Integration and Investment Development Paths of CEE Countries.

Does EU-Membership Make a Difference?

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ABSTRACT

A number of studies have dealt with the effects of economic integration on foreign direct investment, yet without a comprehensive and simultaneous analysis of the overall positioning of these countries along the investment development path (IDP). In the current paper, a comparative analysis is conducted of IDPs of five Central and Eastern European (CEE) countries, both members and non-members of the European Union. The purpose of the paper is to determine the effect of economic integration on FDI flows and on the movement of these CEE economies through their IDP stages. An attempt is made to identify the positioning of the sample countries on the IDP, using trend estimation depicting the relationship between net outward investment position (NOIP) per capita and GDP per capita, as well as detailed descriptive data on inward and outward FDI stocks and flows, subsequently supported with econometric analyses. While the findings point to the generally positive effect of EU membership on FDI growth and IDP trajectories, integration tends to exert a stronger effect on inward FDI than on outward FDI of member countries. At the same time the study's findings reveal the need to add new theoretical considerations to the interface between EU integration and the IDP model as well as formulate certain policy implications resulting therefrom.

Keywords:

Foreign direct investment, investment development path, institutional approach, European integration, Central and Eastern Europe

INTRODUCTION

The main objective of this study is to determine whether integrating an economy in an organization of regional economic integration such as that of the European Union (EU) will upgrade the said economy's international competitiveness thus influencing the integrating countries' inward and outward FDI. The main drivers in this process have been identified and selected as outward and inward FDI which conceived as outward and inward FDI stocks are at the core of the concept of net outward investment position (NOIP), which in turn is the central category in the investment development path (IDP) model of John Dunning (Dunning 1981, 1986; Dunning and Narula 2002). In particular, the authors investigate the effects of economic integration on the IDPs of CEE countries by comparing EU-members with non-member countries of the region. Another intention of this study in its theoretical dimension, was to seek at least indirect confirmation for the existence of the FDI creation effect in the countries that had joined the EU. The literature review which follows later on attests to the relative paucity of research on those two significant issues in international business research, and thus this investigation is intended to fill the gap to some degree.

Five countries have been selected for investigation in this study. Three, i.e. Czechia, Hungary and Poland, come from Central and Eastern Europe (CEE) and have been EU members since 2004. The remaining two, i.e. Belarus and Ukraine, are also in CEE but remain outside the EU. The selection criteria were in principle two: potential of the internal market proxied by the size of each country's GDP p.c. and availability of required data throughout the investigated period, i.e. from 1994 to 2017 (latest year on record with data for all countries).The data sets used in this study were compiled from the database of UNCTAD.

The research profile of this study is that of a strictly exploratory research undertaking. This of course implies that all findings and conclusions should be treated with utmost caution and subject to further verification. Also the focus here is on EU as only one of the multitude of

other forms of international economic integration currently in existence. Thus, the said findings tentatively apply only to a specific institutional and geographic framework, delineated on the one hand by EU, and CEE countries on the other.

As for the structure of this study, introduction is followed by the section containing extant research on the basic theoretical concepts coupled with their empirical evidence on the investigated and complementary subject areas. Then an outline ensues of research methods employed, revolving around the formulated four research hypotheses. This is followed by the key section containing relevant descriptive and econometric analysis, and incorporating also all findings. Thereafter, the section on conclusions with certain policy recommendations and future research agenda ends the paper.

THEORETICAL CONSIDERATIONS AND EMPIRICAL EVIDENCE

The Nexus of Economic Integration and FDI

While interactions between economic integration and trade have received much attention in the theoretical and empirical literature, interdependencies between economic integration and FDI flows remain a relatively neglected research area (Marszk, 2014; Medvedev, 2012). Consequently, the results of the studies in this area are limited and often inconclusive. The problem, as pointed out by Blomström and Kokko (1977), may lie in the multidimensionality of the link between economic integration and FDI. It is therefore reasonable to expect different impacts of the formation of integrative groupings on FDI flows among the member countries, as well as between member and non-member countries. Moreover, the impact may vary depending on the type of FDI: horizontal vs. vertical or import substituting vs. export-oriented (ibidem). Another issue is the impact of economic integration on FDI

inflows vs. FDI outflows from a given country. This issue is particularly important in the context of the investment development path (IDP).

Table 1 summarizes the conceptualized or documented impacts on both FDI inflows and outflows, from the perspective of a host country, according to the impact area (aspect of integration). A more detailed description of these impacts follows the table.

******** Table 1 about here ********

The literature on the consequences of trade liberalization through regional integration agreements for trade flows is vast. Much less has been written on the impact of trade liberalization on investment. Earlier studies tended to regard trade and capital movement as substitutes (see the works cited in Blomström and Kokko, 1977). According to this view, creating an economic integrative bloc was expected to decrease the magnitude of FDI flows – horizontal FDI flows within the bloc should decrease due to lower costs of serving foreign markets through exports rather than via international production (reduction of "tariff-jumping" FDI). On the other hand, if regional integration leads to trade creation, it is likely to result in shifting of investment from one country to another in search of new investment opportunities (investment diversion in response to trade creation effects) and due to regional rationalization of international production. Hence, intra-regional FDI may increase in some member countries, while decreasing in other countries. At the same time, inflows of FDI from outside the integrative grouping may go up, if the average level of protection increases and trade diversion occurs. In more recent literature, however, a dominant view is that there is complementarity between trade and investment due to the growing importance of intra-industry and intra-firm trade, and MNE production networks (Globerman, 2002; Markusen, 2002; Medvedev, 2012). This observation is supported by a number of empirical studies. For example, Brenton et al. (1999) found complementarity between FDI flows and both imports and exports in their study

of Central and East European countries' prospects to join the EU, thus corroborating the work of Brenton and Di Mauro (1999). Likewise, Chakrabarti (2001) discovered that after market size, openness to trade is the most important indicator of the attractiveness of an FDI location. And the empirical study by Martinez et al. (2012) shows that EU trade and FDI reinforce each other thus being complements, not substitutes. Clearly, both theoretical reasoning and empirical studies point to the overall positive impact of trade liberalization, as part of the integration processes, on FDI inflows. However, some member countries may experience a decrease in FDI inflows or even in stock. A case in point of the latter is the divestment phenomenon observed in Greece following the country's accession to the EU in 1981 (Georgopoulos et al. 2018). Established during the protectionism era, the divested subsidiaries of MNEs had difficulty competing in an open Greek market.

In terms of the impact of trade liberalization on FDI outflows, not much theoretical reasoning and even less empirical evidence can be derived from the literature. It is argued though that economic integration can have a significant impact on firms' ownership ("O") advantages (Witkowska, 1997; Marszk, 2014). For MNEs from member countries, integration provides better access to markets within the grouping thus allowing them to capitalize on the economies of scale. This, in turn, may lead to increased R&D spending and improved innovativeness and competitiveness of the enterprises' products and services. Having improved their O-advantages, the local MNEs will be in a better position to compete and more inclined to exploit these advantages abroad. It is likely then that outflows of FDI from the integrating area increase as a result of an enhanced capacity and competitiveness of local firms (Blomström and Kokko, 1997). Some empirical evidence is provided by the study of Simonescu (2018) who found that Romania's accession to the EU brought about significantly more FDI inflows and more FDI outflows in the years 2007-2012 than in a comparable period prior to accession.

Liberalization of investment regimes and the introduction of transparency and policy credibility that go along with joining an economic bloc can be significant factors stimulating intra- and inter-regional FDI flows (Marszk, 2014; Medvedev, 2012). This is because membership, actual or expected, locks-in reforms, improves the investment climate and thus lowers the political risk of investing in a member country. The surge in FDI inflows into Mexico at the time of the NAFTA formation provides evidence in support of the positive link between investment liberalization and improvement of investment climate, and FDI flows (Blomström and Kokko, 1977; Lederman et al., 2005). The study of Adams et al. (2003 - cited in Medvedev, 2012) demonstrates that particularly "deep integration" provisions – liberalization of investment and trade in services, harmonization of standards, common competition policy, customs cooperation, provision of a dispute settlement mechanism and IPR protection – can be important drivers of FDI. Complying with such "deep integration" provisions constitutes one of the requirements of the EU membership.

The impact of investment liberalization on outward FDI is less clear. Brenton (1996 – cited in Brenton et al., 1999) found that the EU Single Market programme lead to a significant increase in investment by EU firms in other EU countries in the late 1980s. However, it is impossible to separate the impact of trade liberalization from investment liberalization in this case. It is likely that investment liberalization and reduced investment risk will have a positive effect on the propensity of local firms to invest abroad. For example, removal of capital controls and mutual investment-protection provisions facilitate outward FDI. Within a "deep integration" area, such as the EU, foreign investors have greater opportunities to raise capital. MNEs from less advanced member countries, in addition to exploiting their advantages, are likely to engage in acquisition of new capabilities in more developed member countries. The phenomenon of emerging-market multinationals seeking assets and advantages abroad has been extensively discussed in the IB literature (see Knoerich, 2017 for a review of the various studies of emerging

markets MNEs seeking asset augmentation through FDI). Growing firms from new member countries of Central and Eastern Europe are thus likely to be active investors in more advanced countries of the EU, taking advantage of investment liberalization and seeking strategic assets within the Union.

A country joining an integrative grouping naturally becomes part of an extended market. The deeper the integration of the grouping, the more the extended market resembles a single market. Having access to an extended market, which can be very large, becomes a big location advantage for foreign investors. In fact, research shows that market size is the most important factor attracting FDI inflows (see Lim et al. 2001 for a review of empirical studies confirming that). One can therefore expect a positive relationship between a country's participation in an integration agreement and FDI flows into that country (Medvedev, 2012; Marszk, 2014).

In particular, inflows of FDI from outside the integrative grouping are likely to increase: a larger market makes the region a more attractive investment location (Blomström and Kokko, 1977). The inflows of FDI from non-member countries would be further stimulated if the average level of external protection increased as a result of integration. MNEs from outside the integrated area would have incentives to undertake tariff-jumping and horizontal FDI (Marszk, 2014), establishing export platforms inside the area. As Brenton et al. (1999, p. 13) put it, referring to the EU situation: "When the investing country is not an EU member, firms investing overseas might prefer an EU country over other potential host countries because it offers free access to the whole EU and EFTA markets". The empirical study conducted by Im (2016) attests to the overall positive impact of extended market on extra-regional FDI inflows, particularly via an export-platform type of investment. However, the surge of FDI inflows in such case would be concentrated in member countries with the strongest location advantages, e.g. lowest costs (Blomström and Kokko, 1977; Marszk, 2014).

The impact of extended market size on intra-regional FDI flows is difficult to assess. The impact is likely to vary from one member country to another, depending on the country's locational advantages and on the type of foreign investment. Since an investing firm can locate its operations in any member country to have access to an entire extended market, it is likely to locate its operations in a country with the greatest location advantages. Therefore, some re-orientation (investment diversion) of FDI across the integrated region should be expected. The nature of this re-orientation will depend on the type of FDI. The theoretical arguments found in the literature suggest that intra-regional horizontal FDI should diminish, while vertical and export-oriented FDI should increase as a result of integration (Neary, 2009; Jang, 2011; Im, 2016). The implications of the above reasoning for CEE members of the EU are that these countries, having location advantages (notably lower production costs), should benefit from an increase in efficiency-seeking (vertical and export-oriented) FDI flows from more advanced EU countries.

The impact of extended market size on outward FDI is hardly discussed in the literature. Nevertheless, it can be implied from the arguments raised by some authors (see e.g. Blomstrom and Kokko, 1997; Witkowska, 1997; Athukorala, 2013; and Marszk, 2014) that operating in a larger market is conducive to building firms' capacity to expand, also internationally. The main underlying mechanism is the opportunity to exploit the economies of scale and engage in vertical specialization. Alongside trade and investment liberalization, discussed earlier in this section, the extended market size factor should have a largely positive effect on intra-regional outward FDI. At the same time, it can possibly have a negative impact on inter-regional FDI outflows, as investors within the region will have access to a large and lucrative "internal" market and therefore fewer incentives to invest elsewhere.

Summing up, one can conclude that economic integration should have a positive or mostly positive impact on FDI inflows into the member countries of an integrative grouping.

This positive impact occurs mainly through three aspects (results) of integration: trade liberalization, FDI liberalization, and extended market size. However, this overall positive impact could be nuanced, depending on the source of investment (intra-region vs. extra-region investment), type of investment (horizontal vs. vertical investment), and on location advantages of the individual member countries. In particular, horizontal intra-region FDI may be diminished in the process of integration.

Most empirical studies support the above idea. Positive impact was found, among other countries, for Spain and Portugal following their EU membership (Lim et al., 2001; Lederman et al., 2005), for Mexico after NAFTA (Blomström and Kokko, 1997; Lederman et al., 2005; Monge-Naranjo, 2002), for Brazil and Argentina after MERCOSUR (Chudnovsky & Lopéz, 2001 – cited in Medvedev, 2012), for Romania after EU accession (Simionescu, 2018). Likewise, the studies on the implementation of the EU Internal Market program in 1986 point to an increase in intra-EU FDI (see e.g., Pain and Landsbury, 1997). However, some of these studies find that FDI responded more to the policy changes imposed by the integration agreements rather than to the integration process *per se* (Blomström and Kokko, 1997; Graham and Wada, 2000). Also cross-country studies support the positive association between economic integration and FDI (see e.g., Adams et al., 2003). However, there are also studies that do not support this conclusion. Research of Lederman et al. (2005) and Georgopoulos et al. (2018) for Greece, and the study of Klich (2014) for Visegrad countries did not find evidence of post-accession increase in FDI inflows.

The relationship between economic integration and outward FDI is less clear due to the paucity of studies (particularly empirical) in this area. Therefore, propositions stemming from the literature review are highly tentative. It is likely that the impact of regional integration on FDI outflows from member countries will be generally positive. However, it can be negative for inter-regional FDI outflows due to the dampened propensity of local MNEs to invest outside

the integration region in face of favorable regulatory conditions and greater investment opportunities within the region (investment diversion). Empirical evidence is insufficient to conclude about the net effect of stimulated intra-region outward FDI and dampened inter-region outward investment.

Economic Integration and the IDP Concept

The investment development path (IDP) concept or model was introduced by Dunning (1981), and further refined by Dunning (1986) and his co-author (Dunning and Narula, 1994, 1996, 2002; and Narula and Dunning, 2010). The model provides a framework for analyzing the dynamic relationship between FDI and economic development. The two variables used in determining a country's position on the IDP are the net outward investment (NOI) and GDP/GNP. NOI is calculated as a difference between outward FDI and inward FDI stock. Thus, the dynamic relationship between outward and inward FDI is at the heart of the IDP model. The changes in GDP are treated as proxy of economic development. As countries develop, they pass through 5 consecutive stages of the IDP. Each stage can be succinctly summarized as follows:

In stage 1 countries receive little inward FDI initially and make almost no outward FDI. The NOI is negative and decreasing, first slowly and then more rapidly. Stage 2 countries receive growing amounts of inward FDI but still invest relatively little abroad, thus becoming a large net FDI importer. At the end of this stage, however, outward FDI starts to grow faster than inward FDI and the negative NOI stops increasing. In stage 3 countries still record more inward than outward FDI stock but the latter is growing faster than the former. As a result, at the end of this stage, the NOI assumes values close to zero. Countries classified as being in stage 4 record more outward than inward FDI stock, thus becoming net FDI exporters. The NOI assumes consistently positive and growing values. Finally, countries positioned in stage 5, experience balanced, albeit fluctuating from year to year, high levels of inward and outward FDI. The NOI first falls and then fluctuates, assuming temporarily positive and negative values.

The theoretical explanation of the underlying causes of the above-outlined stages is rather complex, but generally one can state that the IDP changes occur in response to the interplay between investment attractiveness of a country (location advantages) and the international competitiveness of its firms (ownership advantages), leading to a synergy effect of improving general international country competitiveness. Moreover, movement along the IDP generally parallels countries' growing wealth, measured by GDP or GNP. Accordingly, developed countries are typically in Stages 4 and 5, least-developed countries are in Stage 1 and developing and transition economies are in Stage 2 or 3 (Gorynia et al., 2019).

Theoretical literature is virtually silent on the relationship between the IDP and economic integration. Although Narula and Dunning (2000, 2010) recognize the importance of regional integration in the context of IDP, they do not systematically analyze the impact of integration on the consecutive IDP stages. Likewise, there are very few empirical studies investigating the issue or even incorporating conceptually the integration elements into IDP analyses. Buckley and Castro (1998) concluded in their study of Portuguese IDP that non-economic factors, among others membership in the European Economic Community (the predecessor of the European Union), can be more important for the evolution of inward and outward FDI than the economic factors. The studies of Klich (2014), and Kaliszuk and Wancio (2014) specifically analyzed the impact of EU accession on CEE countries' IDP trajectories. Klich concluded that the V4 countries' membership in the European Union did not result in the speeding up of these countries' movement along the IDP trajectory. On the other hand, Kaliszuk and Wancio (2014) found Poland's membership in the EU to be a catalyst in the country's transition to stage 3 of the IDP.

As can be seen from the above review, the literature on the impact of regional economic integration on the IDP is very limited and providing inconsistent results. The present study

addresses this research gap. It compares IDPs of two groups of CEE countries: EU members and non-members, thus attempting to determine the impact of membership on the movement of countries along their investment development paths. Since NOI is the juxtaposition of inward and outward FDI, the analysis that follows measures and describes the impact separately for each type of foreign direct investment. The stated and tested hypotheses below are developed in accordance with the theoretical links and the empirical results reviewed in this section.

In line with the review and reasoning above we state that:

H1: EU *economic integration affects inward FDI into a country to a larger extent than outward FDI.*

H2: EU *economic integration reduces the effect of GDP on inward FDI (substitution effect) to a larger extent than on outward FDI.*

H3: EU *economic integration accelerates the movement of countries from stage 2 to stage 3 of their IDP.*

H4: EU *economic integration reduces the effect of GDP on changes in NOIP.*

RESEARCH METHODS

In order to address the research hypotheses formulated above, firstly a descriptive analysis was undertaken of secondary data derived from the UNCTAD database. Specifically, we used data for the period 1994-2017 for outward and inward FDI stocks and flows, as well as for GDP per capita. We focused on three EU-member states, i.e. Poland, Czechia and Hungary (that joined the European Union in 2004) and two non-EU countries, i.e. Belarus and Ukraine. Based on raw data we computed NOIP p.c., as well as the outward foreign direct investment performance index (OFDIPI). Apart from analyzing changes of the IDP paths of these sample countries, we

used the SPSS software package to estimate and visualize non-linear trend lines based on the actual data, which complement the descriptive analysis. Figure 1 shows the plot with country curves according to modelled data for the countries under study. These non-linear regression curves were drawn through points on the scatterplot to summarize the relationship between the variables under investigation.

Subsequently, going beyond the descriptive results based on available secondary data, we recurred to multiple non-linear regression analysis in order to verify the appropriateness of the IDP approach in CEE economies. While a number of scholars applied a quadratic function to estimate the non-linear IDP relationship (Barry, Goerg and McDowell, 2003; Boudier-Bensebaa, 2008; Dunning, 2002), others (see e.g. Buckley and Castro, 1998; and Bellak, 2001) found a cubic specification better fitting available empirical data. Yet, given the stage of development of CEE economies, which approach Stage 3 of the IDP at most, a quadratic function seems more accurate to capture the present positioning. Accordingly, non-linear, quadratic regression analysis using the SPSS software package was applied to the two key variables of the IDP model: NOIP per capita, as the dependent variable, and GDP per capita and EU-membership (dummy variable for a given year) as the independent variables. Non-linear regression proved appropriate since the relationship between the dependent and independent variables is not intrinsically linear. Also, in line with the research hypotheses, EU-membership was included as a moderating variable on the effect of GDP per capita on NOIP per capita.

Given the existence of potentially relevant factors affecting the investigated relationships documented in earlier studies, several control variables were introduced. We added the size of the economy proxied by its population, as well as the country currency exchange rate against the dollar. We do not report these variables in the final models, nor in the previous section, as (1) they did not turn out to be significant; (2) they do not affect the shape

of the studied relationships; and (3) they reduce the statistical power of the models due to small sample size. For the panel data regression, the model also included years of observation as a control variable.

Two types of econometric modelling have been used in the ensuing analyses. In order to explore overall trends across the investigated sample of countries, a panel data non-linear regression has been used on 220 country-year-observations. Secondly, to analyze country-specific paths, cross-sectional regression analyses were conducted for each country for 22-25 years in each case (depending on data availability).

In order to ascertain the appropriateness of all OLS multiple regression models, several assumptions had to be validated. Firstly, before running the regressions, several statistical checks (correlation analysis, independent sample tests) were conducted in order to detect multicollinearity between the explanatory variables, as well as to provide an initial understanding of the relationships between both independent and control variables. In order to alleviate the concern of multicollinearity, which was tangible because of the inclusion of interaction terms with quadratic terms of the same variable, all variables were mean-centered. The analysis of variance inflation factors (VIF) for all regression models revealed no major problems with regard to multicollinearity, as VIF values for all variables in all models were within an acceptable threshold of 10 (Chiao et al., 2008; Georgopoulos & Preusse, 2009).

As regards the panel data regression specifically, we used a fixed-effect model. From a conceptual point of view, since individual effects are linked to country-specific characteristics, they can be assumed to be deterministic and non-random. From a statistical perspective, a fixed effect model seems more appropriate since NOI is examined for countries which are not randomly drawn from a larger population but belong to a predetermined sample. Additionally,

from an econometric perspective, the Hausman specification test led to the rejection of the use of a random effect model in favor of a fixed-effect model.

DATA ANALYSIS AND RESULTS

Descriptive Analysis

In analyzing the effects of EU integration on the IDP trajectories of the three EU member countries from Central and Eastern Europe versus Ukraine and Belarus the central point of reference is of course the year 2004, i.e. when the EU enlargement occurred embracing the said three CEE countries. The first step revolves around the level of NOIP p.c. recorded that year compared to the previous one and also extended to the following year. From the data available in Table 2. it appears that during the three years investigated at this point (from 2003 to 2005) almost all of the five countries (3 from UE and 2 non-EU members) recorded falling levels of their respective NOIPs p.c. Hungary was the only exception when in 2005 its NOIP p.c. improved slightly from -5413 to -5202 USD. This observation tends to indicate that EU accession or in other words entry into a regional economic integration system, did not have, from the standpoint of NOIP p.c. levels, any significance on modifying the sliding downward trend in the investigated countries' IDP trajectories. The deteriorating NOIP p.c. was also recorded in all these countries in 2017, the last year for which data was available. This fact tends to reinforce the idea that even in a significantly longer period of time regional economic integration did not seem to impact the NOIP p.c. levels in the expected sense of their upward movement to positive values. In terms of the IDP model reasoning this meant that the said integration did not contribute visibly to the movement of the three EU members from CEE from their stage 2 to stage 3. Indeed available data point to their prolonged positioning in the IDP stage 2. Thus on this basis alone there are practically no grounds to claim that the said three EU member countries were better off in this respect than Ukraine or Belarus. Of course such

paradoxical conclusion is mitigated by the existence of a huge gap in GDP p.c. levels between the three UE members from CEE on the one hand, and Belarus and Ukraine on the other, which accounts generally for the higher level of welfare and development of the countries that had decided to integrate their economies inside the EU.

******** Table 2 about here ********

Another mitigating factor is the observed trend in the NOIP p.c. curve as a function of time (see Figure 1). In the last five years on record (2013-2017) the positioning of the three EU member countries on their IDP trajectories does trend-wise point to their firm and desired thrust into stage 3, the most pronounced being reflected by the curve for Czechia, followed by that for Hungary and Poland. As for Belarus the said curve trend shows continued presence in IDP stage 2, whereas for Ukraine a slight upward movement signaling possible entry into IDP stage 3. Thus, Ukraine having a smaller GDP p.c. in 2017 than Belarus had a better opportunity of moving out of IDP stage 2 and diminishing the gap between itself and the referenced EU member countries group.

******** Figure 1 about here ********

A partial explanation of this inconsistency resides in the general observed relationship between NOIP p.c. and GDP p.c. (see Table1). For the last four years on record (2014-2017), for all investigated countries, the said relationship was such that higher observed GDP p.c. values for a country generated higher negative levels of its NOIP p.c. This relationship was true also in 2004 (the EU access year for the first three countries). Thus these countries were ranked in the following descending order: at the top was Czechia, with the highest GDP p.c. in 2017 of 20326 USD and corresponding NOIP p.c. of -12225 USD, then came Hungary with a GDP p.c. of 14376 USD and NOIP p.c. of -6657 USD, then Poland with a GDP p.c. of 13786 USD and NOIP p.c. of -5330 USD, followed by Belarus with a much smaller GDP p.c. of 5750 USD and a NOIP p.c. of -2000 USD, and finally Ukraine with the smallest GDP p.c. of only 2536

USD and a NOIP p.c. of -984 USD. It is worth noting that Ukraine's GDP p.c. was 12.5% of that of the top rated Czechia and Ukraine's negative NOIP p.c. was only 8% of that of Czechia.

The persistence of such high negative values of the NOIP p.c. of the three investigated EU member countries stems in principle from higher and sustained values of inward FDI (IFDI) stocks over outward FDI (OFDI) stocks. Over the studied period their average share of OFDI stocks in IFDI stocks was about 10%. Although this was the case also with Belarus and Ukraine the said average share was slightly higher at 11%. The nominal reason for this 11% seems to lie in the very high levels of the said ratio in the first two years of the studied period. For Belarus and Ukraine combined in 1994 it reached 39.6% and in 1995 it was 28.5% (see Table 3). These ratios in those two years stand far apart from all other annual data recorded in Table 2. Besides those two outlier records the generally low average ratios for both groups were due to the lower competitiveness levels of firms from all five countries trying to gain access to foreign markets via entry and expansion forms (i.e. FDI) requiring relatively high and sustained resource outlays, which were in most cases not easily available because these firms were usually either in the early stages of their internationalization paths and/or lacked sufficient experience. The contention of lower competitiveness levels is relative and should be compared with those of firms undertaking inward FDI in all the investigated countries and having usually superior ownership, internalization and location advantages.

******** Table 3 about here ********

Moreover, in absolute terms the levels of OFDI and IFDI stocks were on average also higher (see Table 2): for the three EU members the average OFDI stock was 1530% of its equivalent for Belarus and Ukraine whereas for IFDI stock the same ratio was lower but still quite high at 1181.%. Those proportions clearly indicate that the country attractiveness in terms of IFDI of the three EU member states was much higher than in the case of the "outsiders" –

Belarus and Ukraine, attesting to a certain degree to the advantage, for the first group, of having joined the EU.

The assertion above concerning the benefit of EU integration can also be tested by looking at just the flows of outward and inward FDI in the accession year of 2004 for the three EU investigated countries and the two "outsider" countries (see Table 4). For Czechia and Poland OFDI flows rose considerably that year, although Czechia's level was 611% of that recorded for Poland, pointing to Czech firms' seemingly higher overall competitiveness than that of their Polish counterparts. Hungary recorded the highest outflows that year (1.32 billion USD). They were 473 million USD lower than the previous year but the following year 847 million USD higher. Compared to the EU group the "outsiders" showed minimal outflows in 2004: Belarus of only 1 million USD and Ukraine of 4 million USD. This was down from 2 million USD in the case of Belarus and down from 13 million USD in the case of Ukraine. Thus again the three EU countries from CEE showed superior performance in outward FDI flows than the other two economies that were outside the EU.

******** Table 4 about here ********

As for inward FDI flows in 2004, all three EU member states recorded higher values than in the previous year. The highest value was recorded by Poland (over 12 billion USD) corresponding to the pull of the largest domestic market of the three. Then Czechia and Hungary followed with much smaller values (almost 5 billion USD and 4.3 billion USD respectively). On the other hand, in the "outsider" group Ukraine had an FDI inflow of 1.7 billion USD which rose, compared with the previous year, but was just 40% of that of Hungary, whereas in Belarus FDI inflows diminished to only 164 million USD which equaled 9.6% of the value for Ukraine. Therefore, also in the annual outflow/inflow FDI dimension the two analyzed states outside EU demonstrated visibly inferior results compared with the three EU members from CEE.

The outward FDI performance index (OFDIPI) is another measure which in essence reflects the competitiveness of firms from a given country investing abroad, set against the relative economic potential of such country (see Table 2). Again, using the benchmark year of 2004, we see that the three CEE countries that joined then the EU, showed higher levels of this index than the two CEE states that remained outside the EU. In fact, the highest level and closest to the threshold value of 1.0 (meaning that outward FDI had exploited fully the relative economic potential of the home country) was recorded by Hungary (0.616) which signified that Hungarian firms were at the top in this competitiveness ranking. Thereafter came Czechia with a lower index level of 0.412, followed by Poland with a much lower index level of 0.031. The average OFDIPI level for this group of three was 0.353. Now, as far as the "outsider" group is concerned, the said index that year for Belarus and Ukraine was the same and was equal to 0.003, very significantly lower than the above average reading for the EU group. Thus, at the outset of the period when the three CEE countries decided to join the EU as full members, the competitive performance of their outward investing firms was far superior to those from the "outsider" CEE group.

If the whole period is investigated from 2004 to 2017, the last year for which data are available, the asymmetry seen above is sustained and remains acute. The ranking of average OFDIPI levels for this period for all the studied counties is slightly different now. Czechia is at the top with index level of 0.413, followed by Hungary with index level of 0.391, followed by Poland with an index of 0.291. Then in the "outsider" group comes Ukraine with an index of 0.099 and at the end is Belarus with an index of 0.061. The first, EU group, records a composite average OFDIPI index 0.365 versus just 0.080 level for the "outsiders". This consecutive piece of evidence points once more to the indisputable advantage of having integrated the three economies in 2004 within the EU, rather than staying outside. What should be stressed however is the fact that, as a trend, none of the investigated countries had on average OFDIPI index

levels of more than 1.0 indicating in that case outward investment intensity above the relative potential of the home country and thus reflecting exemplary/superior firm competitiveness. The gap in this respect remains considerable even for the EU member group of countries, creating inevitably a challenge to reduce it in the future. Nonetheless, taking into consideration the differences in GDP p.c. levels observed between the two groups of investigated countries, the foreseeable time span for the outsider group to be able to close this gap is estimated to be much longer than in than in the case of the EU group.

Econometric Analysis

In addition to the analysis conducted above, as well as estimation of trends based thereon, we recurred to regression analyses to test the formulated hypotheses. Table 5 reports the findings for two models, with a dependent variable of OFDI and IFDI, respectively. For the OFDI model, the coefficient of EU-membership is not statistically significant, while for IFDI it has a positive and statistically significant coefficient ($p<0.001$). Thus, Hypothesis 1 can be supported. Further, the moderating effect of economic integration on the influence of GDP is negative and statistically significant (at $p<0.01$), suggesting that the effect of GDP on IFDI is reduced by EU-membership. The same cannot be claimed for the OFDI model. Therefore, Hypothesis 2 can also be supported.

With regard to the NOIP p.c. models, shown in Table 6, the effect of the EU-membership on NOIP p.c. cannot be supported, as its coefficient is only significant for Hungary, not for other EU-members and not for the whole sample. Thus, Hypothesis 3 although receiving only partial empirical support, based on descriptive analysis conducted earlier, is in essence rejected by econometric modelling. With regard to the substitution effect of economic integration on GDP, also only for Hungary could a negative and statistically significant coefficient be noted, thus Hypothesis 4 also receives only partial support.

******** Table 4 about here ********

******** Table 5 about here ********

CONCLUSIONS AND POLICY RECOMMENDATIONS

Because of the exploratory nature of this study, as stressed at the outset, the drawn conclusions are tentative and requiring further extensive research and verification. The analysis of NOIP p.c., the key indicator and criterion at the same time, of determining whether the three CEE countries that decided to integrate within the EU were further up on their IDP model trajectories, compared with the two CEE countries that stayed outside the EU, yielded mixed and somewhat ambiguous results. Both descriptive and econometric analyses in principle validated the conclusion that there was no clear positive integration effect on the NOIP p.c. (as predicted by H3), even in the EU accession year of 2004. This could partly be explained by the argument that investors and markets alike had been aware of that date and had anticipated the change long before, especially since it was publicly announced ahead of time. Thus, both those categories of players had probably discounted that information earlier and this in turn led to a spreading out effect of their reactions in an extended time period, avoiding, as a net result, a sudden jump in FDI flows in 2004. Moreover, this argument is corroborated by a similar observation concerning international trade flows.

Nevertheless more conclusions based on more persuasive arguments point to the generally positive effect of EU integration on FDI movements and country IDP trajectories. Firstly, it was proven that according to H1 and H2, EU integration exerted a stronger effect on inward FDI as compared to outward FDI of member countries.

At the same time the NOIP p.c. trend projections did show that all the three EU group members were firmly on their way to stage 3 of their IDPs. Furthermore, all the other analyzed criteria, connected directly or indirectly with NOIP p.c. formation, point to the contrary, i.e.

that the three EU members from CEE did exhibit superior performance and were generally better off than the other two economies. This conclusion is sometimes challenged by the argument that countries that joined the EU were already (at the time of access) relatively more advanced as far as their economies are concerned and that led to their faster economic upgrading stimulating such factors as increased FDI flows. Nevertheless, admission of partial relevance of this mitigating fact is deemed not to be strong enough as to disprove the conclusion about the positive effect of EU integration. The analysis of outward FDI performance index also offers support for such positive effect differentiating very clearly, in its recorded levels, EU members from non-members.

Our descriptive analysis complemented with the estimation of trends also partly supported the notion that EU economic integration accelerates the movement of countries from stage 2 to stage 3 of their IDP. At the same time, econometric analysis partly supports our hypothesis that EU economic integration reduces the effect of GDP on changes in NOIP, or – in other words – makes the effect of GDP posited in the original IDP model less relevant.

The key policy recommendation emerging from the present albeit exploratory study is that Belarus and Ukraine could consider joining the EU, based on the potential benefits from stimulating outward and inward FDI for their countries' international competitiveness and GDP growth. Such economic drivers have however one serious limitation in that they must, at least up till now, give priority to the implications stemming from the geopolitical context and environment, in which those two countries operate. The proximity of Russia and its continuous efforts to keep those two countries within its sphere of interest remains a potent countervailing force which does not show so far any signs of abating or losing impetus. The situation in this respect is complicated but still slightly more favorable for Ukraine compared with Belarus. The existence and activity of pro-Western and pro-EU forces in Ukraine, coupled with what many consider a more democratic political system than in Belarus, offer this country generally more

chances in moving ahead on the path towards integration within the EU. At present however, in both countries, positive changes in this context cannot be expected in a short or medium time perspective.

On the other hand, the three analyzed CEE countries that joined the EU in 2004 should continue introducing measures designed to support, sustain and increase their outward FDI. This constitutes "at the end of the day" the long-term criterion of developing their firms' international competitiveness and thus, as the net result, advancing along their IDP paths. But this also necessitates pursuing supporting policies that strengthen the institutional framework of the EU and generally, inside each of those countries, the rule of law.

As this is an exploratory study covering a relatively small sample of three plus two countries all conclusions require further verification on a much larger data set. Thus future research agenda should extend the scope of investigation to other CEE countries that had joined so far the EU on the one hand, and, on the other, more CEE economies that have remained outside or have attempted to develop their own regional integration schemes. Also more sophisticated methods of analysis could be utilized to obtain a more in-depth focus in all these research undertakings.

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Table 1. Hypothesized Impacts of Economic Integration on FDI Flows

Aspect of integration	Impact on FDI inflows to host country	Impact on FDI outflows from host country
Trade liberalization	Mostly positive; can be negative for horizontal FDI and for member countries with weak location advantages and/or excessive competition	Possibly positive: Increased competition stimulates improvement of firms' ownership advantages, thus increasing their international competitiveness
Investment liberalization and improvement of investment climate	Positive: lack of barriers, improved investment climate and reduced risk attract foreign investors	Possibly positive: local firms face no regulatory barriers to investing abroad and have better access to assets across the integrated area
Extended market size	Positive for FDI inflows from non-member countries	Possibly positive on intra-regional outflows, but negative for investing outside the integrated area

Source: Authors' conceptualization based on the literature reviewed in this section.
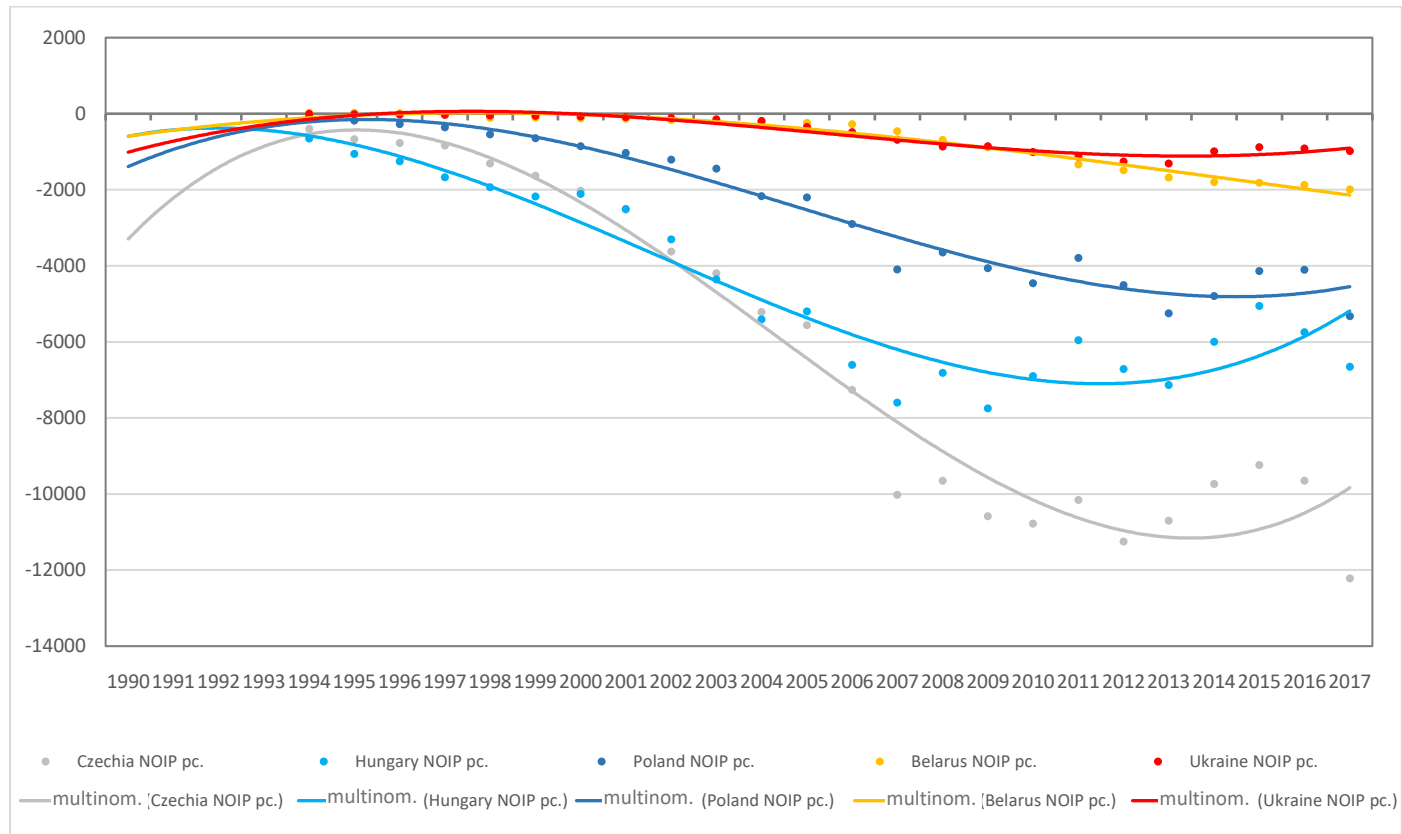
Table 2. NOIP per capita, GDP per capita in USD and Outward Foreign Direct Investment Performance Index (OFDIPI), 1994-2017

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Czechia																								
NOIP p.c.	-410	-676	-780	-840	-1315	-1635	-2032	-2527	-3628	-4200	-5225	-5562	-7266	-10027	-9655	-10587	-10780	-10158	-11252	-10709	-9744	-9245	-9653	-12225
GDP p.c.	4590	5771	6472	5977	6441	6294	5991	6574	7989	9730	11637	13285	15096	18271	22614	19661	19692	21568	19588	19765	19608	17619	18386	20326
OFDIPI	0.247	0.053	0.185	0.028	0.088	0.042	0.020	0.120	0.176	0.152	0.412	-0.008	0.360	0.229	0.686	0.252	0.271	-0.068	0.473	1.073	0.488	0.614	0.576	0.423
Hungary																								
NOIP p.c.	-663	-1065	-1260	-1680	-1940	-2179	-2112	-2507	-3310	-4364	-5413	-5202	-6612	-7600	-6820	-7757	-6903	-5958	-6717	-7139	-6003	-5059	-5755	-6657
GDP p.c.	4165	4486	4516	4587	4744	4797	4629	5280	6659	8413	10288	11207	11465	13952	15814	13113	13187	14223	12954	13740	14275	12579	12920	14376
OFDIPI	0.112	0.111	-0.006	0.662	0.264	0.154	0.378	0.342	0.372	1.551	0.616	1.096	1.436	0.823	0.625	0.776	0.431	1.570	5.019	0.780	1.730	-6.064	-3.494	0.130
Poland																								
NOIP p.c.	-87	-190	-279	-361	-552	-650	-861	-1041	-1218	-1450	-2172	-2204	-2905	-4098	-3658	-4068	-4467	-3797	-4511	-5256	-4798	-4142	-4108	-5330
GDP p.c.	2887	3696	4154	4129	4523	4401	4459	4946	5163	5659	6644	7980	8992	11194	13928	11475	12507	13800	13058	13684	14242	12481	12349	13786
OFDIPI	0.026	0.026	0.027	0.019	0.084	0.006	0.003	-0.054	0.048	-0.102	0.031	0.251	0.426	0.105	0.130	0.225	0.618	0.091	0.318	-0.144	0.333	0.482	0.880	0.384
Belarus																								
NOIP p.c.	15	13	3	-40	-110	-113	-129	-139	-167	-194	-212	-246	-284	-465	-695	-885	-1024	-1342	-1490	-1682	-1803	-1821	-1883	-2000
GDP p.c	1542	1412	1483	1447	1569	1257	1084	1294	1539	1892	2472	3246	3991	4908	6606	5363	6042	6523	6935	7968	8309	5952	5034	5750
OFDIPI	0.038	0.002	-0.006	0.000	0.007	0.002	0.001	0.001	-0.954	0.006	0.003	0.005	0.003	0.009	0.018	0.110	0.043	0.096	0.101	0.182	0.031	0.100	0.123	0.035
Ukraine																								
NOIP p.c.	-9	-16	-27	-39	-54	-64	-76	-96	-120	-156	-199	-357	-489	-689	-866	-858	-1012	-1143	-1266	-1312	-994	-887	-921	-984
GDP p.c.	1099	990	912	1035	872	664	663	812	916	1093	1424	1903	2400	3206	4073	2643	2970	3580	3876	4063	2974	2038	2101	2536
OFDIPI	0.014	0.017	-0.009	0.055	-0.004	0.006	0.001	0.029	-0.008	0.018	0.003	0.176	-0.045	0.121	0.201	0.073	0.261	0.055	0.376	0.128	0.052	-0.026	0.009	0.004

OFDIPI - outward FDI performance index reflects the ratio of the share of a country's outward FDI in a given year in world outward FDI. to the share of the country's GDP in a given year in world GDP.

Source: Authors' calculations based on UNCTAD stat.

Figure 1. Trends of NOIP per capita in USD, 1994-2017

Source: Authors' calculations.

Table 3. Shares of and country group values in million USD of outward and inward FDI stocks, 1994-2017

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Czechia, Hungary, Poland																								
∑ FDI Outward stocks	981	1163	1499	1873	2753	2647	2285	3294	4471	6748	11273	14023	23082	35126	40649	47932	53643	58499	81190	89602	86655	81406	73132	83248
∑ FDI Inward stocks	15423	26497	33317	41789	57569	66887	77990	94894	122188	149737	202928	208118	275786	372247	349645	392102	406952	370325	439463	474678	432569	387436	388715	481240
∑ FDI Outward / ∑ FDI Inward	6.4	4.4	4.5	4.5	4.8	4.0	2.9	3.5	3.7	4.5	5.6	6.7	8.4	9.4	11.6	12.2	13.2	15.8	18.5	18.9	20.0	21.0	18.8	17.3
Belarus, Ukraine																								
∑ FDI Outward stocks	205	270	282	230	317	123	194	176	148	172	206	482	363	6123	7077	6015	6753	6873	8167	8549	8217	8146	8241	8308
∑ FDI Inward stocks	519	947	1592	2570	4121	4404	5181	6198	7570	9465	11663	19592	25859	42542	53680	53891	62776	71651	79691	83700	69941	65021	67008	70746
∑ FDI Outward / ∑ FDI Inward	39.6	28.5	17.7	8.9	7.7	2.8	3.7	2.8	2.0	1.8	1.8	2.5	1.4	14.4	13.2	11.2	10.8	9.6	10.2	10.2	11.7	12.5	12.3	11.7
∑ FDI Outward CZ HU PL/ ∑ FDI Outward BY UA	479	431	532	815	868	2146	1179	1870	3027	3919	5467	2910	6367	574	574	797	794	851	994	1048	1055	999	887	1002
∑ FDI Inward CZ HU PL/ ∑ FDI Inward BY UA	2971	2799	2092	1626	1397	1519	1505	1531	1614	1582	1740	1062	1066	875	651	728	648	517	551	567	618	596	580	680

Source: Authors' calculations based on UNCTAD stat.

Table 4. **Annual outward and inward FDI flows in million USD, 1994-2017**

	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Czechia																								
FDI Outward	120	37	153	25	127	90	43	165	206	206	1014	-19	1468	1620	4323	949	1167	-327	1790	4019	1620	2487	2182	1623
FDI Inward	868	2562	1428	1301	3716	6330	4985	5642	8482	2103	4974	11653	5463	10444	6451	2927	6141	2318	7984	3639	5492	465	9815	7412
Hungary																								
FDI Outward	49	59	-4	461	278	250	620	377	361	1797	1324	2171	4346	4299	2643	1849	1172	4702	11703	1886	3868	-16192	-8552	322
FDI Inward	1143	5103	3300	4167	3335	3312	2764	3936	2994	2137	4266	7709	6818	3951	6327	1995	2193	6300	14409	3402	7807	-14751	-5855	2492
Poland																								
FDI Outward	29	42	53	45	318	31	17	-211	136	-300	166	1347	3857	1680	1859	1806	6147	1026	2901	-1346	2898	4996	8074	3591
FDI Inward	1875	3658	4499	4910	6398	7271	9445	5579	4030	3982	12140	8203	14577	19836	12283	10039	12796	15925	12424	2734	14269	15271	13928	6434
Belarus																								
FDI Outward	6	0	-1		2	1	0	0	-206	2	1	3	3	15	31	102	51	126	121	246	39	122	114	34
FDI Inward	11	15	105	352	191	444	119	96	247	172	164	307	357	1807	2188	1877	1393	4002	1429	2230	1828	1668	1238	1276
Ukraine																								
FDI Outward	8	10	-5	42	-4	7	1	23	-5	13	4	275	-133	673	1010	162	736	192	1206	420	111	-51	16	8
FDI Inward	159	267	521	623	743	496	595	792	693	1424	1715	7808	5604	9891	10913	4816	6495	7207	8401	4499	410	2961	3284	2202

Source: Authors' calculations based on UNCTAD stat.

Table 5. **Quadratic regression models for NOIP p.c. (*standardized β*)**

	Full sample	**Czechia**	**Hungary**	**Poland**
Year	-0.16	-0.21	0.34*	–0.35*
	(13.59)	(58.21)	(51.89)	(35.85)
GDP_pc	-0.79***	-1.25***	-2.06***	-0.41
	(0.03)	(0.21)	(0.24)	(0.15)
GDP_pc2	-0.12	0.72⁺	1.34*	0.14
	(0.00)	(0.00)	(0.00)	(0.00)
EU-membership	-0.04	0.35	0.86⁺	–0.18
	(425.32)	(1827.61)	(2136.57)	(607.88)
GDP x EU-membership	-0.072	-0.57	-1.24⁺	–0.20
	(0.17)	(0.43)	(0.98)	(0.32)
Adj. R^2	0.93	0.97	0.94	0.96
Std. error	833.88	685.04	591.86	363.89
F	329.90***	170.77***	69.30***	113.78***

Standard errors in parentheses. ***p<0.001; **p<0.01; *p<0.05; ⁺p<=0.10

Source: Authors' calculations based on SPSS 23 software package.

Table 6. **Regression models for outward and inward FDI (*standardized β*)**

	OFDI	IFDI
Year	-0.04	-0.02
	(39.02)	*(66.78)*
GDP_pc	0.11	0.15
	(0.09)	*(0.16)*
EU-membership	0.26	0.55***
	(964.56)	*(1651.02)*
GDP x EU-membership	-0.01	-0.341**
	(0.16)	*(0.28)*
Adj. R^2	0.08	0.22
Std. error	2425.01	4150.82
F	3.54**	9.17***

Standard errors in parentheses. ***p<0.001; **p<0.01; *p<0.05; ⸙p<=0.10

Source: Authors' calculations based on SPSS 23 software package.