

Original scientific paper

UDC: 339.727.22:339.926
doi:10.5937/ekonhor2403233A

THE NEXUS BETWEEN INSTITUTIONAL DEVELOPMENT AND FOREIGN INVESTORS' PREFERENCES - A COMPREHENSIVE GMM STUDY

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This paper investigates the impact of various factors on the level of foreign direct investments in a country, with a special emphasis on the noneconomic, mostly institutional determinants. Using a broad sample of 124 countries and data for the period from 1996 to 2019, a dynamic panel GMM regression is applied. The regression results indicate that the relative share of FDI in the GDP depends positively on the development of the institutions in the country. To attract foreign investors, host countries should make considerable progress in the functioning of their legal system, the effectiveness of the government and fight against corruption, as well as creating an overall favorable investment climate. The same regression model applied to a subsample of European countries reinforced these findings, sending an important message to policymakers, who need to make decisive steps towards fixing systematic deficiencies rather than subsidizing foreign investors, which is a practice with suspicious cost-effectiveness at the macro level.

Keywords: foreign direct investments, institutions, corruption, rule of law

JEL Classification: F21, O43, P48

INTRODUCTION

The phenomenon of foreign direct investment (FDI) gained increased attention over the last decades of the 20th century as they began to be perceived as a valuable source of investable funds and a shortcut to intensified economic growth. This process was additionally bolstered by the collapse of socialism and

the ensuing process of economic transition, in which billions-of-dollars' worth of state-owned capital assets was offered for sale to private investors. The cross-border movement of capital was subsequently encouraged by some international organizations, such as UNCTAD, the OECD, etc., which extensively emphasized the benefits for the recipient countries. The popularization of FDI attracted the attention of economic science, which found the effects and determinants of FDI compelling grounds for research and examination.

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According to the literature at the time, FDI was expected to bring a host of economic benefits to the recipient countries (De Jager, 2004; Hansen & Rand, 2006). Although some recent studies have failed to unambiguously confirm these postulates, the hunger for investible funds resulted in a worldwide contest aimed at providing better opportunities for foreign investors, be it in the form of relaxed domestic regulations or in the form of bilateral and multilateral agreements aimed at reducing the barriers for capital inflows from abroad (Dašić, 2011; UNCTAD, 2022).

The general purpose of all these measures was to overcome the competitive weaknesses of certain countries in comparison to their peers. Economies differ in many respects, such as natural (geography, resources, climate, access to the sea, etc.), and in their social and economic characteristics as well, predominantly determined by the actions of the past and current generations. Researchers found it important to explore if there were any determinants of FDI that dominated the decision-making process of the foreign investors. This knowledge could provide governments with at least two pieces of information needed to model their policies: the extent to which they should strive in order to make improvements so as to successfully compete with other countries in attracting FDI, and also to determine the areas in which they should concentrate their efforts.

As foreign investors naturally search for ways to increase their economic efficiency and profitability, the most obvious candidates to be considered determinants of FDI are those that could, in one way or another, contribute to the mentioned objective. This favors countries abundant with natural resources, a favorable geographical position, skilled and/or inexpensive labor, large markets, and higher purchasing power (Lucas, 1993). However, foreign investors are interested not only in mere financial profitability but also in the general business conditions in the host country which affect the stability of their ventures and the associated level of risk. This premise has resulted in a myriad of studies using different approaches to explore the numerous determinants of FDI related to the overall business climate and quality of institutions.

The idea of this paper is to shed additional light on the importance of noneconomic factors as determinants of FDI. Therefore, the emphasis is put on corruption, the rule of law, government effectiveness, the infrastructure, human capital, and so forth. The specific goal of the paper is to determine the relative importance of institutional factors in the process of making decisions to invest capital abroad. For this purpose, a comprehensive global sample of 124 countries was created, with a database spanning over a 24-year period, assembled from relevant sources, and the dynamic panel Generalized Method of Moments (GMM) model is applied to answer the main question. In addition, a subsample consisting of 37 European economies was derived so as to investigate the same issue at the European level.

The results of the regression have confirmed that, in addition to the economic factors such as the intensity of economic growth, the availability of the labor force, etc., foreign investments are also induced by the existence of a favorable business environment, which is created by sound government and judiciary institutions, lower corruption, and a generally positive investment climate. In the case of Europe, this is further augmented by the association of the economy with the European Union.

This article contributes to the existing literature in several ways: first, it is the size of the sample, which covers a considerable majority of the world economy, and the time series, which is both very recent and sufficiently long to cover several business cycles; second, the database used, consisting of consistent data from the most reliable sources; and third, the applied econometric technique, which assures confidence in the conclusions as it addresses the problem of possible endogeneity and bidirectional causality among the variables.

The structure of the paper first implies the introduction, only to be followed a review of the literature provided so as to deal with the two issues: the impact of foreign investments on economic development and the importance of various factors as the FDI determinants at the macro-level. The third section elaborates on the research methodology

applied, the regression model and its variables, and the sources and scope of the data used in the study. The fourth section presents and discusses the empirical findings in the two subsections: the one related to the global sample, and the second, containing the application of the same model to a subsample of the European countries. The paper is wrapped up in the conclusion section, which contains the main findings, recommendations, and directions for further research.

LITERATURE REVIEW

During the period from 1983 to 1989, the world FDI flows were growing at an annual compound rate of around 29%, while the annual growth rate of the world income was about 8% (Graham & Krugman, 1993). This dramatic rise in the level of FDI attracted the attention of numerous researchers who strived to answer a variety of questions related to this process.

The first issue that needed scientific elaboration and which would further determine the overall attitude towards FDI was related to their impact on the economy of the recipient country. Using the postulates of exogenous growth theory (Solow, 1956) and the Cobb-Douglas production function, the research was based on the presumption that foreign investment would increase the amount of capital available in the country, enhance the quality and efficiency of the labor force, and boost the overall productivity of the production factors through the introduction of modern technologies. Numerous researchers found these theses sustainable, either through the development of economic models or on the basis of empirical research (Balasubramanyam, Salisy & Sapsford, 1996; de Mello, 1997; Hansen & Rand, 2006; Lee & Huruta, 2020).

However, the stance towards the positive impact of FDI on growth was not unambiguous. K. E. Meyer (2004) emphasized the importance of studying the possible negative effects of FDI, not only to counter the claims of the opponents of globalization but also to develop appropriate policies aimed at attracting FDI if positive impacts prevailed over the negative

ones. In the case of Venezuela, B. J. Aitken and A. Harrison (1999) concluded that the technology spillover effects were only limited to the smaller joint ventures themselves, whereas the productivity of the companies with no foreign participation actually suffered from the competition. The importance of certain preconditions for recipient countries to benefit from FDI was confirmed in many studies, and they included financial development (Hermes & Lensink, 2003; Alfaro, Chanda, Kalemli-Ozcan & Sayek, 2007), technological development and the existence of technological gaps (De Mello, 1997), or the availability of human capital (Borensztein, Gregorio & Lee, 1998; Xu, 2000). V. Bilas and S. Franc (2022) investigated the impact of FDI on economic growth on a sample of the thirteen new European Union member states and concluded that there was a long-term cointegration among FDI, GDP, and exports, but the overall results were ambiguous.

The second popular issue among the academics was to detect the most important determinants of FDI flows, i.e. to identify what made particular countries more attractive as destinations for FDI compared to others. Comprehensive reviews of the relevant literature on this topic are provided by S. Tocar (2018) and J. Paul and M. M. Feliciano-Cestero (2021). FDI determinants are usually classified as economic and noneconomic, but the results of the studies investigating their impact are not unequivocal.

The level of the GDP and economic growth rates are most often cited as the most important economic determinants of FDI. The examples of such studies are the papers by A. Chowdhury and G. Mavrotas (2006) in the case of Chile, Malaysia and Thailand; H. Hansen and J. Rand (2006), for a sample of 31 developing countries; and N. Saini and M. Singhania (2018), who find a positive impact of economic growth on FDI in the case of developed but not in the case of developing countries, and so forth. C. S. Ho and H. A. Rashid (2011) study the ASEAN countries and conclude that the rate of economic growth and the trade openness of the country are the most universal determinants of FDI in the region, with growth having a somewhat unexpected negative sign, whereas openness positively affecting inward

foreign investments. A. Q. Khachoo and M. I. Khan (2012) analyze a sample of 32 developing countries and, in addition to the GDP, find that lower labor costs and the developed infrastructure have a positive impact on FDI, whereas trade openness seems to be insignificant. The importance of lower labor costs is also confirmed by M. Mateev (2009) in the case of the European transition economies. N. Saini and M. Singhania (2018) confirm the importance of trade openness, whereas gross fixed capital formation is a relevant determinant only in the case of developing economies.

Noneconomic determinants also play a significant role in decisions to invest abroad. M. Mateev (2009) and M. Barassi and Y. Zhou (2012) find a significant negative relationship between the level of corruption in a country and the inflow of foreign investments. B. G. Buchanan, Q. V. Le and M. Rishi (2012) explore the impact of institutional quality on FDI inflows and FDI volatility and conclude that institutional quality has a positive impact on FDI levels and a negative impact on FDI volatility. J. Du, Y. Lu and Tao (2012) conclude that property rights protection has a positive impact, whereas efficiency in the enforcement of contracts is found to have a negative impact on FDI. As their study covers only FDI in China, they attribute this surprising outcome to the cultural differences between foreign investors and China as the recipient country. R. Sparks, N. Desai and P. Thirumurthy (2014) conclude that economic factors explain only 22.5% of FDI inflows. The existence of appropriate institutions is important to attract foreign investors, as they need not only markets and natural resources, but also a business-friendly environment to run their businesses. The level of the restrictiveness of a country's policies towards foreign investors is confirmed as a significant factor by F. Mistura and C. Roulet (2019). Applying an augmented gravity model to a sample of 60 countries, they find that the liberalization of policies could significantly increase bilateral FDI flows. The importance of a positive investment climate is also emphasized by K. Sekkat and M. Veganzones-Varoudakis (2007). Their study of the developing countries in South Asia and Africa also stresses the importance of the infrastructure and political and economic stability as factors.

Some papers investigate the validity of previous findings. T. S. Eicher, L. Helfman and A. Lenkoski (2012) question the robustness of the most often cited determinants of FDI. Their findings from a regression based on a comprehensive list of potential factors only confirm the robustness of the size of the domestic market as an FDI determinant. Similarly, B. A. Blonigen and J. Piger (2014) fail to confirm the validity of many variables usually used in studies of FDI determinants and especially point out the fact that the importance of government intervention in attracting FDI is unsupported by the study. The only valid step they recommend is the inclusion of the country in bilateral agreements and regional integrations.

Notwithstanding a plethora of research in this topic, it has been found in this research study that the gap still needs to be filled so as to obtain a complete picture of the factors influencing the international movement of capital. Namely, all of the cited studies are marked by significant shortcomings when general conclusions are to be drawn. Some of them are based on fairly limited samples of countries: H. Hansen and J. Rand (2006) analyze 31 developing countries; M. Mateev (2009) uses eight countries from Central and Southeast Europe; A. Q. Khachoo and M. I. Khan (2012) use a sample of 32 developing countries; the sample of N. Saini and M. Singhania (2018) consists of 20 countries; J. Paul and P. Jadhav (2020) analyze 24 emerging economies, and so on. In addition, the mentioned studies either cover considerably short periods of time or the data refer to the periods of a more distant past, which poses a significant drawback when drawing conclusions in today's dynamic world (for instance, M. Mateev (2009) covers the period from 2001 to 2006; A. Bénassy-Quéré, M. Coupet and T. Mayer (2007) - the pre-2000 period; A. Q. Khachoo and M. I. Khan (2012) cover the period from 1982 to 2008; N. Saini and M. Singhania (2018) cover the period from 2004 to 2013, etc.). B. G. Buchanan *et al* (2012) use a fairly large sample of 164 countries, but a limited period (from 1996 to 2006). Also, many of the studies apply basic econometric techniques based on panel regressions, and the data used are sometimes inconsistent, stemming from various databases or being individually collected by the researchers themselves. In this study, this has been to be a

sufficient justification for comprehensive research in the topic, covering a broad sample of countries and a lengthy timeseries with the most recent data from respectable sources and the use of appropriate econometric methods.

METHODOLOGY AND DATA

The paper basically intends to determine the influence of various factors on the level of FDI inflows, with an emphasis on the institutional determinants. More precisely, the study aims to test the importance of institutional development and governance quality, as well as the levels of the infrastructure development and human capital, as the determinants of the attractiveness of a country as an investment destination. Institutional development and governance quality are represented by the three main variables: the level of corruption, the rule of law, and the effectiveness of the government. The two additional variables (namely the infrastructure and gross fixed capital investments) are added so as to indirectly reflect the general business conditions of a country, and the study is performed at both the global and European levels. As a result of the comprehensive review of the relevant empirical literature, the following research hypotheses regarding the relative importance of the noneconomic variables have been formulated:

- H1: Institutional development quantified by the levels of corruption, government effectiveness, and the rule of law is an important determinant of the attractiveness of a country as a foreign investment destination.
- H2: Institutional factors play an important role in foreign investors' decisions to invest in Europe.
- H3: The other noneconomic factors are significant determinants of foreign investments both in the world and in Europe.

A very broad sample consisting of 124 countries was created for this purpose. The entire available database covers the period from 1996 to 2020, but the last

year was omitted in order to avoid the impact of the COVID-19 crisis, so the final time series contains 24 years of data (from 1996 to 2019). A regression model was set up, in which net FDI inflows into a particular country are used as the dependent variable, in relative terms, as a ratio to GDP. The entire timeseries is divided into three-year periods, so there are a total of eight country-year observations per variable. As the level of FDI in a country could fluctuate thoroughly on an annual basis, three-year averages for all the variables in the regression are used to smooth out such variations.

First, the assumption that the level of FDI in a country (in relative terms) is a function of a set of institutional (I), economic (E) and noneconomic factors (NE) is made:

$$FDI = f(I, E, NE)$$

The factors in the main focus of the study are those depicting the quality of institutions in the country, and they are represented by the following variables:

- the level of corruption ($CORRUP$), which is proxied by the indicator *Control of Corruption* taken from the World Bank Worldwide Governance Indicators Database ($WBWGID$). This aggregate indicator is derived as a perception of the extent to which public power is abused for private benefits, and ranges between -2.5 (the highest level of corruption) and +2.5 (the lowest level of corruption).
- the rule of law (LAW), as a measure of the overall quality of the legislature and the judicial system (the enforcement of contracts, the police, courts, property rights, etc.). The estimate of the rule of law from the $WBWGID$ is used, which ranges between -2.5 (the lowest level of the rule of law implementation) and +2.5 (the highest level of the rule of law implementation).
- government effectiveness ($GOVEFEK$), as an indicator of the overall government performance, measured by the World Bank Government Effectiveness Index. The index spans between -2.5 (the lowest level of effectiveness) and +2.5 (the highest level of effectiveness) and is taken from the $WBWGID$.

The above three variables are at the core of this study. Their impact on FDI is investigated separately as their mutual correlations are very high and would pose a multicollinearity problem if used in the same equation.

The additional variables reflecting the institutional environment in a country are as follows:

- the infrastructure development (INFRA) - this variable is taken as noneconomic because it reflects the quantity and efficiency of the efforts made by governments to provide diverse infrastructural services even when the infrastructure is a result of private investments. The percentage of the total population with access to electricity from the World Bank World Development Indicators Database (WDID) is used as a proxy because all the other corresponding infrastructure indicators are unavailable in sufficiently long data timeseries.
- the total amount of fixed capital investments in the economy (the gross fixed capital formation - GFCF) from the World Bank WDID - although this is an economic variable, it serves as a proxy for the overall business conditions in the country. In the model, the GFCF to the GDP ratio is used.

In addition to the basic independent variables, a set of control economic and noneconomic variables are included in the regression.

The economic variables include:

- the GDP *per capita* (GDP), as a measure of the level of economic development and the purchasing power of the population, used as a log value;
- growth (GROW), which is calculated as a ratio between the log values of the GDP *per capita* for two consecutive years;
- the level of financial development (FINDEV) - countries with more developed financial systems are expected to be more attractive to foreign investors. The usual proxy for this variable in the literature is the ratio of the domestic credit extended to the private sector by banks (as a percentage of the GDP). This variable is used in the log-level form.

- trade openness (TRADE), as a ratio between the sum of exports and imports to the GDP. More open economies are expected to be more attractive as investment destinations due to the lower import and export barriers, also presumably indicating their higher level of competitiveness, on the other hand.
- the unemployment rate (UNEMP), and
- the inflation rate (INFL - the annual GDP deflator).

All of the above economic variables are obtained from the World Bank WDID.

The noneconomic control variables include:

- human capital (HC), represented by the human capital index from the Penn World Tables, based on the average years of schooling from R. J. Barro and J. W. Lee (2013) and an assumed rate of return to education, based on the Mincer equation estimates (Psacharopoulos, 1994);
- accession to and membership in the European Union (EUACC), which is used as a dummy variable, taking the value of 1 for the year when a country was either a candidate country or a member country of the European Union, and 0 otherwise. This variable is only used in the regression model applied to the subsample of the European countries and is expected to reflect the relative importance of the membership of a country in the European Union to foreign investors.

The basic regression model is defined as:

$$FDI_{i,t} = \alpha INST_{i,t} + \beta_1 ECON_{i,t} + \beta_2 NONECON_{i,t} + \gamma_t + \delta_i + \varepsilon_{i,t} \quad (1)$$

where:

- $FDI_{i,t}$ is the relative measure of FDI net inflows to the country i in the period t
- $INST_{i,t}$ is the vector of the institutional variables for the country i in the period t
- $ECON_{i,t}$ is the vector of the control variables of economic nature
- $NONECON_{i,t}$ is the vector of the control variables of noneconomic nature

- γ_t is the year dummy controlling for the time-varying shocks
- δ_i is the dummy variable controlling for the country-specific effects
- $\varepsilon_{i,t}$ is the residual value.

However, there is possible endogeneity among the variables in the model, i.e. the explanatory variables might also be affected by the dependent variable. Namely, one should assume bidirectional causality between the amount of FDI, on the one hand, and economic development and/or economic growth, on the other (confirmed by A. Chowdhury and G. Mavrotas, 2006; H. Hansen and J. Rand, 2006; G. Ruxanda and A. Muraru, 2010). Also, the level of financial development is important for prospective foreign investors; yet, on the other hand, foreign investments usually include investments made by foreign banks and other financial institutions, thus reversibly influencing the amount of FDI. Therefore, the application of the OLS would result in biased results. To overcome this problem, the two-stage dynamic panel GMM econometric tool first described by M. Arellano and S. Bond (1991) is applied as the tool able to resolve simultaneity biases. A dynamic panel is recommended for situations where the number of cross-sections is high, while the number of periods is low. Since the timeseries consists of eight values per country per variable, the dynamic panel GMM model is appropriate.

In said dynamic GMM model, the basic equation of interest transforms into:

$$FDI_{i,t} = (\alpha-1)\delta FDI_{i,t-1} + \beta INST_{i,t} + \gamma CECON_{i,t} + \delta CNONECON_{i,t} + \eta_i + \mu_t + \varepsilon_{i,t} \quad (2)$$

where $FDI_{i,t}$ is the level of FDI in the country i in the period t as a percentage of the GDP; $INST_{i,t}$ is the set of the explanatory (institutional) variables; $CECON_{i,t}$ is the set of the control economic variables; $CNONECON_{i,t}$ is the set of the control noneconomic variables η_i are the unobserved and country-specific fixed effects; μ_t are the time-fixed effects, and $\varepsilon_{i,t}$ is the error term. The instruments should be the variables correlated with the endogenous variables, but not directly with the dependent variable. In order to obtain a dynamically complete model, the second lag of the dependent variable is added when necessary

(Kiviet, 2020). The lagged values of the independent variables are used as instruments, with the lag level corresponding to the need so as to avoid the serial correlation issue. This paper applies the Sargan test to check for endogenous phenomena, whereas the Arellano-Bond tests are used to detect the serial correlation of errors in the first differences.

RESULTS AND DISCUSSION

Descriptive statistics

Prior to presenting the regression results, the descriptive statistics are provided so as to gain an insight into the analyzed sample. Since the gathered data create a panel of 124 countries covering a 24-year period, the presentation of mere averages of the variables would not provide valuable information. Instead, the median values by variable by continent for the first and last years of the data series are presented in order to depict the progress each continent has made with respect to the variables of interest throughout the covered period. The second column in each table represents the number of the countries included in the sample.

The analysis of the descriptive statistics provides us with some interesting insights. With respect to the economic variables, an improvement is evident in almost all the cases. The average GDP *per capita* has increased, and trade openness, financial development, and the share of FDI in the GDP have risen as well, while unemployment has dropped, and inflation seems to have posed no problem (as of 2019).

On the other hand, the trends in the institutional and other noneconomic variables are less encouraging. Although there has been obvious progress with respect to human capital and the infrastructure development, problems with corruption and the application of the rule of law still persist. In two of the continents, the situation with corruption (on average) has worsened (the lower index value), while the situation is similar with the rule of law and government effectiveness indices, although being somewhat differently geographically distributed.

Table 1 The descriptive statistics by continent - the economic variables, the median values

	Year	GDP	GFCF	FDI	TRADE	INFL	FINDEV	UNEMP	
Africa	33	1996	833	19.19	0.94	50.95	8.02	50.95	8.02
		2019	1349	21.90	1.99	57.94	3.00	57.94	3.00
Asia	32	1996	2067	23.89	1.10	68.10	8.11	68.10	8.11
		2019	5309	27.16	2.05	64.86	1.88	64.86	1.88
Australia	3	1996	28581	22.34	1.14	55.12	2.73	55.12	2.73
		2019	40599	23.33	2.81	54.34	3.42	54.34	3.42
Europe	37	1996	7804	20.79	1.38	70.08	7.64	70.08	7.64
		2019	18167	21.58	2.95	101.80	2.20	101.80	2.20
North America	10	1996	4042	18.64	1.57	52.85	9.79	52.85	9.79
		2019	4660	20.46	2.69	70.87	3.43	70.87	3.43
South America	9	1996	4396	18.64	2.55	39.53	11.42	39.53	11.42
		2019	6614	18.98	2.08	46.94	3.06	46.94	3.06

Source: World Bank WDID and World Bank WBWGID

Table 2 The descriptive statistics by continent - the noneconomic variables, the median values

	Year	CORRUP	LAW	GOVEFEK	HC	INFRA	
Africa	33	1996	-0.57	-0.62	-0.58	1.44	15.00
		2019	-0.56	-0.63	-0.53	1.86	48.06
Asia	32	1996	-0.36	-0.18	-0.01	2.21	98.44
		2019	-0.31	0.05	-0.27	2.71	100.00
Australia	3	1996	1.88	1.77	1.71	3.27	100.00
		2019	1.83	1.57	1.73	3.41	100.00
Europe	37	1996	0.42	0.62	0.77	2.93	100.00
		2019	0.57	0.83	0.53	3.43	100.00
North America	10	1996	-0.54	-0.16	-0.62	2.08	81.79
		2019	-0.68	-0.31	-0.71	2.52	98.36
South America	9	1996	-0.40	-0.14	-0.26	2.36	92.87
		2019	-0.34	-0.09	-0.43	2.84	99.76

Source: World Bank WDID and World Bank WBWGID

The global sample - results and discussion

The results of the GMM regression are presented in Tables 3 and 4.

The results of the regression reveal some interesting findings. The variables in the main focus of this study,

those related to the quality of institutions - the rule of law and government effectiveness, show evidence in support of the thesis that foreign investors favor business environments with stronger institutions and more efficient judicial systems. The positive sign of the gross fixed capital formation indicates that the overall investment climate in a country positively

affects foreign investors' decision-making as well (in line with K. Sekkat and M. Veganzones-Varoudakis, (2007)).

The lack of significance for the infrastructure variable could be surprising, but one possible explanation is that the proxy used for this variable (access to electricity for the population) is perhaps a poor representative for the availability of the host of the services embedded in the infrastructure, such as roads, railways, information networks, and so forth.

The negative relationship between inflation and FDI implies the fact that foreign investors globally prefer more stable economic environments. They also prefer to invest in growing economies and in those with higher rates of unemployment, which usually reflects in lower labor costs. Trade openness has a negative sign but is statistically insignificant (in line with A. Q. Khachoo and M. I. Khan, 2012).

Financial development and human capital have not proven to be significant, most likely due to the very diverse sample of the countries, as some regions attract investors by providing skilled labor force, and others by offering unskilled but cheap labor force.

The European sample - results and discussion

Another question of interest in this paper is whether the same conclusions would be drawn from the subsample containing only European economies. The special focus on this continent is a result of its specific characteristics: a relatively high GDP *per capita*, a higher degree of political stability, predominantly older democracies, and the dominance of the European Union regulations, higher degrees of urbanization and the infrastructure development, and so on. For this purpose, as many as 37 European countries were extracted from the global sample, and the same model was applied to the subsample, too. As is mentioned above, the dummy variable reflecting the country's accession to or membership status in the European Union is added to this regression.

Table 3 The regression results using the GMM - the global sample

	(1)	(2)	(3)
FDI _{t-1}	-0.037 (0.522)	-0.084 (0.118)	0.007 (0.866)
FDI _{t-2}	-0.022 (0.581)	0.005 (0.902)	0.004 (0.919)
CORRUP	4.797 (0.294)		
LAW		14.945*** (0.004)	
GOVEFEK			5.629* (0.081)
INFRA	-0.074 (0.406)	0.060 (0.426)	-0.032 (0.629)
GFCF	0.730*** (0.000)	0.837*** (0.000)	0.766*** (0.000)
GDP	-8.790 (0.415)	-24.362** (0.042)	-12.388 (0.186)
GROW	49.614*** (0.002)	55.766*** (0.004)	42.387** (0.005)
INFL	-0.273* (0.093)	-0.049 (0.754)	-0.259** (0.049)
TRADE	-0.008 (0.873)	-0.015 (0.781)	0.001 (0.985)
FINDEV	0.526 (0.878)	2.904 (0.450)	-0.166 (0.952)
UNEMP	0.598*** (0.005)	0.550** (0.028)	0.575*** (0.006)
HC	0.785 (0.863)	1.621 (0.728)	1.970 (0.619)
The countries included	124	124	124
Observations	419	419	419
Sargan test (p-value)	0.173	0.155	0.121
AR(1)	0.013	0.045	0.007
AR(2)	0.175	0.196	0.147

P-values in parentheses.

*, **, *** - denote significance at the 10%, 5% and 1% levels, respectively

The Sargan test null hypothesis: the instruments used are not correlated with the residuals.

The AR(2) null hypothesis: the errors in the first difference equation exhibit no second-order serial correlation.

Source: Authors

Table 4 The regression results for the European countries using the GMM model

	(1)	(2)	(3)
FDI _{t-1}	0.068* (0.060)	0.029 (0.212)	0.052 (0.155)
FDI _{t-2}	0.071** (0.010)	0.028 (0.247)	0.073*** (0.003)
CORRUP	10.220*** (0.000)		
LAW		3.725* (0.075)	
GOVEFEK			19.389*** (0.000)
INFRA	0.996 (0.733)	0.432 (0.830)	-2.939* (0.086)
GFCF	0.198** (0.038)	0.009 (0.955)	0.303** (0.015)
GDP	18.942 (0.177)	33.698** (0.012)	-10.279 (0.369)
GROW	66.702*** (0.000)	72.845*** (0.000)	52.768*** (0.000)
INFL	0.085 (0.168)	0.183* (0.013)	0.258*** (0.001)
TRADE	-0.228*** (0.000)	-0.279*** (0.000)	-0.212*** (0.000)
FINDEV	3.988** (0.021)	3.765* (0.059)	1.664 (0.267)
UNEMP	0.596** (0.010)	0.701*** (0.002)	0.522** (0.019)
HC	-4.673 (0.464)	-11.405* (0.089)	4.012 (0.521)
EUACC	16.239** (0.005)	18.314*** (0.001)	13.667** (0.048)
The countries included	37	37	37
Observations	147	147	147
Sargan test (p-value)	0.240	0.239	0.302
AR(1)	0.026	0.045	0.059
AR(2)	0.145	0.200	0.142

P-values in parentheses.

*, **, *** - denote significance at the 10%, 5% and 1% levels, respectively.

The Sargan test null hypothesis: the instruments used are not correlated with the residuals.

The AR(2) null hypothesis: the errors in the first difference equation exhibit no second-order serial correlation.

Source: Authors

The results presented in Table 4 provide similar answers, with even greater confidence in the importance of the institutional determinants. The significance of fighting corruption, improving government effectiveness, and providing an efficient legal system is strongly confirmed in the case of Europe, with gross fixed capital investment complementing the importance of a country's institutional setting to foreign investors. Note that the corruption index ranges between -2.5 (the highest corruption) and +2.5 (the lowest corruption), so the positive sign actually indicates a lower level of corruption (efficient fight against corruption) and a positive impact on attracting FDI (in line with Paul & Jadhav (2020)).

The impact of economic growth and the unemployment rates is as strong as it is in the global sample, while investors in the European countries also prefer to be supported by strong financial sectors. The positive relationship between inflation and FDI can be attributed to the abovementioned impact of economic growth (in line with I. Kersan-Škabić, 2013). Specifically, the economies with higher growth rates are more likely to undergo periods with higher inflation, rather than exhibit deflationary tendencies. A surprising finding is that the higher levels of trade openness are detrimental to foreign investments. A probable explanation is the finding of G. Nicoletti, S. S. Golub, D. Hajkova, D. Mirza and K. Yoo (2003), according to which while tariff barriers have a negative impact on FDI inflows, nontariff barriers have a positive impact (with FDI probably serving as a means to overcome the latter). Finally, the EU candidate countries, as well as its members, are more attractive to foreign investors as they provide, or are about to provide, full access to the large European market of more than 450 million people with significant purchasing power and the accompanying highly developed industrial and service sectors (in line with B. A. Blonigen & J. Piger (2014)).

CONCLUSION

The study confirms most of the expected relations between the analyzed variables and the foreign investment inflows. On the one hand, the corporate

and industrial factors aside, it can be concluded that foreign investors are mostly oriented towards investing in growing economies and countries with abundant labor force available. However, institutional development plays an important role in attracting foreign investors, as FDI is significantly higher in the countries with less corruption, effective governance, and higher confidence in the legal system. This is also supported by the fact that FDI is higher in the countries in which the overall level of capital investments is higher, reflecting the importance of the general investment climate and the business environment, which governments bear ultimate responsibility for. The most important findings originating from the analysis of the European countries are in line with those from the global sample, providing reassurance of the importance of institutional development as a part of the overall attractiveness of a country as an investment destination. In addition, it confirms the importance of the inclusion of the economy in a broader association as a means to overcome the problem of a small market, but also to assure investors of the consistency and harmonization of its system and policies with a set of broadly accepted standards.

The above conclusions support the hypotheses 1 and 2 of this study as they are set above in the paper. The hypothesis 3 is only partly confirmed. Representing the average educational level, human capital lacks statistical significance in the study, but investors are heavily influenced by the status of a country as a member or a candidate member of an important economic and political association.

These findings teach several important lessons to the policymakers in the countries enthusiastically awaiting foreign investors. First, the amount of FDI inflows cannot replace investment made by domestic businesses. The positive sign of the GFCF variable confirms the fact that foreign investments are only complements to, rather than substitutes for domestic investments. Second, the attractiveness of a country is not to be taken as given by its geographical position and natural endowments, but a lot could be done by improving the quality of governance and the overall

political and social systems of the country itself, as well as through its association with a prominent regional community. Therefore, accentuating natural limitations could be the initial but not sufficient excuse for the absence of FDI.

What distinguishes this paper from comparable research in the topic is the comprehensive sample incorporating countries from all over the world, the appropriate econometric technique, and the series of most recent data covering a time span of 25 years. Almost all the data are taken from the same source providing for their consistency. All the other reviewed papers cover shorter time periods, most often biased by particular circumstances (economic transition, economic crises, etc.), so the length of the timeseries should provide protection from such influences.

One probable limitation of the current research reflects in the nature of some of the data used in the study. Apart from their relevance and consistency, some data are based on the estimates and surveys subject to differences in perceptions compared to the accurate data obtained through statistical censuses and accounting information. Also, apart from being a comparative advantage of the study, the breadth of the global sample might also be a source of ambiguity due to the diversity of the economies included in the sample in geographical, political, cultural, and economic terms. Therefore, the results originating from the more consistent European subsample could be considered more convincing.

Undeniably, the study on this topic is far from concluded. Probable directions for future research include, but are not limited to, studies of particular regional groupings of countries, studies concentrating on more consistent samples of economies, the use of potential additional institutional variables, and the inclusion of more exact data as they become available. More ambitious researchers should also consider including micro-level variables at the company or sectoral levels in order to encompass potential interactions between the two groups of determinants.

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Received on 3rd February 2024,
after revision,
accepted for publication on 29th November 2024.
Published online on 11th December 2024.

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