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School of Slavonic and East European Studies

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Wenjin Yao

UNIVERSITY COLLEGE LONDON

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Wenjin Yao

**THE IMPACT OF EU EASTERN ENLARGEMENT
ON FDI IN CEE COUNTRIES
-- USING THE SYNTHETIC
COUNTERFACTUALS METHOD**

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Author of the Thesis: Wenjin Yao

Supervisor: Mgr. Petr Jeřábek

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Prague

Wenjin Yao

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Abstract

This thesis investigates the impact of the European Union's (EU) eastern enlargement on foreign direct investment (FDI) in Central and Eastern European (CEE) new member states using the Synthetic Counterfactuals Method. By constructing a synthetic control group, the study estimates what FDI levels would have been without EU membership. Findings reveal that EU membership significantly boosts FDI inflows into CEE countries, with a notable and sustained increase post-accession. The enhancement is attributed to improved stability, regulatory alignment, market access, and reduced investment risk due to EU integration. Additionally, the impact of EU membership on FDI shows heterogeneity across different CEE countries, with those having stronger institutional frameworks experiencing higher FDI growth, highlighting the importance of domestic reforms. The study underscores the significance of EU membership in attracting FDI and fostering economic growth. For policymakers, it suggests that continued integration and alignment with EU standards, along with strengthening institutional quality, upgrading industry and enhancing corporate governance, can further enhance FDI inflows and economic development in CEE countries.

Keywords: FDI, EU Eastern Enlargement, CEE countries, SCM

Abstrakt

Tato práce zkoumá dopad východního rozšíření Evropské unie (EU) na přímé zahraniční investice (FDI) v nových členských státech střední a východní Evropy (CEE) pomocí metody syntetických kontrafaktů. Sestavením syntetické kontrolní skupiny studie odhaduje, jaká by byla úroveň FDI bez členství v EU. Zjištění odhalují, že členství v EU významně zvyšuje příliv FDI do zemí střední a východní Evropy, přičemž po přistoupení je patrný a trvalý nárůst. Zlepšení je připisováno lepší stabilitě, sladěnosti s předpisy, přístupu na trh a sníženému investičnímu riziku v důsledku integrace do EU. Dopad členství v EU na FDI navíc ukazuje heterogenitu napříč různými zeměmi střední a východní Evropy, přičemž země se silnějším institucionálním rámcem zažívají vyšší růst FDI, což zdůrazňuje význam domácích reforem. Studie zdůrazňuje význam členství v EU pro přilákání přímých zahraničních investic a podporu hospodářského růstu. Tvůrcům politik to naznačuje, že pokračující integrace a sblížování se standardy EU spolu s posilováním institucionální kvality, modernizací průmyslu a zlepšováním podnikového řízení může dále posílit příliv FDI a ekonomický rozvoj v zemích střední a východní Evropy.

Klíčová slova: FDI, východní rozšíření EU, země střední a východní Evropy, SCM

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Chapter 1. Introduction

Since 1989, with the dramatic changes in the former Soviet Union and the countries of Eastern Europe, many countries in Central and Eastern Europe (CEE) have left the socialist camp and have successively carried out reforms in various aspects of their political and economic systems, embarking on the path of capitalist development. In the process of this transition, these countries abandoned the long-standing planned economy system and adopted a market economy system, implementing large-scale privatization reforms, opening markets and promoting competition. At the same time, the CEE countries have dramatically raised their degree of openness to the outside world, actively integrated into the global economic system, strengthened trade and investment ties with Western developed countries, and pushed forward their rapid economic development. In this progress, a large amount of foreign direct investment (FDI) has been attracted. In the context of the accelerating process of globalization, FDI, as an essential driving force for economic development, has not only brought urgently required capital to the countries of CEE, but has also facilitated the transfer of technology, introduction of managerial experience and opening up of international markets. Additionally, FDI has had a far-reaching impact on economic growth, employment, and industrial upgrading, thereby improving the productivity and international competitiveness of these countries (Tintin, 2013).

On the other hand, European integration has been in existence for about 73 years by 2024, since the proclamation of the Treaty of Paris in 1951, which established the European Coal and Steel Community (ECSC). This year also marks the 31st year of the European Union (EU) since 1993, when the Maastricht Treaty entered into force. Through the creation of single markets, the implementation of customs union, and the promotion of monetary unions, European integration has considerably enhanced the stability and attractiveness of the regional economy. The construction of the single markets allows for the free movement of goods, services, capital and labor among member states, reducing cross-border transaction costs and improving market

efficiency and transparency, thereby boosting the investment confidence of foreign firms. The customs union eliminates trade barriers between member countries, promoting supply chain integration and cost reduction, further attracting foreign investment. The advancement of monetary union, especially the establishment of the Eurozone, reduces the risk of currency fluctuations and increases investment security by providing a unified currency and a stable exchange rate mechanism. These integration measures have remarkably improved the investment climate, making Europe an important destination for global investors and contributing to the growth and prosperity of the regional economy.

With the deepening of European integration and the rising status of the EU in the international community, the EU has begun its expansion into CEE area. In turn, the countries of CEE also hoped to use the power of the EU to help them get rid of the economic difficulties during the transition period and resume economic development. Therefore, CEE countries actively promoted the process of economic integration with the EU in the 1990s, and gradually aligned themselves with the EU by signing various trade and cooperation agreements. After several rounds of twists and turns, the Czech Republic, Estonia, Latvia, Lithuania, Hungary, Poland, Slovenia and Slovakia formally joined the EU in May 2004. The EU has also completed the largest enlargement from 15 to 25 countries in its history, which also marks the geographical expansion of the EU and the further intensification of its political and economic integration. Upon accession to the EU, these countries not only receive additional financial support, but also enjoy market access opportunities and policy stability, which offer a more transparent and reliable investment environment for foreign investors. The financial and technical support from the EU's Structural Funds and Regional Development Policies, which have not only helped to improve their level of infrastructure and economic development, but have also substantially increased the overall competitiveness of the regional economy. The boost in FDI has also significantly contributed to the economic development and industrial upgrading of these countries, making them more important players in the global economy.

FDI plays a key role in the EU's eastward enlargement process (Medve, 2014). By attracting foreign investment, the countries of CEE have not only acquired a large amount of capital, but also introduced advanced technology, administrative experience and international market networks. Foreign-invested enterprises set up production bases in the CEE countries, promoting the upgrading of local industries and the transformation of economic structures. For example, in fields such as the automobile manufacturing industry and the electronics manufacturing industry, the substantial rise in the number of foreign-funded enterprises has driven the technological progress and productivity enhancement of these industries, while also creating a large number of employment opportunities. At the same time, the accession of CEE countries, especially its large labor market and relatively low production costs, injects new vitality into the overall economic development of the EU (Jimborean and Kelber, 2014). For existing EU member States, the accession of the CEE countries expands the market size and influence of the EU, and facilitates economic integration and coordinated development in the region.

The process of the EU's eastward enlargement undoubtedly brings unprecedented development opportunities to the countries of CEE and stimulates the rapid growth of the regional economy and the deep integration of markets. However, this process is also accompanied by great challenges. CEE countries are vulnerable to imbalances and shocks in international financial markets, especially after the 2008 financial crisis and the European debt crisis (Becker, et al., 2010). There are also significant differences between the countries in transition and the original EU member states in terms of their levels of economic development, industrial structures and market mechanisms. In order to cope with these challenges, the EU needs to demonstrate a high degree of inclusiveness and flexibility. Through the formulation and implementation of targeted policy measures, it should promote the economic restructuring and industrial upgrading of CEE countries to ensure that they can gradually narrow the gap with the EU average and realize common development. At the same time, CEE countries should also actively enhance their own capabilities, reinforce government governance,

optimize the business environment, and upgrade education standards, so as to strengthen their economic competitiveness and ability to withstand external risks, thus laying a solid foundation for long-term stability and sustainable development.

In view of the crucial role of FDI in the economic transformation and development of CEE countries and the far-reaching impact of EU integration on the economic environment of these countries, this paper aims to explore the impact of EU membership on FDI in CEE countries. Specifically, this paper will analyze whether EU membership has a positive impact on FDI inflows to CEE countries in the short and long term. At the same time, this paper will link the results with real-world scenarios to explore the differences in economic performance of various countries after joining the EU and the reasons behind them. This aims to provide a scientific basis for policymakers to help CEE countries formulate more effective development strategies in the global economic environment. In summary, the research objective of this paper is not only to quantify the actual impact of EU membership on FDI in CEE countries, but also to reveal the important role of regional integration in the process of economic transformation, and to further enrich the theoretical and empirical research on FDI and regional economic integration. Through systematic analysis and research, this paper expects to provide useful references and lessons for the economic development of CEE countries.

The study of the impact of the EU's eastward expansion on FDI in CEE countries is of great theoretical and practical significance. Theoretically, this study can enrich the literature on the impact factors of FDI and provide new perspectives for understanding the role of FDI in the EU integration process. The economies of the CEE countries constitute a valuable laboratory to examine theories about the drivers of FDI (Popescu, 2014). Existing literature mostly focuses on the general impact of FDI and lacks a systematic study of the specific context of the EU's eastward expansion. In addition, studies examining the impact of the EU's eastward expansion on CEE countries also concentrate on the macroeconomic situation. By adopting the synthetic control method, this paper overcomes some of the limitations of the

traditional approach in dealing with the assessment of policy shocks and provides more reliable empirical evidence. Practically, the findings of this paper have a profound guiding significance for CEE countries and their policy makers. Under the background of global economic restructuring and economic recovery in the post epidemic era, the results of this paper can not only provide data support for CEE countries to formulate more accurate and effective FDI attraction strategies, but also help these countries to optimize their industrial structure and enhance their economic resilience to deal with the uncertainty of the external environment. It is also to emphasize the importance of strengthening the European integration process in the context of globalization and to provide policymakers with strategic references to address future uncertainties.

Structured into six main sections, this paper systematically examines the impact of the EU's eastward enlargement on FDI in CEE countries and sheds light on the role and mechanisms of FDI in economic transformation. The organization of the subsequent sections is described below.

This paper firstly reviews major FDI theories and factors affecting FDI in CEE countries, examining the significance of these investments for economic development and the impacts of EU enlargement. It then provides a historical overview of FDI and EU expansion, setting the stage for hypotheses. Next, the methodology section details the synthetic control method used for policy evaluation, including variable definitions and data sources. After that, empirical results for the eight CEE accession countries are presented, analyzed, and integrated with theoretical frameworks. Finally, the conclusion highlights the study's theoretical and practical implications, offering insights for policy makers and suggesting future research directions.

Chapter 2. Literature Review

2.1. Theoretical overview of international direct investment

As defined by the EU, foreign direct investment (FDI) means investments of any kind by a foreign investor aiming to establish or to maintain lasting and direct links between the foreign investor and the entrepreneur to whom or the undertaking to which the capital is made available in order to carry on an economic activity in a member state.

After the 1960s, transnational corporations (TNCs) developed rapidly, formulated global strategies, expanded their production and operations to a global scale, and made outward FDI. Consequently, FDI by TNCs has surged, exerting significant influence on the world economy. Scholars in various countries have carried out a wide range of studies on this issue, exploring the reasons for FDI by TNCs from various perspectives, and reasonably clarifying their motives and objectives. The following is a selection of representative theories.

2.1.1. Monopolistic Advantage Theory

The Monopolistic Advantage Theory was first proposed by Stephen.H.Hymer in 1960 in his doctoral dissertation. Hymer rejects the traditional theory of international capital flows premised on the assumption of perfect competition, and instead he advocates combining the motives of TNCs for outward investment with the assumption of imperfect competition. He argues that market imperfections, stemming from imperfect competition, facilitate FDI. These imperfections include: (1) monopolistic control over product and factor markets, (2) economies of scale, (3) government intervention barriers, and (4) tariffs. The existence of these market imperfections hinders the smooth progress of international trade. By adopting the method of direct investment, through localized production and operation, it is possible to overcome these obstacles and enable transnational corporations to develop. Hymer views multinational enterprises as

monopolists or oligopolists with "monopoly advantages," which drive FDI.

2.1.2. Internationalization Theory

The internalization theory, mainly developed by Peter.J.Buckley and Mark Casson et al., successfully explains the reasons for FDI by MNCs using the transaction cost theory proposed by R.H.Coase. The theory of internalization emphasizes the ability of firms to transfer advantages internally at lower cost and treats this ability as the real motivation for firms' FDI. In the case of incomplete markets, firms seek to maximize profits by establishing subsidiaries abroad that they can control. By transferring technological advantages overseas at lower expenses, they safeguard these intellectual property benefits from erosion, while maximizing returns on substantial R&D investments made in the process of technological innovation.

The theory of internalization posits that the internalization of a market hinges on four factors: industry-specific factors (product nature, external market structure, economies of scale, etc.), region-specific factors (geographic distance, cultural disparities, social attributes, etc.), country-specific factors (political and financial systems, etc.), and firm-specific factors (organizational capability to manage the market internally, etc.). Among these, industry-specific factors are deemed most critical.

2.1.3. The Theory of Marginal Industry Dilation

In the mid-1970s, Japanese scholar K.Kojima conducted an empirical study on Japanese manufacturers' outward FDI based on the theory of comparative cost in international trade. He believes that FDI should be carried out sequentially from the industries in which the investing country is or will be at a comparative disadvantage, i.e., the marginal industries. These marginal industries are the industries in which the host country has comparative advantage or potential comparative advantage. Starting investment from the marginal industries can combine the rich capital, technology and management skills of the investing country with the cheap labor resources of the host

country and bring into play the comparative advantage of the industry in the host country.

2.1.4. Eclectic Theory of International Production

In the 1970s, British economist J.H.Dunning put forward the eclectic theory of international production. In the early 1980s, he systematically organized and supplemented his theory, thus making this theory become the most influential FDI theory. The core of the eclectic theory of international production is the "three-advantage model" (OLI), which is usually referred to as ownership advantage, internalization advantage and location advantage.

Ownership advantages encompass capital, scale, technology, management, and marketing skills that a country's enterprises possess or can acquire, which are not easily accessible to enterprises in other countries. Internalization advantage involves internalizing assets to mitigate the impact of incomplete markets and preserve enterprise advantages. Location advantage refers to the advantage that TNCs have in choosing the location of their investment. Even after possessing ownership and internalization advantages, TNCs must still choose locations. Location attractiveness determines the flow of FDI and includes factors such as factor inputs, market distribution, transportation and communication costs, infrastructure, government intervention, financial systems, market differences, cultural disparities, and trade barriers. Enterprises possessing all three advantages can undertake FDI.

2.2. Analysis of the significance of FDI for the development of CEE countries

FDI has been one of the main drivers of economic restructuring in CEE nations and significantly contributed to the region's integration into the European and global markets. As Mayhew (1998) argues, reintegration into Europe is an important political and economic signal, symbolized by membership in the EU in many CEE countries.

Thus, future EU membership may be an important determinant of FDI.

2.2.1. Factors affecting FDI in CEE countries

To comprehend the reasons behind the surge in foreign investment in the accession countries, it is imperative to initially examine key findings from empirical studies regarding the factors influencing foreign investment. In the context of transformation, the host nation's level of economic transition, the extent of the domestic market, material expenses, integration into EU markets, political security, and the legal structure are the factors identified by Lankes and Venables (1996). Garibaldi et al. (2001) examine the impact of indicators measuring the level of macroeconomic development, such as the level of inflation, the fiscal balance, and the growth rate, on FDI in CEE countries. Grabbe (2001) highlights the significance of elements including enlarged markets, unrestricted borders, a unified regulatory framework, and reduced transportation expenses for international trade. Caetano et al. (2002), based on the gravity model model, show that explanatory variables such as unit labor costs, market capacity, and other measures of the host country's basic level of economic development play an important role in FDI to CEE countries. Carstensen and Toubal (2003) argue that in addition to traditional factors such as market potential and resource endowment that affect inflows to CEE, economic transition factors such as degree of privatization, methodology, and country risk are also meaningful for FDI to CEE countries. Brenton et al. (1998) and Di Mauro (2001) empirically investigate the relationship between the volume of trade and FDI inflows in CEE countries. Contrary to the traditional theory that investment will substitute for trade, they argue that FDI and trade are complementary.

The political, economic and social impacts of EU accession will bring more or less variations to the above FDI factors. Even the declaration of EU membership alone has a direct positive impact on FDI to CEE countries (Bevan and Estrin, 2004). Particularly, to become eligible for membership of the EU, a nation must make an important move towards integration with other EU members: it must accept the shared legal, politics,

and financial structures of the EU as well as its common visa and border control procedures (Garmel et al., 2008). This decreases border expenses and enhances the country's appeal to foreign investment.

There is also some literature on the impact of EU accession on FDI in CEE countries, although the literature is essentially pre-accession projections. Buch and Piazzolo (2000) develop a model of FDI determinants incorporating the accession variable and apply this model to the accession candidate CEE countries. Results indicate that, FDI inflows were notably below expectations and attaining candidacy for accession would lead to a significant upsurge in FDI inflows in these countries. Bevan and Estrin (2000, 2004) discover that as a country demonstrates strong performance and transitions smoothly toward a market economy during the accession process, its progress toward accession accelerates. This, in turn, fosters economic growth and development, leading to an increase in FDI inflows. Furthermore, the increased FDI influx catalyzes the country's economic transition and development, establishing a positive growth cycle. Clausing and Dorobantu (2005) find that progress in accession significantly boosted FDI inflows into CEE countries. The EU's affirmation of these countries signifies an improved investment environment and reduced investment risks. Simultaneously, it suggests the removal of trade barriers to the EU market. These factors collectively prompt greater investor interest in direct investment in CEE.

2.2.2. The role of FDI in the transformation of CEE countries

Compared to Western European countries, the economies of CEE countries lag significantly behind, with lower levels of resources and technological proficiency. Their economic growth primarily hinges on substantial foreign investment. FDI is an essential component of the transitional neoliberal approach (Allan et al., 1997). Based on empirical neoclassical growth modelling, during the 1989–2003 transition era, foreign investment contributed incrementally to the economic transformation of 27 nations in CEE (Hartarska and Thompson, 2008). According to research conducted by Di Mauro (1999) and Buch et al. (2003), this development happened concurrently with

the process of moving from socialism to capitalism and the incorporation of the CEE nations into the world's economic system through trade and capital movements.

Macroscopically, Political transformation has altered the developmental trajectories of these nations, transitioning from centrally planned economies to capitalist market economies. FDI contributes to closing the goods and procedure gaps with Western countries, assures competitiveness in the regional market, makes up for a shortage of deposits and fragile financial institutions, and makes technology transfer easier (Donges 1992; Sheehy 1995). Rapacki and Prochniak (2009) and Estrin et al. (2009) analyze the transition process and changes in the economies of CEE countries, anticipating that foreign investors will bring investments, technology, new management practices, and new export potential.)It can be said that economic growth in the CEE region has benefited from inflows of FDI, which is a key factor in long-term economic expansion (Kornecki and Raghavan, 2011).

Microscopically, FDI into transition economies can relieve capital account constraints while also accelerating company restructuring, fostering technological innovation, and facilitating growth (EBRD, 2002). Evidence from transition economies is shown in Barrell and Pain's (1999) research, which demonstrates that foreign businesses outperform domestic companies in terms of profitability, R&D spending, innovation, and company efficiency. According to Djankov and Murrell (2002), FDI has the potential to expedite the transformation process by establishing the groundwork for enhanced corporate governance and enabling firm reorganization.

To summarize, since the transition, CEE countries have attracted a large amount of FDI, which has had an enormous impact on their politics and economy, and has also played a favorable and positive role in the recovery and development of their economies. Bandelj (2010) suggests that efforts by these countries to attract FDI upon joining the EU should indicate their attractiveness and successful integration into the global economy. Thus, FDI in CEE transition economies has become a fundamental benchmark for successful economic transformation.

2.2.3. The Ex-Ante and Ex-Post Analyses of the Effects of the

Accession to the EU

2.2.3.1. Economic effects

Ex-ante analysis

European integration has been recognized by many scholars as bringing economic benefits to all its member states. According to Badinger's (2005) estimation, if there had been no integration since 1950, the GDP per capita within the EU might be roughly one fifth lower now. Bayoumi and Eichengreen (1995) calculated that the establishment of the European Economic Community (1956-1973) increased trade within it by 3.2%; thereafter, trade grew by 5.9% between 1972 and 1980, and the Southern Expansion (1972–1980) raised trade in Spain, Portugal, and Greece by 2.0-2.9%. Jesus et al. (2008) investigated the impact of European integration on the long-term development of the EU15 countries using panel data methodologies. Economic growth is observed to be significantly positively impacted by the duration of EU membership, and this benefit is comparatively stronger for poorer nations. Bower and Turrini (2009) conducted panel regression analyses between 1960 and 2008 for 62 advanced, emerging, and transitional countries using the same methodology. They discover that GDP per capita growth rates during EU accession were significantly higher, especially for countries with lower initial income levels, weaker institutional quality, and less developed financial systems.

Before the accession of the CEE countries in 2004, many scholars had predicted the economic impact of the further enlargement of the EU. Most of the results obtained agreed that the process of the EU's eastern enlargement would benefit both CEE countries and existing member states. For the acceding CEE countries, accession would mean trade cooperation with developed Western European countries to attract investment and more job opportunities, leading to economic growth and increased national income. Depending upon the computable general equilibrium (CGE) model,

Baldwin et al. (1997) demonstrate that the actual revenue of the acceding nations would rise by 1.5% compared to the non-accession situation and that the influx of capital may boost the actual revenue of the acceding countries by 18.8%. They also examine the case where investment in the EEA nations has a much lower risk premium after entering the EU. Additionally, they investigated the possible effects of payments through the EU budget. Overall, the CEE nations are expected to significantly benefit from this process. Research conducted by EU Commission (2001) predicted a highly substantial expansion of the development rate of acceding CEE nations applying a modified Solow macroeconomic model. Using a global macroeconomic model, Breuss (2001) foresees that CEE nations will reap roughly ten times the benefits of the EU through eastward enlargement, gauged by real GDP. Hungary and Poland could potentially elevate their real GDP by 8% to 9% over a decade, while the Czech Republic may experience a slightly lower increase, ranging from 5% to 6%

At the same time, eastward expansion also appears to be good news for existing member States. A dynamic general equilibrium model focused on the policy of border cost elimination is developed by Garmel et al. (2008). They find that investors in the EU-15 could access three-quarters of the entire capital stock of the transition countries, and the effect would be long-lasting in the accession countries compared to the non-accession countries. A German perspective on the effects of EU eastward expansion on current member states is given by Keuschnigg et al. (2001), who conclude that the welfare benefits to the German economy altogether would be close to 0.4% of GDP annually. Nevertheless, not all current member countries will reap benefits from this expansion. Some labor-intensive countries with lower levels of capitalization may experience negative effects. Based on a complex dynamic general equilibrium model of Germany, Kohler (2004) shows that most EU-15 countries, particularly Austria and Germany, should benefit from eastward expansion, with the exception of Ireland, Greece, Spain, and Portugal, which would see a slight decline in social welfare. Breuss (2001) notes that whereas Austria, Germany, and Italy stand to gain the most from eastward expansion, Spain, Portugal, and Denmark are going to suffer. Thus, EU

enlargement performs as an external shock, causing asymmetric disruptions inside the EU.

Ex-Post analysis

There are a lot of ex-post researches on the economic effects of EU's integrating, but very few that concentrate specifically on eastern expansion. From real historical data after the accession to the EU, most scholars conclude that the EU's eastward enlargement did improve the economic situation in the CEE region. Seven years later, Baas and Brücker (2011) state that even though unemployment decreases in the presence of imperfect labour markets, trade, migration, GDP per capita, and wages will rise attribute to EU's eastern enlargement. The newly acceded CEE countries are integrating with the rest of the "old" EU, as evidenced by their economic growth, trade expansion and increased FDI (Jovanović and Damnjanović, 2014). The admission of CEE nations to the EU has resulted in higher inflows of FDI, faster integration of their economies into Europe and accelerated processes in international industrial chains (Hlavacek and Domanskam, 2016).

Meanwhile, many studies have suggested that the impact is heterogeneous across countries and that the benefits of integration do not occur in all new member countries. For example, Hlavacek and Domanskam (2016) point out that, due to the favorable geographic location of the Baltic States and the different trade policies adopted by different countries, Estonia has the highest amount of FDI followed by Hungary, Czech Republic, and Slovakia, and to a lesser extent Lithuania, Poland, Latvia, and Slovenia. Hagemeyer et al. (2021) also emphasize that 'The gains from accession are on average large, but not completely universal'. Campos et al. (2014) even find that for Greece, joining the EU had a negative impact.

2.2.3.2. Political effects

Ex-Ante analysis

There is relatively little literature on the impact of accession on the political aspects of

each country, partly because it is difficult to separate political and economic discussions. Changes in each economic factor often correspond to policy changes. Ágh, A. (1999) taking Hungary as an example, argues that after having better accomplished the Europeanization of politics, the CEE countries have to turn to policy-making, that is, to move from democratization to modernization of politics in order to improve the efficiency of policy-making. The process of "public policy integration" in the EU comprises three aspects: (1) the expansion of public policies; (2) the transfer of competence; (3) the establishment of new EU institutions (Wessels and Rometsch, 1996). At the same time, the dynamic between the EU and its member States is not unilateral. Member States do not merely accept European demands for domestic change passively. Instead, they actively influence European policies, institutions, and processes, and subsequently adjust to them (Bomberg and Peterson, 2000).

Ex-Post analysis

Though its influence on political parties is less apparent, the prolonged and arduous process of EU accession, in particular the implementation of the *acquis communautaire* and the asymmetrical character of the partnership within the EU and CEE nations, experienced an important effect on the political and government actions.

The EU's influence changed over the years, reaching its peak within the "active leverage" phase that began with the implementation of the Copenhagen Criteria in 1993 and ended with the mid-2000s accession stage (Vachudova, 2005). Furthermore, the effects of the EU differed among the CEE nations. In fact, Vachudova (2005) claimed that the "illiberal" countries of Slovakia, Romania, and Bulgaria were the nations most affected by the EU. There are major differences in opinions about how the EU affects political system elsewhere. According to Aleks Szczerbiak (2012), the EU has little direct effect and he notes how "Europe" has successfully assimilated into Polish local political systems. Markowski and Tucker (2010), on the other hand, highlight the membership as a determinant between the emergence of new political parties in Poland. Unlike experiencing stagnation or collapse, Pollack (2009) discover that the EU's institutions have demonstrated resilience and adaptability in response to the eastward

enlargement. His research reveal that the EU's institutions and political framework have adapted to the new members with adaptability, maintaining the same routine of policy results prior to the expansion.

In general, the EU has not had as much impact on the political evolution of the CEE countries as it has had on the economic side. Moreover, there are no common conclusions about the impact of the EU on the political systems of the new member states, which are characterized by national differences.

2.2.3.3. Social effects

Each expansion towards the east raises integration challenges and complicates the task of building a democratic European entity. Many are concerned that no matter how fragile the "European identity" existed before the eastward enlargement, it has now become so diluted that it cannot form a meaningful European political community. The weakening of the sense of European identity and the fragility of democratization in CEE countries seem to have become widely recognized facts.

Joining the European Union (EU) is significant politically and economically and is regarded as a symbol of European reintegration in many CEE nations, according to Mayhew (1998). Fuchs and Klingemann (2002) attempt to empirically determine if there is sufficient shared political values among Europeans to establish a collective identity, and conclude that as one moves further east, democratic attitudes tend to weaken while statist tendencies strengthen. A study by Ceka and Sojka (2016) on how people in CEE countries identify themselves as Europeans reached similar conclusions. However, their survey among young people find that not only is there no notable distinction between the perceived identity of young generations in the East and West, but also that the youngest group in the East exhibit a stronger sense of attachment to Europe compared to their Western counterparts.

In addition to supporting the former Soviet Union's member states reintegrate into Europe, the EU's expansion phase established new guidelines for European migration.

After joining the EU, many CEE laborers have migrated to Western European countries in search of new job opportunities or better educational platforms. A study by Fassmann et al. (2014) observes an increase in the scale of migration from CEE countries to the EU-15 year by year - the number of citizens residing in one of the EU-15 countries increased by almost 400% over the entire observation period (2002-2011).

In 2004, only Ireland, Sweden and the United Kingdom decided not to impose any severe restrictions on the movement of workers after accession. For this reason, the United Kingdom and Ireland replaced Germany as the countries that absorbed the most migrants from CEE after 2004 (Luthra et al., 2016). Among them, the immigration numbers in several regions of CEE have attracted significant attention from scholars, for example, immigrants moved from Poland to the UK (Okólski and Salt, 2014; Knight and Thompson, 2014; Drinkwater and Garapich, 2015), from Hungary to the UK (Moreh, 2014), and from Lithuania to Ireland (Farrell et al., 2014).

While these population movements will bring more productive labor to the existing member states, they may have a negative economic impact on the new member states. As concluded by Holland et al.(2011), the demographic changes to the EU-15 after 2004 could end up with a permanent 5-10% reduction in the anticipated degree of production in Lithuania, Bulgaria and Romania. They also mention that although transfers can mitigate the adverse impacts on sending nations' economy in the short to medium term, they're unable to completely compensate for the longer-term diminished labour input on capacities production.

2.3. Summary

One of the difficulties of the study is the inability to obtain the data on the economies of the CEE countries if they had not joined the EU, as this event is already a historical fact. This would make it difficult to analyze the impact of the EU accession event on them individually. However, Eichengreen and Boltho (2008) took a distinctive approach

when examining the effects of European integration. Departing from conventional analyses, they envisioned a scenario where a specific integration initiative did not exist and assumed that no significant changes would have occurred otherwise. Their aim was to argue that European living standards, growth rates, and economic structures would have differed without the institutions and processes of European integration. Their conclusion was that European incomes would have been approximately 5% lower today in the absence of the EU. Thus, Eichengreen and Boltho (2008) asserted the necessity of constructing a counterfactual world to better comprehend the post-integration implications. The key question is constructing this alternative world. Campos et al. (2014) apply the same methodology and evaluate the behaviour of GDP per capita and labour efficiency in the nations that joined in the European Union (EU) in 1973, 1980s, 1995, and 2004 in the situation that they had not done so. They conclude that although there are significant benefits to embracing the EU, they vary between nations as well as over period. Compared to the previous study, Hagemeyer et al. (2021) add institutional factors to the matching structural variables to improve the comparability of the treated nations with the synthetic counterfactual and summarize that the country's GDP per capita improved six and twelve years since joining the EU. Inspired by the study of Hagemeyer et al. (2021), this paper attempts to create a counterfactual scenario to explore the impact of the EU's eastward enlargement on inward FDI to CEE countries, based on the significance of FDI in terms of economic transformation and development in CEE countries.

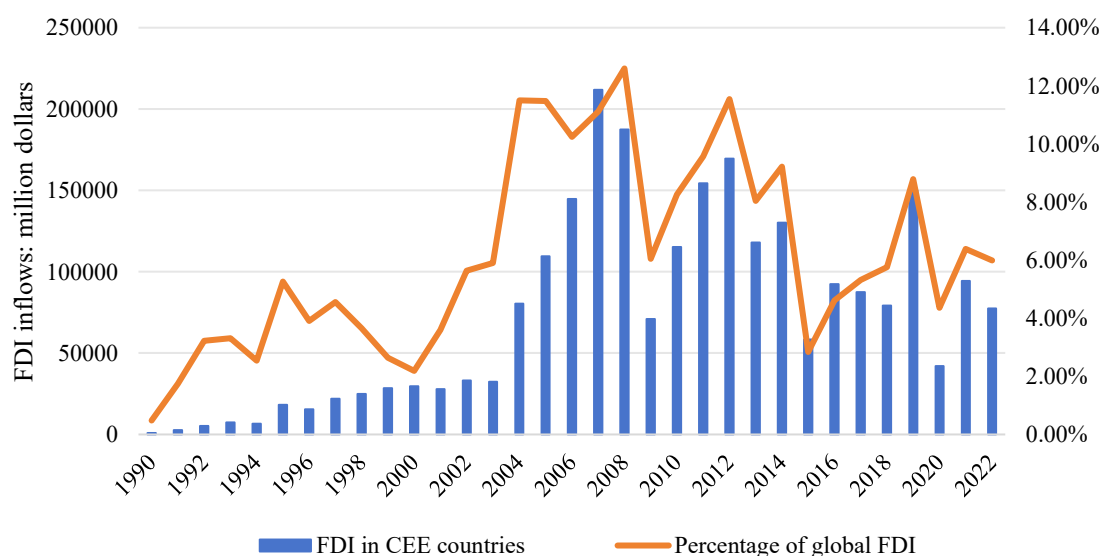
Chapter 3 Overview of Inward FDI to CEE Countries and the EU's Eastward Enlargement Process

3.1. EU eastern enlargement and characteristics of FDI in CEE countries

countries

At the beginning of the economic transition, FDI in CEE countries has shown rapid growth. In 1990, FDI inflows to CEE countries amounted to only \$984 million, accounting for 0.48% of the global total. By 2000, FDI inflows to CEE countries grew to \$30 billion, 2.19% of the global total, showing a significant attraction. In 2004, after these countries joined the EU, FDI inflows reached a new peak of \$80 billion, representing 11.50% of the global total. The peak was achieved in 2012 at \$170 billion, representing 8.04% of the world. It then declined to \$58 million, at 2.84%, in 2014. FDI inflows raised again to \$150 million, or 8.79% of the world, in 2018. But it dropped to \$42 million, or 4.36% of the world, in 2020, due to a number of factors.

Figure 1 FDI inflows in CEE countries



Sources: UNCTAD

From a general point of view, the countries of CEE as a whole have achieved some success in establishing market economy systems since the transition. The level of economic development of the countries has been steadily increasing, trade volume has been growing, and the investment environment has been improving. These are the reasons for the large inflow of FDI in the countries of Eastern Europe in the middle of the 21st century. Specifically:

- (1) Privatization and market liberalization in CEE countries have created favorable environments for foreign investment. By opening their markets, liberalizing trade, and easing restrictions on foreign investment, those countries improved the transparency and stability of the investment climate. In the process of economic transformation, CEE countries have adopted a policy of privatization of state-owned enterprises, aiming to make the privatized sector account for 70 to 90 % of the national economy. This process, however, required a large amount of capital and had to rely on the inflow of foreign capital to make up for the lack of domestic capital. It has been observed that the amount of foreign investment is closely related to the degree of privatization in each country. Hungary, Poland and Czech Republic, which have the largest inflows of foreign capital, are precisely the countries with the highest degree of privatization.
- (2) They have strengthened the rule of law, established a stable and efficient institutional framework, and enhanced the fairness and transparency of market competition. At the same time, they have intensified their cooperation with international organizations and transnational corporations to attract foreign investment, technology and market experience to promote the internationalization and globalization of their economies. Gradually, the CEE countries have emerged from the recession of the transition period with accelerated economic growth and controlled inflation. According to the World Bank, Poland took the lead in resuming economic growth from 1992 onwards. In 2005, except for Hungary, the real GDP growth rate in all countries exceeded 5% per annum, and even reached double digits in some countries. At the same time, inflation rates were effectively

controlled in all nations, falling from double digits to single digits. In 2005, inflation was below 6 % in almost all countries.

- (3) The so-called "shock therapy" has been used in the transition process of the CEE countries. FDI inflows were promoted by increasing economic openness and reducing foreign trade and financial restrictions. They have implemented a series of policy reforms in favour of foreign investors, including lowering taxes, liberalizing foreign access, improving intellectual property protection, and maintaining monetary policy stability, which have improved the investment climate and made it more attractive. Government commitment and support have further boosted foreign investors' confidence and facilitated the deeper integration of CEE countries into the international market. In addition, as Czech Republic, Poland, Hungary and other countries have actively moved closer to the EU, trade controls on these countries have been almost completely abolished. Especially after joining the EU in 2004 and 2007 in phases, these CEE countries have been able to fully enjoy the benefits of the EU's internal integrated market, which has boosted direct investment from former EU member countries and attracted increased investment from the United States, Japan and other countries.
- (4) The CEE countries have a highly educated and low-cost labor force. FDI in the manufacturing sector was mainly justified by low input expenditures and production cost savings. Compared with countries in Southeast Asia and Latin America, the citizens of CEE regions are highly educated and belong to high-quality labor force. Moreover, compared with developed countries such as Western Europe and the United States, CEE regions have lower wage levels. According to the data published by Eurostat, the median hourly wage in Western European countries (e.g., Germany, France, Sweden) was between 10 and 15 euros in 2010, while the median hourly wage in CEE countries (e.g., Poland, Czech Republic, Hungary) was less than 5 euros. This means that the cost of labor in Western European countries is usually more than twice as high as in CEE countries.

(5) As part of the European continent, CEE countries are strategically located to facilitate trade with other European countries and for TNCs to set up production factories in the region. This advantage leads directly to lower transportation costs. In addition, due to their geographical proximity, these countries are closer to Western European countries in terms of culture, language and customs, and are therefore more easily integrated into the Western European economic circle. For TNCs, they face lower adaptation costs.

3.2. EU eastern enlargement and characteristics of FDI in CEE countries

3.2.1. Historical Process of Eastern Expansion

In 1993, the Copenhagen Summit of the EU took the historic decision to commit itself to absorbing the 10 CEE countries applying for accession as members of the EU when the political and economic conditions were mature. In March 1994, Hungary applied for EU membership, marking the beginning of the EU's eastward expansion.

In December 1997, the Luxembourg Conference decided to start accession negotiations with six countries including Poland, Hungary, Czechoslovakia, Estonia, Slovenia and Cyprus (Luxembourg Group) to initiate the process of accession of the CEE countries to the EU. In December 1999, at the Helsinki Summit, the EU extended the negotiations to Slovakia, Lithuania, Latvia, Romania, Bulgaria and Malta (Helsinki Group) and reconfirmed Turkey's candidacy.

In December 2001, the Brussels Conference adopted the Lacon Declaration, which declared that 10 countries, except Romania and Bulgaria, had largely met the criteria for accession to the EU and that negotiations were scheduled to be concluded by the end of 2002. Subsequently, the Copenhagen EU Summit in December 2002 announced that these 10 countries would formally join the EU on May 1, 2004, with Bulgaria and Romania joining in 2007.

On May 1, 2004, Czech Republic, Estonia, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Slovenia and Slovakia joined the EU, and on January 1, 2007, Romania and Bulgaria joined the EU. Croatia acceded to the EU in 2013. Thus, the EU has completed its expansion from 15 to 28 member states. The Czech Republic and 10 other CEE countries, as well as 3 Mediterranean countries, became members of the EU family.

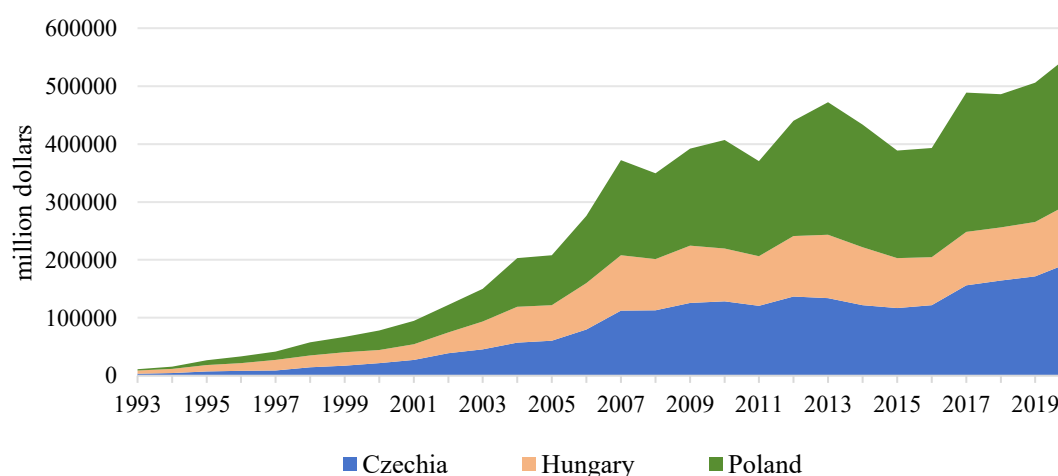
3.2.2. Stock and sectoral variations by country

While FDI inflows to the entire CEE area have been on the rise, the inflows to these countries have varied significantly due to factors such as the wide range of political systems, the highly imbalanced level of economic development, the different stages of transition, the various extent of marketization and liberalization, and the different recognition by the EU. The following discussion will be divided into three parts.

3.2.2.1. Imbalanced distribution among countries

The regional pattern of FDI to CEE countries has shown different characteristics in different historical periods. As a result of the earlier and more successful transition of Hungary, Czech Republic and Poland to a better level of economic development, the inward FDI stock of these three countries have always taken up a higher share within the CEE area.

Figure 2 Poland, Hungary, Czech Republic inward FDI stock 1993-2020



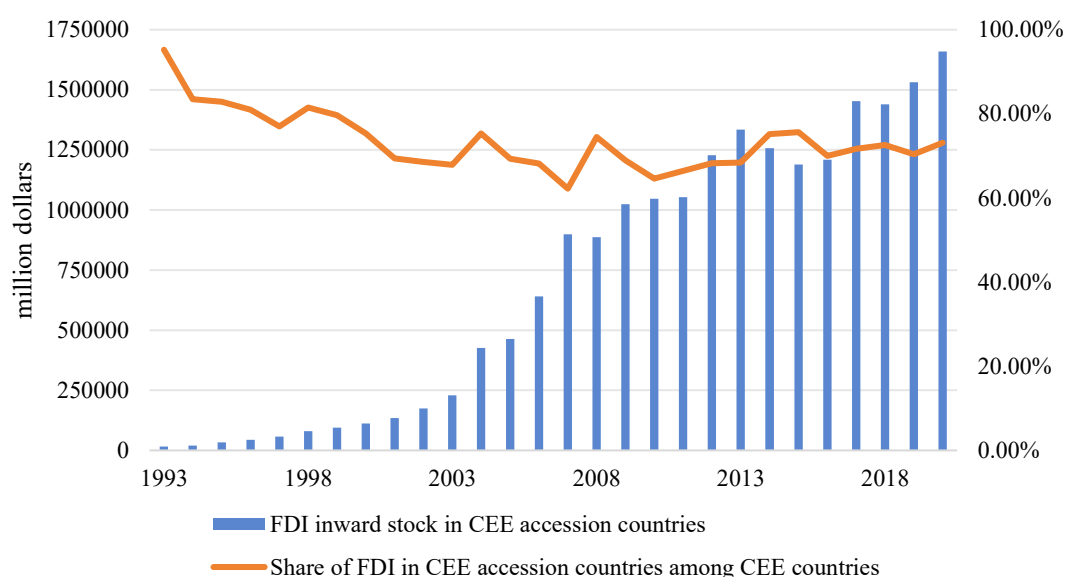
Sources: UNCTAD

As shown in the figure above. Overall, despite the fluctuations over the three decades, all three countries have experienced a general increase in inward FDI stock, especially after 2004. This volatility reflects changes in economic policy, the global economic cycle, or investor confidence. During the 1990s, all three countries showed steady growth in FDI inflows, with very similar growth trends. This may be related to ongoing economic policy reforms, the start of the EU accession process, and the growing attractiveness for foreign investors. In the first decade, and after the initial success of the reforms of marketization, all of them stabilized their the FDI at high levels until the dramatic growth after 2004. Of the three countries, Poland had the highest FDI inflows, especially after 2005 when the gap widened further.

Poland, Czech Republic and Hungary have attracted large amounts of FDI because of their relatively complete economic transition and privatization, their advanced level of economic development and their sound financial and legal systems. Poland was the first country to undergo economic transition, and Czech Republic and Hungary followed early on. The share of the private economy in the national economy was high, especially in Poland, which reached the level of Western European countries at an early stage. These countries also carried out industrial restructuring and established a sound and stable banking system, for example, Czech Republic established an independent central bank regulatory system. In terms of the tax system, they carried out adjustments and reforms, for example, Hungary adopted an export tax exemption policy and reformed the personal income tax law to attract foreign investment. Furthermore, they have significantly lowered trade barriers, eliminated all kinds of foreign exchange controls, and strengthened the degree of openness of their economies. In addition, these countries have a better economic foundation and have been at the forefront of the CEE regions. They also have intensified infrastructure construction during the transition period, contributing to the creation of a favorable investment environment. Lastly, being located in the middle of Europe and bordering with developed industrial countries such as Germany or Austria, these countries have a naturally advantageous geographical position.

Together, these initiatives have promoted the economies of these countries and elevated their position in the global economy, laying a solid foundation for attracting foreign investment, promoting trade and achieving sustained growth.

Figure 3 Inward FDI stock in CEE accession countries as a proportion of all CEE countries



Sources: UNCTAD

The accession countries referred to here include not only the 10 countries that acceded in 2004, but also Bulgaria and Romania (acceded in 2007) and Croatia (acceded in 2013).

After joining the EU, the share of inward FDI stock to the CEE accession countries as a whole will remain above 65% in most years up to 2020, as shown in the graph above.

According to the European Union Foreign Direct Investment Yearbook 2001, from the EU perspective, EU direct investment outflows to candidate countries continued to expand between 1994 and 1999, growing at an average annual rate of 29%. By the end of 1999, EU direct investment assets in candidate countries amounted to 57.7 billion euros. Additionally, EU capital outflows to candidate countries increased again in 2000 (by 27.4 % compared to 1999), reaching a new record of 14.9 billion euros.

Apart from the healthy economic situation of these accession countries themselves, the EU has also created favorable conditions for FDI inflows to these countries. Since 1989, the EU has provided \$1.2-1.5 billion annually to CEE countries through various

programs. This figure has doubled since 2000 to over \$3 billion per year. These supportive loans have been directed at different objectives at different times and have played an essential role in economic recovery and development. The PHARE program, for example, was initially designed to help these countries through the turbulence of the transition period and was later expanded to include infrastructure building and the promotion of integration with the EU. Such assistance has played a key part in economic revitalization. As a result of such support, these economies have gradually recovered and attracted more FDI.

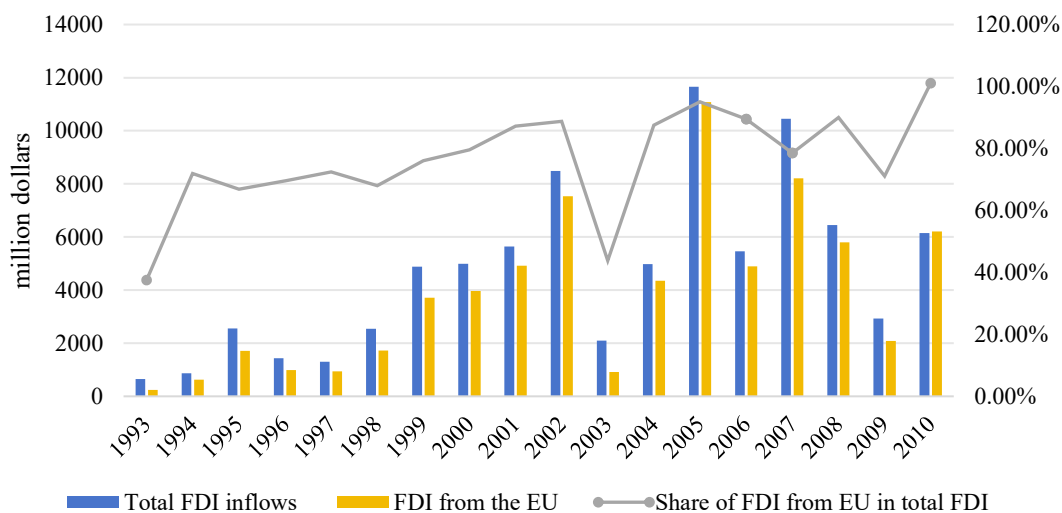
Besides providing economic aid, the EU has set a series of requirements on the level of economic development, degree of privatization, market openness, tax system, legal system and other aspects of the candidate countries, using the standards of the developed countries in Western Europe as a reference, and assessing them on a regular schedule. This approach promotes the reform and construction of candidate countries in the political, economic and legal fields, and enhances the transparency of the political and economic status. Consequently, investor countries have increased their confidence in the countries that have satisfied the criteria and passed the audit, and expect their accession to the EU, thus increasing their direct investment in these candidate countries. This system also facilitates the overall economic growth of these countries and their integration with the EU member States.

3.2.2.2. Imbalance in investor countries

Among the investor countries, the EU-15 countries have played an indispensable role in the growth of FDI inflows to CEE countries. Since the transition, FDI from the EU-15 has increased dramatically, accounting for more than two-thirds of total FDI inflows in almost all CEE countries by 2005. Take the Czech Republic as an instance, the graph below shows Czech FDI inflows from 1993 to 2010. In 1993, only 37.5% of Czech FDI inflows came from the EU-15 countries. By 2004, this share was as much as 87.5% and continued to stabilize at a high percentage in the following years. In 2010 it even exceeded 100%, which means that the Czech Republic attracts more FDI from EU

member states than from the rest of the world combined. In other words, the economic connections and investment cooperation between the EU member states and Czech Republic have become even more intensive, occupying a dominant position in the context of the outflow of foreign investment from other countries.

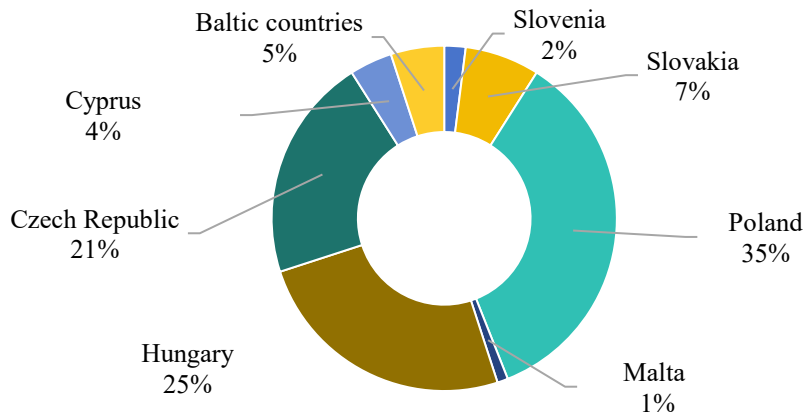
Figure 4 Czech Republic FDI inflows 1993-2010



Sources: Czech National Bank, OECD International Direct Investment Statistics

Although the EU-15 has been the engine of FDI growth in the countries of CEE, the magnitude of this push varies. For example, in 2004, Poland's FDI from the EU-15 countries represented 88.3% of its total inflows, while this proportion was only 55.2% and 67% for Hungary and Estonia. In addition, within the EU, the larger investments in CEE are concentrated in economies such as Germany, Netherlands, Austria and UK, but the distribution of investor countries still varies considerably from one country to another.

**Figure 5 Shares of EU-15 FDI outward stocks in new member states
by destination (at end-2003)**



Sources: European Union Foreign Direct Investment Yearbook 2006

According to the data for the end of 2003, the distribution of the stock of outward FDI from the EU-15 to the new member states shows distinctive features. Poland accounts for the largest share in this data, at 35%, reflecting that Poland, as one of the largest new member states, absorbed a significant amount of FDI at that time in terms of market potential and attractiveness. Hungary and Czech Republic, with 25% and 21% respectively, also received a substantial proportion of investment, demonstrating their appeal as countries with larger economies and more stable business environments. In contrast, Slovenia, Slovakia, Cyprus, Malta and the Baltic States (Estonia, Latvia and Lithuania) had relatively low ratios of investment, which may have been influenced by market size, development levels and other structural factors that failed to attract large-scale foreign investment. Malta and Slovenia, on the other hand, had the lowest investment ratios.

Table 1 Top 5 EU countries as sources of FDI inflows to CEE countries

	2002				2008			
	Czech	Hungary	Poland	Estonia	Czech	Hungary	Poland	Estonia
Austria	8.98%	17.25%	6.46%	3.32%	33.09%	35.93%		
Belgium	5.15%	14.60%	11.02%				7.09%	
Denmark								4.88%
Finland				45.96%				
France					18.03%	18.37%		2.78%
Germany	54.84%	19.18%	12.35%	7.24%	8.37%	22.02%	16.23%	
Ireland			5.28%		9.80%			
Luxembourg	2.12%					8.16%	13.44%	
Netherlands	14.48%	9.06%	44.56%		15.94%	13.81%	16.09%	26.32%
Sweden				35.59%			11.14%	53.25%
United Kingdom		3.97%		2.97%				6.12%
Top 5/Total FDI	85.58%	64.05%	79.67%	95.08%	85.23%	98.28%	63.99%	93.36%
EU-15/ Total FDI	88.78%	66.62%	94.36%	81.58%	76.50%	90.50%	91.09%	74.09%
Top 5/EU-15	96.39%	96.15%	84.43%	116.54%	111.41%	108.60%	70.25%	126.02%
	2014				2020			
	Czech	Hungary	Poland	Estonia	Czech	Hungary	Poland	Estonia
Austria	5.03%	18.37%		1.73%	11.78%	13.95%	6.43%	
Belgium		4.90%	11.28%		21.95%	24.63%		
Denmark		3.51%					4.79%	
Finland				2.48%				3.98%
France	12.33%		11.22%	1.40%	7.33%			
Germany	51.19%	14.38%	9.15%				15.60%	9.76%
Ireland								1.66%
Luxembourg	40.45%		43.85%		9.28%	18.41%	16.75%	60.84%
Netherlands	14.93%	40.79%	32.83%	10.50%		10.95%	25.61%	0.87%
Sweden					9.29%			
United Kingdom				1.59%		26.48%		
Top 5/Total FDI ¹	123.94%	81.95%	108.33%	17.70%	59.62%	94.43%	69.17%	77.12%
EU-15/ Total FDI ²	87.65%	71.29%	108.71%	36.25%	62.97%	40.30%	87.75%	89.35%
Top 5/EU-15 ³	141.41%	114.96%	99.65%	48.82%	94.68%	234.30%	78.83%	86.31%

Sources: Czech National Bank, Magyar Nemzeti Bank, Narodowy Bank Polski, Eesti Pank, European Union Foreign Direct Investment Yearbook 2006-2020

1: Ratio of total FDI inflows from the top five countries

2: Ratio of total FDI inflows from the EU-15 to total FDI inflows

3: Ratio of FDI inflows from top 5 countries to EU-15 countries

The above table illustrates the data of the top five investor countries of the EU-15 in terms of FDI inflows to Czech Republic, Hungary, Poland, and Estonia for the years

2002, 2008, 2014, and 2020, respectively. Statistics on FDI from the top five countries as a percentage of total FDI inflows, as a percentage of FDI inflows from the EU-15, and as a percentage of total inflows from the EU-15 are also presented. It can be seen that these four countries have witnessed remarkable changes in FDI inflows since 2002, especially from the EU-15. These changes reflect the evolution of economic strategies and market conditions in these countries in attracting FDI after EU accession.

First, the larger suppliers of FDI in the four countries mentioned above are not all the same. For example, in 2002, the largest source of investment in Czech Republic was Germany, which accounted for more than half of the total FDI inflows. Conversely, in the same year, the largest investors in Poland and Estonia were Netherlands and Finland, which contributed more than 40% of their total FDI inflows. The situation is similar in other years, with all four countries having different top suppliers, and their top sources of investment varying from year to year. In 2008, for instance, Czech Republic received the highest investment from Austria but in 2014 it became Germany's top recipient. Meanwhile, it is worth noting that, except for Estonia, which received more than 60% of total FDI inflows from Luxembourg in 2020, the distribution of FDI inflows in the other three countries is more dispersed, with no particularly prominent investor inflows.

Based on the last three rows of ratios the following two features can be summarized:

- 1) The sources of foreign investment in the four countries above have different concentrations in the EU-15 than in other countries. The data for Czech Republic and Poland demonstrate a more stable or slightly fluctuating pattern of dependence. The Czech Republic's share of total FDI inflows from the EU-15 is generally in the range of 70-80%. In Poland, the ratio is at its lowest in 2020 with 87.75%. On the other hand, this ratio is less consistent in Hungary and Estonia, especially in Estonia in 2014 and Hungary in 2020, where investments from EU-15 represented only 36.25% and 40.3% of total FDI inflows, marking a sharp decline compared to other years.

- 2) The four countries mentioned above have different concentrations of foreign investment sources within the EU-15. Among these four countries, Czech Republic and Hungary accept investments from the EU-15 mainly focused on the top five countries, especially Hungary where this proportion exceeded 100% in three years and even reached 234.3% in 2020. Poland's share, although not as high, has been relatively stable at around 70-80%. The most volatile is Estonia, where the percentage dropped to only 48.82% in 2014, a year in which Estonia's main FDI inflows also included other CEE states.

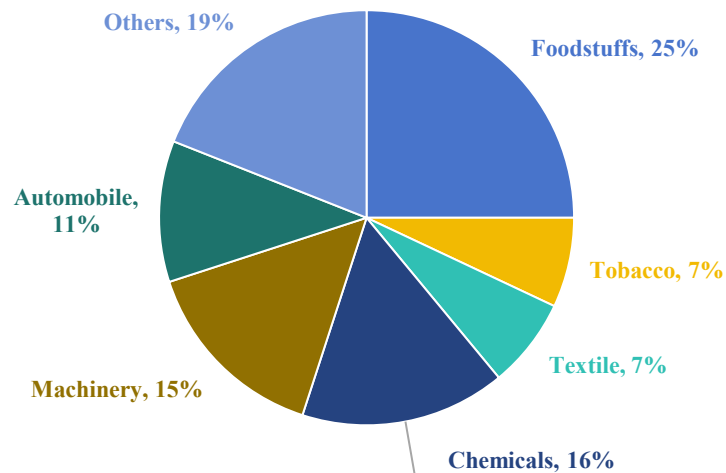
These data suggest that, after joining the EU, these CEE countries have been able to attract investment from other member States more effectively, enhancing their economic connectivity and market appeal. Simultaneously, over time, they have been gradually adjusting and optimizing their economic structures and foreign investment introduction strategies in response to changes in the global and regional economic landscape.

3.2.2.3. Sectoral imbalances

- (1) Manufacturing - the main sector of attraction in the early period of transition

At the beginning of the transition period, FDI in the countries of CEE were mainly centralized in the secondary sector, represented by the automobile and manufacturing industries. During this phase, privatization in the countries was focused on industrial sectors such as manufacturing, which absorbed a large amount of foreign capital. On average it accounted for 65% of the overall inflows. The chart below displays the sectoral flow of FDI within the manufacturing sector absorbed by the 10 CEE accession countries during 1986-1997 in the transition period. The inputs include industries that are dominant in the CEE area, such as machinery, automobiles and chemicals, as well as consumer products industries such as light textiles, which have long been neglected by the CEE region.

Figure 6 Sectoral distribution of FDI (within manufacturing) in the 10 accession countries of CEE, 1986-1997



Sources: DiMauro, F. (2001). *Economic integration between the EU and the CEECs: A Sectoral Study*

In terms of sectoral distribution, there are notable differences among the specific countries. Bulgaria and Latvia attract significant FDI in the food industry, constituting 80% and 59% of their manufacturing sectors, respectively. The Czech Republic predominantly appeals to investment in the automobile industry, comprising 45% of total FDI. Slovakia and Slovenia are dominated by the chemical industry, with 46% and 53% respectively. Poland's steel and shipbuilding sectors are highly regarded but require capital for upgrades due to aging equipment. In light industry, the food and textiles sectors are experiencing rapid growth. Hungary absorbs 57.5% of investment in the industrial sector, mainly in machinery and food industries.

(2) Services -- New Sectors of FDI Inflows at the beginning of the 21st Century

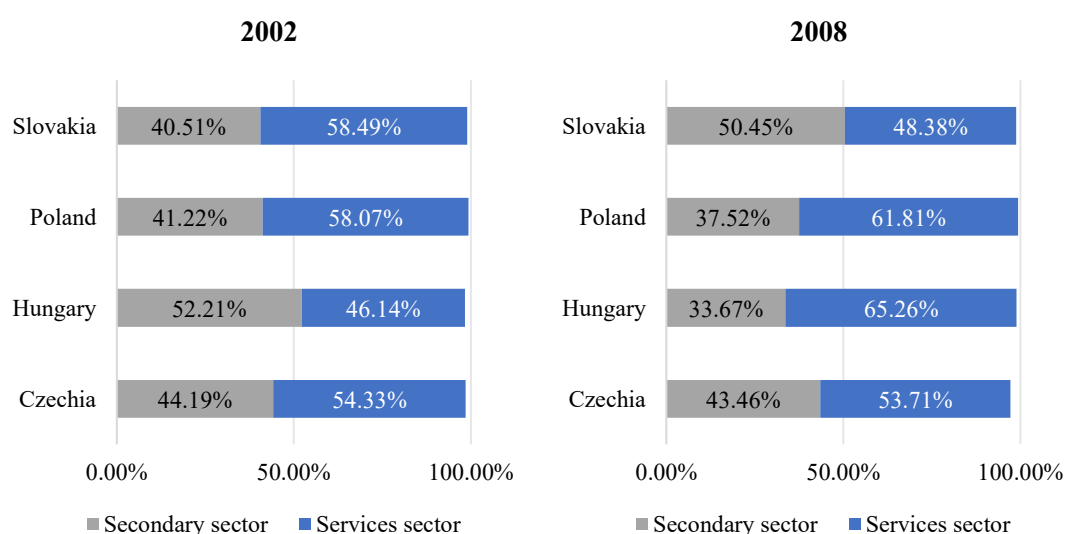
At the early 21st century, the distribution of FDI inflows to CEE countries changed significantly from an initial concentration in the secondary sector to a gradual shift to the tertiary sector. This trend is closely associated with the privatization process in each country. The liberalization and accelerated privatization of service industries such as banking and communications facilitated the inflow of foreign capital. The accession countries, in particular, in order to meet the requirements of the EU, had to speed up the

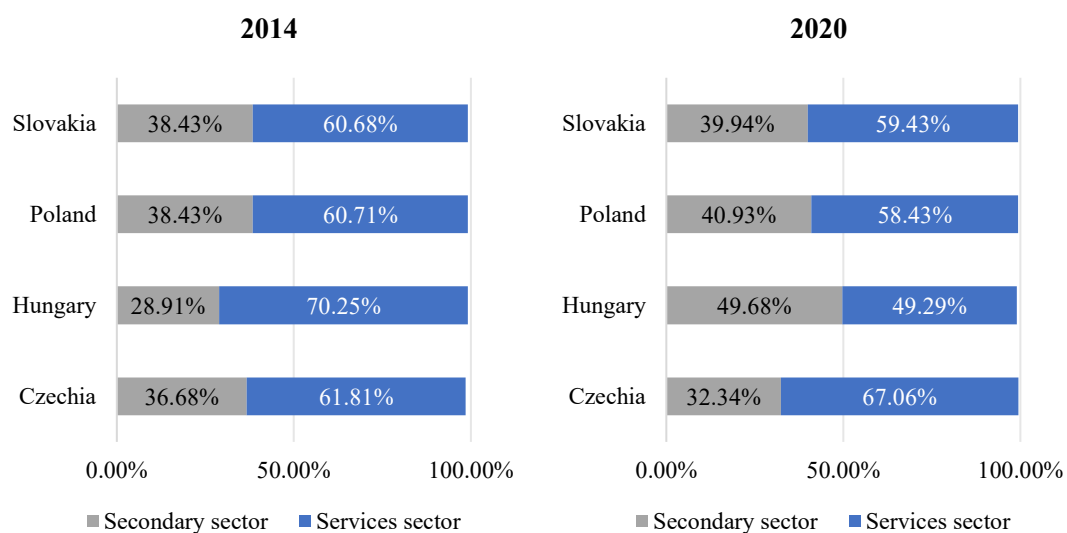
adjustment of their industrial structure and increase the share of the tertiary sector in their national economies. Therefore, these countries adopted various policies to attract capital and accelerate the privatization of financial, communication and other service industries. By the end of the 20th century, the proportion of services in FDI inflows in most CEE countries had exceeded that of manufacturing.

(3) Variation in FDI inflow sectors across countries

The following diagram illustrates the allocation of FDI stock in the secondary and service sectors in four CEE countries (Slovakia, Poland, Hungary, Czech Republic) for the years 2002, 2008, 2014, and 2020. Despite in general, the CEE countries are basically centralized in the service sector after 2000, however, there are still large disparities in the sectoral distribution across countries. First of all, Poland's share of the services sector has always been large, remaining essentially stable at around 60%. Second, the services share of Slovakia first declined, from 58.49% in 2002 to 48.38% in 2008, before increasing and stabilizing at around 60%. Besides, Hungary's share of services rose gradually, reaching a peak of 70.25% in 2014, before falling to 49.29% in 2020. In contrast, there has been a steady growth in the share of services in the Czech Republic, from 54.33% in 2002 to 67.06% in 2020.

Figure 7 Percentage of FDI stock to secondary and services sectors in selected CEE countries in a given year





Sources: OECD International Direct Investment Statistics

1. The primary sector includes all those activities the end purpose of which consists in exploiting natural resources;
2. The secondary sector includes manufacturing, electricity, gas & water and construction;
3. The services sector includes trade & repairs, hotels & restaurants, transport & communication, financial activities, real estate & business activities, etc.

In addition, FDI inflows to CEE countries differ not only in the distribution of secondary and tertiary industries, but also within each industry. The following table shows the breakdown of services FDI inflows in selected CEE countries in 2008. The data illustrates that CEE countries have diverse performances in the segmentation of FDI inflows in the service sector, with different advantages and characteristics. Percentage figures indicate net inflows and negative values indicate net outflows. Czech Republic draws a high proportion of FDI in the field of financial intermediation and real estate leasing, reaching 52.62% and 50.68% respectively. Estonia and Slovenia also have higher proportions of FDI in financial intermediation with 63.32% and 61.17% respectively, but have less FDI in real estate and its leasing. Estonia and Hungary have higher FDI ratios in transportation, warehousing, and communications with 20.8% and 19.96% respectively, reflecting the potential of these countries in infrastructure and logistics.

Furthermore, there are differences among countries in the amount of FDI inflows in total services, with Slovenia having the highest total services FDI inflows at \$10770.2

million in 2008, and Estonia the lowest at \$1729.1 million, indicating the general ability of these countries to attract FDI and their market size.

Table 2 Breakdown of FDI inflows in services in selected CEE countries, in 2008

	Trade and repairs	Hotels and restaurants	Transport, storage and communication	Financial intermediation	Real estate and renting	other services	Total (million USD)
Czech	5.29%	-1.18%	-8.73%	52.62%	50.68%	1.32%	5699.7
Estonia	-0.27%	5.65%	20.80%	63.32%	7.99%	0.53%	1729.1
Hungary	17.25%	-1.21%	19.96%	34.78%	27.76%	1.46%	4971.8
Poland	22.38%	-0.28%	-7.84%	45.15%	39.90%	0.69%	9812.9
Slovakia	12.00%	3.16%	5.73%	45.62%	33.01%	0.48%	3927.0
Slovenia	21.71%	0.50%	4.59%	61.17%	11.01%	1.02%	10770.2

Sources: OECD International Direct Investment Statistics Yearbook 2004

Trade and repairs include: Motor vehicles, Wholesale trade, and Retail trade.

Financial intermediation include: Monetary intermediation, Other financial intermediation, Insurance and pension funding, and Activities auxiliary to financial intermediation.

3.3. Research questions and hypotheses

In the literature review, it has been made clear that FDI play an important role in the economic transformation of CEE countries. There have existed some ex-ante and ex-post studies analyzing the economic, political and social impacts of EU accession on CEE countries. The previous part of the chapter introduces the historical background, influencing factors and development characteristics of FDI in CEE countries. Based on the above analysis, this paper will study the impact of the event of EU accession on inward FDI to CEE countries based on the key time point of 2004.

The main research question of this paper is: what would have been the inward FDI of these countries if they were not full members of the EU? After drawing preliminary conclusions, the research question can be further extended: To what extent will the positive impact of EU membership on FDI be sustained over the long term? Conversely, How might countries respond to 'accession fatigue' if EU membership negatively impacts FDI, particularly in terms of seeking economic partnerships with other large economies?

In this regard, this paper proposes the following research hypotheses. First, if these CEE countries are not full members of the EU, their inward FDI will be significantly lower than the actual inward FDI. Next, the longer it takes for CEE countries to join the EU, the more positive the impact would be on FDI in CEE. It implies that these CEE countries have adapted well to EU membership and based on this platform have formed good cooperative relationships with the previous member states as well as with other world economies. However, if EU accession hurts FDI, these countries may turn to seek cooperation with other large economies for better future development. In the current uncertain global economic environment, especially in the recovery phase after the epidemic, validating these hypotheses will help to gain insights into the impact of EU membership on inward FDI and its long-term effects, thus providing a more reliable basis for policymakers.

Chapter 4 Methodology and Data

4.1. Model construction

This paper adopts the synthetic control method (SCM) first proposed by Abadie et al. (2003), which views EU accession as a policy experiment related to regional integration. Accordingly, it divides the experimental group and control group to assess the impact of EU accession on regional economic development. SCM has been widely used in the fields of policy evaluation and event evaluation, such as tobacco control law, property tax pilot, inflation targeting, and the establishment of special economic zones. Specifically for this paper, the basic operational steps of the SCM are: (1) identifying appropriate predictor variables and assigning weights to the control group based on the predictor variables; (2) fitting a counterfactual synthetic control country with qualities similar to those of the accession countries according to the weights; (3) comparing the differences in inward FDI trends between the accession countries and the synthetic control countries to assess the event effects of EU eastward expansion.

It is assumed that it is possible to collect panel data on economic development for $(K+1)$ regions, for T periods. One of the regions (the new accession country) joins the EU at T_0 ($1 \leq T_0 \leq T$), and the other K regions are the control group not affected by this event. Let P_{it}^Y denote the FDI inflow of region i as a newly acceded country at time t , and P_{it}^N indicates the FDI inflow of a country that is not a new accession country. Setting up Model $P_{it}^{\square} = P_{it}^N + D_{it}\alpha_i$, P_{it}^N is the FDI inflow to new member countries when they are not enrolled in the EU. D_{it} is a dummy variable for whether or not they are newly joined countries. This variable takes 1 if region i joins the EU at moment t , and 0 otherwise. For non-newly acceding countries, there is $P_{it}^{\square} = P_{it}^N$ for the whole period T .

The goal of the study is to estimate the gap, α_{it} , between the experimental and control groups.

$$\alpha_{it} = P_{it}^Y - P_{it}^N = P_{it}^{\square} - P_{it}^N$$

P_{it}^{\square} is the FDI inflows to the new accession countries, which is already known. What needs to be evaluated is P_{it}^N , which is unobservable. Due to the irreversible nature of policy implementation, in order to solve the problem of unobservability of P_{it} after the T_0 period, this paper employs the factor model proposed by Abadie et al. (2010) constructing a "counterfactual" variable to estimate P_{it}^N :

$$P_{it}^N = \delta t + \theta t Z_i + \lambda t \mu_i + \varepsilon_{it}$$

where δt is a time-fixed effect. Z_i is an observable control variable that is not disturbed by policy. λt is an unobservable common factor. μ_i is an unobservable time-varying area fixed effect. ε_{it} is a short-lived shock that is not capable of being detected, and which is assumed to have a mean value of 0 for all area error terms.

In order to obtain the counterfactual results of P_{it}^N , it is necessary to model the characteristics of the experimental group by weighting it with other controls. An N -dimensional vector ω ($\omega_2, \dots, \omega_{N+1}$) representing the weights of the control group can be constructed. For any $i=2, 3, \dots, N+1$, $\omega_i \geq 0$ and $\sum_{i=2}^{N+1} \omega_i = 1$. For new accession states, the vector ω represents the potential synthetic control portfolio, and ω_i then stands for the share of region i in the control group in the synthetic control portfolio. Therefore, the synthetic control outcome variable is:

$$\sum_{i=2}^{N+1} \omega_i P_{it}^{\square} = \delta t + \theta t \sum_{i=2}^{N+1} \omega_i Z_i + \sum_{i=2}^{N+1} \omega_i \lambda t \mu_i + \sum_{i=2}^{N+1} \omega_i \varepsilon_{it}$$

Abadie et al. (2010) demonstrate that, under general conditions, if the pre-shock period is long relative to the time horizon of the shock, there exists an optimal $\omega^* = (\omega_2^*, \dots, \omega_{N+1}^*)$ such that the synthetic control group performs identically to the experimental group until T_0 . It is then proved that the synthetic control group perfectly "replicates" the experimental group, that is.:

$$\sum_{i=2}^{N+1} \omega_i^* P_{i1}^{\square} = P_{11}^{\square}, \dots, \sum_{i=2}^{N+1} \omega_i^* P_{iT_0}^{\square} = P_{1T_0}^{\square}, \text{ and } \sum_{i=2}^{N+1} \omega_i^* Z_i = Z_{1t}$$

Thus, $\sum_{i=2}^{N+1} \omega_i^* P_{it}^{\square}$ can be derived as an unbiased estimate of P_{it}^N :

$$\alpha_{it} = P_{it}^{\square} - P_{it}^N = P_{it}^{\square} - \sum_{i=2}^{N+1} \omega_i^* P_{it}^{\square}$$

Hence the estimated value of the EU's eastward expansion effect α_{1t} :

$$\alpha_{1t} = P_{1t} - \sum_{i=2}^{N+1} \omega_i^* P_{it}, t \in [T_0 + 1, \dots, T]$$

The main advantage of the SCM over the double-difference method is that it does not rely on the parallel trend assumption, but rather simulates the characteristics of the treatment group prior to the implementation of the policy by constructing a weighted combination of multiple control groups. This is particularly applicable in the context of policy evaluation, where it is not possible to obtain what the experimental group would have been like if the policy had not been imposed. This allows the SCM to provide accurate estimates despite significant differences between treatment and control groups. In addition, SCM is particularly well suited to small sample studies. By finely matching the treatment and synthetic control groups on multiple variables, the reliability and accuracy of tests of policy enforcement effects are improved.

4.2. Selection of synthetic control group and variable setting

The SCM entails two identification assumptions: (1) the choice of the pre-treatment characteristics should include variables that can approximate the path of the treated country, but should not include variables that anticipate the effects of the intervention; and (2) the countries used to obtain the synthetic control (those in the “donor pool”) must not be affected by the treatment. How these two assumptions are realized is explained specifically below.

4.2.1. Selection of experimental and control groups

In this paper, the CEE countries that joined the EU in 2004 (except for Cyprus and Malta) are selected and the year 2004 is set as the point of shock, while the rest of the time is the unshocked point of time.

The empirical study draws inspiration from Campos et al. (2019) and focuses on examining the impacts of EU integration. Utilizing a comparable sample of donor

countries, this research encompasses Albania, Algeria, Argentina, Australia, Belarus, Brazil, Canada, Chile, China, Colombia, Greece, India, Indonesia, Israel, Malaysia, Mexico, Moldova, Morocco, New Zealand, Philippines, Russian Federation, South Africa, South Korea, Switzerland, Thailand, Turkey, Ukraine, and Uruguay. This selection comprises non-EU OECD countries, newly industrialized nations, and the immediate neighbors of the EU. In contrast to the original study, our analysis extends to include Israel and Korea (both OECD members), India and South Africa (BRICS countries), Ukraine and Moldova (neighboring countries) within the donor pool. Because of data availability, North Macedonia is dropped and Greece is picked as the neighboring country option. Notably, Croatia is excluded from the donor pool due to its EU membership status since 2013. The remaining donor pool selection adheres to the same criteria as in the original study, striking a balance between donor pool size and data accessibility.

4.2.2. Variable setting

Firstly, it is the setting of the outcome variable. The significance of FDI for the economic transformation and development of CEE countries has already been mentioned in the literature review. In the empirical evidence, FDI stock is chosen as the outcome variable to represent the level of FDI in CEE countries. The main reasons are as follows: 1) Inward FDI stock has played a key role in the economic growth of the CEE region and have been an important factor in driving sustained economic growth (Popescu, 2014). These investments have not only increased the capital stock of host countries, but have also boosted productivity and accelerated economic growth. 2) Studying FDI stock can effectively assess the effects of long-term policies, such as the lasting impact of tax incentives and investment facilitation measures on FDI, as well as the institutional environment, infrastructure and market size. 3) Compared with the more volatile FDI inflows, FDI stock data are more stable and suitable for long-term trend analysis and structural change studies, thus providing a more continuous data series.

Secondly, it is the setting of predictor variables. The core of the SCM is the choice of predictor variables, which should make the inward FDI stock of the "synthetic new accession countries" as close as possible to the real country situation. Hence, the choice of predictor variables should be related to the factors influencing inward FDI stock. Although there is uncertainty regarding the determinants of FDI in the literature, certain factors have reached a consensus and have been corroborated by studies such as those by Blonigen and Piger (2014).

On the one hand, the primary gravitational variables, which are considered with a 100% chance of inclusion in their studies, will thus be incorporated here. One such variable is population size, typically representing the scale of a country or market. GDP per capita should also be considered, serving as an indicator of a country's level of development. GDP growth is included as well, being commonly regarded as both a measure of economic development and a robust predictor of FDI. Other highly inclusive variables considered in this study include urban population and market openness, which are expressed as the share of urban population in total population and trade as a share of GDP in this research. However, this is not the sole perspective under consideration, as firstly, Blonigen and Piger's research is tailored to bilateral foreign direct investment, thus some determinants are specifically relevant to this context. For instance, many conventional gravitational variables like proximity, remoteness, common language, or colonial ties may not apply to studies examining total inward of FDI. So, there are other factors that will be considered in this paper. Interactions between government and economic activities may also influence FDI decisions—this is where the share of government consumption in GDP should be reflected. Lastly, since FDI are unbalanced across industries, the development of different industries in the country is also taken into account.

On the other hand, in Blonigen and Piger's study, legal institutions also have an essential impact on FDI. Therefore, institutional variables related to the level of efficiency of government administration should also be included in the model.

Furthermore, in the process of absorbing foreign investment, governments must ensure

private property rights. This is not only to allow the market economy to function, but more crucially, to assure foreign firms that their property rights will be respected. Since foreign firms are not part of the social contract between citizens and the state, the property rights of foreign firms are often not protected by domestic firms. Therefore, this paper will also consider the level of property rights protection. For this variable, this paper follows Allee and Peinhardt (2011) and uses the International Country Risk Guide (ICRG) dataset to measure the level of property rights protection. The dataset combines four indicators from the guide: Government Stability, Investment Profile, Law & Order and Corruption. The indicator is decomposed here into its original individual components to better reflect the level of legal systems suggested by Blonigen and Piger.

4.3. Data sources and descriptive statistics

This paper synthesizes data from 36 countries and regions (including 28 donor countries and 8 CEE countries) from 1997 to 2020, comprising 864 observations. In order to ensure the accuracy of the synthetic control group, data from 1997 onwards are selected for data availability. Meanwhile, the study ends in 2020 to avoid a huge economic and trade impact of the epidemic. Additionally, based on the above analysis, the outcome variable chosen for this paper is the logarithmic form of inward stock of FDI per capita. The predictor variables selected sequentially are annual GDP growth, log form of GDP per capita, general government consumption as a share of GDP, industry's share of GDP in total value added, log form of total population, trade as a percentage of GDP, proportion of urban population, and the four institutional indices: Government Stability, Investment Profile, Law & Order and Corruption. The descriptive analysis of the variables is shown in the table below.

Table 3 Descriptive Statistics

	Var	Source	Obs	Mean	SD	Min	Max
Outcome	lnFDI_sto	UNTCAD	864	7.597	1.596	2.303	11.82

variable							
Predictor	GDP_gro	WDI	864	3.263	3.992	-15.14	14.23
variables	lnGDP_per	WDI	864	8.926	1.111	5.990	11.41
	Gov_exp	WDI	864	16.31	3.945	5.694	28.81
	Ind	WDI	864	28.89	7.390	13.35	58.13
	lnPop	WDI	864	16.95	1.680	14.09	21.07
	Tra	WDI	864	79.76	38.95	16.44	220.4
	Urb	WDI	864	67.89	15.81	27.03	95.52
	Gov_Sta	ICRG	864	8.061	1.499	4.042	12
	Inv_Pro	ICRG	864	8.824	1.867	3	12
	Law_Ord	ICRG	864	3.893	1.189	1	6
	Cor	ICRG	864	2.882	1.070	1	6

Chapter 5 Regression Analysis

5.1. Basic factual verification of the impact of the 2004 EU eastward enlargement on FDI inflows

This paper aims to utilize the SCM to construct a "counterfactual" path for the inward stock of FDI in CEE countries, thereby clarifying the impact of the 2004 EU enlargement on FDI growth in the region. The study focuses on the eight CEE countries that joined the EU in 2004. Consequently, donor countries are used to sequentially synthesize eight counterfactual control groups, which are then compared with the actual country scenarios. The specific steps are as follows: First, panel data are imported and organized in STATA, with several variables log-transformed. Next, the `ssc install synth2` command is used to install the synth2 package. Then, the `synth2` command is employed to construct synthetic control units, specifying the characteristics and time frames of the treatment and control units. Finally, by analyzing the results and graphs produced by the `synth2` command, the performance differences between the treatment units and synthetic control units post-treatment are assessed to evaluate the causal effects of the EU enlargement. Additionally, the placebo test is conducted to evaluate the robustness and accuracy of the model and methodology.

(1) Czech Republic

Table 4 Optimal Unit Weights (Czechia)

Donor counties	Weights
Korea, Rep.	0.36
New Zealand	0.327
Mexico	0.22
Israel	0.093

Figure 8 Actual and Synthetic Outcomes (Czechia)

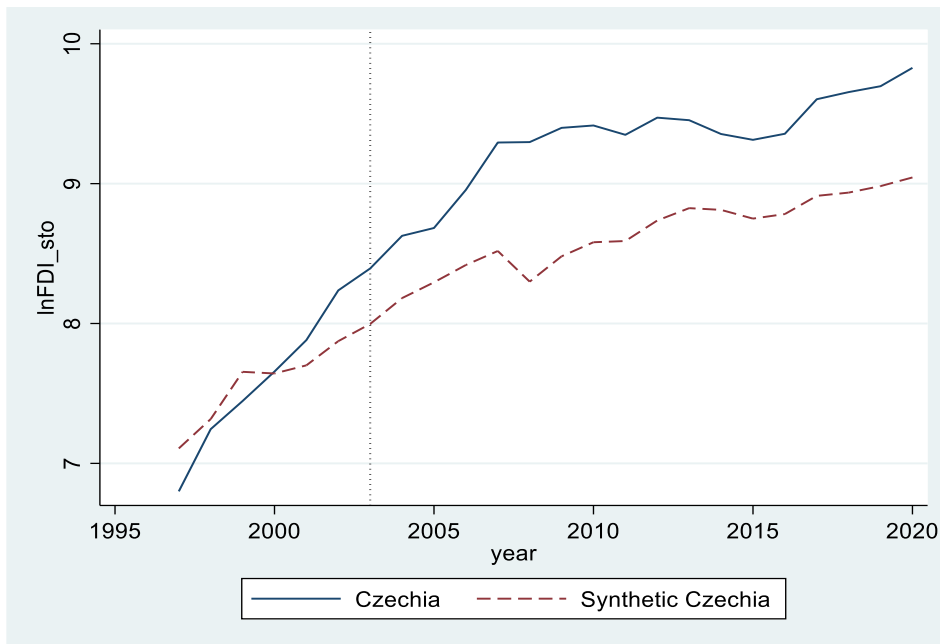


Table 8 displays the allocation of weights among countries in the synthetic control group, with South Korea holding the highest weight at 36%, followed by New Zealand at 32.7%. Mexico and Israel have relatively smaller weights of 22% and 9.3%, respectively. Figure 8 illustrates the trend in actual inward FDI stock in the Czech Republic compared to the synthetic control group, assessing the impact of the 2004 EU enlargement. Prior to the EU enlargement in 2004, the trends in Czechia and synthetic group are largely aligned, suggesting a well-fitted model. However, after 2004, there is a significant widening gap between them. Particularly from 2004 to 2008, actual inward FDI stock shows a steep upward trend, reflecting the rapid enhancement of Czechia's attractiveness for investment due to improved market access, tariff preferences, and investment facilitation policies following the EU enlargement. In contrast, synthetic Czechia maintains relatively stable inward FDI stock post-2004 and does not exhibit a similar growth pattern. The global financial crisis of 2008 has some negative impact on FDI, but Czechia recovers faster than the synthetic counterpart, widening the disparity further. Beyond 2010, although the growth rate of actual inward FDI stock slows, it continues to rise, remaining significantly higher than the synthetic control group. Overall, these empirical results demonstrate a robust and enduring positive impact of the EU enlargement on FDI to

Czechia.

Figure 9 Net effect of the EU's eastward enlargement on the growth of the stock of FDI inflows (Czechia)

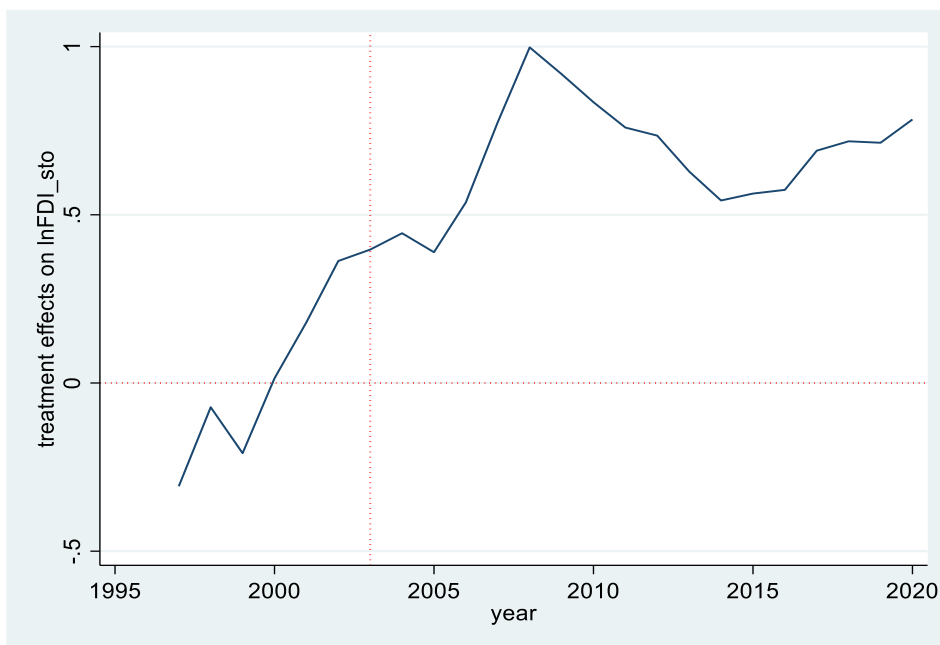


Figure 9 quantifies the net effect of the EU enlargement on inward FDI stock in Czechia by illustrating the differences between actual stock and the synthetic control group. From 1997 to 2020, the net effect displays significant volatility. Following the EU enlargement in 2004, there is a notable increase in the net effect. Particularly from 2005 to 2010, the net effect experiences a substantial rise, reaching its peak. However, after 2010, this figure begins to gradually decline, though remaining at elevated levels with a more stable fluctuation pattern. This trend may be influenced by the global financial crisis and the Eurozone debt crisis, which undermined investor confidence and led to a slowdown in the growth rate of inward FDI stock. Nevertheless, Czechia's net effect remains relatively high post-crisis, demonstrating the stability of its economic foundation and policy environment, which continue to sustain foreign investment. In summary, these findings suggest a persistent and substantial positive impact of the EU enlargement on FDI to Czechia.

(2) Estonia

Table 5 Optimal Unit Weights (Estonia)

Donor counties	Weights
Canada	0.635
Moldova	0.316
New Zealand	0.041
Israel	0.008

Figure 10 Actual and Synthetic Outcomes (Estonia)

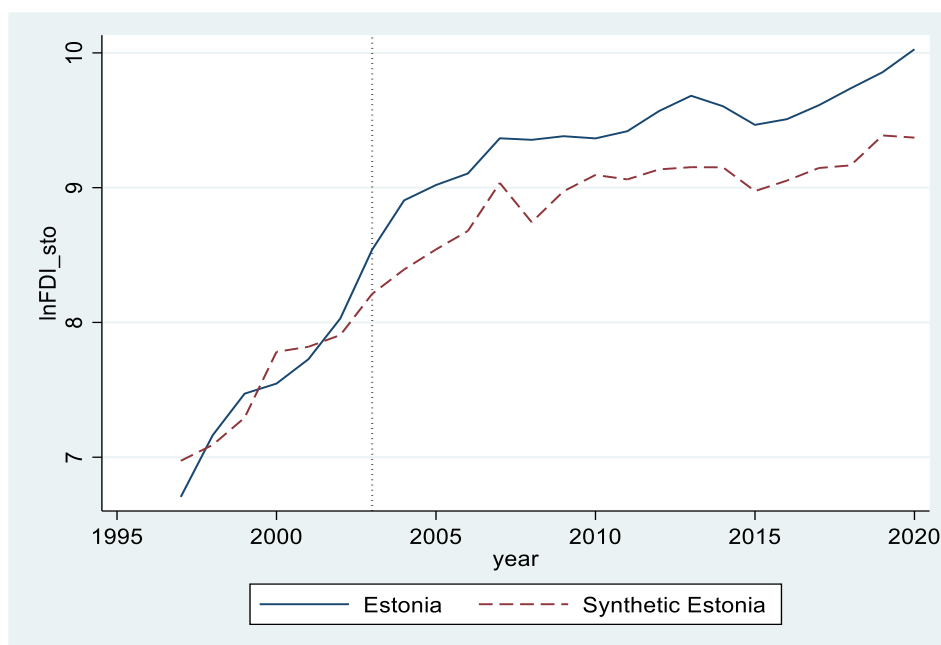


Table 5 reveals that Estonia's synthetic control group is primarily composed of Canada (63.5%) and Moldova (31.6%), with New Zealand (4.1%) and Israel (0.8%) having minor impacts. Figure 10 illustrates the trend in Estonia's actual inward FDI stock compared to the synthetic control group from 1997 to 2020. During this period, the figure in Estonia steadily increases and even slightly exceeds the level of the synthetic control group before 2004. However, following the EU enlargement, Estonia experiences a significant acceleration in the growth rate and magnitude of inward FDI stock. The disparity becomes more pronounced and persisted over the long term, notably widening immediately after 2008, clarifying the effectiveness of EU market

access and investment facilitation policies. This further confirms the positive role of regional economic integration policies in attracting foreign investment. It is noteworthy that after 2015, Estonia's actual inward FDI stock accelerates once again, further expanding the gap with the synthetic control group.

Figure 11 Net effect of the EU's eastward enlargement on the growth of the stock of FDI inflows (Estonia)

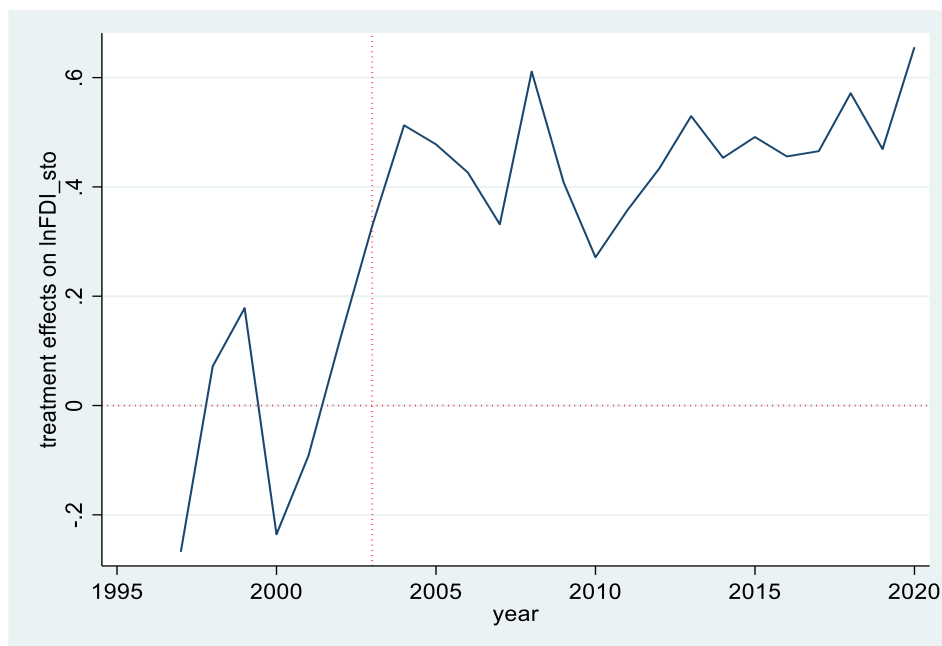


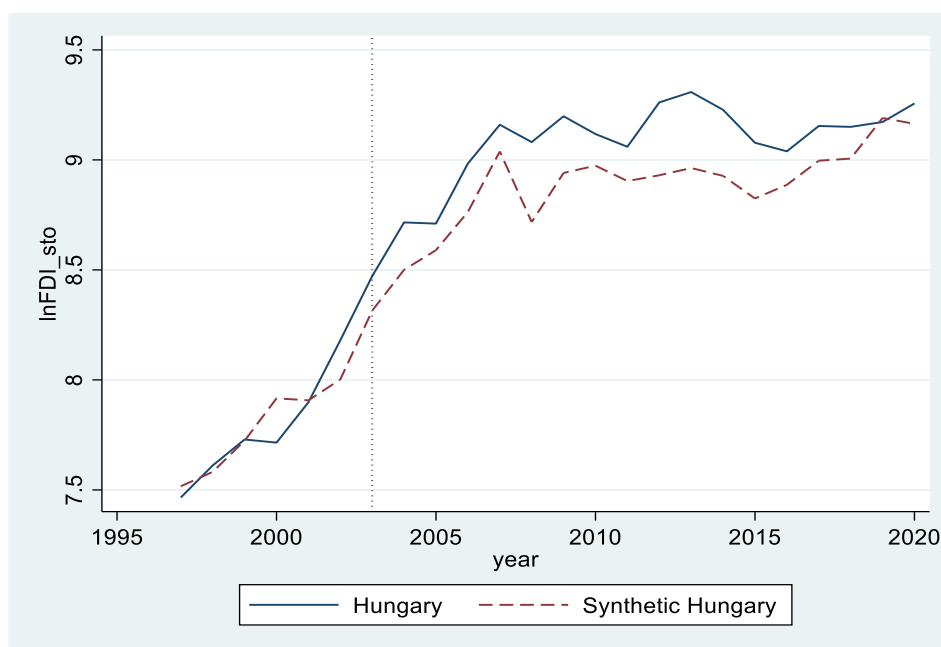
Figure 11 illustrates the net effect of the EU enlargement on inward FDI stock to Estonia. Prior to Estonia's accession to the EU, the net effect line fluctuates around zero, indicating relatively stable growth without significant external policy impact. Overall, Estonia's net effect exhibits considerable volatility, reflecting greater uncertainty regarding changes in global economic and domestic economic adjustments. Nevertheless, since the EU enlargement in 2004, particularly from 2005 to 2010, Estonia experiences a significant increase in the net effect, reaching its peak. This clearly shows a strong positive impact of the EU enlargement on Estonia's FDI. Despite fluctuations after 2010, the overall trend remains at higher levels and gradually raises, reflecting that the long-term impact of the EU enlargement remains significant, continuously enhancing Estonia's competitiveness in attracting foreign direct investment.

(3) Hungary

Table 6 Optimal Unit Weights (Hungary)

Donor counties	Weights
Canada	0.417
Greece	0.234
New Zealand	0.184
Algeria	0.12
Moldova	0.044

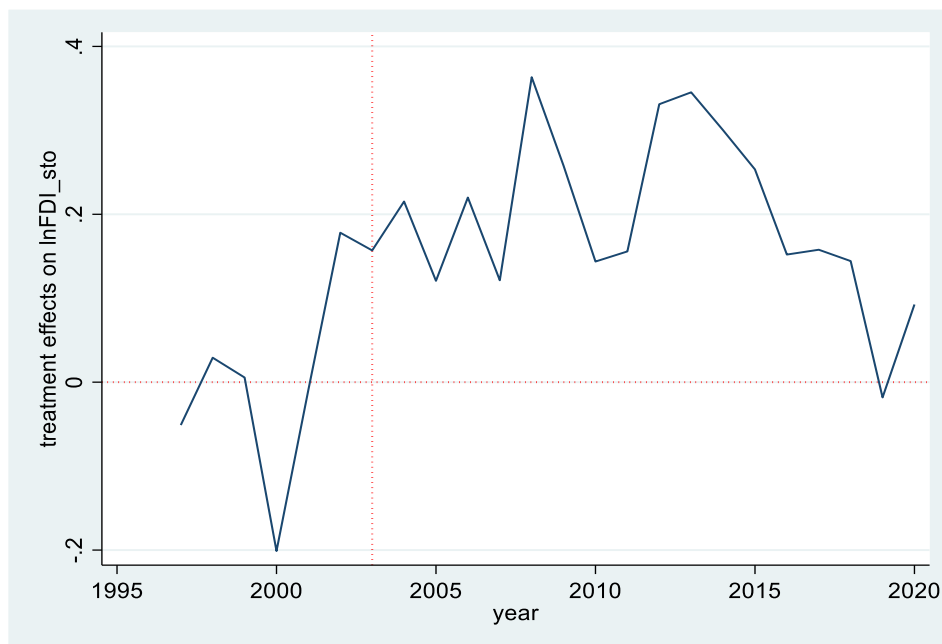
Figure 12 Actual and Synthetic Outcomes (Hungary)



As shown in Table 6, Hungary's synthetic control group is mainly composed of Canada (41.7%), Greece (23.4%), New Zealand (18.4%), Algeria (12%), and Moldova (4.4%). From 1997 to 2004, Hungary's actual inward FDI stock steadily increase, closely following the trend of the synthetic control group. However, starting from the global financial crisis in 2008, this figure begins to fluctuate and decline, although it still remains higher than the levels of the synthetic control group. After 2010, while actual number shows some volatility, it generally raises again after 2015. Meanwhile, the gap between actual inward FDI stock and the synthetic control group

gradually narrows. This trend reflects Hungary's challenges in facing internal economic structural adjustments and external economic environment changes after experiencing initial rapid growth. Despite this, Hungary's actual FDI remain mostly higher than those of the synthetic control group for most of the period, indicating that the long-term positive effects of the EU enlargement still exist, albeit with some weakening in later stages.

Figure 13 Net effect of the EU's eastward enlargement on the growth of the stock of FDI inflows (Hungary)



As illustrated in Figure 13, before Hungary's accession to the EU in 2004, the net effect is volatile and below zero, indicating that the growth of inward FDI stock is relatively stable and not affected by significant external policies. With Hungary's accession to the EU in 2004, the net effect rises rapidly and exceeds zero, suggesting a strong positive impact of the EU's eastward expansion. Between 2004 and 2015, the net effect remains high. However, the net effect began to exhibit substantial fluctuations, temporarily approaching zero, suggesting a relative slowdown in Hungary's inward FDI stock growth during this period. Overall, while Hungary initially benefited significantly from EU accession, the long-term growth trend in its

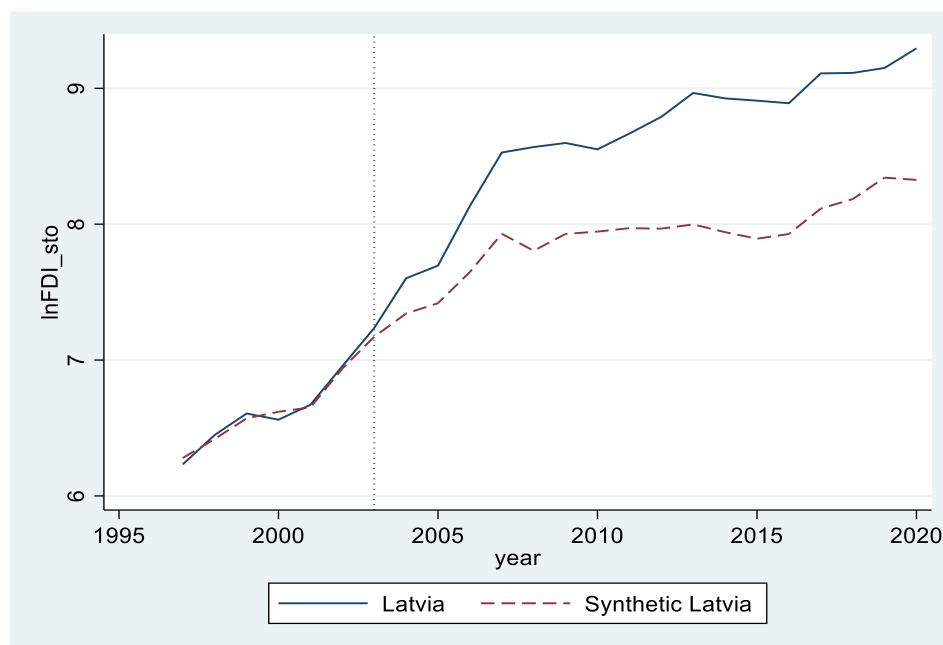
FDI inflows has been challenged by changes in both internal and external economic environments. The positive effects of EU enlargement have somewhat diminished over time.

(4) Latvia

Table 7 Optimal Unit Weights (Latvia)

Donor counties	Weights
Moldova	0.378
Greece	0.312
New Zealand	0.244
Canada	0.04
Belarus	0.025

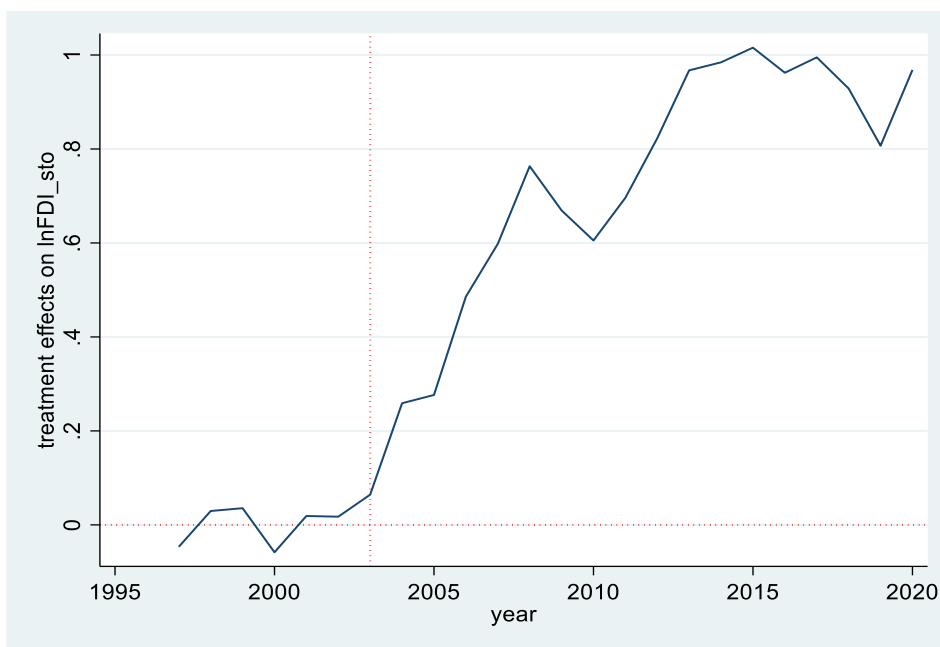
Figure 14 Actual and Synthetic Outcomes (Latvia)



Latvia's synthetic control group comprises of Moldova (37.8%), Greece (31.2%), and New Zealand (24.4%), with Canada and Belarus accounting for only 4.0% and 2.5% respectively. As illustrated in Figure 14, Latvia's accession to the EU has a direct and visible positive impact on FDI. Prior to the EU's eastward expansion in 2004, Latvia's real FDI inflows align with the synthetic control group, showing a steady growth trend. This suggests that before the EU's eastward expansion, Latvia's FDI inflows

were mainly influenced by domestic economic policies and the international economic environment, similar to the control group. After 2004, Latvia's real inward FDI stock increases significantly, outpacing that of the synthetic control group. In particular, the gap between real and synthetic values gradually expands between 2005 and 2010. After 2010, despite some fluctuations, Latvia remains generally above the synthetic control group, indicating that its economic fundamentals under the EU framework remain strong. From 2015 to 2020, Latvia's real FDI inflow stock rises remarkably again. It is worth noting that even during the global financial crisis, Latvia's FDI has shown impressive resilience and sustained growth. From a long-term perspective, Latvia's inflow FDI trend not only validates the positive impact of the EU's eastward expansion, but also reveals its persistent advantages and potential in attracting foreign investment as a member of the EU. Latvia's FDI performance is undoubtedly the best illustration of the opportunities and benefits of EU membership.

Figure 15 Net effect of the EU's eastward enlargement on the growth of the stock of FDI inflows (Latvia)



It can be seen in Figure 15 that before Latvia's accession to the EU in 2004, the treatment effect is close to zero, indicating a minimal difference between actual situation and the synthetic control group, demonstrating a strong fit. With Latvia's accession to the EU in 2004, the net effect rises rapidly and surpasses zero, illustrating

the significant positive impact of the EU's eastward expansion. However, as in the three countries mentioned above, the fallout from the global financial crisis and the impact of the European debt crisis lead to a slowdown in cross-border investment activity, negatively impacting FDI. There is a trough in 2010, but the treatment effect remains positive. Subsequently, the net effect continued to trend upwards, reflecting the enduring positive impact of the EU's eastward expansion. After 2015, the net effect increases again, fluctuates briefly, and then rises in 2020, approaching its peak. Overall, the trend in Latvia suggests that the long-term positive effects of EU enlargement persist and remain at a high level in 2020.

(5) Lithuania

Table 8 Optimal Unit Weights (Lithuania)

Donor countries	Weights
Moldova	0.459
Israel	0.444
Canada	0.097

Figure 16 Actual and Synthetic Outcomes (Lithuania)

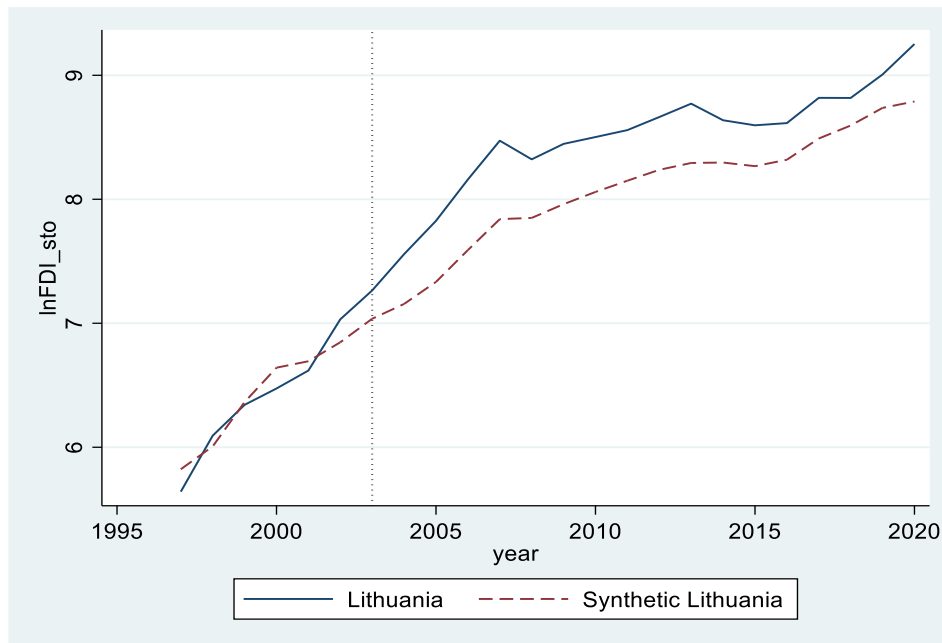
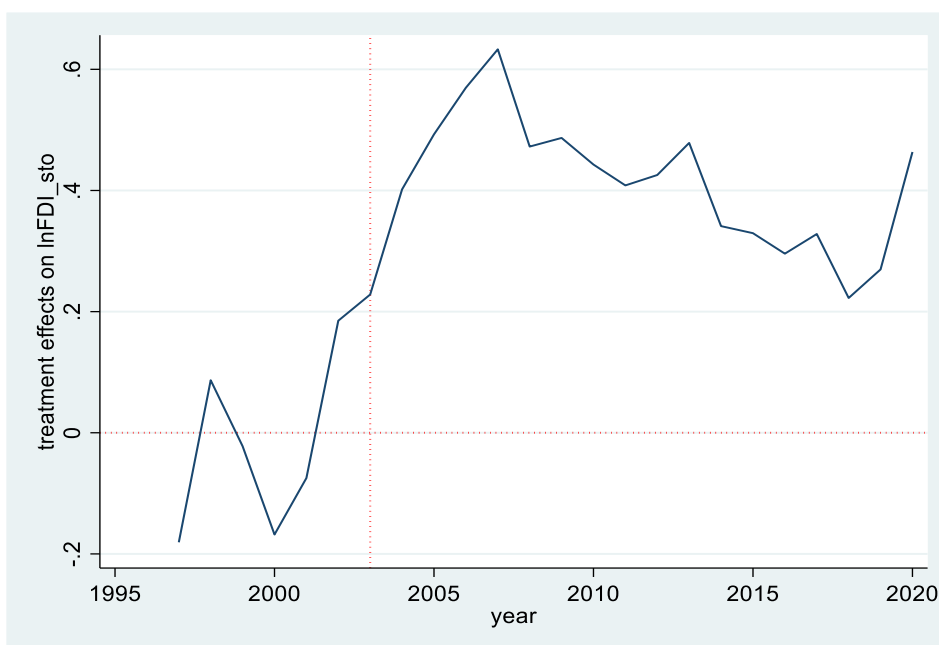


Table 8 presents that Lithuania's synthetic control group consists mainly of Moldova and Israel, with a weight of 45.9% and 44.4%, respectively, and a smaller weight of

9.7% for Canada. Prior to its accession to the EU in 2004, Lithuania's inward FDI stock is broadly in line with the synthetic control group and display a steady growth trend. Similar to previous countries, even at the gestation stage of EU accession, Lithuania has already attracted positive action from investors in advance. After the EU's eastward expansion in 2004, the real figure continues to increase rapidly and the gap with the synthetic control group widened progressively, especially during the period from 2005 to 2010, demonstrating a significant positive impact from the EU's eastward expansion. Despite a slowdown in growth and a convergence of the gap with the control group in the following years, Lithuania's inward FDI stock consistently outperforms those of the control group, highlighting the solidity and continued attractiveness of its economy. After 2015, this number is once again revitalized, presenting accelerated growth and further widening the gap with the synthetic control group. This trend not only emphasizes Lithuania's resilience in dealing with global economic volatility, but also reaffirms the long-term and significant positive impact of the EU's eastward expansion on its FDI.

Figure 17 Net effect of the EU's eastward enlargement on the growth of the stock of FDI inflows (Lithuania)



Lithuania's treatment effect shows significant growth since 2000 and peaks between

2005 and 2010. Despite the impact of the 2008 global financial crisis on FDI, Lithuania recovers quickly through EU economic support and ongoing economic reforms and continues to attract foreign investment. The treatment effect rises significantly again after 2018, illustrating the persistence of the long-term positive effects of the EU's eastern enlargement. Overall, the positive impact of the EU's eastward expansion on Lithuania's is notable and sustained, especially in the early years after EU accession. Despite some subsequent fluctuations and declines, the treatment effect remains positive, indicating that EU membership still has a sustained boost to Lithuania's FDI attraction in the long run.

(6) Poland

Table 9 Optimal Unit Weights (Poland)

Donor counties	Weights
Mexico	0.332
Israel	0.223
India	0.163
Korea, Rep.	0.122
Chile	0.086
New Zealand	0.073

Figure 18 Actual and Synthetic Outcomes (Poland)

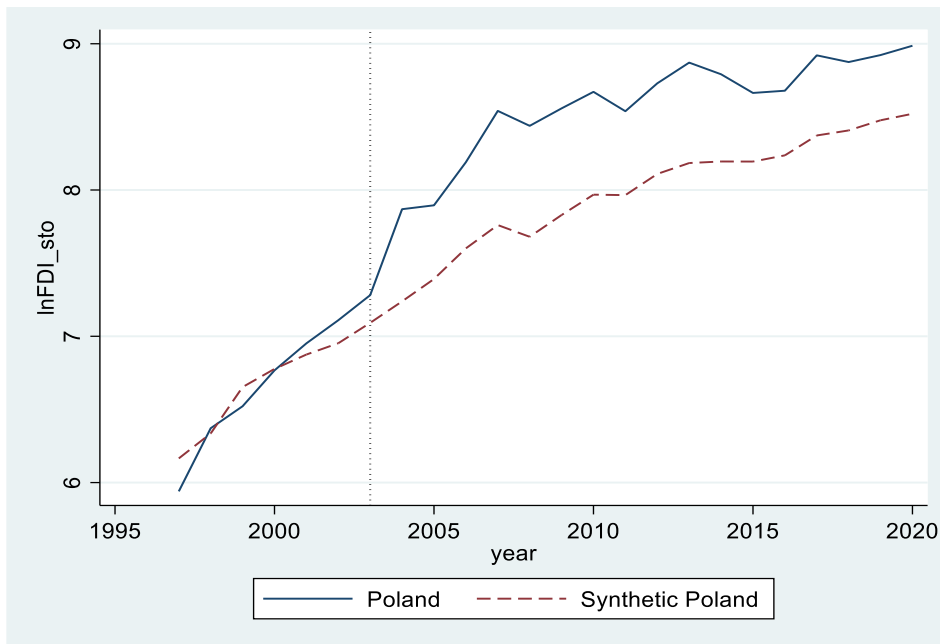
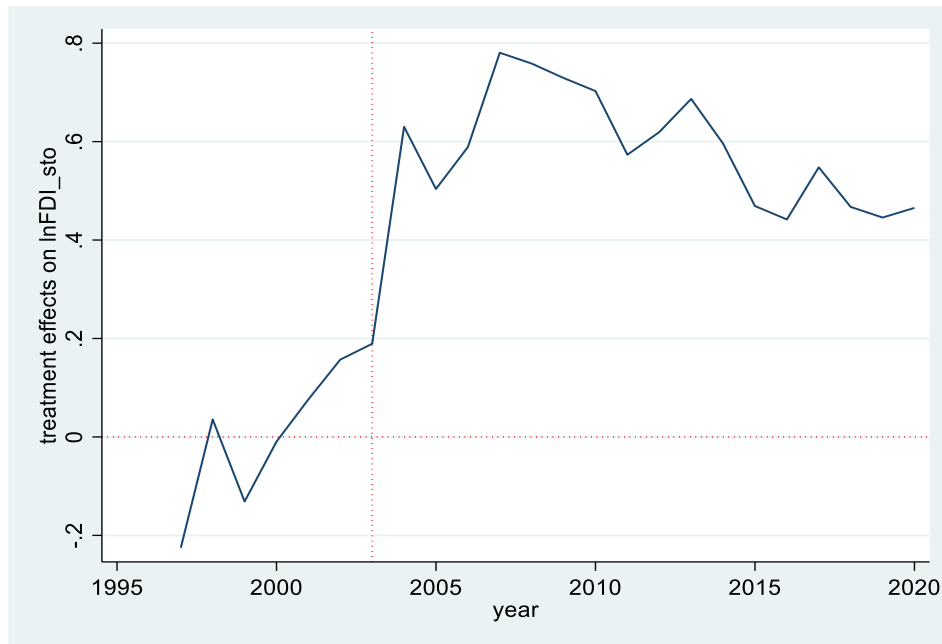


Table 9 illustrates that the synthetic control group for Poland consists of multiple countries, including Mexico (33.2%), Israel (22.3%), India (16.3%), South Korea (12.2%), Chile (8.6%), and New Zealand (7.3%), reflecting a high degree of diversity. This diverse configuration of weights not only enhances the representativeness and accuracy of the synthetic control group, but also ensures the comprehensiveness of the model in capturing the factors influencing FDI inflows to Poland. It also provides a richer perspective for understanding the complex dynamics of FDI inflows to Poland in the context of the EU's eastward expansion. From 1997 to 2004, Poland's real inward FDI stock remains largely consistent with those of synthetic Poland. However, the milestone event of EU accession prompts FDI into Poland to rapidly exceed the levels predicted for Synthetic Poland, clearly revealing the direct positive impact of the EU's eastward expansion on Poland's investment climate. Since then, the two lines gradually pull apart, with real inward FDI stock continuing to grow significantly, while synthetic Poland grows at a more modest pace. Afterwards, despite the contraction of the gap in some years, the overall trend shows a fluctuating upward trend, suggesting that the EU's eastward enlargement enhanced Poland's investment attractiveness, resulting in a notably higher real FDI than in the non-EU accession scenario.

Figure 19 Net effect of the EU's eastward enlargement on the growth of the stock of FDI inflows (Poland)



The trend plot of the treatment effect for Poland shows a rapid rise in the treatment effect after the EU accession in 2004, significantly exceeding the zero point. This indicates that the EU's eastward expansion has a strong positive influence on Poland's inward FDI stock, especially between 2004 and 2010, when the treatment effect peaks. Nevertheless, after 2010, the treatment effect starts to gradually decline and, although it remains within the positive range, it is more volatile, demonstrating the complexity of the impact of the external economic environment and internal policy adjustments on FDI. Overall, despite the large fluctuations in the later period, the treatment effect generally maintains high and positive after Poland's accession to the EU, showing the long-term positive effects of the EU's eastward expansion.

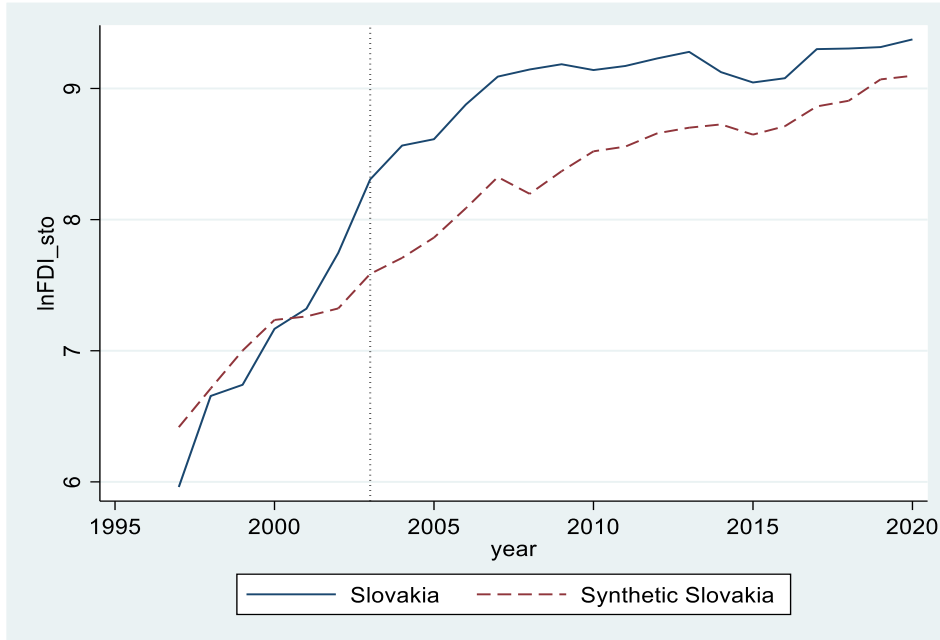
(7) Slovakia

Table 10 Optimal Unit Weights (Slovakia)

Donor counties	Weights
Thailand	0.339
Canada	0.261
Israel	0.235

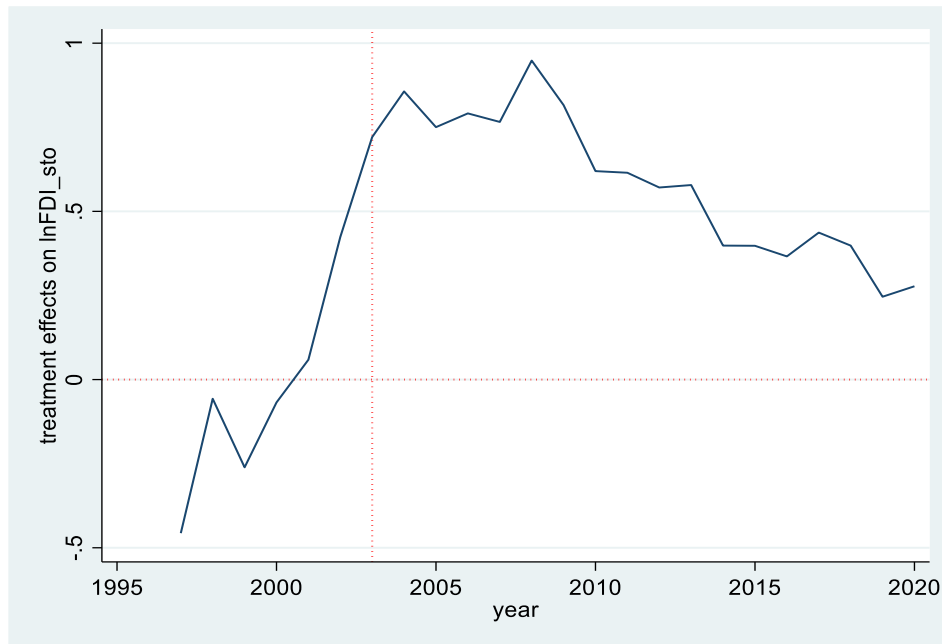
Moldova	0.15
South Africa	0.016

Figure 20 Actual and Synthetic Outcomes (Slovakia)



Slovakia's synthetic control group is composed mainly of Thailand (33.9%), Canada (26.1%), Israel (23.5%) and Moldova (15%), while South Africa has the smallest share (1.6%). Between 1997 and 2004, Slovakia's stock of actual inward FDI remains relatively stable and convergent with that of its synthetic control group, but subtle gaps are emerging, signaling upcoming changes. With Slovakia's official membership in the EU in 2004, its FDI witnesses a significant expansion that far exceeds the level of the synthetic control group. This trend is particularly pronounced in the following years, underlying the positive contribution of the EU's eastward enlargement to Slovakia's investment environment. However, from 2010 onwards, although the stock of inward FDI still leads, its increase has diminished and the gap with the synthetic group has gradually narrowed. This suggests that despite the significant FDI growth associated with early EU accession, the effect fades over time, and the initial positive impact of the EU may be gradually diluted by other factors. Generally, while the initial period of EU accession brings positive economic impacts, the long-term effects are constrained by changes in the international and domestic economic environment.

Figure 21 Net effect of the EU's eastward enlargement on the growth of the stock of FDI inflows (Slovakia)



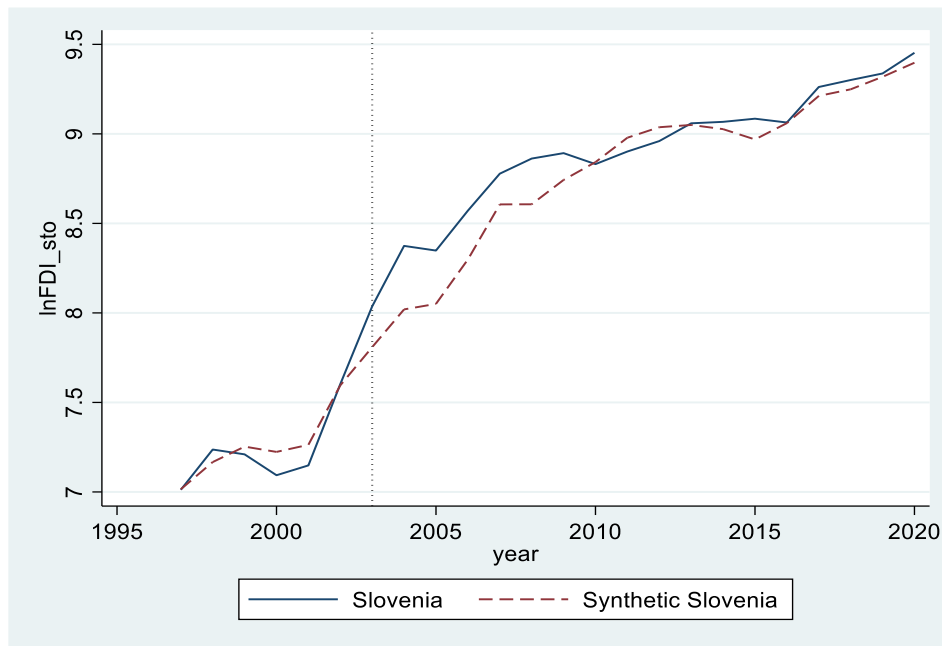
As can be seen in the Figure 21, the treatment effect for Slovakia rises dramatically in the 2000s and peaks in 2004 after the EU's eastward expansion. Between 2004 and 2010, the treatment effect remains high, indicating a strong positive impact of the EU's eastward enlargement on FDI to Slovakia. From 2010 onwards, however, the value of the treatment effect gradually declines, and although it still maintains above the zero axis, its positive effect weakens significantly. Overall, Slovakia benefits considerably from the introduction of foreign investment in the early years of the EU's eastern enlargement, but this effect gradually subsides and levels off in the following years.

(8) Slovenia

Table 11 Optimal Unit Weights (Slovenia)

Donor countries	Weights
New Zealand	0.35
Moldova	0.262
Switzerland	0.241
Albania	0.147

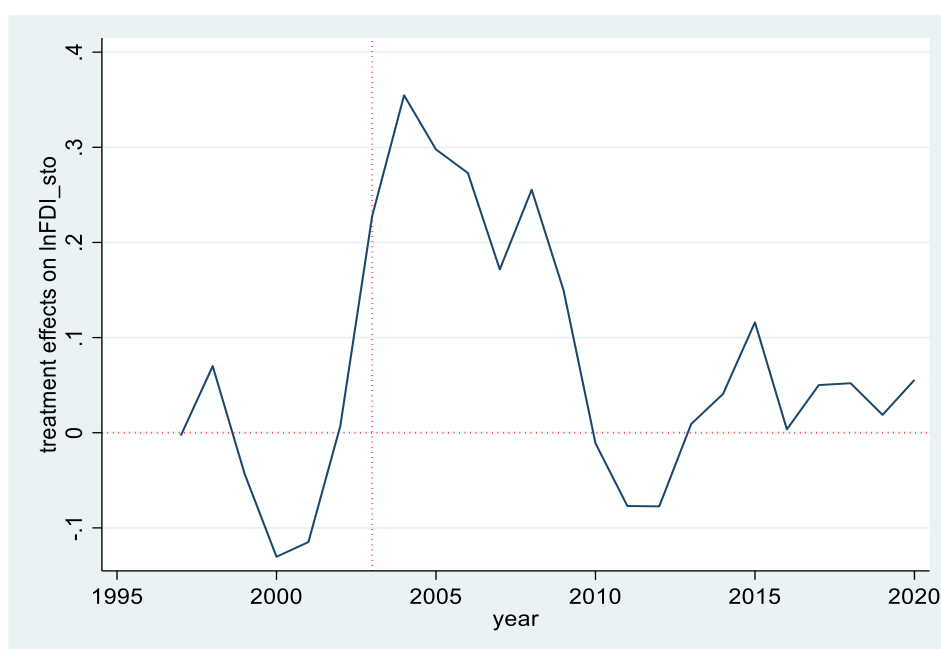
Figure 22 Actual and Synthetic Outcomes (Slovenia)



In Slovakia's synthetic control group, the weight of each donor country is relatively even: New Zealand has the highest share at 35 %, followed by Moldova at 26.2 %, Switzerland at 24.1 %, and Albania at 14.7 %. During the gestation period of the EU's eastward enlargement, Slovenia's actual inward FDI stock holds a high degree of alignment with that of the synthetic control group, showing a steady growth trend. Between 2004 and 2010, this number continues to increase in the short term, overtaking the synthetic control group. While this surpassing is not very dramatic, it is a clear and unambiguous indication of the positive boost that the EU's eastward enlargement has had on the Slovenian FDI environment in the short term. Nonetheless, while Slovenia's real inward FDI stock still keeps on growing, its rate of growth gradually slows down, especially after 2010, when the two lines tend to converge. This phenomenon implies that despite the initial boost to Slovenia's FDI inflows from the EU's eastern enlargement, this advantage has been gradually absorbed by the market and flattened out. It may be due to slow global economic recovery, increased market maturity, and intensified regional competition. Investors may also reassess the appeal of Slovenia due to market saturation and regulatory changes, while competition from neighboring countries such as the Czech Republic and Poland may

also affect FDI inflows to Slovenia. Compared to other CEE countries, the impact of EU enlargement on Slovenian FDI may not be as direct or significant, but rather stabilize and modest in the long run. This may mean that, for Slovenia, the impact of the EU's eastward enlargement does not act directly and immediately on its foreign investment attractiveness, but rather in a more solid and long-term way, gradually improving its overall competitiveness as an investment destination while promoting economic integration and stable development.

Figure 23 Net effect of the EU's eastward enlargement on the growth of the stock of FDI inflows (Slovenia)



The treatment effect in Slovenia rises sharply after the EU's eastward enlargement in 2004, reaching a peak and showing a strong positive impact. This positive effect, however, gradually recedes and fluctuates in the following years. In particular, the treatment effect declines significantly after 2010 and reaches a trough in 2013. Afterwards, despite some recovery, the overall trend keeps swinging around the zero level, suggesting that the initial dividends of the EU membership have not translated into long-term stable investment growth dynamics. This indicates that the EU's eastward enlargement has not had a sustained and remarkable impact on Slovenia's FDI in the long run. Compared to other CEE countries, the treatment effect in Slovenia is more volatile and less persistent.

In summary, the EU's eastward enlargement has had a positive impact on all CEE countries in the short run, which validates this study's hypothesis that the stock of inward FDI to these CEE countries would have been significantly lower than in real terms in the absence of EU accession. However, this impact shows variability across countries in the long run. Overall, the following conclusions can be drawn:

- (1) First, most of the CEE countries have anticipated effects on the EU's eastward expansion. The Czech Republic, Estonia, Hungary, Lithuania, and Slovakia have already notably surpassed the synthetic group in terms of actual inward FDI stock before 2004. It means that investors have already been optimistic about the development prospect of the EU's eastward enlargement before and laid out their positions in advance, which results in the early increase of FDI. The reasons are as follows: 1) The EU's eastward enlargement is a long-term plan, which was already clear before 2004. Therefore, investors may have realized in advance that these countries enjoy various benefits such as market access, tariff preferences and investment facilitation policies after joining the EU; 2) In order to comply with the EU's access standards, these countries carried out massive economic reforms and policy adjustments before accession to the EU. These reforms include improving the investment environment, strengthening the rule of law, promoting market-oriented reforms, and enhancing government transparency, etc., which dramatically boosted the investment attractiveness of these countries, leading to an increase in FDI; 3) Regional economic integration is also an essential factor. These CEE countries have started to establish close economic ties with the EU long before 2004, including signing free trade agreements and participating in the EU's regional cooperation programs. These measures allow them to enjoy some economic benefits of EU member states before 2004, further attracting more foreign investment.
- (2) The gap between the real inward FDI stocks of the Czech Republic, Estonia, and Latvia and the synthetic control group is not only noticeable in the short run, but also persists in the long run. The Czech Republic and Estonia experience a rapid

acceleration of FDI inflows after the EU's eastward expansion in 2004, and this trend maintains a steady growth over the following decade or so, with real inward FDI stocks consistently higher than those of the synthetic control group. Latvia's dominance, on the other hand, reveals the positive impact of the EU's eastward expansion more intuitively - the difference only becomes apparent after 2004 and gradually widens in the following years. This trend suggests that a series of investment facilitation policies provided by the EU, including simplified administrative procedures, promotion of inter-regional cooperation, and the establishment of easy cross-border trade mechanisms, have reinforced the confidence of foreign investors. In addition, in order to qualify for EU standards, Latvia has undertaken a wide range of economic and institutional reforms before and after accession, which further improve the investment climate and make it more appealing to foreign investors, resulting in a rapid rise in FDI after membership in the EU.

- (3) While Hungary, Lithuania, Poland and Slovakia benefit substantially from the initial phase of the EU's eastward enlargement, this positive effect gradually diminishes in the longer term. The global financial crisis and the European debt crisis have had a profound impact on the Hungarian economy, causing the growth of inward FDI stock to slow down sharply after 2008. In addition, Hungary also faces the challenges of domestic policy uncertainty and economic restructuring. For example, frequent changes in the Hungarian government's financial regulation and tax policies may have weakened foreign investment confidence, making investors cautious in their expectations of the Hungarian market. The situation is similar in Lithuania and Poland, where the stock of inward FDI climbed rapidly in the short term after EU accession, reflecting investors' optimistic forecasts about their economic prospects and expectations of EU market access. From 2010 onwards, however, the growth rate of FDI in these two countries gradually slipped and the disparity between them and the synthetic group became narrower. Slovakia fared slightly better, with the net effect

remaining at a stable level despite the same trend. Despite Slovakia's competitiveness in manufacturing and the automotive industry, global economic uncertainty and regional economic volatility have put pressure on its FDI. Especially after 2010, the slow global economic recovery and the lingering effects of the European debt crisis, combined with Slovakia's labor market and infrastructure challenges, have weakened its ability to attract FDI.

- (4) Slovenia is relatively special in the wave of the EU's eastward enlargement in 2004. Although accession to the EU has enjoyed a short-term investment boom, its economic structure and competitiveness have failed to improve effectively in the long run, and the long-term effects have stabilized, with the difference between real and synthetic values unremarkable. Slovenian economy is dominated by manufacturing and services, with its performance in the high-tech and innovation sectors falling short of expectations compared to other CEE countries. Secondly, the lack of implementation of key economic reforms by the government has led to foreign companies becoming hesitant to make long-term plans for their markets. In addition, the global financial crisis and the European debt crisis have had a profound impact on the Slovenian economy. These external shocks have kept Slovenia's FDI subdued in the long term. At the same time, Slovenia also faces fierce competition from other CEE countries, which have performed much better in terms of economic reforms and improved investment environment, attracting more foreign investment. Finally, structural problems and high labor costs in Slovenia's labor market, coupled with lagging infrastructure and high logistics costs, have constrained Slovenia's competitiveness in FDI magnetism, leading to a weak growth in FDI in the long run.

In conclusion, the EU's eastward enlargement does have a pronounced positive influence on FDI of the CEE countries, but this influence varies significantly across countries. Hungary, Lithuania and Slovakia benefit significantly in the initial period, but the effects have waned in the long term, reflecting the policy and economic structural challenges in these countries. The Czech Republic, Estonia, Latvia and

Poland, on the other hand, have continued to benefit over the long run, demonstrating greater capacity to attract foreign investment and more stable growth prospects. The case of Slovenia, however, suggests that the long-term effects of EU enlargement may be relatively limited in certain countries.

5.2. Robustness testing

Abadie et al. (2010) argue that in comparative case studies, it is not appropriate to use large sample theory for statistical inference because the number of potential control areas is usually small. For this reason, Abadie et al. (2010) propose the use of a "placebo test" for statistical testing. This method is similar to the permutation test in statistics and can be applied to any sample size. The basic idea of the placebo test is that a synthetic control method to estimate whether the impact of the EU's eastward expansion is entirely due to chance. The main purpose of the placebo test is to ensure that the results from the synthetic control method are true and significant, and not a coincidence in the data. This is done by selecting a "placebo" group of units with characteristics similar to those of the actual intervention group, which did not actually experience the intervention. By applying a synthetic control method to these placebo units, we can construct a synthetic control group for the "virtual intervention" and analyze its effects. In this way, confidence in the effectiveness of the intervention can be increased, ensuring that the results are not accidental. As a validation tool in policy evaluation or intervention effectiveness research, the placebo test can effectively improve the reliability and credibility of research findings.

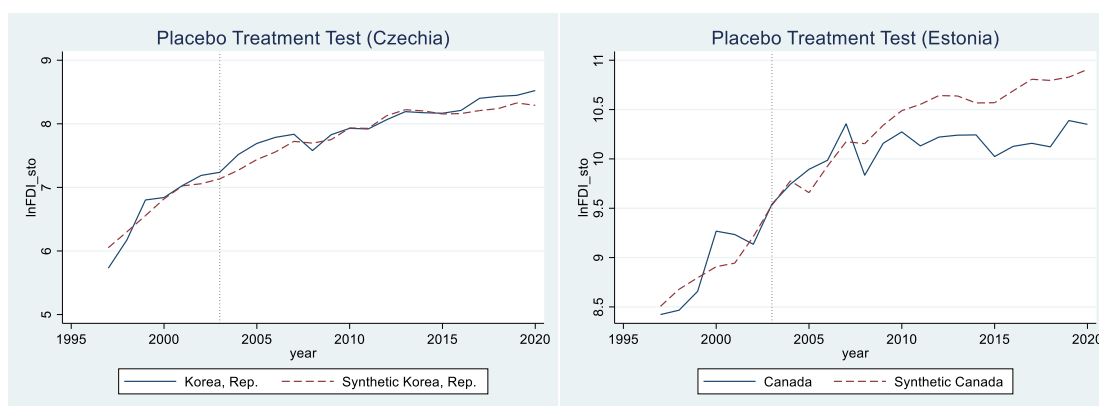
5.2.1. Placebo Treatment Test

The basic principle of the Placebo Treatment Test is to apply a hypothetical intervention to a randomized unit in the control group, assuming that it also receives the intervention at the actual policy point in time, and then to construct a synthetic control group for it and calculate the effect of this hypothetical intervention. The concept is to conduct a "sham experiment" in a country that is most similar to a CEE

accession country and is not a member of the EU. If the country is found to have no significant increase in FDI inflow stock after the hypothetical accession time, given that the experimental model, predictor variables, and timing of the intervention are identical, the increase in inward FDI stock in the CEE accession country is caused by the EU's eastward enlargement rather than by random fluctuations or model errors. On the contrary, if the country's stock of inward FDI is markedly elevated under the hypothetical experimental conditions, it suggests that the increase in the FDI to the CEE countries is not entirely attributable to the EU membership.

In fact, the optimal combination of weights provided by STATA in the construction of the synthetic control group already provides the degree of similarity between the donor countries and the CEE countries. In the control group, the donor countries with the highest weights in the synthetic control group for the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, and Slovenia are Korea, Canada, Canada, Moldova, Moldova, Mexico, Thailand, and New Zealand, respectively. So these 8 countries, which are the most similar to the situation of the CEE countries, are selected separately for the same experimental methodology. The robustness of the findings of this paper is verified by the results of the synthetic controls for these eight groups of countries.

Figure 24 Placebo Treatment Test results for CEE accession countries





The above figures show the outcome of the spurious experiment for the highest weighted countries in the synthetic control group of CEE accession countries. It can be seen that after 2004, the results for Czech Republic, Latvia, Lithuania, and Slovakia almost overlap without significant differences between the experimental and synthetic groups. This indicates that there will be no effect of EU membership on the stock of inward FDI for non-CEE accession countries, that is, other factors are excluded from the effect, proving that the increase in the stock of inward FDI in CEE accession countries is caused by the EU status. For Estonia, Hungary, Poland and Slovenia, the results of the "sham experiment" are the opposite of the real experiment for the CEE accession countries, which also suggests that the findings of EU

accession on the enhancement of the stock of inward FDI in these eight CEE countries are robust.

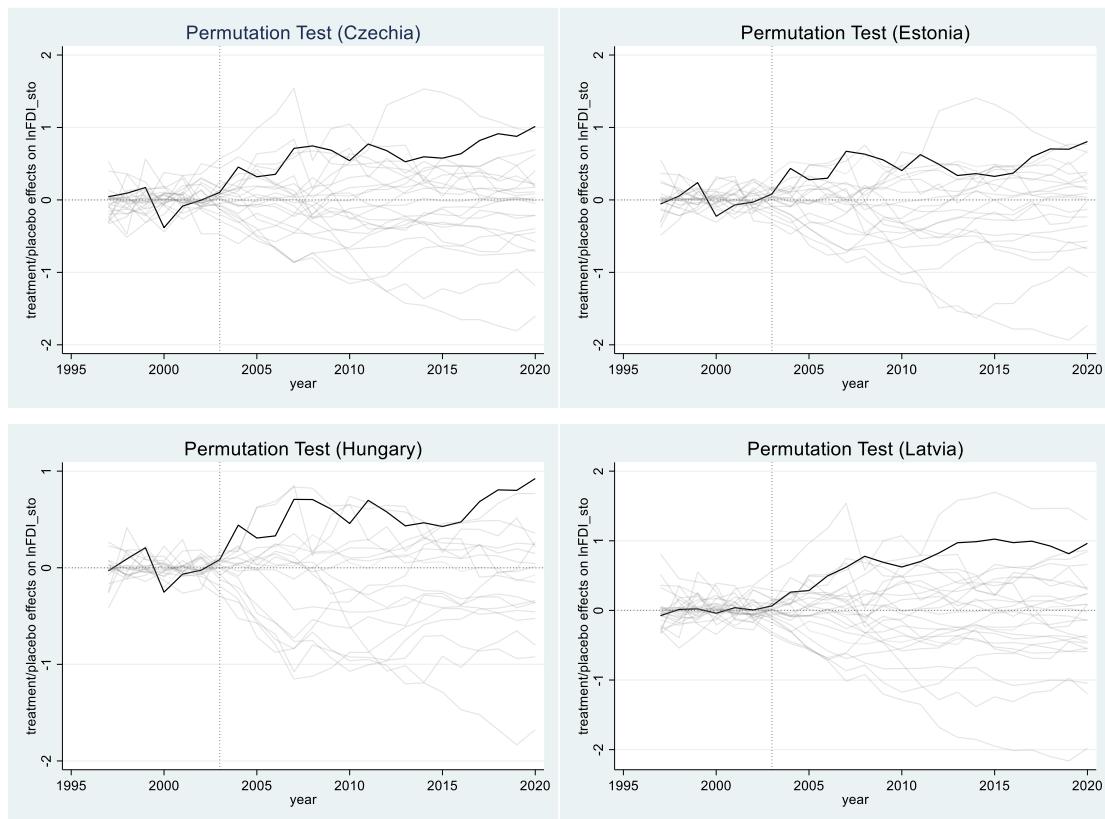
5.2.2. Permutation Test

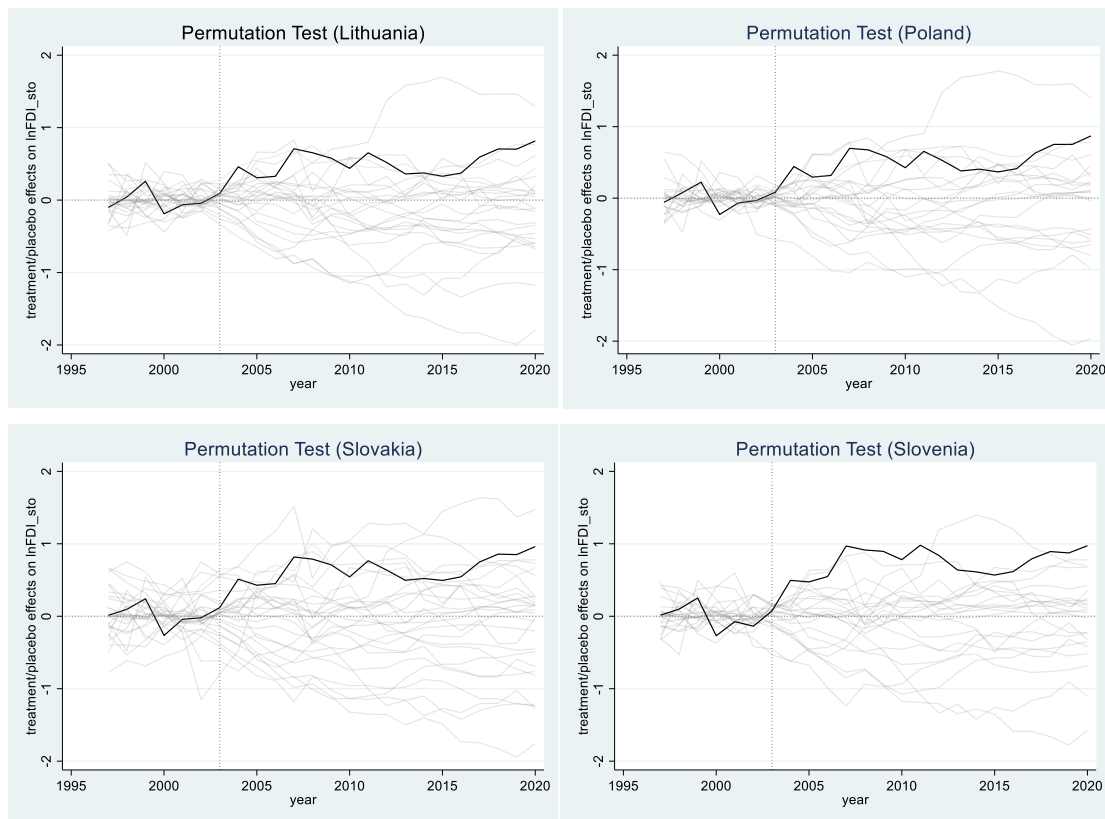
The basic principle of the permutation test is based on randomization and controlled comparisons. By sequentially selecting units in the control group and assuming that they receive the intervention at the same point in time, multiple pseudo-intervention effects are generated and compared with the actual intervention effects. The specific steps are to pick units ordinarily from donor countries pool as a hypothetical intervention group and apply SCM to calculate their pseudo-intervention effects. And this process is repeated several times to generate a large number of virtual intervention outcomes. Finally, the effects of the actual intervention group is compared with these virtual intervention effects. If the results of the actual intervention group are notably higher than most of the virtual intervention results, then the actual intervention effects are shown to be statistically significant. Through randomization and controlled comparisons, this approach confirms the veracity and robustness of the model. In this study, each country in the potential control area is treated in turn as a hypothetical disposal area, while the CEE accession countries are considered as control areas, and a SCM is conducted to estimate the effect of EU eastward enlargement on the FDI for that hypothetical disposal area. The permutation test can manage and detect systematic bias in the data more effectively than the placebo treatment test. Moreover, the statistical efficacy of the permutation test tends to be higher in the case of smaller treatment sample sizes or weaker intervention effects, enabling sharper detection of the significance of the actual policy intervention.

Meanwhile, the ratio of post-intervention Mean Squared Prediction Error (MSPE) to pre-intervention MSPE is a key indicator used to assess the significance of the intervention effect in the permutation test. The pre-intervention MSPE measures the model's fitting error to the pre-intervention data, with a smaller error indicating a

better model fit. Post-intervention MSPE measures the model's prediction error for post-intervention data, with MSPE usually increasing considerably after the intervention. The impact of the intervention on the predictive ability of the model can be quantified by calculating and comparing the ratio of the two. If this ratio is substantially higher than that of the randomly selected hypothetical intervention group, it suggests that the intervention dramatically affects the results, thus assisting in verifying whether the actual intervention effect is statistically significantly higher than the change due to random variation.

Figure 25 Permutation Test results for CEE accession countries





Specifically, this test will take one of the 28 countries in the control group in turn and run a synthetic control estimate to try to see if a similar effect can be obtained. It is set up here so that if the MSPE of a preprocessing dummy intervention unit is two times larger than the MSPE of the processing unit, then that dummy intervention unit will be discarded. This treatment can reduce the noise in the model, highlight the actual intervention effect more clearly, and ensure the stability and accuracy of the analysis. Figure 25 illustrates the results of the ranking test. In the figure, the black line indicates the event effect for the CEE accession countries (i.e., the difference between the stock of FDI inflows of the CEE accession countries and the synthetic CEE accession countries), and the gray line indicates the placebo effect for screening out the sample of donor countries with more than 2 times MSPE (i.e., the difference between the stock of FDI inflows of the donor countries and their synthetic countries). Clearly, the positive event effect is larger for the post-2004 CEE accession countries compared to the placebo effect for the other countries, as can be seen from the fact that the black line in the figure is above almost all gray lines. In contrast, it is difficult

to obtain similar effects for SCM estimates for other countries, suggesting that the estimates in this paper are unlikely to have been obtained by chance.

On the other hand, the ratio of model accuracy can also be judged by the post-intervention MSPE to the pre-intervention MSPE. Take the Czech Republic as an example, there are total 4 units with pretreatment MSPE 2 times larger than the treated unit, including number 13 14 17 2. This means that when the intervention effect of Czech membership is tested, a permutation test generates 23 possible control groups, including one actual intervention group and 22 hypothetical intervention groups. After ranking the intervention effects of all the groups, it is discovered that the Czech intervention effect is the largest, with a probability of $1/23$, which is about 0.043. In other words, if there is no effect of EU membership, the probability of happening to see the largest treatment effect of the Czech Republic out of the remaining 23 countries is only $1/23 = 0.043$, which is less than the commonly used level of significance of 0.05. This suggests that the Czech intervention effect is unlikely to be statistically significant due to random factors. the probability of observing the largest growth effect of EU accession on FDI was $1/24$ for Estonia, $1/23$ for Hungary, $1/25$ for Latvia, $1/24$ for Lithuania, $1/23$ for Poland, and $1/24$ for Slovenia.. These numbers are less than the significance level of 0.05. Therefore, it can be confirmed that the increase in the stock of FDI inflows in the CEE countries is related to the eastward expansion of the EU rather than other chance factors.

Chapter 6 Conclusion

6.1. Research conclusions

With the deepening of globalization, FDI becomes a crucial driver of economic development. After 2004, CEE countries have gained more opportunities to attract foreign investment, significantly improving their economic environment. This study aims to assess the impact of the 2004 EU enlargement on FDI in the new CEE member states using the synthetic control method for empirical analysis. The role of FDI as a key driver of economic transformation is revealed and the multidimensional political economy changes brought about by the European integration process are elucidated. By constructing a counterfactual scenario, the study clarifies the effect of the 2004 EU enlargement on FDI growth in the CEE region. This research focuses on the eight CEE countries that join the EU in 2004. By selecting several unaffected donor countries, a synthetic control group is constructed to simulate the FDI of non-EU CEE countries and compare them with the actual situation. The comparative analysis shows that EU membership has a significant and positive impact on stock of inward FDI in CEE countries. This finding not only confirms the positive role of European integration in promoting the free movement of capital but also highlights the importance of regional cooperation in enhancing national investment attractiveness. However, the extent and sustainability of this impact depend on each country's unique characteristics and strategies. Specifically, Hungary, Lithuania, and Slovakia experience significant FDI growth in the short term, but in the long term, their FDI inflow momentum tends to weaken due to policy adjustments and the complexities of economic restructuring. On the contrary, the Czech Republic, Estonia, Latvia, and Poland continue to attract foreign investment by virtue of their sound political structure, efficient implementation of reforms and in-depth exploration of market potential, demonstrating a more solid foundation for economic growth and stronger FDI absorption capacity. Although Slovenia also benefits, the relatively

limited long-term effect reveals the heterogeneity among countries in the EU integration process and its profound impact on FDI flow patterns. The empirical results of this study support the proposed hypothesis that the EU enlargement policy brings significant economic benefits to the CEE countries, particularly in terms of attracting foreign investment. The study also finds that EU membership positively influences FDI into CEE countries through various mechanisms, including enhancing market transparency, reducing transaction costs, promoting technology transfer, and introducing management expertise. To be specific, EU accession provides CEE countries with a stable political and economic environment, reducing investment risks and boosting investor confidence. Furthermore, the dissemination of EU norms and standards in these countries further improves their economic governance and legal environments, thereby enhancing their attractiveness to FDI. Through empirical analysis, this paper offers a new perspective on understanding the impact of the EU enlargement on FDI in CEE countries, enriching related theoretical and empirical research.

6.2. Policy proposals

Based on the results of the research, this paper proposes a series of policy recommendations aimed at helping CEE countries to better attract FDI as well as to utilize FDI to promote economic development in the context of regional integration. The emphasis on institution construction has been affirmed by previous studies (Tintin, 2013). This paper also provides recommendations from an industry and enterprise perspective at a more micro level.

6.2.1. National level

- 1) **Optimizing the investment environment:** Firstly, CEE countries should continue to optimize the investment environment, ensure political and economic stability, and improve the transparency and predictability of laws and policies, so as to further enhance their attractiveness to foreign investment. In recent years, with

the increase in uncertainty in the world economic environment, political stability has become an essential consideration for the location of foreign companies. In addition, governments should formulate and implement sustained support policies according to their own actual conditions, offering tax incentives, financial support and other incentives for foreign enterprises to maintain long-term attractiveness to foreign investment.

- 2) Intensifying regional cooperation and opening up: In the face of the trend towards global economic integration, the CEE countries should participate more actively in the process of regional cooperation and opening up. They can further expand their market space and production resources by strengthening economic and trade ties and policy coordination with the EU and other economies, and by promoting the liberalization and facilitation of trade and investment. At the same time, actively participating in international organizations and multilateral cooperation mechanisms, as well as strengthening dialogue and collaboration with other countries and regions, are effective strategies for collectively addressing global challenges and seizing opportunities. Such an open and cooperative stance will help CEE countries better integrate into the global economic system and achieve mutually beneficial, win-win development.
- 3) Promoting technological innovation and human resources development: Governments should formulate relevant policies to support technology transfer and human resources nurturing, so as to enhance the international competitiveness of local enterprises and thereby attract foreign investment. Under global economic integration, technological innovation and human resources have become the core elements to promote economic development. CEE countries should step up scientific and technological cooperation and exchanges with developed countries and regions, and actively introduce advanced technologies and management experience of foreign-funded enterprises, to promote the technological upgrading and administrative innovation of local enterprises. At the same time, they should also pay attention to the cultivation and introduction of

talents, and increase investment in education and vocational training to cultivate high-quality talents with an international outlook and innovative spirit. These measures will provide sustained development momentum for the CEE countries and enhance their advantageous position in the global economic competition.

- 4) Improving infrastructure: Infrastructure is the cornerstone of economic development. For CEE countries, strengthening infrastructure is critical to attracting foreign investment and promoting economic growth. In recent years, infrastructure development has become one of the important factors in attracting foreign investment. CEE countries should increase investment in infrastructure development, improve transportation, communications and other infrastructure to provide an efficient operating environment for foreign companies. This includes upgrading the connectivity of transportation networks, improving the stability and reliability of energy supply, and promoting the popularization and development of information and communication technologies. By investing in infrastructure, CEE countries can create a more conducive business environment, reduce the operating costs of enterprises and increase productivity, thereby attracting more FDI.

6.2.2. Industry level

- 1) Promoting the development of industrial clusters: Foreign-funded enterprises should be supported in establishing close cooperative relationships with local enterprises to form industrial clusters, thus constructing mutually beneficial industrial and supply chains. Promoting the development of industrial clusters: Foreign-funded enterprises should be supported in establishing close cooperative relationships with local enterprises to form industrial clusters, thus constructing mutually beneficial industrial chains and supply chains. By promoting cooperation among enterprises, technology transfer and knowledge sharing can be realized, and the technological level and production capacity of local enterprises can be upgraded. For example, through joint ventures, cooperative

R&D and technology transfer, foreign-funded enterprises and local enterprises can be encouraged to cooperate in R&D, production and marketing, and jointly develop new products and markets, hence enhancing the competitiveness of the entire industrial cluster. Besides, the government should also actively push forward the construction of industrial estates and free trade zones, provide sound supporting facilities and services, and create a favorable investment environment and business environment. These zones can not only provide enterprises with convenient logistics, communications and energy infrastructure, but also simplify the registration and operation procedures of enterprises through efficient administrative services, reducing operating costs and investment risks.

- 2) Focusing FDI on strategic industries: CEE countries should identify key industrial sectors based on their own economic growth needs and resource advantages. Then, by formulating attractive policies and measures and providing a favorable investment environment, they can guide FDI to flow precisely into these areas, thus driving the sustained and healthy development of their economies. Through designing targeted industrial policies and providing necessary financial incentives, such as tax breaks and subsidies, the government can encourage FDI to invest in high-value-added industries, such as high-tech industries, manufacturing industries and financial services industries. This strategy not only helps to enhance the competitiveness of domestic industries, but also leads to the transformation and upgrading of the entire economic system. More specifically, the relevant authorities can cooperate with universities and research institutes to stimulate the integration of industry, academia and research, and support the innovative activities of high-tech enterprises, thus upgrading the technological level and innovation capacity of the overall industry. In the manufacturing sector, the executive can provide special funds to support manufacturing enterprises to carry out technological transformation and equipment renewal, and promote the transformation and upgrading of the traditional manufacturing industry to intelligent manufacturing and high

value-added manufacturing. In the financial services sector, the administration should strive to create a stable and open financial environment to attract international financial institutions and investors.

- 3) Driving the digital transformation of industries: With the acceleration of the digitalization process in the global economy, traditional industries are facing the urgent demand for transformation and upgrading. Through the introduction of advanced information technology and automation equipment, CEE countries can significantly improve production efficiency and product quality and enhance the international competitiveness of their industries. Public sector should lay down a clear strategy for digital transformation and encourage enterprises to adopt new technologies to improve the intelligence of production and management. This includes bringing in cutting-edge technologies such as smart manufacturing, the Internet of Things, Artificial Intelligence and Big Data. It can also promote technological transformation and digital upgrading of local enterprises through cooperation with foreign-funded enterprises. The government can set up a special fund to provide financial support and tax incentives to motivate enterprises to invest in digital transformation projects. Additionally, the administration should create digital innovation centers and industrial alliances to build a platform for cooperation between enterprises and technology providers and research institutes to accelerate technological exchanges and cooperation.

6.2.3. Enterprise level

- 1) Encouraging the development of small and medium-sized enterprises (SMEs): The Government should encourage foreign-funded enterprises to cooperate with local SMEs by providing financial, technological and managerial support. SMEs play an important role in the industrial chain, whose development helps to enhance the resilience and competitiveness of the entire chain. Firstly, the government should provide funding and financing support to help SMEs solve their financing problems. SMEs often face financing difficulties due to their small

size and limited assets. The government can set up a special fund to provide SMEs with low-interest loans, guarantees and venture capital to lower their financing costs. Secondly, the public sector should set up a service platform for SMEs to provide a full range of support services. By doing so, the government can provide SMEs with comprehensive services such as legal, taxation and marketing to enhance their operational efficiency and market competitiveness. Lastly, technical and management support is also key to facilitating the development of SMEs. The administration should encourage foreign-funded enterprises to cooperate with local SMEs and provide technology transfer and management experience. From this, SMEs can learn and draw on advanced production technologies, quality control methods and management experience to enhance their own production efficiency and product quality.

- 2) Upgrading enterprise management: Enterprises should optimize their operational management and enhance their competitiveness by introducing internationally advanced management concepts and methods. First of all, enterprises can learn and implement internationally recognized management standards and best practices that can improve the efficiency of production process and the quality of products, thus enhancing market competitiveness. Next, companies should establish a modern management system to improve decision-making and execution efficiency. By utilizing data analysis and decision support systems, enterprises can make more scientific and accurate management decisions, and improve operational efficiency and market responsiveness. Moreover, it is crucial to introduce internationalized management talents. Enterprises can recruit executives with international experience or send members of the existing management team to participate in international training and exchanges. These management professionals not only bring advanced management experience, but also help enterprises establish an international business network and expand the global market. Finally, firms should also focus on building corporate culture and promoting a corporate culture centered on innovation, cooperation and

responsibility. By fostering a positive corporate culture, it strengthens employees' sense of belonging and cohesion, and improves the team's execution and creativity.

- 3) Increasing enterprise R&D investment: Enterprises should emphasize R&D and innovation, increase investment in R&D, and improve independent innovation capability. Through cooperation with foreign-funded businesses and scientific research institutions, they can carry out joint R&D and technological innovation to develop high value-added and high-tech products. Additionally, companies can set up R&D centers and innovation laboratories to attract high-end R&D talents and form an innovation-driven development model. High-level R&D capabilities will also attract technology-oriented foreign enterprises. At last, enterprises should pay attention to the protection of intellectual property rights to ensure that innovations are effectively protected. By establishing a perfect intellectual property management system, enterprises can safeguard their technological advantages and enhance the confidence of foreign-funded businesses in cooperation. The strengthening of intellectual property protection not only encourages the innovation drive within firms, but also attracts foreign-funded enterprises to set up local R&D organizations, which further pushes forward regional scientific and technological innovation and economic development.

6.2.4. Future of EU Integration and Prospects for Global Economic Cooperation

In the study, it can be understood that the EU integration process has brought many economic benefits to the CEE countries, including the expansion of market access, the reduction of trade barriers and the liberalization of capital flows. However, with the changes in the global economic situation and the intensification of internal contradictions, EU integration is also facing new challenges. For example, Brexit and the rise of populism in some member states have had a negative impact on the EU's

unity and integration process. In such a context, how the CEE countries should respond to these challenges and continue to play an active role in the future EU integration process becomes an issue of great importance. To begin with, CEE countries should actively participate in the policy coordination and decision-making process within the EU to ensure that their interests are effectively protected. By this way, CEE countries can better adapt to changes in the global economic environment and occupy a favorable position in the EU integration process. Besides, CEE countries should strengthen their cooperation with other EU member states, especially their economic ties with developed countries in Western Europe. With this, CEE countries can share more market resources and technological achievements. For example, by participating in the EU's innovation programs and R&D cooperation, CEE countries can obtain more technical support and capital investment, and drive the technological innovation and industrial upgrading of domestic enterprises.

With the challenges of EU integration, CEE countries should also consider seeking cooperation with other economies to expand their economic development space. In recent years, with the changes in the global economic landscape, emerging economies have become increasingly important in the global economy. By strengthening cooperation with these emerging economies, CEE countries can obtain more investment and trade opportunities and promote economic diversification. Firstly, CEE countries can strengthen cooperation with emerging economies such as China, India, Brazil, and South Africa. By enhancing economic and trade ties with these nations, CEE countries can expand their markets and investment channels, thereby boosting economic growth. In recent years, China's influence in the global economy has grown, and through platforms like the Belt and Road Initiative (BRI), economic and trade cooperation between China and CEE countries has become increasingly close. Additionally, collaboration with India in fields such as information technology and pharmaceuticals has strengthened, yielding remarkable results. This cooperation has brought more investment and technical support to CEE countries, promoting economic diversification. Furthermore, CEE countries can enhance their international

competitiveness by participating in regional economic cooperation organizations such as the Central European Free Trade Agreement (CEFTA). Recently, economic and trade cooperation between CEE countries and the Balkan states under CEFTA has intensified, achieving significant outcomes. This cooperation has facilitated regional economic integration and enhanced the international competitiveness of CEE countries.

6.3. Limitations

Although this paper reveals the positive impact of EU membership on FDI in CEE countries through systematic empirical analysis, there are still some shortcomings. First of all, due to the limitation of data acquisition, this paper fails to cover all CEE countries and all time periods, which may affect the comprehensiveness and representativeness of the results. Future studies can try to obtain data from more countries and longer time periods to improve the comprehensiveness and representativeness of the results. Secondly, although this paper used the synthetic control method, an advanced empirical method, the results depended on the quality of the construction of the control group. Future studies may try to combine other methods, such as the Difference-in-Differences (DID) method, to further validate the robustness of the results. In addition, the factors affecting FDI are complex and diverse. This paper mainly focuses on the impact of EU membership on FDI, and future research could further explore the combined effects of other factors such as the global economic environment and geopolitical risks.

In conclusion, despite some limitations, this paper offers valuable references for understanding the impact of the EU's eastward expansion on FDI in CEE countries through systematic empirical analysis and puts forward practical policy recommendations. It is hoped that the research results of this paper can provide useful insights for the economic development and policy formulation of CEE countries, as well as provide a solid foundation for subsequent research. In future study, the long-term impact of regional economic integration on FDI and the specific

mechanisms involved can be further explored. Continued attention to the development path of CEE countries in the globalization process will also help to better understand and respond to changes in the global economic environment.

Reference

Abadie, A., & Gardeazabal, J. (2003). The economic costs of conflict: A case study of the Basque Country. *American economic review*, 93(1), 113-132.

Abadie, A., Diamond, A., & Hainmueller, J. (2010). Synthetic control methods for comparative case studies: Estimating the effect of California's tobacco control program. *Journal of the American statistical Association*, 105(490), 493-505.

Ágh, A. (1999). Europeanization of policy-making in East Central Europe: the Hungarian approach to EU accession. *Journal of European Public Policy*, 6(5), 839-854.

Allee, T., & Peinhardt, C. (2011). Contingent credibility: The impact of investment treaty violations on foreign direct investment. *International Organization*, 65(3), 401-432.

Baas, T., & Brücker, H. (2011). EU eastern enlargement: the benefits from integration and free labour movement. *CESifo DICE Report*, 9(2), 44-51.

Bandelj, N. (2010). How EU integration and legacies mattered for foreign direct investment into Central and Eastern Europe. *Europe-Asia Studies*, 62(3), 481-501.

Barrell, Ray, Pain, Nigel, 1999. Domestic institutions, agglomerations and foreign direct investment in Europe. *European Economic Review* 43, 925–934.

Bayoumi, T., & Eichengreen, B. (1997). Is Regionalism Simply a Diversion? Evidence from the Evolution of the EC and EFTA. In *Regionalism versus multilateral trade arrangements* (pp. 141-168). University of Chicago Press.

Becker, T., Daianu, D., Darvas, Z., Gligorov, V., Landesmann, M., Petrovic, P., ... & Di Mauro, B. W. (2010). Whither growth in central and eastern Europe. Policy lessons for an integrated Europe. BRUEGEL.

Bevan, A. A., & Estrin, S. (2000). The determinants of foreign direct investment in transition economies. Available at SSRN 258070.

Bevan, A. A., & Estrin, S. (2004). The determinants of foreign direct investment into European transition economies. *Journal of comparative economics*, 32(4), 775-787.

Blonigen, B. A., & Piger, J. (2014). Determinants of foreign direct investment. *Canadian Journal of Economics/Revue Canadienne d'économique*, 47(3), 775–812.

Bomberg, E., & Peterson, J. (2000). Policy transfer and Europeanization: Passing the Heineken test?. *Queens University Belfast*.

Böwer U, Turrini A. EU accession: A road to fast-track convergence?[J]. *Comparative Economic Studies*, 2010, 52: 181-205.

Brenton, P., Di Mauro, F., & Lücke, M. (1999). Economic integration and FDI: An

empirical analysis of foreign investment in the EU and in Central and Eastern Europe. *Empirica*, 26, 95-121.

Breuss, Fritz (2001) : Macroeconomic Effects of EU Enlargement for Old and New Members, WIFO Working Papers, No. 143, Austrian Institute of Economic Research (WIFO), Vienna

Buch, C. M., & Piazzolo, D. (2001). Capital and trade flows in Europe and the impact of enlargement. *Economic Systems*, 25(3), 183-214.

Buch, Claudia, Kokta, Robert, Piazzolo, Daniel, (2003). Does the East get what would otherwise flow to the South? FDI diversion in Europe. *Journal of Comparative Economics* 31, 94–109.

Bundesregierung (2007). Migrationsbericht 2006. Bundesamtes für Migration und Flüchtlinge im Auftrag der Bundesregierung. Berlin: Bundesregierung.

Caetano, J. M. M., Galego, A., Vaz, E. C., Vieira, C., & Vieira, I. (2002). The eastward enlargement of the Eurozone trade and FDI (No. 7). Ezoneplus Working Paper.

Campos, N. F., Coricelli, F., & Moretti, L. (2014). Economic growth and political integration: estimating the benefits from membership in the European Union using the synthetic counterfactuals method.

Campos, N. F., Coricelli, F., & Moretti, L. (2019). *Institutional integration and economic growth in Europe. *Journal of Monetary Economics*, 103, 88–104.

Carstensen, K., & Toubal, F. (2004). Foreign direct investment in Central and Eastern European countries: a dynamic panel analysis. *Journal of comparative economics*, 32(1), 3-22.

Ceka, B., & Sojka, A. (2016). Loving it but not feeling it yet? The state of European identity after the eastern enlargement. *European Union Politics*, 17(3), 482-503.

Clausing, K. A., & Dorobantu, C. L. (2005). Re-entering Europe: Does European Union candidacy boost foreign direct investment?. *Economics of transition*, 13(1), 77-103.

Di Mauro, F. (2001). Economic integration between the EU and the CEECs: A Sectoral Study (No. 105). LICOS Discussion Paper.

Di Mauro, Francesca, 1999. The effects of economic integration on FDI flows: an empirical analysis and comparison with trade. Document paper No. 134. Center for European Policy Studies, Brussels.

DiMauro, F. (2001). Economic integration between the EU and the CEECs: A Sectoral Study (No. 105). LICOS Discussion Paper.

Directorate General for Economic and Financial Affairs (2001). The Economic Impact of Enlargement. Number 4 June 2001, II/419/01-EN.

Djankov, Simeon, Murrell, Peter, 2002. Enterprise restructuring in transition: a

- quantitative survey. *Journal of Economic Literature* 40, 739–792.
- DONGES, J.B. (1992), Foreign Investment in Eastern Europe. Paper presented at the International Economics Study Group Conference on International Investment. Nottingham: University of Nottingham.
- Drinkwater, S., & Garapich, M. P. (2015). Migration strategies of Polish migrants: Do they have any at all?. *Journal of Ethnic and Migration Studies*, 41(12), 1909-1931.
- Eichengreen, B., & Boltho, A. (2008). The Economic Impact of European Integration. Centre for Economic Policy Research Discussion Paper Series No. 6820.
- Estrin, S., Hanousek, J., Kočenda, E., & Svejnar, J. (2009). The effects of privatization and ownership in transition economies. *Journal of Economic Literature*, 47(3), 699-728.
- European Bank for Reconstruction and Development (EBRD), 1994–2002. Transition Report. EBRD, London.
- Farrell, M., Kairytė, E., Nienaber, B., McDonagh, J., & Mahon, M. (2014). Rural return migration: Comparative analysis between Ireland and Lithuania. *Central and Eastern European Migration Review*, 3(2), 127-149.
- Fassmann, H., Kohlbacher, J., & Reeger, U. (2014). The re-emergence of European East-West migration—the Austrian example. *Central and Eastern European Migration Review*, 3(2), 39-59.
- Fuchs, D., & Klingemann, H. D. (2002). Eastward enlargement of the European Union and the identity of Europe. *West European Politics*, 25(2), 19-54.
- Garibaldi, P., Mora, N., Sahay, R., & Zettelmeyer, J. (2001). What moves capital to transition economies?. *IMF staff papers*, 48(Suppl 1), 109-145.
- Garmel, K., Maliar, L., & Maliar, S. (2008). EU eastern enlargement and foreign investment: Implications from a neoclassical growth model. *Journal of Comparative Economics*, 36(2), 307-325.
- Grabbe, H. (2001). Opening up the business opportunities of EU enlargement. *European Business Journal*, 13(3), 127.
- Hagemeyer, J., Michałek, J. J., & Svatko, P. (2021). Economic impact of the EU Eastern enlargement on New Member States revisited: The role of economic institutions. *Central European Economic Journal*, 8(55), 126-143.
- Hartarska, V., & Thompson, H. (2008). Foreign investment and transition in Central/Eastern Europe along the phase curve. *Applied Econometrics and International Development*, 8(2).
- Haughton, T. (2014). Money, margins and the motors of politics: The EU and the development of party politics in Central and Eastern Europe. *JCMS: Journal of Common Market Studies*, 52(1), 71-87.

- Hlavacek, P., & Bal-Domanska, B. (2016). Impact of foreign direct investment on economic growth in Central and Eastern European countries. *Engineering Economics*, 27(3), 294-303.
- Holland, D., Fic, T., Rincon-Aznar, A., Stokes, L., & Paluchowski, P. (2011). Labour mobility within the EU-The impact of enlargement and the functioning of the transitional arrangements. National Institute of Economic and Social Research, 2978.
- Hymer, S. H. (1960). The international operations of national firms, a study of direct foreign investment (Doctoral dissertation, Massachusetts Institute of Technology).
- Jesus Crespo Cuaresma, Maria Antoinette Silgoner, Doris Ritzberger-Gruenwald. Growth, convergence and EU membership. *Applied Economics*, 2008, 40 (05), pp.643-656.
- Jimborean, R., & Kelber, A. (2017). Foreign direct investment drivers and growth in Central and Eastern Europe in the aftermath of the 2007 global financial crisis. *Comparative Economic Studies*, 59, 23-54.
- Jovanović, M. N., & Damnjanović, J. (2014). EU Eastern Enlargement: Economic Effects on New Members 2000~ 2012. *Journal of Economic Integration*, 210-243.
- Keuschnigg, C., Keuschnigg, M., & Kohler, W. (2001). The German perspective on eastern EU enlargement. *The World Economy*, 24(4), 513-542.
- Knight, J., Lever, J., & Thompson, A. (2014). The labour market mobility of Polish migrants: A comparative study of three regions in South Wales, UK. *Central and Eastern European Migration Review*, 3(2), 61-78.
- Kohler, W. (2004). Eastern enlargement of the EU: a comprehensive welfare assessment. *Journal of Policy Modeling*, 26(7), 865-888.
- Kornecki, L., & Raghavan, V. (2011). Inward FDI Stock and Growth in Central and Eastern Europe. *The International Trade Journal*, 25(5), 539-557.
- Lankes, H. P., & Venables, A. J. (1996). Foreign direct investment in economic transition: the changing pattern of investments. *Economics of transition*, 4(2), 331-347.
- Luthra, R., Platt, L., & Salamońska, J. (2016). Types of migration: The motivations, composition, and early integration patterns of “new migrants” in Europe. *International Migration Review*.
- Markowski, R., & Tucker, J. A. (2010). Euroscepticism and the emergence of political parties in Poland. *Party politics*, 16(4), 523-548.
- Mayhew, Alan, 1998. *Recreating Europe*. Cambridge Univ. Press, Cambridge.
- Medve-Bálint, G. (2014). The Role of the EU in Shaping FDI Flows to East Central Europe. *JCMS: Journal of Common Market Studies*, 52(1), 35-51.
- Moreh, C. (2014). A decade of membership: Hungarian post-accession mobility to the United Kingdom. *Central and Eastern European Migration Review*, 3(2), 79-104.

- Okólski, M., & Salt, J. (2014). Polish emigration to the UK after 2004; why did so many come?. *Central and Eastern European Migration Review*, 3(2), 11-37.
- Pollack, M. A. (2009). Europe united? The impact of the EU's eastern enlargement, five years on. *European View*, 8(2), 239-254.
- Popescu, G. H. (2014). FDI and economic growth in Central and Eastern Europe. *Sustainability*, 6(11), 8149-8163.
- Rapacki, R., & Prochniak, M. (2009). Economic growth accounting in twenty-seven transition countries, 1990-2003. *Eastern European Economics*, 47(2), 69-112.
- SHEEHY, J. (1995), Foreign Direct Investment in the CEECs, in *The Economic Interpenetration Between the European Union and Eastern Europe*, *The European Economy* 1994, No. 6, pp. 129± 150.
- Sohinger, J. (2005). Growth and convergence in European transition economies: The impact of foreign direct investment. *Eastern European Economics*, 43(2), 73-94.
- Szczerbiak, A. (2012). *Poland within the European Union: new awkward partner or new heart of Europe?*. Routledge.
- Tintin, C. (2013). The determinants of foreign direct investment inflows in the Central and Eastern European Countries: The importance of institutions. *Communist and Post-Communist Studies*, 46(2), 287-298.
- Vachudova, M. A. (2005). *Europe undivided: Democracy, leverage, and integration after communism*. Oxford University Press, USA.
- Wessels, W., & Rometsch, D. (1996). German administrative interaction and European Union: The fusion of public policies. *Adjusting to Europe: The impact of the European Union on national institutions and policies*, 72-109.