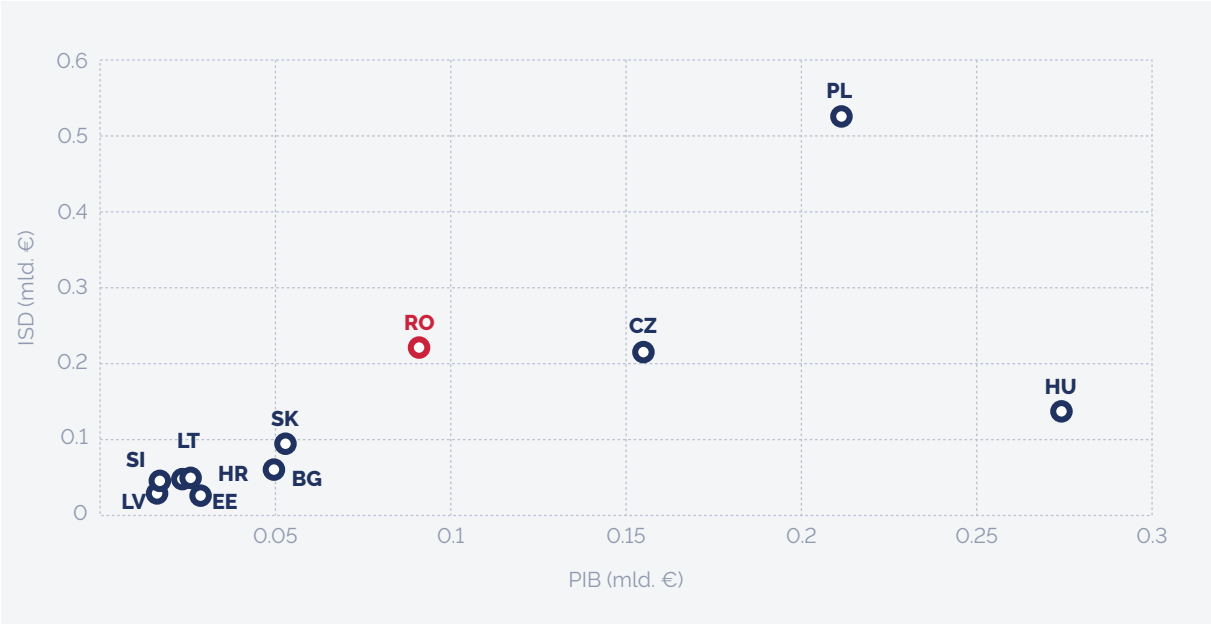
5 NBR (2023), Foreign Direct Investments in Romania in 2022

6 We have excluded Cyprus, Luxembourg, Malta, and Ireland from this analysis, due to specific factors that prevent a proper FDI analysis.

7 We include here the countries with a similar history and economic evolution to Romania, which joined the EU at around the same time, and which are located in the region (Bulgaria, the Czech Republic, Estonia, Croatia, Latvia, Lithuania, Hungary, Poland, Slovenia and Slovakia).

FIGURE 3

FDI inflows versus GDP (above) and population (below) in CEE countries



Source: Eurostat

The largest share of FDI in Romania during the period 1993-2020 was formed by equity capital, meaning capital from abroad invested in the local economy through greenfield or brownfield investments. Intra-company loans, i.e. loans from a parent company to subsidiaries in Romania, came in second place, followed by reinvested earnings. This has been the usual format for FDI in the region. The latest National Bank of Romania (NBR) report[8] highlights that **reinvested earnings** were the main component of FDI inflows into Romania during the period 2019-2022, followed by intra-company loans and finally, equity capital, which saw a drop starting from 2019, after being historically the most important component of FDI inflow.

8 NBR (2023), Foreign Direct Investments in 2022

I.2.
Attracting FDI that Spurs Economic Growth

This section updates information from the previous edition on FDI distribution by technology intensity across two economic sectors: industry and services.

I.2.1
FDI distribution by technology intensity in industry

The terminology relating to the classification by technology intensity is presented in Box 1 below, while the latest data on FDI distribution is in Graph 4:

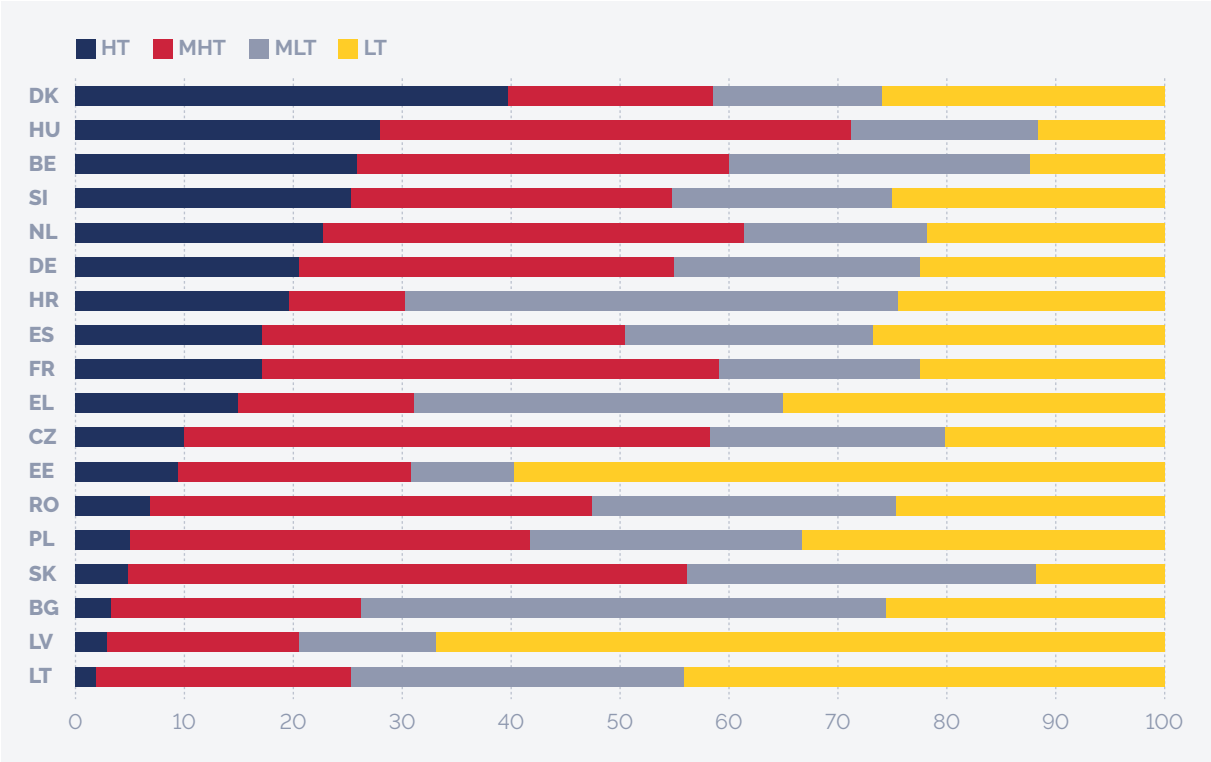
BOX 1

Classification of manufacturing and services by technology and knowledge intensity

Classification of manufacturing by technology intensity	Classification of services by knowledge intensity
HT – High-tech industries	KIMS – Knowledge-intensive market services
MHT – Medium high-tech industries	HTKIS – High-tech knowledge-intensive services
MLT – Medium low-tech industries	KIFS – Knowledge-intensive financial services
LT – Low-tech industries	LKIS – Less knowledge-intensive services
	OKIS – Other knowledge-intensive services

FIGURE 4

FDI distribution by technology intensity in industry in 2020, as a % of total FDI stocks in Manufacturing



Several conclusions can be drawn from the graph above:

- Romania recorded the 6th lowest amount of FDI in high-tech (HT) sectors in the EU-189 (7.1% of FDI in manufacturing, as compared to almost 40% in Denmark) and the 6th lowest in the CEE region, while Hungary recorded the lowest overall, with 28.1%. Eight out of the 11 CEE countries took the lowest places in the EU 18 for FDI in high tech sectors.
- Romania recorded the 5th largest amount of FDI in medium high-tech (MHT) sectors (40.4%) in the EU-18 and the 4th largest in the CEE region, while in Slovakia, more than half of FDI stocks are in these sectors (51,2%).
- Romania recorded the 13th lowest amount of FDI in medium low-tech (MLT) sectors (27,9%) in the EU-18 and the 7th lowest of the CEE countries, while Estonia recorded the lowest amount overall. (9.4%). The highest amount was recorded by Bulgaria (48.1%).
- Romania recorded the 9th lowest amount of FDI in low-tech (LT) sectors (24.7%) in the EU-18, while Hungary recorded the lowest overall, with only 11.6% of FDI stocks, and Latvia recorded the highest (66,8% of FDI stocks in LT sectors).

9 EU-18 countries: Denmark, Hungary, Belgium, Slovenia, the Netherlands, Germany, Croatia, Spain, France, Greece, the Czech Republic, Estonia, Romania, Poland, Slovakia, Bulgaria, Latvia, Lithuania

I.2.1

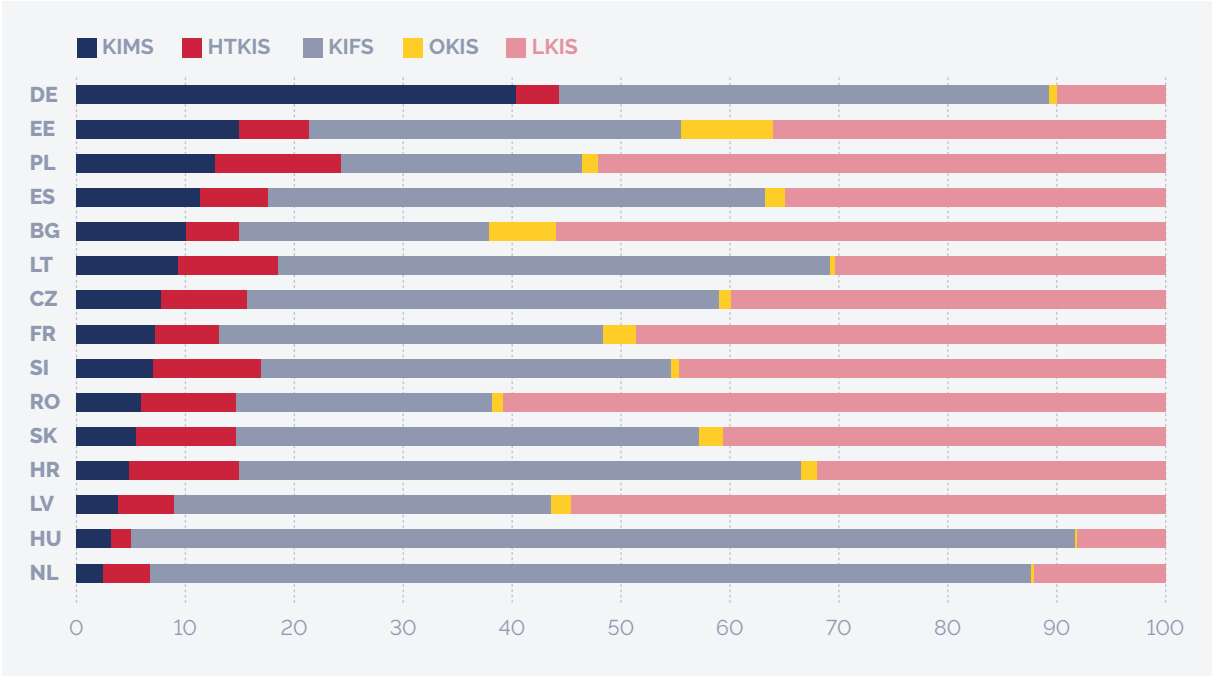
FDI distribution by technology intensity in services

When looking at FDI distribution by knowledge intensity in services in 2020 (Figure 5), Romania has:

- The 6th lowest amount of FDI in knowledge-intensive market services (KIMS) (6% of total FDI in services) in the EU-15[10], as compared to 40.3% in Germany, and the 5th lowest among the CEE countries.
- The 6th highest amount of FDI in high-tech knowledge-intensive services (HTKIS) sectors (8.6%) in the EU-15 and among the CEE countries. Poland is the leader with 11.5%.
- The 3rd lowest level of FDI in knowledge-intensive financial services (KIFS) (23,5%) and the same place among the CEE countries.
- First place for FDI in less knowledge-intensive services (LKIS) (60.8%), while Hungary took last place in this category, obtaining 8.1% of its FDI from LKIS.
- Other knowledge-intensive services (OKIS) amount to only 1% of total FDI in services.

FIGURE 5

FDI distribution by knowledge intensity in services in 2020, as a % of total FDI stocks in services

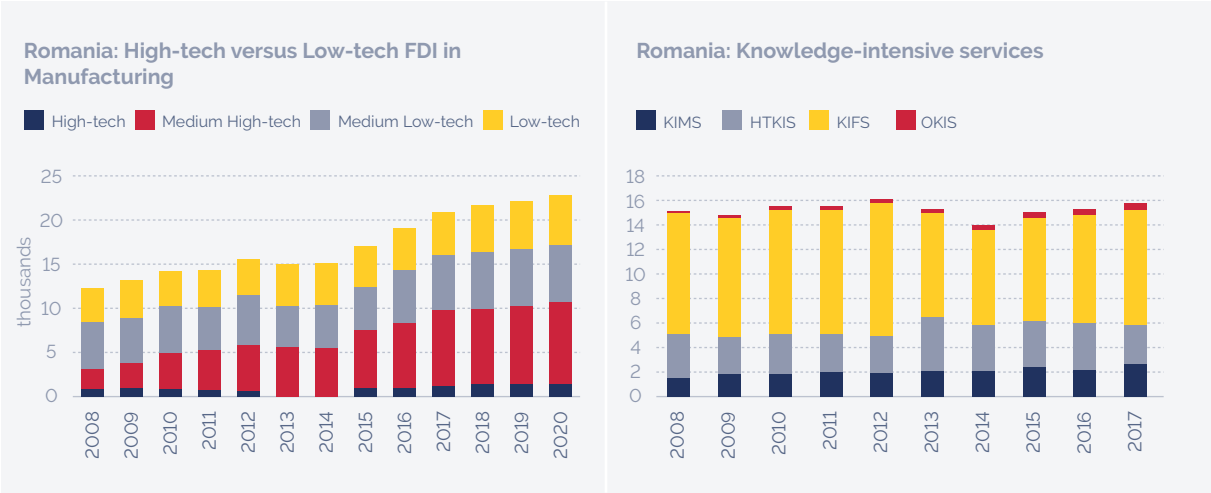


A closer look at FDI destinations by sector of activity shows that FDI in Romania has mostly been composed of inflows in medium high-tech manufacturing industries, the lowest contribution being in high-tech industries. The evolution in the past 12 years points to an increase in the share of FDI in MHT sectors, with a steady evolution for investment in MLT and LT (Figure 6). In services, FDI inflows are mostly orientated towards knowledge-intensive financial services. The evolution remained stable in the period 2014-2017, which is the latest for which data are available.

10 EU-15 countries: Germany, Estonia, Poland, Spain, Bulgaria, Lithuania, the Czech Republic, France, Slovenia, Romania, Slovakia, Croatia, Latvia, Hungary, the Netherlands

FIGURE 6

Evolution of inward FDI in high-tech manufacturing and knowledge-intensive services in Romania



FDI has a positive impact on the economy. However, Romania should focus on attracting FDI which leads to increased added value for the entire economy. As a consequence, policymakers should think strategically about which sectors they would like to develop in order to maximise the transfer of knowledge and know-how from abroad. As we stated in the previous edition of the FIC Study on FDI, *without measures to support such FDI, Romania (is) at risk of becoming specialized in industries with low added value and low technological intensity. Measures aimed at attracting FDI in sectors with higher added value are important for generating spillovers with the highest impact on both economic and social development*. This should be a strategic direction, as the distribution of FDI across Romania's sectors could become more favourable towards enhancing more economic growth.

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Analysing the relationship between FDI competitiveness and FDI sustainability

In real life, FDI can be influenced by a number of factors. This section attempts to identify which variables could have an impact on FDI and to what extent. To achieve this, two quantitative research exercises have been carried out[11], with the goal of identifying the relationship between Foreign Direct Investment (FDI), on the one hand, and competitiveness and sustainability, on the other.

11 For a more detailed description of the results and their economic interpretation see Appendix 1 and the original research papers.

I.1
Competitiveness and FDI

Competitiveness has been determined by reference to the World Competitiveness Index, taken from IMD Business School. This was created in 1989 and now provides thorough coverage of 63 economies. The index's conceptual approach is based on a broader understanding of competitiveness relying on four pillars, i.e. economic performance, government efficiency, business efficiency, and infrastructure. As such, it offers a good framework for measuring a country's competitiveness. The variables chosen as drivers of competitiveness were: Foreign Direct Investment, expressed as a percentage of GDP, the government budget balance, the inflation rate, the trade balance, and the quality of the regulatory environment.

The analysis was conducted for two groups of countries. The first group included all EU member states (27), while the second group covered only the 11 CEE countries (Romania, Bulgaria, Hungary, the Czech Republic, Poland, Croatia, Slovakia, Slovenia, Estonia, Latvia, and Lithuania). This approach offered valuable insights into the particularities of the investigated relationships considering the following:

- Historical and geopolitical context: The history and geopolitical factors in CEE are distinct from Western Europe, and the Ukraine-Russia conflict has markedly revealed this reality. Therefore, analysing a panel of CEE countries can help policymakers understand the unique challenges and opportunities of the region, and frame appropriate measures to support economic advancement.
- Diversity in economic development: EU countries show a wide range of economic development levels, as demonstrated by their total GDP, GDP per capita, or their Human Development Indexes, which reflect the impact of trade, investment, sustainability strategies and public policies. However, consideration of a range of CEE economies can allow for a more focused analysis on how these countries have approached their economic paths from centrally planned economies to market-based systems.
- Policy implications: Comparing all EU member states with CEE countries can shed light on the relationship between specific policies, such as fiscal policy, monetary policy, structural reforms, or trade agreements, and FDI, with implications for the development of investment-related strategies that boost economic growth and competitiveness.

The estimated results show that FDI contributes significantly and positively to competitiveness, but the economic environment and public policies are critical to this contribution. This is confirmed for both country groups, the EU and CEE. The results show that a government budget surplus and a favourable regulatory environment greatly enhance competitiveness, but an inflationary environment works as a brake on competitiveness. The inclusion of the trade balance in an analysis of FDI emphasises FDI's importance, and consolidates the idea that when Foreign Direct Investment and trade are highly intertwined, public policies targeting FDI should also address competitiveness in international trade.

Contrasting the results for the EU group against the CEE group, several relevant conclusions emerge:

i. **FDI makes a more important contribution to competitiveness in CEE countries compared to the entire EU.** For CEE economies, a 1% increase in the FDI to GDP ratio leads to a 1.7% increase in competititiveness. At EU level the same 1% increase in FDI generates only a 0.3% increase in competitiveness.

   This is explained by the transformative impact that FDI has on CEE host countries through:

   - Injecting capital into the economy that can be used to finance new projects, expand existing businesses and support investments in infrastructure;
   - job creation, either directly in the foreign-owned enterprises but also indirectly throughout the supply chain of the foreign-owned enterprises, which contributes to reduced unemployment and poverty alleviation;
   - increased tax revenues generated by both foreign-owned enterprises and locally-owned enterprises that have expanded their business as a result of cooperating with foreign investors, which can be reinvested in infrastructure, public services, or social programs;
   - technology transfer and innovation, including managerial expertise and best practices, which help local companies become more innovative and competitive in international markets;
   - acting as a catalyst to increase host countries' exposure to international markets through promotion of exports and participation in international trade agreements and global value chains;
   - contributing to the building of infrastructure (roads, ports, bridges, telecommunications);
   - development and training of the workforce, which improves the skills of local employees, thus leading to increased productivity and business competitiveness;
   - diversification of countries' economic structure, which leads to a reduction in over-reliance on a single sector or major industry;
   - improved access for locally-owned enterprises to financing and investment opportunities;
   - spillover effects that benefit not only the FDI-receiving sector or industry but also the broader economy.

However, it is essential to note, as results show, that this impact of FDI is not always uniform and depends on various factors, including the host country's policies, institutions, and absorption capacity.

ii. **A good standard of regulation supports competitiveness, but the effect is more pronounced at EU level than at CEE level.** This may be connected to the relevance of the EU regulatory framework and the economic, social, and political links among countries driven by their EU membership towards increased competitiveness. It may also suggest that EU membership is an effective incentive for a country's competitiveness. Most CEE countries increased their competitiveness after entering the EU, as shown by the statistics on increases in competitiveness. Slovenia leads in the ranking with a 202.9% increase in competitiveness between 2004 and 2022, followed by Croatia (84.5%) and Romania (83.5%) – both in a shorter period only after 2007 and 2013, respectively. At the other end of the scale, Poland and Slovakia show decreases in competitiveness after 2004 (-98.1% and -50.3%). The remaining countries all improved their competitiveness after becoming EU members, with increases ranging from 47.6% (Hungary, after 2004) and 83.3% (Lithuania).

iii. **Efficient management of public resources is a strong supporter of competitiveness, with an important edge for CEE countries:** a 1% increase in government budget surplus is reflected in a ten times higher impact on competitiveness in CEE economies compared to other

EU member states. At the same time, these results highlight the relevance of effective management of public funds for foreign investors, as it creates a conducive environment for investment and reduces risks[12]. This is particularly relevant in less developed economies where corruption, illegal practices, and the underground economy have more chances of having a negative impact on the management of public funds.

For CEE countries, with very few exceptions, the "rule" is to observe government deficits after the year 2000, while the frequency of government budget surpluses across countries and years is higher for the older EU member states. This emphasises the need for CEE countries, Romania included, to increase the efficiency of their management of public funds through strengthened fiscal transparency and accountability mechanisms, reduced tax evasion and enhanced collection mechanisms, improved prioritizing of public funds towards essential projects (such as infrastructure) that promote economic growth and attract foreign investors and reforms to improve the efficiency of government agencies[13].

iv. **High inflation rates and a general (hyper)inflationary environment negatively impact competitiveness for all EU countries.** CEE countries' competitiveness seems to be less affected by inflation than that of older EU member states. The inflationary environment that emerged in Europe (and in many other parts of the world) after the Covid-19 pandemic causes concern because of its potential negative effects on economic growth, competitiveness and investment. Moreover, measures that tackle inflation adopted outside the EU, such as the Inflation Reduction Act (IRA) in the United States, passed in August 2022[14], need to be monitored and their effects carefully anticipated. The time which has passed since the adoption of this legislation is too short to permit a consistent analysis of its impact on EU countries, but potential impacts could be reduced direct investments in the EU due to their orientation towards the US.

II.2
Sustainability and FDI

Foreign companies seem to be increasingly focused on ensuring sustainable development of their activities. The pandemic also accelerated companies' focus on achieving net-zero emissions, and therefore host locations rich in renewable energy sources make them more attractive for FDI. The EU's Green Deal supports policies that enhance the delivery of net-zero emissions and ensure the promotion of innovation in pro-ecological technologies and energy efficiency in EU countries. FDI has a high impact in providing the needed technologies and capital for ensuring the production of cleaner energy. Statistical data for Romania and neighbouring countries show that improvements in the quality of the environment and FDI inflows had a similar trend in the last 20 years. Whether we look at the quality of the environment in terms of CO2 emissions in relation to GDP or as renewable energy consumption, we obtain similar conclusions.

The variable chosen to assess sustainability in our research exercise was the share of renewable energy in energy consumption. This reflects the action of all DPSIR (Driving forces, Pressure, State, Impact, Response) pillars of the European Environmental Agency's framework of environmental analysis, making it a robust choice for our purposes.

12 (Djankov et al., 2002; Djankov, 2009; Acemoglu and Johnson, 2005)

13 Gordon and Li, 2009; Bergman et al., 2016; Gliniecka, 2019

14 The Inflation Reduction Act of 2022 (IRA) is a major federal law in the United States that attempts to reduce inflation by reducing the federal government's budget deficit, cutting prescription medicine prices, and investing in domestic energy production while encouraging sustainable energy.

As before, the research investigation was carried out independently for the two country groups, the EU and CEE (see Appendix 1). The results show that FDI has a positive impact on sustainability (assessed in terms of the share of renewable energy in total energy consumption), with a stronger effect observed across CEE countries.

A 1% increase in the share of FDI in GDP leads to a 0.8-1.8% increase in sustainability. Moreover, this impact is consistent across all model variants[15]. For the EU countries as a whole, the link between FDI and renewable energy is also positive, but not so significant. These results may indicate that FDI has a more consistent role to play in promoting sustainability in CEE economies, where locally-owned businesses benefit from fewer resources and funds to allocate to investments in this area.

Thus, FDI can lead to investments in renewable energy projects (wind, solar and hydroelectric parks and plants), technology and know-how transfer that can boost the development and adoption of renewable energy, as well as increased R&D and innovative activities in the field of renewable energy technologies. Furthermore, FDI may contribute to the expansion of the market for renewable energy products and services, making them more accessible and affordable for local consumers.

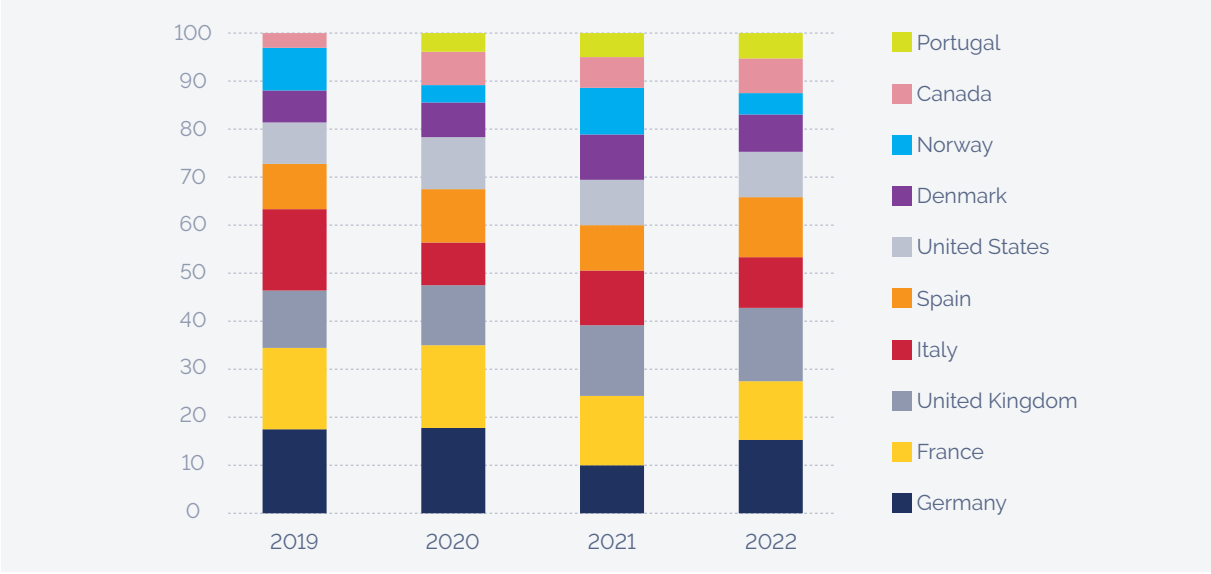
Past effects of sustainability indicate that once consumers use renewable energy, they will continue to use it in the future and they also serve as examples to other potential interested consumers.

Regulatory quality – which measures perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development - has the strongest impact on sustainability, and this is even more accentuated for the CEE countries group. A positive effect of regulation on renewable energy consumption is largely to be expected, as the EU is the leading organisation at global level in terms of regulation-driven sustainability and this has led to a wider adoption of renewable energy sources in EU countries.

At the same time, many EU companies heve seen the business opportunities created by the focus on sustainability and have been, collectively, the most important source of FDI in greenfield renewable energy projects worldwide since 2019 – see Figure 7, below. In terms of destinations for FDI in renewable energy, EU countries also fare very well, Spain, Poland, Italy and Germany are in the top 10 global destinations for greenfield FDI projects in renewables.

FIGURE 7

Greenfield FDI projects in renewables by source countries, 2019–2022[16]



15 I.e. Including selectively a variable, one by one, for testing its independent effect on sustainability

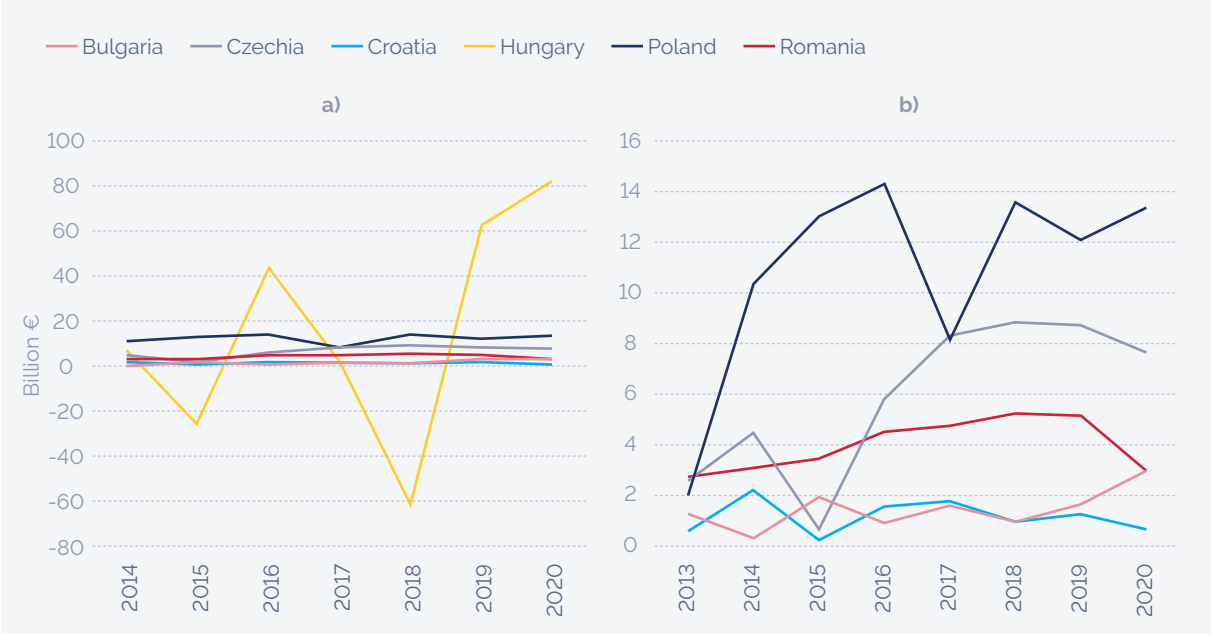
16 Source: Caon (2023)

Low inflation and a healthy trade balance also have a positive influence on the development of renewable energy, both for the EU and CEE country groups, but they seem to be less essential in driving sustainability.

II. 3
FDI distribution per country of origin

The evolution of FDI inflows in the six analysed CEE countries (Figure 8) during 2013-202017 was quite volatile, both on a yearly basis, as well as from country to country. Hungary had the most uneven evolution, with massive peaks of FDI inflows, followed by high volumes of FDI outflows in the following years (Figure 8 a). If we eliminate Hungary from the visual presentation, we have a clearer overview on FDI inflows in the remaining countries. Poland is by far the main recipient of FDI, followed, at a significant distance, by the Czech Republic. While Croatia and Bulgaria had almost similar levels of FDI inflows until 2019, Romania's drop in FDI inflows in 2020 brings it closer to Bulgaria, whose inflows increased despite the pandemic.

FIGURE 8
Evolution of FDI inflows in CEE countries



Data source: Eurostat

The majority of FDI inflows in these countries originate in the EU18; the lack of data for other continents meant that we were unable to provide a more detailed picture of the source of origin of FDI flows. Nevertheless, even flows from the United States (US) recorded low values (the Czech Republic received a total of 210 million euros in FDI in the period 2013-2020 from the US, the highest volume among the analysed countries).

The situation was different in Hungary, which received large FDI inflows from the US, followed by

17 We have chosen this period due to data availability.

18 Conclusion based on calculations using available data on Eurostat.

massive divestments, and therefore the total value of FDI flows for the 8 years was negative. However, Hungary received the largest amount of FDI from Canada among the analysed countries (19.3 billion euros), unmatched by any of the other countries. By contrast, the Czech Republic received the lowest amount of FDI from Canada; barely 96.2 million euros during the same period. Hungary was also the receiver of the highest amount of FDI flows from China (380 million euros) during 2013-2020, followed by Poland (339.4 million euros), the Czech Republic (246.4 million euros) and Romania (148,3 million euros).

To avoid the volatility in annual data for FDI inflows in the six CEE countries, the average FDI inflows for the period 2013-2020 are used. First, the total value of FDI inflows in all sectors was calculated in manufacturing and in services for the six CEE countries. Then, the FDI share each EU-28 country was responsible for was calculated.

FIGURE 9

Distribution of total FDI inflows per main origin country (% of total inflows)

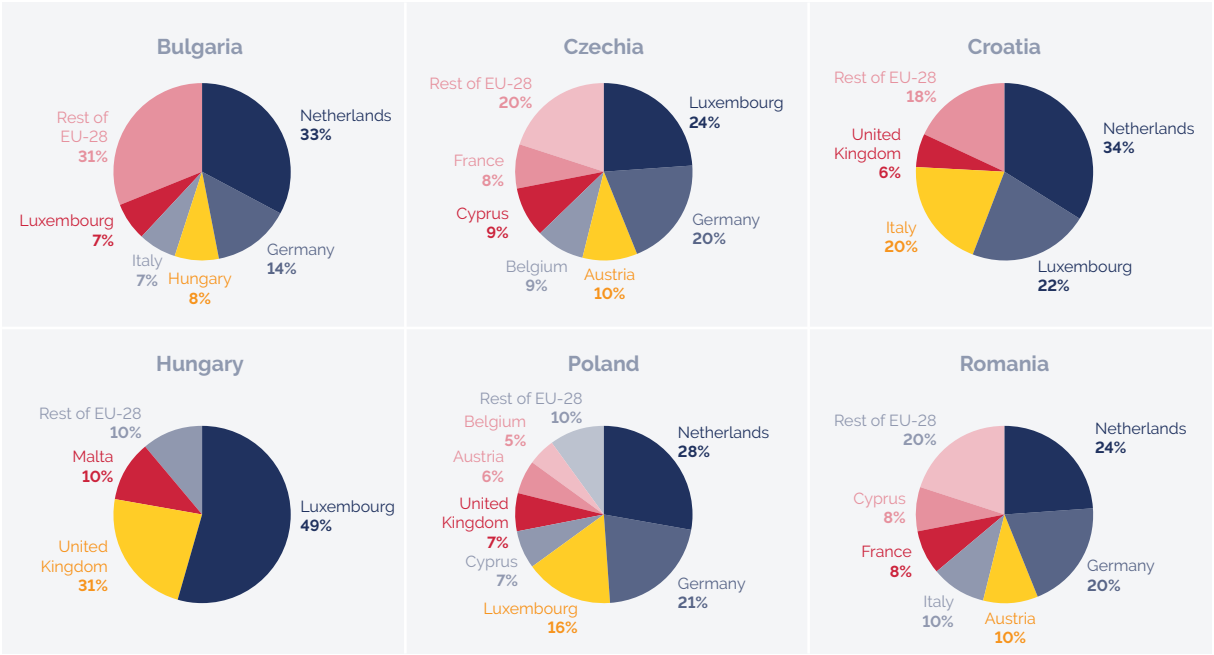
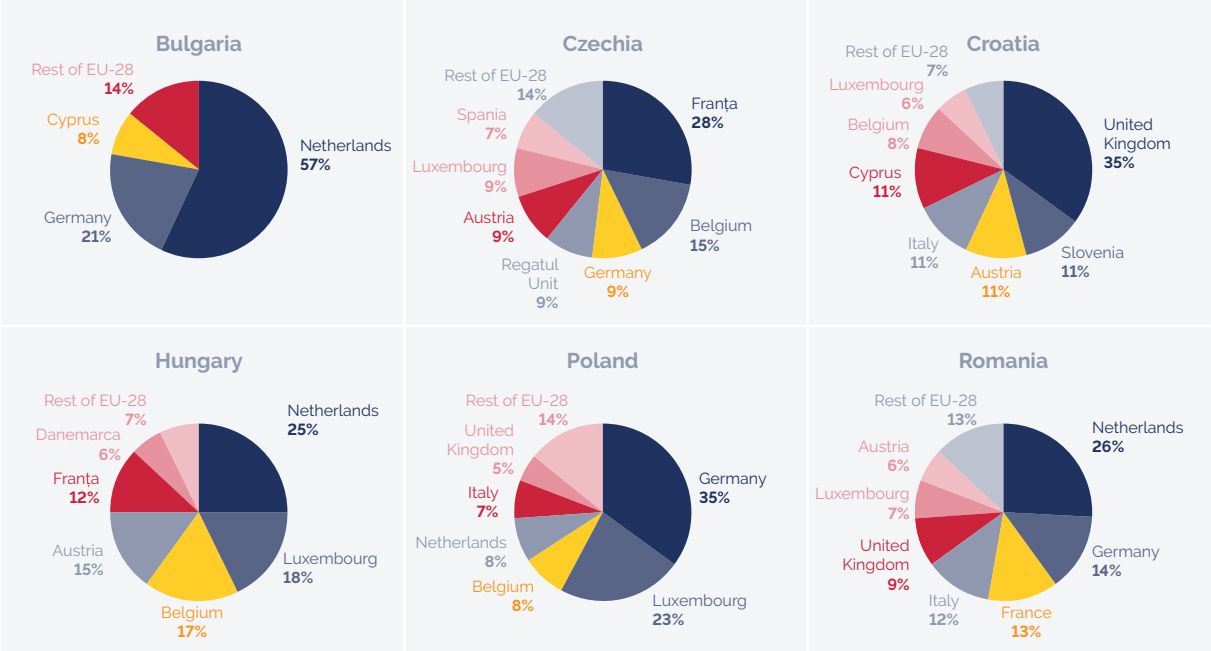


Figure 9 shows the major providers of total FDI flows in CEE countries, highlighting those that provided more than 5% of total FDI inflows. The Netherlands was the main FDI inflows provider for four of the analysed countries (Bulgaria, Croatia, Poland, and Romania), with shares of total FDI inflows ranging from 34.3% (Croatia) to 23.4% (Romania). Luxembourg was the main source of total FDI for Hungary – most likely via various investment funds – (almost half of total FDI inflows in the investigated period – 48.6%) and for the Czech Republic (24%). Germany was the second most important source of FDI for Bulgaria, the Czech Republic, Poland, and Romania. Other countries that frequently appeared at the top are Austria, Italy, France, Belgium, and Cyprus. Hungary was strongly dependent on its three largest FDI providers, only 9.8% of FDI coming from the rest of the EU.

For the manufacturing sector, the top origin countries for which FDI inflows in total were higher than 5% is more diversified (Figure 10). The Netherlands remains the main investor in the manufacturing sector in Bulgaria (56.6% of total FDI inflows in manufacturing), Romania (26.2%) and Hungary (25.4%), while France is the main investor in the Czech Republic (27.7%), Germany in Poland (35.5%) and the United Kingdom in Croatia (35%).

FIGURE 10

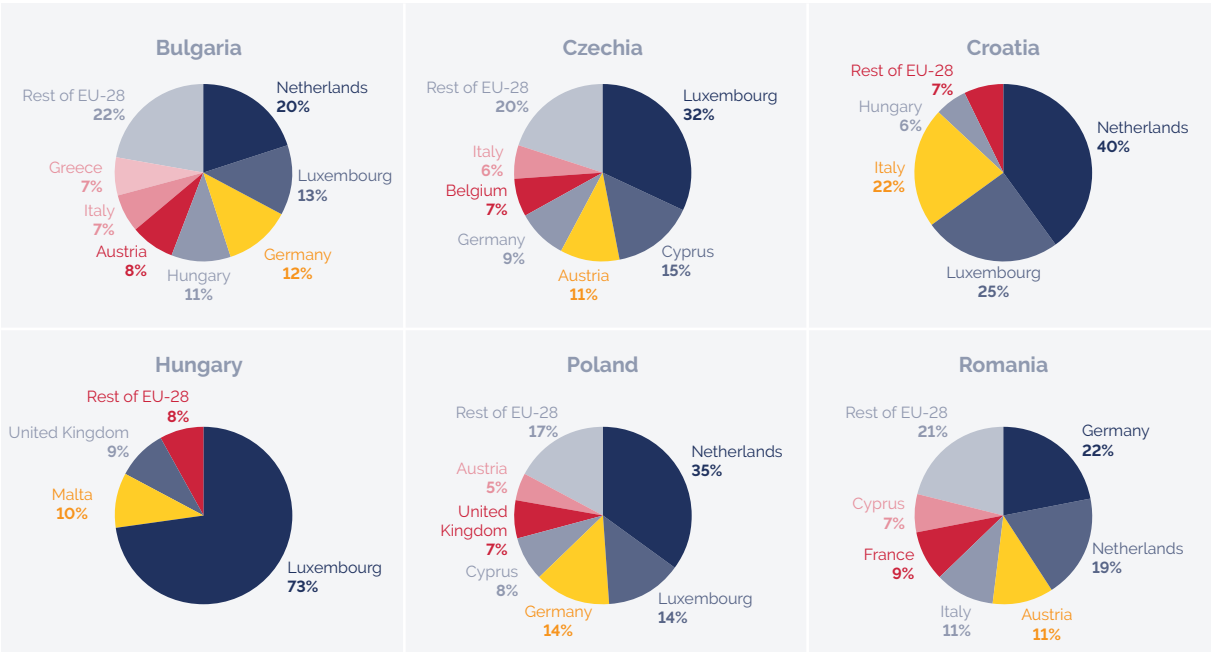
Distribution of FDI inflows in manufacturing per main origin country (% of total inflows)



Generally, the same countries remain at the top when looking at the distribution of FDI inflows in services (Figure 11). The Netherlands continues to be the main FDI inflow provider as a share of total FDI in services in Croatia (39.9%), Poland (34.4%) and Bulgaria (19.8%), Luxembourg provides the largest share of FDI in services in Hungary (72.7%) and the Czech Republic (32%), while Germany is the top provider of FDI in services in Romania (21.8%). Depending on the characteristics of each country, there are some particularities: for example, Greece is the top FDI investor in services in Bulgaria, while France appears with significant investments (over 5% of the total in that sector) only in Romania.

FIGURE 11

Distribution of FDI inflows in services per main origin country (% of total inflows)



///.

The Impact of Fiscal Budgetary Policy on FDI in Central and Eastern Europe

The objective of this section is to investigate and assess the influence of fiscal policy on the destination of FDI. This is carried out by using a panel dataset using annual data for the 2009-2022 period, covering six European countries: Bulgaria, the Czech Republic, Hungary, Poland, Romania, and Slovakia. This research primarily focused on empirical, context-based analysis, shedding light on the overall empirical connection between FDI and fiscal policy, while also providing speculative insights into the underlying reasons for this relationship.

To examine the influence of budgetary and fiscal policies on FDI net inflows, the data mentioned above have been used, along with additional variables associated with taxation and the business environment. In order to analyse the influence of budgetary and fiscal policies on FDI, the panel regression model has been used.

The results of the model, shown in Appendix 2, show that FDI net inflows are negatively influenced by the cost of doing business, Corporate Income Tax (CIT), and business freedom, while they are positively influenced by a higher share of technology exports in manufacturing, since this adds value to the target investments for FDI. Usually, foreign investors are looking for a business environment that is tax friendly in terms of direct tax or the total taxes paid by a business (measured here as the cost of doing business). CIT is the only fiscal policy tax rate that was found to be significant in terms of a decision to invest in a CEE economy, meaning that corporations are looking directly at taxes on profits and less at dividend taxes (as they mainly decide to reinvest their profits) or at taxes on labour (as these taxes are mainly paid by their employees).

In CEE countries there are many FDI business based on production industries, so, in this respect, the CIT is actually paid in these countries. In this respect, the level of direct taxes on income is important. Moreover, the total cost of doing business is relevant, because, besides direct taxes, there are other taxes such as those on property, environment taxes, etc. An important point to mention is that lack of business freedom has a negative influence on FDI decisions.

High quality technology has a positive influence on FDI decisions. Corporations are looking to invest in countries with advanced technology, where they can develop these kinds of products and services and export them to different states. This results in capital being injected into CEE economies both as initial investments and also as final high-tech product revenue.

Dividend taxes, taxes on capital, and personal income tax were shown not to be significant in this model.

FDI plays a particularly crucial role in the economies of CEE countries. These economies often lack sufficient reserves, and the infusion of technology and capital is essential to stimulate economic growth. The international flow of capital, given its scale and stability, holds significant importance in the transition to a market-based economy. In the period between 2009 and 2022, host countries experienced an upward trajectory in growth rates, which can be attributed, to a significant extent, to the inflow of Foreign Direct Investment. These investments contribute to the host economy's development by introducing new technologies and knowledge, as well as fostering employment growth, and opening up new markets.

IV.

Analysis of FDI Evolution in Romania and the Impact of Fiscal Changes on FDI

IV. 1.

FDI and Tax Revenue. Romania's case.

Several research studies have established that FDI has a notably positive influence on government tax revenue, particularly in developing countries. For instance, a World Bank study has demonstrated that a 1% rise in FDI inflows precipitates a 0.2% rise in government tax revenue in developing countries. Similarly, an International Monetary Fund (IMF) study revealed that a 1% increase in FDI inflows corresponded to a 0.3% increase in government tax revenue in developing countries.

FDI contributes to the augmentation of government tax revenue through various avenues both directly, via Corporate Income Tax, personal income taxes, social security contributions, and various other taxes paid by the workforce employed within foreign-invested enterprises, and indirectly, by stimulating economic growth and creating employment opportunities.

Corporate income tax (CIT)

Foreign-owned enterprises typically pay more CIT compared to domestic firms, a phenomenon attributed to several factors. Firstly, these foreign-owned firms are more predisposed to engaging in high-value-added activities, leading to higher profits. Secondly, foreign-owned firms tend to be orientated towards exports, which are generally more lucrative than domestic sales.

The prevailing CIT rate in Romania is 16% and applies universally to Romanian companies, foreign firms operating in Romania through a permanent establishment (PE), and foreign corporations regarded as tax residents in Romania by virtue of the location of their effective management. Resident companies are subject to tax on their global income, except in cases where a double tax treaty (DTT) specifies an alternative arrangement.

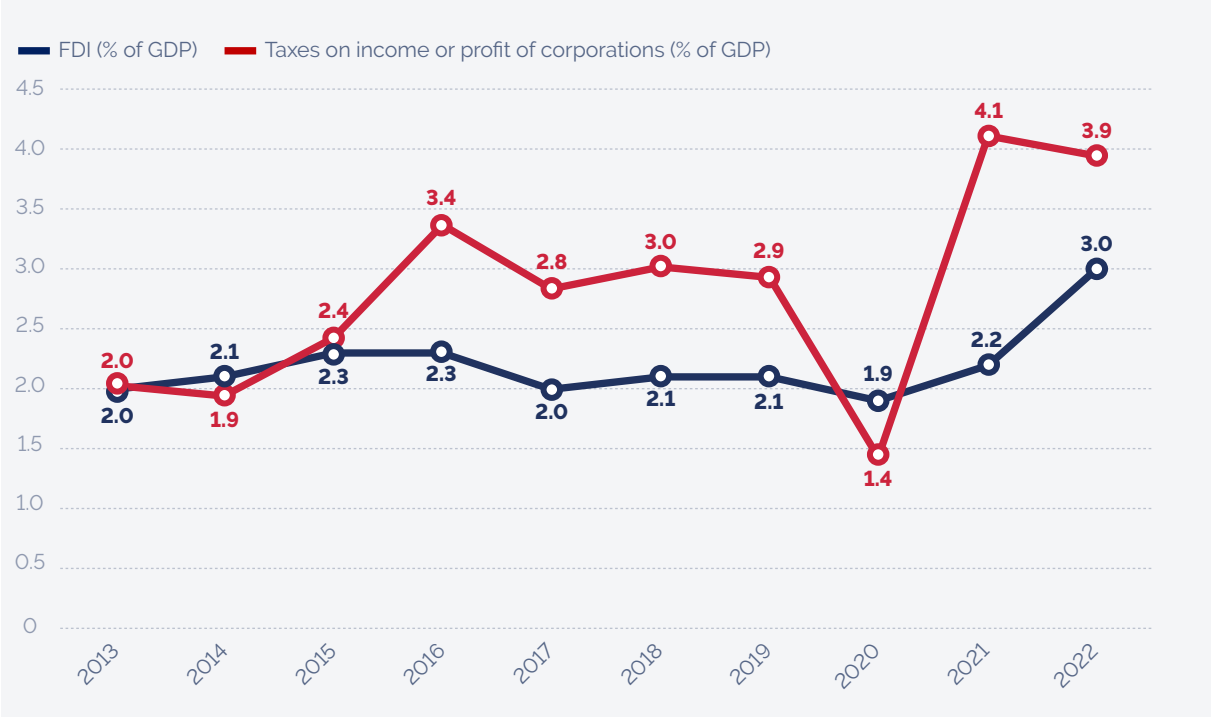
The proportion of FDI as a share of Gross Domestic Product (GDP) has seen a consistent rise, progressing from 2.0% in 2013 to 3.9% in 2022, reflecting a Compound Annual Growth Rate (CAGR) of 6.9%. Correspondingly, revenue from Corporate Income Tax as a percentage of GDP has also displayed a steady growth trajectory over the same period, increasing from 2.0% in 2013 to 3.0% in 2022, reflecting a CAGR of 4.1%.

An examination of the Pearson correlation coefficient between FDI as a share of GDP and revenue from Corporate Income Tax (as a % of GDP) in Romania for the years 2013 to 2022 reveals a coefficient of 0.63, indicative of a robust positive correlation between the two variables. This denotes a pronounced pattern for revenue from Corporate Income Tax (as a % of GDP) to rise in tandem with the expansion of FDI as a share of GDP.

In conclusion, FDI as a share of GDP and revenue from Corporate Income Tax (% of GDP) in Romania have both sustained steady growth patterns throughout the preceding decade.

FIGURE 12

Evolution of FDI and Revenue from Corporate Income Tax 2013 -2022



Source: Eurostat database, International Monetary Fund, International Financial Statistics and Balance of Payments databases, World Bank, International Debt Statistics, and World Bank and OECD GDP estimates

Furthermore, FDI turnover in Romania has exhibited consistent growth, surging from 339.4 billion euros in 2013 to 1,174.0 billion euros in 2022, representing a CAGR of 6.75%. Conversely, revenue from taxes on dividends has displayed fluctuations over the same period, reaching a peak of 445.5 million euros in 2016, followed by a substantial decline to 274.5 million euros in 2017. From 2017 onwards, revenue from taxes on dividends resumed an upward trajectory, culminating in the highest recorded value in Romania of 1,174 million euros in 2022, even amidst the backdrop of the ongoing pandemic.

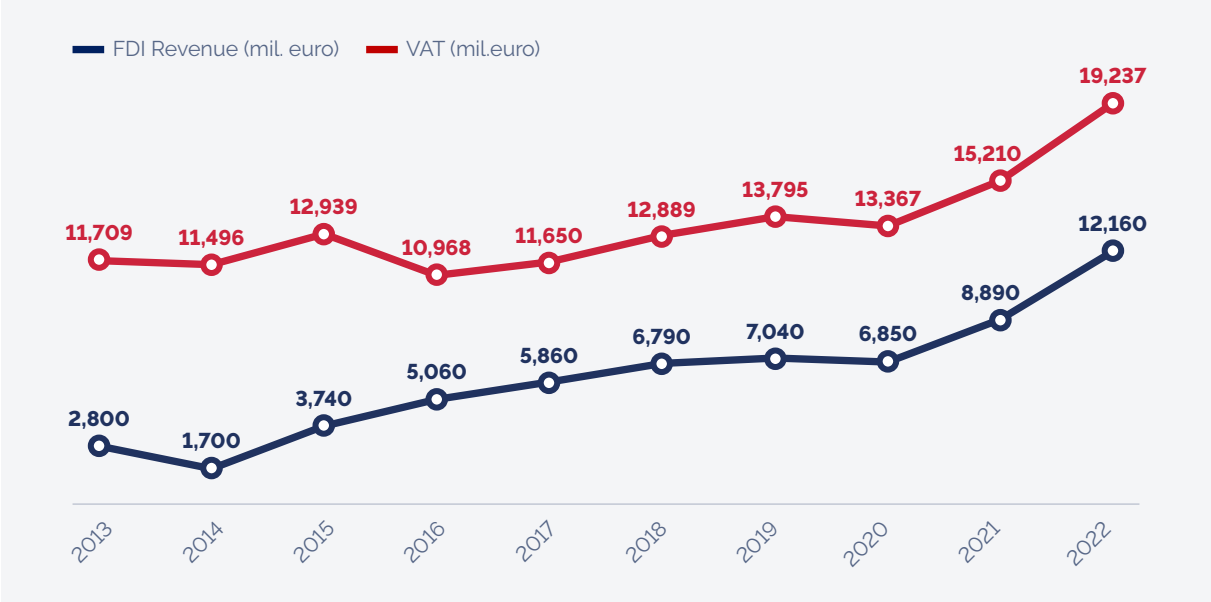
The Pearson correlation coefficient between FDI turnover and revenue from taxes on dividends in Romania for the years 2013 to 2022 yields a coefficient of 0.84, indicating a robust positive correlation between these variables. This underscores a notable proclivity for revenue from taxes on dividends to escalate in conjunction with an increase in FDI turnover.

Value-added tax (VAT)

FDI can induce an upsurge in the consumption of goods and services subject to VAT through two principal mechanisms; by stimulating heightened capital infusion into nascent enterprises and by enhancing the efficiency and output of established enterprises, thus fostering higher demand for goods and services.

FIGURE 13

FDI revenue and VAT (mil. Euro), 2013-2022



Source: Eurostat database and National Bank of Romania Foreign Direct Investments Report 2014-2022

Over the timeframe observed above, FDI revenue has demonstrated a consistent ascent, rising from 2,800 million euros in 2013 to 12,160 million euros in 2022, yielding a compound annual growth rate (CAGR) of 15.81%. Concurrently, VAT revenue has experienced a parallel upward trajectory, surging from 11,709.6 million euros in 2013 to 19,237.7 million euros in 2022, signifying a CAGR of 5.08%.

To conclude, FDI makes an important contribution to tax revenue by three of these notable mechanisms: Direct Contribution to Tax Base Expansion, Indirect Economic Stimulation, and by stimulating Consumer Activity and Spending.

Case study: FIC members

Fees and taxes paid by FIC member companies and their employees in Romania

In order to provide a comprehensive analysis of FDI in Romania, the broader economic impact on the country needs to be assessed. The FIC periodically publishes the tax contributions of its members to the state budget[19]. The report provides an in-depth analysis of the financial contributions of FIC member companies, shedding light on their fiscal responsibilities and their role in supporting public services and infrastructure development within the country.

The FIC represents one of the most important organizations in the business environment in Romania which brings together 116 of the largest foreign investors, with approximately 190,000 people employed, and with a cumulative turnover that represents a quarter of Romania's GDP.

For instance, the 56 FIC member companies that answered our questionnaire contributed approximately 58 billion lei to the state budget in 2022, the equivalent of 14% of the current revenues of the general consolidated budget (GCB). By extrapolation, the contribution of all 115 FIC member companies was estimated at 84 billion lei, which represented around 20% of revenues collected by the state in 2022. Moreover, in 2022, the investments of FIC companies amounted to over 10 billion

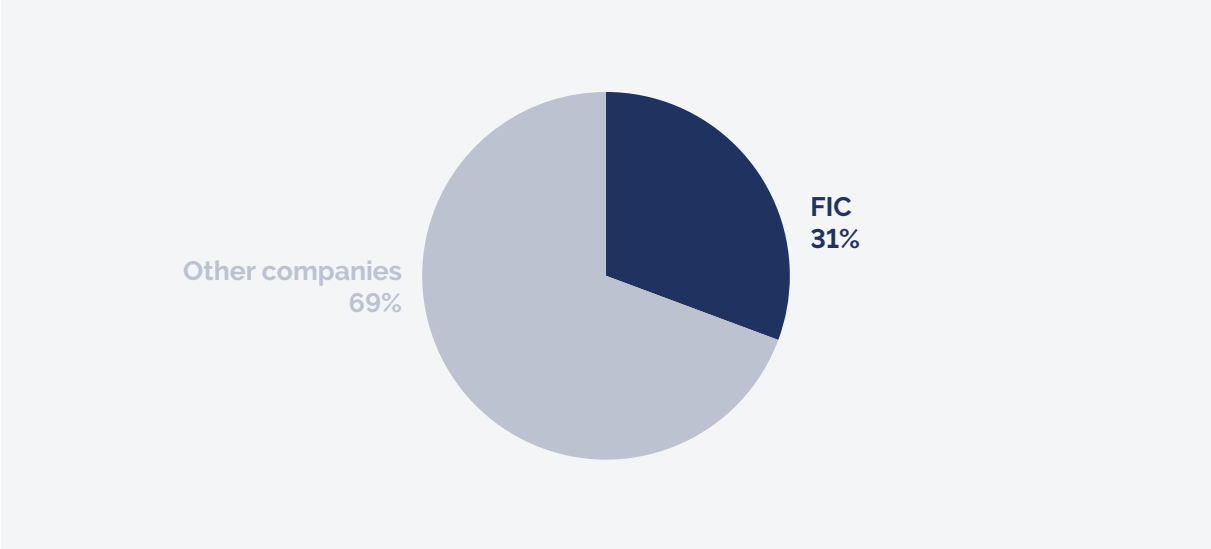
19 https://fic.ro/publications/fees-and-taxes-paid-by-fic-member-companies-and-their-employees-in-romania

lei, or 25% of capital expenditures, according to statistics compiled by the Ministry of Finance as part of its annual exercise to analyse the execution of the previous year's state budget.

Another key finding of the analysis is that 47 FIC companies transferred VAT and excise duties of approximately 40 billion lei to the Romanian budget in 2022, representing 31% of the total VAT and excise duties collected by the state (129 billion lei).

FIGURE 14

VAT and excise duties transferred to the state budget in 2022 (%)



Source: FIC and the Romanian Ministry of Finance

The state relies to a very large extent on the efficient and transparent systems of companies that collect excise duties and VAT, and we observe that these companies do so without fraud and without payment delays. The state can be sure at any time that these companies will collect the excise duties and VAT and pass them on immediately. These indirect taxes provide the government with essential funds to finance public expenditure and contribute to the economic and social development of the country.

Turnover tax and the perception of investors

The end of 2023 brought a major change for large investors in terms of corporate tax, with the introduction of the 1% tax on turnover for companies that register more than 50 mil euros in turnover. It is difficult to assess the impact of this measure, as in most countries such practices do not exist, with only a few exceptions in Africa and Asia. In Poland and Hungary this type of tax has also been imposed, but only for certain sectors and for a limited period.

Investors' perception of Romania has deteriorated significantly due to the package of fiscal measures adopted in October 2023, according to the Business Sentiment Index[20] autumn edition 2023 compiled by the FIC. Only a third of the investors who responded to the latest edition of the BSI in the autumn of 2023 consider the Romanian market attractive, following the passing of the package of fiscal measures. Compared to the previous edition, in spring 2023, when 47% considered the local market attractive, the deterioration of perception in just half a year is significant. Additionally,

20 https://fic.ro/business-sentiment-index/

more than half of FIC members believe that the economic environment in Romania has worsened recently, reaching a 7 year low. The new fiscal mechanism represented very bad news for investors and led to a drastic drop in confidence in a very short period of just a few months.

Considering that other market conditions have not changed dramatically, and that Romania continued to register economic growth compared to other countries in our region that have already entered recession, this was a very favorable time to attract even more investment. Unfortunately, these sudden fiscal policy measures motivated only by the desire to bring more money to the budget in the short term will negatively affect not only perception but also investments themselves, in a period of macroeconomic uncertainty.

The survey shows clear signs that the new taxes are causing companies to be more cautious with allocating budgets for new investments. A total of 20% of respondents said they will reduce their investment plans for the next period, and the proportion of those who expect revenues to increase in the coming months decreased from 70% in March 2023 to 54% in October 2023. The perception of the regulatory burden almost reached its lowest level in the last 8 years (only 3.8% of respondents believe that our country is competitive from this point of view). At the same time, perceptions of the fiscal burden worsened compared to the last 4 years (53% of respondents marked Romania as uncompetitive).

The disproportionate taxation of large taxpayers is threatening the ability of the economy to recover, with the risk that some companies will no longer be able to continue their activity in our country because they will lose their profitability or migrate some activities to other EU countries. Romania's competitiveness in relation to other states could be endangered by the turnover tax, a form of taxation which is almost non-existent in developed countries. Moreover, turnover taxation can produce competitive distortions even in the domestic market, favouring firms already present in a market compared to newly created firms and creating unequal conditions for competition among competing producers of similar goods.

Concluding Remarks on FDI

This analysis provides irrefutable evidence that foreign direct investment can support Romania's competitiveness and its transition to a sustainable, green economy, but targeted policies are essential to harness the full benefits. The analysis indicates that while FDI inflows have recently peaked, Romania's cumulative inward FDI remains low compared to regional peers, underscoring the need for a strategic approach not just to attract flows but to maximize positive spillovers. There is also room to enhance the country's competitiveness by relying on FDI's catalytic role. Moreover, much of Romania's existing FDI is concentrated in lower technology manufacturing, contrasting with the potential benefits to the economy from the development of renewable energy.

Consequently, policy objectives should be focused on several key areas.

Firstly, *incentivizing high-tech, knowledge-intensive FDI across priority sectors where Romania can build competitive advantages and move up the value chain*. This requires granting selective tax breaks, co-financing for R&D and innovation, streamlined administrative procedures and infrastructure upgrades in Information and Communications Technology (ICT), health sciences, the automotive and aerospace sectors, electronics, chemicals, and pharmaceuticals.

Secondly, *positioning Romania as a hub for environmentally sustainable FDI in areas like renewable energies, green mobility, or the circular economy*. There is significant market potential, at local and regional levels, in this respect. Thus, comprehensive legislation and regulations are imperative – covering carbon pricing, pollution control, product eco-standards, fair competition in energy markets, etc. – to reduce risks and ensure stable returns across the life-cycle of such projects.

Thirdly, *enhancing absorption of public funds and management efficiency*. The analysis links budget discipline and the quality of the regulatory environment to competitiveness and the attraction of renewable energy FDI. Hence, continuing and, more importantly, implementing reforms around fiscal governance and consolidation, together with e-governance solutions and transparency measures, are paramount to signalling Romania's commitment to sustainable development.

Fourthly, *developing human capital*. While Romania benefits from cost advantages, higher value-added activities require advanced skills. Consequently, education and professional training systems must be upgraded to meet investors' expectations, also facilitating technology transfer.

Fifthly, *promoting Romania's unique capabilities abroad, through consistent FDI branding and export promotion*. Efforts should target those European countries that are major investors regionally, to increase awareness of Romania's specialized competencies and favourable conditions for establishing export-oriented operations.

Finally, *monitoring the impact of EU-level regulations and policies on location decisions and cross-border investments, while also learning from regional best practices* to tap new FDI opportunities at an early stage.

In conclusion, Romania must define and implement a coordinated strategy mobilizing all responsible public and private stakeholders, to transform high FDI inflows into sustainable growth, competitiveness, and EU convergence. Attracting quality FDI starts from targeted incentives but depends fundamentally on domestic capacities and integrated policies that enhance competitiveness.

Appendices

Appendix 1 – Econometric modelling

This appendix describes the methology behind the results presented in Section II of the study. A quantitative research study based on econometric modelling was carried out with the goal of providing evidence-based verification of the relationship between Foreign Direct Investment (FDI), on the one hand, and competitiveness and sustainability, on the other.

The analysis was carried out using panel data analysis, which has several advantages, including: the ability to control heterogeneity, work with small samples, and identify and measure relationships between variables in a more efficient manner. From the range of panel regression specifications the Generalized Method of Moments (GMM) estimation framework was chosen. This has shown increased robustness in the presence of many endogenous variables and unbalanced data.

The general form of the panel model used in our econometric estimations is presented in Equation (1).

$$Y_{it} = a_{it} + b_{it}Y_{it-1} + d_{it}X_{it} + f_{it}Z_{it} + g_{it} + e_{it} \quad (1)$$

where Yit denotes the dependent variable and Yit-1 the one-year lag of the dependent variable. Xit indicates the main independent variables (regressors), Zit denotes the vector of control variables, git stands for the individual (country) effects included in the estimation, and bit, dit, and fit symbolise the estimated panel regression coefficients, ait is the intercept and eit the model error. t is time and takes values from 1 to 11 (2000 to 2022), while i is the number of countries. Empirical estimations were performed in Stata 18.0, using the two-step GMM estimator.

Table 1 presents the set of variables included in our investigation, along with the associated data span availability and the data sources.

TABLE 1

Description of variables

Variable	Notation	Description	Time span	Data source
Dependent variables				
Competitiveness	WCI	World Competitiveness Index from IMD Business School, in points	2000-2022	Euromonitor
Renewable energy	RENENG	Share of renewable energy in total energy consumption, in %	2000-2021	World Bank
Independent variables (regressors)				
Foreign Direct Investment	FDIGDP	Net Inward FDI flows per GDP per capita at market prices, in Euros	2000-2022	Eurostat, World Bank

Government budget balance	GOVBUD	Government budget surplus/deficit to GDP at market prices, in %	2000-2022	Eurostat
Inflation rate	INFL	Annual change in HICP, in %	2000-2022	Eurostat
Trade balance	TRADEBAL	Exports minus imports to GDP, in %	2000-2022	World Bank
Regulatory quality	REGQ	Perceptions of the ability of the government to formulate and implement sound policies and regulations that permit and promote private sector development.	2002-2021	World Bank – Daniel Kaufmann and Aart Kraay (2023). Worldwide Governance Indicators, 2023 Update (www.govindicators.org)

Source: Authors' work

Results of the estimations

The two panels, for the EU and the CEE region, explore the relationship between competitiveness and FDI and the link between sustainability (assessed in terms of the development of renewable energy) and FDI. For each relationship of interest and panel 4 models were used. These aimed to test the relevance of the independent variables in terms of the link between the main regressor (FDIGDP) and the dependent variable (WCI and RENENG, respectively). Overall, 16 models were used and all are valid (with two exceptions) – based on the Arellano–Bond test for zero autocorrelation in first-differenced errors and the Sargan test of overidentifying restrictions (results of these tests are shown in all tables).

Competitiveness and Foreign Direct Investment

Table 3 presents the estimations of the two-step system-GMM models for the EU panel, and Table 4 proceeds similarly for the CEE panel.

The estimation results are presented in Tables 3 and 4 below.

TABLE 3

Results of GMM estimations for the relationship between competitiveness and FDI, EU panel

Independent variables	Model 1	Model 2	Model 3	Model 4
LWCI, 1 lag	0.805*	0.838*	0.744*	0.874*
LFDIGDP	0.003***	0.003	0.003	0.001
LREGQ	0.050*	--	0.062**	0.380*

LGOVBUD	0.146**	0.155**	0.192**	--
LINFL	-0.087*	-0.062*	-0.097*	-0.057*
LTRADEBAL	-0.020	0.018	--	-0.012
Constant	0.224	0.088	0.246	0.282*
AR(2) p-value	0.055	0.071	0.025	0.062
Hansen-Sargan statistic	0.110	0.049	0.064	0.134

Note: *significant at 1%; ** significant at 5%; *** significant at 10%.

TABLE 4

Results of GMM estimations for the relationship between competitiveness and FDI, CEE panel

Independent variables	Model 1	Model 2	Model 3	Model 4
LWCI, 1 lag	0.516*	0.598*	0.752*	0.381
LFDIGDP	0.017*	0.012	0.000	0.014
LREGQ	0.055	--	0.061	0.165
LGOVBUD	1.098*	0.528*	--	0.722**
LINFL	-0.047**	-0.165	-0.029	-0.183
LTRADEBAL	0.080	0.031	0.029	--
Constant	-0.803***	0.187	0.426	0.175
AR(2) p-value	0.765	0.393	0.287	0.116
Hansen-Sargan statistic	0.894	0.753	0.924	0.753

Note: *significant at 1%; ** significant at 5%; *** significant at 10%.

FDI as a promoter of a sustainable economy

The selection of variables for an analysis of sustainability is not an easy task, as existing literature uses several indicators to measure, typically, environmental degradation. The most used are carbon dioxide emissions, greenhouse gas emissions, renewable energy produced or consumed, economic footprint, etc. Empirical research that has focused on these indicators and others has produced, as expected, mixed findings on the impact of driving forces on these, depending on measurement approaches, data frames, units addressed, etc. Therefore, our approach turned towards a more systematic framework of environmental analysis, known as the DPSIR framework (Driving forces, Pressure, State, Impact, Response) used by the European Environmental Agency in its reporting activities and designed by Smeets and Weterings (1999). Building on this framework, we decided to use the share of renewable energy in energy consumption as the dependent variable in our analysis, as it reflects the action of all the pillars of the DPSIR agenda.

Table 5 presents the estimations of the two-step system-GMM models for the EU panel, and Table 6 proceeds similarly for the CEE panel.

TABLE 5

Results of GMM estimations for the relationship between sustainability and FDI, EU panel

Independent variables	Model 1	Model 2	Model 3	Model 4
LRENENG, 1 lag	0.969*	0.969*	0.971*	0.974*
LFDIGDP	0.002	0.002	0.001	0.002
LREGQ	0.023***	0.024***	0.024***	0.030**
LGOVBUD	--	-0.033	-0.630	-0.071
LINFL	--	--	--	0.019
LTRADEBAL	--	--	0.01	--
Constant	0.058*	0.108	0.134***	0.147**
AR(2) p-value	0.923	0.797	0.672	0.787
Hansen-Sargan statistic	0.112	0.060	0.076	0.087

Note: *significant at 1%; ** significant at 5%; *** significant at 10%.

TABLE 6

Results of GMM estimations for the relationship between sustainability and FDI, CEE panel

Independent variables	Model 1	Model 2	Model 3	Model 4
LRENENG, 1 lag	1.009*	1.009*	1.011*	1.016*
LFDIGDP	0.010**	0.012*	0.018**	0.008***
LREGQ	0.274***	0.036**	0.029	0.033*
LGOVBUD	--	0.088	0.535	-0.078
LINFL	--	--	--	0.287***
LTRADEBAL	--	--	0.018	--
Constant	0.261	-0.097	-0.774	0.115
AR(2) p-value	0.959	0.942	0.667	0.951
Hansen-Sargan statistic	0.328	0.202	0.356	0.357

Note: *significant at 1%; ** significant at 5%; *** significant at 10%.

Appendix 2 – FDI and Fiscal Variables

This appendix describes the methodology and results for the analysis of the FDI and fiscal policy variables.

To examine the influence of budgetary and fiscal policies on foreign direct investment (FDI) net inflows, we employed the data mentioned earlier, along with additional variables associated with taxation and the business environment. Table 1 provides information on the independent variables used in the model:

TABLE 1

GDP growth determinants

Variable	Symbol	Explanation
Effect of Foreign Direct Investment (inflows) on GDP	FDI	FDI inflows in a CEE economy
Effect of budget deficit on GDP	Deficit	The value of the deficit as a proportion of GDP in a CEE economy (%)
Effect of tax revenues on GDP	TaxRev	The value of tax revenues as a proportion of GDP in a CEE economy (%)
Cost of business	COB	Cost of business start-up procedures as a % of GNI per capita
High Tech Exports	HighTech	High-technology exports as a % of manufactured exports
Business Freedom	BussFree	The business freedom score for each country is a number between 0 and 100, with 100 equaling the freest business environment.
Statutory CIT rate	CIT	Statutary corporate income tax rate in a CEE country
Statutory dividend tax rate	DIR	Statutary dividend taxation rate in a CEE country
Statutory PIT rate	PIT	Statutary personal income for taxing wages tax in a CEE country
Taxes on profits	TaxProf	Taxes on the income or profits of corporations including holding gains as a % of total
Capital taxes on GDP	CapTax	Taxes on capital as a % of GDP

Source: Analysis by the authors

Fixed effects on the cross-section were considered and the results are presented in Table xx below, which shows 7 different simulations that were performed by including or excluding some of the variables:

TABLE 2

The model estimated results

This table estimates which variables, influence the FDI net inflow in CEE countries and especially whether the fiscal and budgetary policy variables have an impact on FDI inflow. The data are provided by Eurostat, the OECD, the World Bank and TradingEconomics. We used the panel regression model with cross-section fixed effects. We did not consider in the same regression the variables correlated at a higher level than 0.4. T-statistics are in parentheses. The symbols *, **, *** represent significance levels of 10%, 5% and 1%.

Variable	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Deficit	-0.50	-0.54	-0.53	-0.81	-0.88	-0.91	-0.54
	(-0.72)	(-0.81)	(-0.79)	(-1.08)	(-1.17)	(-0.91)	(-0.72)
TaxRev					0.74		
					(0.97)		
COB	-0.63*						
	(-1.68)						
HighTech	0.38	1.27	0.50	0.41	0.08	0.52*	0.50
	(1.01)	(1.01)	(1.23)	(1.02)	(0.14)	(1.68)	(0.11)
BussFree	-0.61*	-0.45	-0.44	-0.39	-0.34	-0.58*	-0.59*
	(-1.81)	(-1.54)	(-1.51)	(-1.16)	(-0.99)	(-1.70)	(-1.72)
CIT						-0.68*	
						(-1.68)	
TaxProf	-2.21**						-2.10**
	(-2.21)						(-2.07)
CapTax				1.84			0.48
				(0.71)			(0.17)
PIT			-0.10				
			(-0.22)				
DIR		-0.16					-0.28
		(-0.36)					(-0.58)
C	56.82**	29.13	28.67	17.67	2.07	36.82**	56.14**
	(2.27)	(1.45)	(1.43)	(0.64)	(0.07)	(2.27)	(1.72)
R-squared	11.15%	4.90%	4.80%	5.76%	6.32%	7.83%	11.59%
Number of observations	84	84	84	84	84	84	84

Foreign Investors Council

Foreign Direct Investment in Romania

2023 EDITION