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# EFFECTS OF SECTORAL STRUCTURE OF FOREIGN DIRECT INVESTMENT ON ECONOMIC DEVELOPMENT: THE CASE OF EUROPEAN DEVELOPING COUNTRIES

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**Abstract**

The inflow of foreign capital from multinational companies from all over the world, in the form of foreign direct investments (FDI), intensified economic dynamics and contributed to the improvement of macroeconomic performance. In certain economic sectors and activities, FDI has become the carrier of economic growth, encouraged by intensive processes of deindustrialization and reindustrialization. Namely, FDI can have both positive and negative impact on economic growth and development. This depends on the ability of the economic sectors to overcome the negative effects of FDI in a certain period of time, which can only be achieved if the sectors are export-oriented and introduce new technologies into their operations, thereby increasing productivity and competitiveness. Ordinary Least Squares (OLS) panel regression showed this was not the case in the primary and secondary sectors in the countries of Central and Eastern Europe (CEE) and the Western Balkans (WBs), which are still predominantly labor-intensive and therefore have a negative impact on economic development. As opposed to the agricultural and industrial sectors, the services, under the influence of technological progress, is profiled as a capital-intensive sector with a statistically significant positive impact on economic growth and development.

*Keywords:* CEE, competitiveness, economic development, FDI, sectoral structure, WBs

## 1. INTRODUCTION

The economies of the former Communist Bloc, which include the countries of Central and Eastern Europe (CEE) and the countries of the Western Balkan (WBs), at the beginning of the transition process sought to achieve consistent and sustainable economic growth through the implementation of economic policy measures. Numerous

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economists state that due to the low rate of capital accumulation in these economies, there has been an increasing reliance on Foreign Direct Investments (FDI), which in certain industries and sectors have become the carriers of economic growth and development. In the absence of domestic savings, countries are oriented towards attracting foreign capital (Jirasavetakul & Rahman, 2018; Kalotay, 2010; Lall & Narula, 2004; Melnyk et al., 2014; Mencinger, 2003; Paul & Singh, 2017). At the same time, there is an opinion in the economic literature that FDI can be an important factor in accelerating economic growth, export growth, reducing unemployment and increasing competitiveness, which especially refers to FDI directed towards export-oriented branches of the economy.

The governments of CEE and WBs have been offering a series of incentives to foreign investors for decades in order to attract FDI, which enables the development of strategic sectors and activities (Borensztein et al., 1998). In accordance with this fact, the paper pays attention to the impact of FDI inflows on changing the economic structure and accelerating economic growth and development. The developing European countries of CEE (Bulgaria, Czech Republic, Estonia, Croatia, Lithuania, Hungary, Slovakia, and Slovenia) and WBs (Albania, Bosnia and Herzegovina, North Macedonia, and Serbia), which are attractive locations, primarily for Western European investors, were examined between the global financial crisis at the end of the first decade of the 21st century and the still-current COVID crisis. After the weak interest of foreign investors in the observed economies at the beginning of the transition process in the 90s of the 20th century, during the 2000s there was an increase in the inflow of FDI, stimulated by the transition, primarily by programs of liberalization, privatization and restructuring of companies and by a slight improvement in macroeconomic performance (Estrin & Uvalić, 2016). In the tertiary sector and some industrial activities, FDI has become the primary driver of economic growth and development Kannen (2019). The subject and objective of the research can be determined in light of the aforementioned.

The subject of the paper is the consideration of the importance and the assessment of the effects of the sectoral structure of FDI for economic development. The aim of the paper is to prove that FDI in certain sectors can have both a positive and a negative impact, depending on the time needed for the positive effects to overcome the negative effects of FDI. In accordance with the determined subject of the research and the set goal of the research, it is possible to formulate the following hypothesis:

$H_1$: The impact of the sectoral structure of FDI on economic development depends on the ability of the sector to absorb capital, through the growth of competitiveness and the introduction of modern technologies based on knowledge, in the appropriate period of time.

## 2. LITERATURE REVIEW

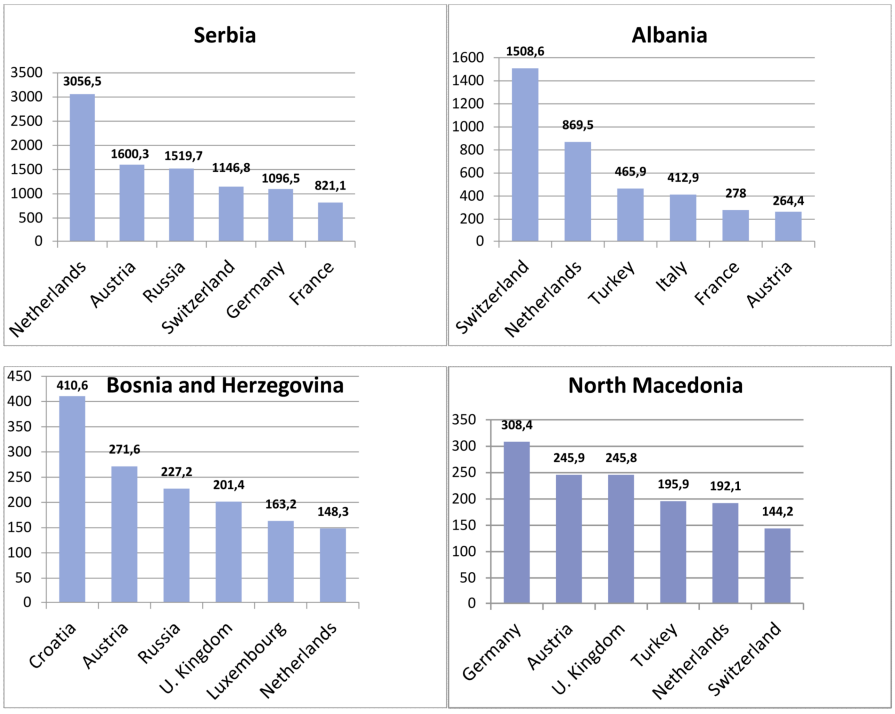
The importance of FDI has grown enormously in recent decades. The United Nations Conference on Trade and Development (UNCTAD, 2017) indicates that the stock of FDI (as a % of GDP at the global level) increased from 10% in 1990 to over 30% in 2016. At the same time, about two-thirds of the global cumulative inflow of FDI is in service industries today

(Iammarino, 2018). The rapid growth of FDI stocks in many developing and transition countries suggests that this form of foreign capital has begun to play an increasingly important role in the international economy (Ginevičius & Šimelytơ, 2011).

The vast part of the FDI in the CEE and WBs was initially concentrated in sectors intended for domestic consumption (financial services and telecommunications). As this sectors became saturated during the first two decades of the transition, countries shifted their attention towards attracting FDI into manufacturing and trade sectors that contribute to export growth rather than domestic consumption (Sanfey et al., 2016).

When examining countries in transition, particular emphasis is placed on how the process of accession affects the presence and movement of FDI. Bobenič-Hintošová et al. (2021) consider that European Union (EU) membership can, to a certain extent, compensate for the lack of country and market size, and consequently lead to the attraction of a greater volume of FDI.

The EU is the largest trading partner of the WBs. According to official data published by Eurostat (2010), WBs mainly export goods and products derived from natural resources, and import capital-intensive products. The WBs export resources and labor-intensive products, whereas their imports are mainly focused on heavy industry products (Botrić, 2012). At the same time, the the most significant influx of FDI into the WBs originates from the EU. Figure 1 shows the structure of the net inflow of FDI in WBs according to the country of origin.




**Source:** WIIW – The Vienna Institute for International Economic Studies (Wiener Institut für Internationale Wirtschaftsvergleiche), wiiw FDI Database, FDI by partner, FDI net inflow, http://wiiw.ac.at/fdi-database.html

*Figure 1. Distribution of net FDI inflows (in million EUR) in the WBs according to the countries from which the largest inflow was achieved, 2013-2019*

The presented figure illustrates that the WBs received the most substantial FDI from EU countries, particularly from the Netherlands, Austria, Germany and Switzerland.

Developed European countries continue to be the primary source of FDI in the region, demonstrating the benefits of EU membership. Stronger European integration led to a decrease in FDI inflows into the EU as a whole and a partial redirection of investors towards the new EU member states (Estonia, Latvia, Lithuania, the Czech Republic, Slovakia, Poland, Hungary, Slovenia, Romania, Bulgaria and Croatia), candidate countries (Albania, Montenegro, North Macedonia and Serbia) and potential candidates (Bosnia and Herzegovina and Kosovo). The dominant inflow of FDI into new EU members and WBs comes from developed EU member states (Dorakh, 2021).

The dilemma remains whether superior FDI inflows are a consequence of EU membership or a quality institutional environment. Some authors (Haini & Tan, 2022; Iammarino, 2018) believe that national institutional environments can be of crucial importance for economic growth and development.

Investments from abroad cause spillover effects in the capital importing country that are are manifested in the adoption of new technologies and the application of organizational skills, which affects the productivity growth of domestic companies and economic development (Estrin & Uvalić, 2016; Hayat, 2018; Lee & Chang, 2009; Sokhanvar, 2019). Lall & Narula (2004) point out that FDI can lead to growth in productivity and exports of a country that is open to FDI. Nevertheless, they point out that this is not always the case.

A number of studies have shown that it cannot be claimed that FDI always accelerates economic growth. In his research, Mencinger (2003) investigated eight countries in the CEE region (Czech Republic, Estonia, Hungary, Poland, Latvia, Lithuania, Slovakia, and Slovenia) during the time span from 1994 to 2001, and found a statistically negative impact of FDI on economic growth. However, Mahembe & Odhiambo (2022), point out that for the low-income countries' panel, there was no evidence of causality in either direction. Nupehewa et al. (2022) analyzing the period from 2010 to 2020, point out that the results do not imply a causal relationship for most developed and developing economies in a regional analysis. Cvetanović et al. (2018) acknowledge the benefits of FDI, but also emphasize the importance of recognizing that FDI should not be seen as a substitute for domestic savings.

Herzer et al. (2008) does not find a positive effect of FDI on economic growth in most of the analyzed countries. Factors limiting economic growth may differ between countries, types of FDI or sectors. Thus, the effects of FDI in agriculture may differ from effects in industry or the service sector, just as the effects of FDI intended for export-oriented or domestic market production may differ. Moreover, the long-term effects of FDI on economic growth may depend on the institutional environment of the country in which companies operate. Bobenič-Hintošová et al. (2021) believe that the institutional environment and political determination regarding investment incentives are insufficiently examined. European countries that have successfully gone through the transition process and that have transparent institutions represent an important assumption for foreign companies

when making investment decisions (Buckley, 2018).

Most countries have introduced numerous incentives for foreign investors: subsidies, low rates of profit tax, tax evasion, adaptation of legislation to the interests of foreign investors, repatriation of untaxed profits to the country of origin. Ginevičius & Šimelytė (2011) believe that the primary goal of these incentives is to create a friendly business environment. Accordingly, it is not surprising that foreign investors are increasingly interested in placing capital in developing markets. The primary golas of the policy of attracting foreign capital are economic growth, increased employment, reduction of the balance of payments and foreign trade deficit, as well as diversification of the export structure (Völgyi & Lukács, 2021).

It is evident that in developing countries attracting FDI has become a task of national importance. Some research (Bevan et al., 2004; Majocchi & Strange, 2007) confirmed that different transition programs, above all liberalization policies and privatization policies, determine the sectoral dispersion and geographical location of FDI. Unfortunately, the transition in a certain number of European countries included in this study is considered unsuccessful by many experts. They point out that transition process was accompanied by great corruption and led to deindustrialization. The reason for this lies in the fact that the inflow of FDI in those countries is not driven by the structural adjustment of their economies but entirely by profit motives (Majocchi & Strange, 2007).

Finally, there is an opinion in the economic literature that FDI can have numerous positive implications on the growth of the competitiveness of national economies Krugman (1994). The Global Competitiveness Index (GCI) is the official measure of competitiveness of the World Economic Forum (WEF). Despite the difficulties associated with measurement, productivity remains a key driver of prosperity and economic progress (WEF, 2017). Petryle (2016) points out that, although GCI is unable to predict future Gross Domestic Product (GDP) growth rates of a country, higher values of GCI in a country indicate that economies will have more stable growth and development.

## 3. RESEARCH METHODOLOGY

The research within the paper was conducted on a sample of European developing countries (CEE region and WBs), for the time period 2011-2019. The chosen timeframe was based on the availability of data regarding FDI inflows by economic sector, which was provided by the Vienna Institute for International Economic Studies (Wiener Institut für Internationale Wirtschaftsvergleiche – WIIW). The research period also coincided with the conclusion of the global economic crisis. Therefore, during this time frame, there were no substantial global factors that could be deemed as having influenced capital movements. The sample consists of 12 countries, namely: Albania, Bosnia and Herzegovina, Bulgaria, Estonia, Lithuania, Hungary, North Macedonia, Slovakia, Slovenia, Serbia, Croatia and the Czech Republic. These are all the countries from the former socialist system that, to varying degrees of success, underwent the transition process. However, it's worth noting that the WBs cannot be categorized as having completed the transition process. This

distinction is reflected in the overall sample through the use of a dummy variable that separates the WBs from the CEE countries, particularly those that are EU members, as shown in Table 2.

Ordinary Least Squares (OLS) panel regression was used to research and examine both the overall importance of FDI for the economic growth and development of the observed countries, as well as the importance and effects of FDI by sector. In consideration of the multicollinearity among variables, as presented in Table 3, control variables including GCI and export (as shown in Table 2) were incorporated into the research. This resulted in the formulation of three distinct research models, as indicated in Table 4. To determine whether to employ a fixed effects model or a random effects model in panel analysis, the Hausman test was utilized. In this particular case, the test suggested the use of a random effects model. The research was carried out using the statistical package EViews.

Additional research was conducted using the Kruskall-Wallis test to assess which of the examined countries had the highest proportion of investments within their total FDI across different economic sectors, namely agriculture, industry, and services (as detailed in Table 1). The research was carried out using the Statistical Package for the Social Sciences (SPSS). Economic sectors (primary, secondary, and tertiary) were determined based on the classification of economic activities presented in Table 1.

*Table 1. Classification of economic activities*[1]

| Section | Description | Divisions |
|---|---|---|
| **A** | Agriculture, forestry and fishing | **1-4** |
| **B** | Mining and quarrying | **5-9** |
| **C** | Manufacturing | **10-34** |
| **D** | Electricity, gas, steam and air conditioning supply | **35** |
| **E** | Water supply; sewerage, waste management and remediation activities | **36-40** |
| **F** | Construction | **41-44** |
| **G** | Wholesale and retail trade; repair of motor vehicles and motorcycles | **45-48** |
| **H** | Transportation and storage | **49-54** |
| **I** | Accommodation and food service activities | **55-57** |
| **J** | Information and communication | **58-63** |
| **K** | Financial and insurance activities | **64-67** |
| **L** | Real estate activities | **68** |
| **M** | Professional, scientific and technical activities | **69-76** |
| **N** | Administrative and support service activities | **77-83** |
| **O** | Public administration and defence; compulsory social security | **84** |
| **P** | Education | **85** |
| **Q** | Human health and social work activities | **86-89** |
| **R** | Arts, entertainment and recreation | **90-93** |
| **S** | Other service activities | **94-96** |
| **T** | Activities of households as employers; undifferentiated goods and services producing activities of households for own use | **97-98** |
| **U** | Activities of extraterritorial organizations and bodies | **99** |

[1] According to the international standard industrial classification (**International Standard Industrial Classification – ISIC**), all economic activities can be divided into three sectors which are classified into 21 sections, i.e. 99 divisions. The primary (agricultural) sector includes forestry, hunting and fishing, as well as crop cultivation and livestock production, i.e. divisions 1-4 according to the ISIC methodology. The secondary (industrial) sector includes divisions 5-44, such as construction, food, tobacco and textile industry, production of motor vehicles and motorcycles, electricity, gas and steam supply activities, etc., including the mining sector. The tertiary (service) sector includes divisions 45-99, such as wholesale and retail trade, transport services, education, health care, insurance, real estate, etc.

## 4. RESEARCH RESULTS

Following the established methodology and economic activity classification outlined in Table 1, the research models were constructed with specific variables. Table 2 provides the variable labels and their corresponding definitions, which were utilized in the present study.

The regression equation used in the research is as follows:

$$GDP\_pc = \alpha + \beta_{1\,FDI} + \beta_{2\,GCI} + \\ + \beta_{3\,EXP} + \beta_{4\,EU} + \varepsilon_{i,t} \quad (1)$$

where $\beta_{1FDI}$ means FDI_agri, FDI_ind and FDI_ser.

The selection of research models was based on an assessment of multicollinearity among the variables, as presented in Table 3.

Three regression models were established and are detailed in Table 4 to address the issue of multicollinearity among the variables.

All the examined models demonstrate statistical significance, with p-values at the 1% level and F-values of 29.33, 26.37, and 26.59, as shown in Table 4. Notably, FDI in the primary sector exerts a statistically negative influence on economic development, indicated by a beta coefficient of -31.99689, as does FDI in the secondary

*Table 2. Variable definition*

| Label | Variable definition | Source |
|---|---|---|
| | Dependent variable | |
| GDP_pc | GDP/per capita ($) | The World Bank |
| | *Independent variables, by sectors* | |
| FDI_agri | % FDI in I sector (primary) | WIIW – The Vienna Institute for |
| FDI_ind | % FDI in II sector (secundary) | International Economic Studies |
| FDI_ser | % FDI in III sector (tertiary) | |
| | *Control variables* | |
| GCI | Globale Competitive Index | The World Economic Forum |
| EXP | Export ( mil $) | The World Bank |
| | *Dummy variable* | |
| EU | European Union (EU) members vs. candidates for EU membership (WBs vs. CEE) | Authors' |

**Source:** Authors' research

*Table 3. Multicollinearity of variables*

| Name | FDI_agri | FDI_ind | FDI_ser | GCI | EXP | EU | GDP_pc |
|---|---|---|---|---|---|---|---|
| FDI_agri | 1 | | | | | | |
| FDI_ind | ***0.39 | 1 | | | | | |
| FDI_ser | ***-0.42 | ***-0.99 | 1 | | | | |
| GCI | 0.13 | -0.03 | 0.02 | 1 | | | |
| EXP | -0.13 | 0.01 | -0.00 | ***0.45 | 1 | | |
| EU | 0.04 | 0.08 | -0.09 | ***0.69 | ***0.54 | 1 | |
| GDP_pc | 0.04 | 0.06 | -0.05 | ***0.75 | ***0.53 | ***0.82 | 1 |

**Source:** Authors' research.
**Note:** *, **, *** indicate statistical significance at the 10%, 5%, and 1% level, respectively

sector, with a beta coefficient of -0.855495 (observed in Models 1 and 2). Conversely, in Model 3, FDI in the tertiary sector exhibits a statistically positive impact on economic development, with a beta coefficient of 0.908454. This analysis pertains to European developing countries in both the CEE and WBs regions over the specified time period. In all models, the control and dummy variables demonstrate a statistically positive influence on economic development.

During the first decade of the 21st century, Foreign Direct Investment (FDI) in the Western Balkans (WBs) was primarily channeled into the financial sector, trade, telecommunications, and real estate. This allocation of FDI was apparent in the absence of more dynamic economic growth rooted in industrial foundations. Despite this, the trend of tertiarization has influenced the strengthening of competitiveness and innovation in the service sector. However, the economic crisis that reached its zenith in 2009 underscored the vulnerabilities in the development of the sectoral structure in the WBs. During the economic crisis, investors reduced the placement of FDI, which had a negative impact on exports, production and GDP (Kurtović et al., 2020). In the subsequent decade following the economic crisis, the service sector emerged as the cornerstone of economic growth and development in these economies. This growth was driven by the attraction of FDI from capital-intensive economic sectors.

Factors that determine differences in labor productivity levels and growth rates between individual service activities and other economic sectors are capital intensity, market size, human capital, technological innovation, economic policy and quality of institutions. The significance of capital-intensive service activities is evident in their contribution to the robust growth of GDP per

*Table 4. The impact of FDI, by sectors, on the economic development of developing European countries - regression models of research*

| | **Model 1** | **Model 2** | **Model 3** |
|---|---|---|---|
| C | **-7943.650 | ** -8015.405 | **-7929.344 |
| | (-2.16) | (-2.16) | (-2.12) |
| FDI_agri | ***-31.99689 | | |
| | (-2.64) | | |
| FDI_ind | | *-0.855495 | |
| | | (-1.34) | |
| FDI_ser | | | *0.908454 |
| | | | (1.46) |
| GCI | ***219.5395 | ***221.4993 | ***218.2237 |
| | (4.03) | (3.96) | (3.89) |
| EXP | ***0.100497 | ***0.097362 | ***0.099018 |
| | (5.99) | (5.78) | (5.83) |
| EU | *4144.895 | **4340.633 | *4274.201 |
| | (1.55) | (1.68) | (1.61) |
| Adjusted R-squared | 0.54 | 0.51 | 0.51 |
| F-statistic | ***29.33 | ***26.37 | ***26.59 |

**Source:** Authors' research.
**Note:** beta coefficients in front of parentheses, t-values in parentheses; *, **, *** indicate statistical significance at the 10%, 5%, and 1% level, respectively.

capita (Fernandes, 2009).

FDI is a generator of economic growth in CEE and WBs. Due to the absence of domestic funding, FDI enables a long-term inflow of capital, through the diffusion of technology, managerial knowledge and skills needed for the restructuring of companies, especially in the service sector (Popescu, 2014). Attracting FDI was one of the key goals of European developing countries during the transition. Table 5 shows differences among countries in the sectoral structure of FDI.

Regarding the structure of FDI by sectors (Table 5), Estonia has the biggest share of FDI in the primary sector, while Bulgaria has the smallest share. Bulgaria also has the smallest share of FDI in the secondary sector, while Slovakia has the largest share. Out of the overall Foreign Direct Investment (FDI), Lithuania attracts the highest inflow in the tertiary sector, while Slovakia receives the least. It can be observed that the structure of FDI by sector in the European developing countries examined in this research is largely similar, with only slight variations.

The negative impact of FDI on the primary sector can be explained by the fact that agriculture covers the minimum area of business (Mehra, 2013), and therefore the percentage of FDI in the primary sector among CEE countries was the lowest in this sector (Table 6). Table 6 shows a comparative analysis of FDI inflows in CEE countries across various economic sectors.

## 5. DISCUSSION

Mehic et al. (2013) found a statistically positive impact of FDI on the economic development of Southeast European

*Table 5. Differences between countries in the total and sectoral structure of FDI – Kruskal-Wallis test*

| | FDI_agri | FDI_ind | FDI_ser | GCI | EXP | GDP_pc |
|---|---|---|---|---|---|---|
| Albania | 30.42 | 71.08 | 32.83 | 21.17 | 5.56 | 7.44 |
| BiH | 51.67 | 46.67 | 58.00 | 8.44 | 20.89 | 17.22 |
| Bulgaria | 22.00 | 7.67 | 55.50 | 66.78 | 68.44 | 40.78 |
| Estonia | **79.61** | 44.00 | 58.56 | **97.50** | 37.67 | 85.67 |
| Lithuania | 55.33 | 36.22 | **67.33** | 83.61 | 64.56 | 68.89 |
| Hungary | 54.06 | 56.17 | 47.56 | 62.22 | 95.00 | 57.11 |
| North Macedonia | 63.72 | 72.67 | 28.44 | 34.78 | 15.56 | 18.67 |
| Slovak Republic | 32.83 | **76.50** | 26.36 | 55.78 | 86.00 | 78.22 |
| Slovenia | 31.89 | 48.50 | 56.44 | 70.72 | 70.56 | **102.22** |
| Serbia | 69.83 | 66.11 | 35.06 | 23.67 | 36.56 | 30.89 |
| Croatia | 56.89 | 38.44 | 65.56 | 37.78 | 49.22 | 55.11 |
| Czech Republic | 30.17 | 40.33 | 64.78 | 91.56 | **104.00** | 91.78 |
| **Chi-Square** | ***35.50 | ***35.41 | ***24.40 | ***86.22 | ***103.77 | ***101.36 |

**Source:** Authors' research.
**Note:** *, **, *** indicate statistical significance at the 10%, 5%, and 1% level, respectively

*Table 6. Comparative analysis of FDI inflows in CEE, by economic sectors*

| Sectors | Mean Rank |
|---|---|
| Primary | 72.17 |
| Secondary | 196.44 |
| Tertiary | 180.62 |
| Chi-Square | ***121.63 |

**Source:** Authors' research.

countries, although they could not determine whether this impact shows a long-term or short-term impact. FDI in WBs has a negative impact on income disparity. A transnational corporations (TNCs) through FDI in the initial phase or in the short-term lead to an increase in disparities, while in the long-term these disparities decrease (Braha-Vokshi et al., 2022). In any case, TNCs have promoted FDI as the most important form of international capital movement in recent decades (Paul & Feliciano-Cestero, 2020).

If FDI affect technological changes and innovation, there is a long-term positive impact of FDI on agricultural productivity, while in the short-term the relationship between FDI and productivity is insignificant. Accordingly, governments should not rely on macroeconomic policies that use FDI to promote agricultural productivity in the short-term (Ridha Boucenna et al., 2021). In doing so, FDI in the agriculture sector improves food security (Slimane et al., 2016).

Sabir et al. (2019) came to the conclusion that FDI is an important source of investment in the agricultural sector and it can increase agricultural productivity by introducing new technologies. However, the gross value added of agriculture has a negative relationship with FDI in high and upper-middle-income countries, while only in lower-middle-income countries it has a positive relationship with FDI. Similarly, in low-income countries, FDI in the agricultural sector exerts a positive impact on fostering economic growth (Ullah et al., 2023). An intriguing study conducted by Irandoust (2022) underscores the important role of agricultural development during the industrialization period. He confirmed the hypothesis of the complementarity of the growth of the agricultural and industrial sectors.

However, FDI can also negatively affect the productivity of the agricultural sector in the long-term because FDI inflows into agriculture and the overall economy can be harmful due to capital repatriation and excessive profits (Iddrisu et al., 2015). Agricultural FDI can have a significant negative impact on the agricultural sector and productivity if it does not have a promotional effect on technological progress.

Therefore, foreign agricultural enterprises, particularly those with a relatively high level of technological expertise, should be attracted to invest in order to improve the quality of FDI in agriculture (Wang et al., 2019).

Some studies (Djokoto, 2012; Hallam, 2011; Mihalache-O'Keef & Li, 2011) indicate the negative impact of FDI inflows on the agricultural sector. Namely, the inflow of FDI in agriculture can limit labor rights and worsen working conditions. Furthermore, there is a notable reliance on imported inputs, which has adverse environmental implications, posing a threat to sustainable development. Characteristic of CEE and WBs is the negative relationship

between FDI and technical-technological efficiency in the agricultural sector (Bojnec et al., 2014).

In the industry, a distinction is also made between the short-term and long-term impact of FDI on the development of the sector, and thus on the economic development. In the short-term, it can be expected that the influx of foreign companies will lead to a crowding-out effect, which reduces the productivity of local business actors. In the long-term, domestic companies should be able to adapt their production processes and improve productivity as a result of increased competition (Bitzer, & Görg, 2009).

Transition economies can benefit from FDI through the diffusion of innovative technology and knowledge brought by foreign investors. However, the FDI inflows can also have a negative effect on European transition countries, due to the fact that domestic companies are squeezed out of the market by incomparably more efficient and competitive foreign companies. This implies that the outcomes are adverse when FDI results in the long-term displacement of domestic investments, as is observed in developing countries.. This negative effect is explained by the fact that foreign companies do not cooperate with domestic companies to a greater extent, but use the services of their parent company and the services of local suppliers (Szkorupová, 2015).

In labor-intensive industries, there is a negative effect of FDI. Moreover, the benefits of FDI depend on the absorptive capacity of industry and investment in research and development (R&D). Bruhn & Calegario (2014) conclude that FDI leads to positive spillover effects in industries with high absorptive capacity and negative effects in labor-intensive industries.

FDI in the tertiary sector has a relatively high mean value and evolves over time, thus influencing the growth of R&D in this sector, as well as economic growth and development (De Vita, 2021).

At the end of the 80s of the 20th century, the industrial sector in the WBs was dominant in relation to the service sector. However, already in the 90s of the last century, all WBs initiated the process of deindustrialization and intensive development of the service sector. Intensive deindustrialization encouraged the dynamic expansion of the service sector (Uvalić & Cvijanović, 2018). Accordingly, there was a change in the distribution of FDI by sectors. FDI inflows in the industry sector have been drastically reduced.

The WBs, following the example of the more developed CEE, have become mainly service-based economies, with an average share of services that is even higher than in the CEE countries. Such FDI could not contribute to export promotion or industrial diversification. Relying solely on the service sector, without strong industrial sectors, makes it challenging to achieve export growth and faster integration into the global economy (Estrin & Uvalic, 2016). The same study concluded that the potential negative effects of FDI may reduce or even outweigh the potential benefits.

According to Liu (2008, p. 190) the time range where the positive effect is estimated to exceed the negative level effects is between 2.5 and 8 years. It is estimated that this is the optimal period to achieve a feedback loop, to transfer technology from FDI to domestic firms and increase their productivity. The negative spillover effects highlight the fact that technology transfer does not happen automatically and it is a costly learning process (Liu, 2008). Bearing in mind that the period of research on a

sample of European developing countries was from 2011-2019., i.e. full 9 years of observation, it can be said that the negative effects of FDI in the primary and secondary sectors prevailed over the positive effects, due to the absence of faster technical-technological progress, productivity growth and improvement of the competitiveness. At the same time, this sufficiently long time period of the research is also the reason why the cyclical effect doesn't matter in this research, considering that with this research period cyclical changes are overcome. Instead, the research outcomes are primarily attributed to the inadequacy of FDI inflows and the absence of innovation and technological progress.

Therefore, special emphasis in attracting FDI should be placed on the observation period, considering that it takes a certain number of years for the positive effects of FDI to overcome the negative ones. For this reason, long-term effects are prioritized over short-term ones. Also, whether that impact will be positive or negative, in addition to the time period, also depends on the ability of the sector to absorb new technologies. Only in such a way sectors can move from labor-intensive to capital-intensive, and the positive effects can overcome the negative ones. Otherwise, if investors prioritize labor-intensive sectors, the invested capital can only have a negative impact on economic development in the long-term. Such was the case with the primary and secondary sectors in the analyzed countries.

## 6. CONCLUSION

A significant number of respected economic experts and international financial institutions believe that FDI appears as a kind of universal cure for any economic problem in developing economies, such as the countries analyzed in this study. It is extremely important to distinguish between the long-term and short-term effects of FDI, as the expected impact is more likely to be negative when the period is short. In such cases, positive spillover effects may not have sufficient time to outweigh the negative ones.

FDI in the primary and secondary sectors in CEE and WBs did not contribute to technical-technological progress, nor to an increase in productivity and competitiveness. At the same time, these are still extremely labor-intensive sectors, which is why the inflow of FDI in them had a negative impact on economic development. Pečarić et al. (2021) came to the conclusion that FDI inflows into the manufacturing sector have a greater intensity and impact on economic growth than inflows into the service sector.

Chaudhury et al. (2020) compared sectoral FDI and indicated that FDI negatively affects economic growth in the primary or secondary sector, while FDI in the tertiary sector positively affects economic growth, which they explain by the fact that the tertiary sector showed faster growth than the other two sectors (De Vita et al., 2021). Contrary to the axiom that the manufacturing sector is the engine of economic growth and development, the creation of new jobs in the tertiary sector is more important for economic complexity and dynamism than jobs in the secondary sector (Taylor, 2008). At the same time, the processes of tertiarization underscore the increasing significance of the service sector.

Despite the fact that a large number of empirical studies have confirmed the positive effects of FDI on economic growth, it is not realistic to claim that the influence of

foreign capital is decisive. Acceleration of economic growth can be influenced by other factors. This conclusion applies to both the analyzed CEE and WBs. The economic growth model of those countries should, in addition to relying on FDI, be based on the mobilization of domestic savings, the development of human capital, the creation of a favorable institutional environment, the strengthening of entrepreneurship and the reduction of corruption.

Considering the economic trends in the WBs during the last two decades, it could be argued that it is necessary to redefine the industrial policy, which will be based on export-oriented reindustrialization, as well as the identification of propulsive industrial branches and the providing incentives to domestic companies, TNCs, sectors and branches that would identified as carriers of economic growth and development.

If the ability of economic sectors to absorb capital increases, through the growth of competitiveness and the introduction of modern technologies based on knowledge, in the appropriate period of time, a more significant impact of the sectoral structure of FDI on economic growth and development will be manifested. In this way, the hypothesis upon which the study was based has been confirmed.

Capital-intensive investments sholud lead technological changes and innovations in domestic companies, all with the aim of increasing productivity and economic development of the entire economy. Such investments should be in line with the technologies from Industry 4.0, through smart manufacturing, such as cyber-physical systems, Internet of things, cloud computing, artificial intelligence (Majstorović et al., 2022). The most visible changes were observed in the provision of information systems and services, in the field of production (especially the automotive industry) and in the field of health and education (Zaušková et al., 2022). Given the prediction that investments in digitalization will increase, such investments are essential in order to increase the competitiveness and productivity of all sectors and the entire economy.

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# ЕФЕКТИ СЕКТОРСКЕ СТРУКТУРЕ СТРАНИХ ДИРЕКТНИХ ИНВЕСТИЦИЈА НА ЕКОНОМСКИ РАЗВОЈ: СЛУЧАЈ ЕВРОПСКИХ ЗЕМАЉА У РАЗВОЈУ

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**Извод**

Прилив страног капитала из мултинационалних компанија широм света, у виду страних директних инвестиција (СДИ), интензивирао је економску динамику и допринео побољшању макроекономских перформанси. У појединим привредним секторима и делатностима, СДИ су постале носилац привредног раста, подстакнуте интензивним процесима деиндустријализације и реиндустријализације. Наиме, СДИ могу имати и позитиван и негативан утицај на привредни раст и развој. Ово зависи од способности привредних сектора да у одређеном временском периоду превазиђу негативне ефекте СДИ, што се може постићи само ако су сектори извозно оријентисани и уведу нове технологије у своје пословање, чиме се повећава продуктивност и конкурентност. Ординару Леаст Сqуарес (ОЛС) панел регресија је показала да то није случај у примарном и секундарном сектору у земљама Централне и Источне Европе (ЦИЕ) и Западног Балкана (ЗБ), који су и даље претежно радно интензивни и стога имају негативан утицај на економски развој. За разлику од пољопривредног и индустријског сектора, услуге се, под утицајем технолошког напретка, профилишу као капитално интензиван сектор са статистички значајним позитивним утицајем на привредни раст и развој.

*Кључне речи:* економски развој, ЗБ, конкурентност, СДИ, секторска структура, ЦИЕ

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