Does a country's business regulatory environment affect its attractiveness to FDI? Empirical evidence from Central and Southeast European countries

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Abstract

The paper squarely concentrates on an examination of the relationship between a country's business regulatory environment and the inward stock of foreign direct investment (FDI) in fifteen selected countries of Central Eastern and Southeast Europe by using a Mean Group (MG) estimator. The paper found no evidence that a country's business regulatory environment is a statistically significant predictor of FDI neither in Central Eastern European nor in Southeast European countries. However, the study's findings recommend that a further increase in FDI in both regions can be achieved by further economic growth, political stability, European Union integration and reduction costs of business regulations.

Keywords: business regulatory environment, FDI, transition countries, Mean Group (MG) estimator, the OLI paradigm

Introduction

In recent decades, Southeast European (SEE) and Central European (CE) countries have become more diversified, reflecting the heterogeneity dynamics of movements in foreign direct investment (FDI). There is a body of literature that exclusively explores FDI determinants in transition countries and the European Union (EU) countries. However, most of this literature focuses on micro and macro determinants of FDI. In fact, most of the previous FDI empirical studies in transition countries (Babić and Stučka, 2001; Campos and Kinoshita, 2003; Carstensen and Toubal, 2004; Clausing and Dorobantu, 2005; Estrin and Uvalic, 2013) used traditional economic, demographic or integration variables, and failed to account for a country's business regulatory environment as a determinant of FDI. Other recent studies broadened the notion of ownership and infrastructure advantages of host

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economies (Rahman and Jirasavetakul, 2018) but did not sufficiently explore the location advantages of the OLI paradigm theory.

The interest in an examination of the OLI paradigm theory as an economic phenomenon for the attractiveness of a potential host economy increased in the 1990s and the 2000s. Most of the recent empirical studies are inspired by the Eclectic Paradigm of Dunning's work (1977) to explore the advantages of ownership, location and internalization as determinants of FDI (Bayraktar, 2015; Corcoran and Gillanders, 2012; Dollar *et al*. 2006; Sekkat and Veganzones-Varoudakis, 2007; and others).

This research does not have such a goal and does not duplicate existing studies of classic motivation in the FDI literature. On the contrary, this study aims to examine whether improvements in a country's business regulatory environment affects its FDI attractiveness. The sample of countries consists of two geographical regions: the SEE and CE regions and uses the MG estimator (Pesaran and Smith, 1995).

There are some studies that investigate the impact of the investment climate on FDI inflows in advanced countries and in other places (Wheeler and Mody, 1992; Smarzynska and Wei, 2000). However, our study aims to empirically explore two distinct research questions:

- Can a cross country's discrepancy in FDI be explained by the business regulatory environment?
- Is there a difference between the CE countries and SEE countries in terms of FDI attractiveness, and can it be affected by the location advantages of the OLI paradigm theory?

In investigating the above research questions, our study tests the hypothesis that SEE and CE countries with low levels of business regulatory environment attract lower levels of FDI stocks as well as an improvement in the quality of the business regulatory environment may result in a sensitive increase of FDI stock.

Earlier empirical studies have paid little attention to the examination of the relationship between a country's business regulatory environment and FDI in European transition countries and there has been no such study implemented in some SEE countries, which were late to integrate in the EU (especially in Bosnia and Herzegovina, Moldavia, Albania and North Macedonia). There are different proxies used in the literature for the measurement of the business environment and FDI. For instance, several recent empirical studies conducted by Bayraktar (2015), Walch and Wörz (2012), Kekic (2005), Paul *et al*., (2014) examined the relationship between the investment climate, business regulatory costs and FDI but did not examine a country's business regulatory environment in a broader sense as this study does.

Nearly all recent papers dedicated to studying FDI determinants use panel methods of data analysis; however, the models vary in their form and content. From a theoretical point of view, this study is based on the OLI paradigm theory with a focus on FDI determinants related to location advantages.

Our research attempts to overcome the aforementioned discrepancies in the existing literature in several aspects. First, our research distinguishes itself from some earlier studies by employing the Mean Group (MG) estimator developed by Pesaran and Smith (1995). The evaluation process takes into account the heterogeneity of the parameters in the model among the observation units, as well as the existence of common effects not covered by the model. In this way, we avoid the appearance of the bias and inconsistency of the estimates, as well as drawing the wrong conclusions, which could result from the neglect of heterogeneity and correlation between the observation units.

Second, this kind of empirical study is increasingly becoming an important part in the FDI policy making processes in terms of dealing with the issues of the business regulatory environment in a broader sense in the SEE and CE regions. According to the result of the study, we will suggest to set up market friendly policies for foreign investors and to keep costs of business regulations at low levels.

1. Literature review

Even though there is some literature regarding this topic, there is no clear explanation of which factors and indicators of business environment are more relevant in explaining the link between FDI inflows and business regulatory environment. In his Eclectic paradigm, Dunning (1977) explained some advantages of international theory. According to him, there are at least three required conditions to be satisfied. The first one is that a firm must have ownership advantages which mostly include intangible assets, the second one is internalization, which refers to the ability to use those ownership advantages. And the last one is a location condition (natural and created resources, markets, input prices, quality and productivity, infrastructure provisions, language, culture, customs, economic centralization and policies of government) which is of uttermost interest in this research. These three conditions are called the OLI paradigm (ownership, location, internalization) of FDI. In some other pioneering studies, Lucas (1990), Singh and Jun (1995) and Rodrik (1997) were among the first to consider the issue of political (in)stability, business environment, macroeconomic variables and expansions of cross bordering business. However, any contribution of the business regulatory environment to the growth of FDI is not examined in further detail. Initially, this led many researchers to broadly study the nexus between the business regulatory environment and FDI as an economic phenomenon in the 2000s (Wheeler and Mody, 1992; Globerman and Shapiro, 2002; Dollar *et al.,* 2006; Sekkat and Veganzones-Varoudakis, 2007; Bayraktar, 2015). The findings of their researches are not mutually exclusive but explain different policies related to FDI determinants.

Among the findings of different studies related to a business environment and FDI, some examine individual subcomponents of the ease of doing business. For instance, Bayraktar (2015) found the business investment climate to be a statistically

significant variable in the determination of FDI while Corcoran and Gillanders (2012) did not find any association between the business environment measured by the proxy variable of the ease of doing business and more FDI inflows. Also, a study carried out by Caccia *et al.* (2018) reveals that a variable of the ease of doing business does not appear to have a significant impact on foreign investors in the MENA region. A study carried out by Kekić (2015) for the Balkan region finds that the restoration of peace and security, economic recovery in the post-conflict period and modest improvements in the business environment are some of the main drivers of FDI. In addition, he concluded that the private sector within SEE countries is not as developed as in some countries in the CE region.

Various empirical studies (Benáček *et al.*, 2012; Hayakawa *et al.,* 2013) investigated the influence of the political risk of various institutional factors as independent variables on FDI inflows in host countries. Their study found that political instability adversely affects FDI inwards. Similarly, Estrin and Uvalić (2013), Tintin (2011) and Bekaert *et al.* (2012) believe that political risk deters FDI inflows in underdeveloped and less developed economies. Globerman and Shapiro (2002) concluded that the transparent governing infrastructure is an important determinant of FDI inflows. Also, they found that the public investment in infrastructure and business environment can also positively contribute to FDI flows. Recent studies carried out by Babić and Stučka (2001), Campos and Kinoshita (2003), Pilarska and Wałęga (2015) and Šimović and Žaja (2010) and others show that FDI inflows may be significantly determined by the stable macroeconomic framework, favourable growth prospects, trade openness and membership in different stages of EU integration. A positive link between a stable macroeconomic environment and FDI is found by Campos and Kinoshita (2003) in the case of 19 Latin American economies and 25 transition economies between 1989 and 2004. Similarly, the study of Holland and Pain (1998) on eight East European economies between 1992 and 1996 found that a country can improve the prospects for FDI flows if macroeconomic stability is ensured. Some researchers who explored the impact of inflation on FDI inflows generally found that FDI inflows could be encouraged by reducing inflation in the host country, while some authors did not find evidence that inflation has a statistically significant impact on FDI (Asiedu, 2002; Kinoshita and Campos, 2002). On the other hand, Sayek (2009) employs inflation while Miškinis and Juozėnaitė (2015) and Dhakal *et al*. (2007), found budget balance and a current account balance as significant factors affecting FDI, respectively. Furthermore, other authors (Bevan *et al.*, 2001; Iwasaki and Suganuma, 2009; Pilarska and Wałęga, 2015; Walch and Wörz, 2012) have explored the link between the impact of the EU integration processes and FDI inflows and found that FDI preferences in Eastern European countries have been significantly driven by the EU enlargement process.

In fact, the economic theory and the available empirical evidence yet have some difficulties in the identification and selection of appropriate parameters to measure the impact of the business regulatory environment on FDI. If we observe

the studies of a business regulatory environment and FDI attractiveness over time, we can notice that the levels of the business regulatory environment are measured by the business investment climate, legal systems, a transparent governing infrastructure or the ease of doing business, but no by labour, monetary or financial freedom. Our study tries to find the best possible proxy variable to measure the business regulatory environment and broadens the notion of the business regulatory environment to include the average value of business, labour, monetary, investment and financial freedom.

2. Data and methodology

This research uses the basic assumption that a country's business regulatory environment affects a country's FDI attractiveness. This, together with some control variables (market size, tax rate, trade openness, crisis and EU integration variables), may increase the explanatory power of our models. This conclusion is confirmed by several studies in transition and post-transition countries done by Bevan and Estrin (2000), Janicki and Wunnava (2004), Šimović and Žaja (2010), Pilarska and Wałęga (2015) and Torrisi *et al*. (2008).

The data collection process of this research includes conducting empirical research among the selected transition countries where some of them have already gone through the EU integration process. The study uses an unbalanced panel data set covering fifteen national economies from the CE region (Estonia, Latvia, Lithuania, Poland, Czech Republic, Slovakia, Hungary, Slovenia) and the SEE region (Bulgaria, Romania, Moldova, Croatia, Bosnia and Herzegovina, Albania and North Macedonia) between 2000 and 2016.

Some countries from the sample completed the process of political and economic integration in the EU while the remaining countries are at different stages in the process. Out of fifteen, eleven became full EU members over the observed period of the study. A detailed description of data sources used in this study is available in Table 1.

Table 1. Variables used in analysis

Variable	Explanation
lnFDI	Natural log of FDI stock per capita; Data source: UNCTAD - United Nations Conference on Trade and Development
ECR	Macroeconomic stability; Data source: World Bank - World Development Indicators
TAX	Corporate tax rate; Data source: KPMG - Corporate tax rates National ministry of finance of sample countries
INT	EU integration; Data source: European Commission – Regular report on progress towards accession and Comprehensive monitoring reports for each sample country

lnGDPPC	Natural log of Gross Domestic product per capita
	Data source: World Bank - World Development Indicators
EAF	Ease of doing business; Data source: World Bank
NTOM	Trade openness; Data source: World Bank - World Development Indicators
SFI	State Fragility Index and Matrix, Center for Systemic Peace
CRISIS	Dummy variable Crisis, 1 for 2008 and 2009 and 0 for the other years

Source: own representation

The study uses the natural logarithm of FDI stock per capita as a proxy for the level of FDI in the country i in period t because it provides a more efficient proxy for FDI per se than absolute FDI which cannot accurately distinguish between low FDI and low levels of developments as done by Kinoshita and Campos (2002), Nunnenkamp (2002) and Popovici and Calin (2015). Furthermore, it accounts for the beginning level of the FDI present in the country at the start of the study. To examine the factors affecting the FDI, the main equation is specified as follows:

$$\ln(\text{FDI})_{i,t} = \beta_0 + \beta_1 \text{SFI}_{i,t} + \beta_2 \text{ECR}_{i,t} + \beta_3 \text{TAX}_{i,t} + \beta_4 \text{INT}_{i,t} + \beta_5 \ln(\text{GDP})_{i,t} + \beta_6 \text{EAF}_{i,t} + \beta_7 \text{NTOM}_{i,t} + \beta_8 \text{CRISES}_{i,t} + \varepsilon_{i,t} \tag{1}$$

The literature review shows that FDI cannot be explained only by using both employing the traditional economic and transition variables, whereas it is supposed to include various other explanatory variables. As possible proxy variables in the model, whose impact on FDI is planned to be tested, we propose the following variables:

In line with previous empirical studies conducted by Méon and Sekkat (2004; 2012), Busse and Hefeker (2007) and Estrin and Uvalić (2013), the impact of political (in) stability on FDI flows will be explored. We include the State Fragility Index and Matrix (SFI) as a proxy variable to examine whether the level of FDI in selected host countries is influenced by political risk and political instability. SFI is a composite variable published by the Center for Systemic Peace Marshall and Elzinga-Marshall (2017) and includes a set of different indicators as follows: security, political, economic and social effectiveness and legitimacy indicators. For this study, the SFI index is slightly modified and different from that used by Mádr and Kouba (2015), Marshall and Cole (2014). It excludes the economic indicators as these are accounted for by other variables. A higher SFI index represents a deterioration in the political stability of the host country. It is expected to see a negative association between a SFI index and FDI, as found by Tintin (2011).

The variable ECR is included to account for various economic indicators. It is a composite variable developed and based on the methodology published by the Political Risk Services Group (PRSG) Howell (2011), modified by excluding the per capita GDP. The set indicators included in the ECR variable are as follows: Real GDP growth, Annual Inflation rate, Budget Balance as a % of GDP and Current

Account as a % of GDP. A positive relationship between ECR and FDI is expected because a higher ECR index means less risk in the host country and enhances a prospect for FDI net inflows.

The tax is proxied by the variable corporate tax rate to measure the effect of a taxation policy on FDI. A variable of corporate tax rate is included because many studies have evaluated its impact on FDI. For instance, Carstensen and Toubal (2004), Gorbunova, *et al* (2012) Walch and Wörz (2012), Rahman and Jirasavetakul (2018) and Bellak and Leibrecht (2009) concluded that lower corporate tax rates contribute significantly to FDI. The inverse relationship between corporate tax rates and FDI is expected. For instance, Dhakal, *et al* (2007), Walch and Wörz (2012), Rahman and Jirasavetakul (2018) and Gorbunova, *et al* (2012) revealed an inverse relationship between tax rates and FDI flows in former socialist countries.

The variable INT accounts for EU integration. The rationale for inclusion of EU dummy variables is a common experience of some new EU members. To account for the gradual nature of EU integration in this study, we construct a categorical integration variable based on sub-stages of integration as used by Walch and Wörz (2012), Bevan *et al*. (2001), Rahman and Jirasavetakul (2018) and Babić (2016). The variable EU integration is also a control variable and was created as a categorical variable, ranging from 0 to 3. The value 0 was assigned to period t, in which country *i* had not started the integration process, value 1 was given for and after the period t, in which country *i* signed the association agreement. A value of 2 was given for and after the period t in which country *i* had its candidate status officially accepted. Finally, value 3 was assigned for and after the period t, in which country *i* signed the EU accession treaty.

In order to account for the market size, the natural logarithm of the gross domestic product per capita is used. According to the theory and previous research, the expected sign of lnGDPPC should be positive, as a more developed market offers more opportunities to foreign investors. More recent research related to Eastern European transition countries (Bevan and Estrin, 2000; Janicki and Wunnava, 2004; Torrisi *et al*., 2008; and Georgantopoulos and Tsamis, 2011) found that the market size is a critical factor and a statistically significant predictor of FDI stocks.

An Ease of doing business (EAF) variable is proxied to measure a country's business regulatory environment. In our study, the ease of doing business is a composite variable based on data published by Heritage Foundation (Index of Economic Freedom). It is the average value of business, labour, monetary, investment and financial freedoms. In fact, a positive relationship between EAF and FDI is expected because there is evidence that a country with a better ease of doing business ranking is a more attractive FDI destination (Bayraktar, 2015). On the contrary, Babić (2016) finds that a business regulation imposes various high costs of doing business and can discourage FDI due to the imminence of introduction within the Western European standards when a country is close to the EU.

The next variable of trade openness (NTOM) is included as it is closely linked to FDI. A positive link between FDI and trade openness is expected if we follow the studies done by Campos and Kinoshita (2003) and Janicki and Wunnava (2004) although Globerman and Shapiro (2002), and Walch and Worz (2012) found an insignificant relationship. A variable of trade openness is represented by using the methodology developed by Squalli and Wilson (2011).

Finally, the dummy variable Crisis is included to measure the effect of the latest global financial crises on FDI. The crisis years of 2008 and 2009 reflect the effect the financial crisis had on FDI stocks and was used as a dummy variable crisis. It takes a value of 1 for 2008 and 2009 and 0 for other years. Common sense suggests that this variable is expected to have an inverse relationship with FDI. Common sense suggests that this variable is expected to have an inverse relationship with FDI. The methodologies used in the literature to assess the impact of a country's business regulatory environment on inflows of FDI have become more complex even though most approaches are based on the standard OLI paradigm theory. Before continuing with our analysis, it is necessary to establish the stationary of all variables used in the analysis. As noted by Granger and Newbold (1974) and Phillips (1986), the use of non-stationary variables can result in spurious regression. As there are several methods for testing unit roots in panel data, based on Maddala and Wu (1999), we employ several panel unit root tests with the aim to ensure robustness of our results. As such, if non-stationary data is identified, the next step is to examine the presence of co-integration. Kao spurious regression and residual-based tests for co-integration in panel data Kao (1999) is applied. To produce consistent estimations, we use Mean Group estimator (MG) developed by Pesaran and Smith (1995). As discussed by Xing (2011), the MG estimations are obtained by first estimating the coefficients for each country individually by using equation (2) and then averaging the country specific estimates.

$$\Delta Y_{i,t} = \phi_i \left(Y_{i,t-1} + \frac{\beta_i}{\phi_i} X_{i,t} \right) + \sum_{j=1}^{p-1} \lambda_{i,j} \Delta Y_{i,t-j} + \sum_{j=1}^{q} \delta_{i,j} \Delta X_{i,t-j} + \mu_i + \varepsilon_{i,t} \quad (2)$$

Where in $i=1, \ldots 15$ and refers to sample countries and $t = 1, \ldots 17$, which refers to the sample years. Y is the dependent variable. ϕ is the measure of rate of convergence with in along run relationship, $\left(Y_{i,t-1} + \frac{\beta_i}{\phi_i} X_{i,t} \right)$ captures the long run relationship, λ are scalars and δ is the vector of coefficients respectively, $X_{i,t}$ (kx1) is the vector if explanatory variable, μ_i is the fixed effect and $\varepsilon_{i,t}$ is the error term.

3. Empirical results

Table 2 below provides the main findings of descriptive statistics of dependent variables and a set of independent variables used in this research. As seen in table 2, the lowest level of lnFDI (4.37) was recorded in Albania (2000) while the

highest level (9.73) was recorded in Estonia (2013). The mean of lnFDI for the countries in the sample is 7.83, while the standard deviation between the countries in the sample is 1.19. In the period between 2000 and 2016, the lowest level of lnGDP (6.87) was recorded in Moldavia (2000) while its highest value was recorded (10.14) in Slovenia (2008). The standard deviation between the countries in the sample is 0.74 while the mean is 9.04 and reveals that, over the years, the income gap has decreased.

Also, based on the results of descriptive statistics, we found that variables EAF and ECR have the highest value of standard deviation for the selected countries. The gap between EAF, between the highest value (88) and the lowest value (43.75) looks significant, but the value of standard deviation of 8.3 and mean value of 66.96 shows that the greater heterogeneity of the business environment was in the early years of the analysis and that the convergence of the business environment occurred later. In the case of macroeconomic stability, we also found the variability between the countries with the highest value of stability measured by ECR in Estonia (39.5) and its lowest value in Latvia (21.5). In terms of SFI index, the mean value for countries in the region was 1.87. The maximum value of the SFI index was recorded in Romania (2000), as the most fragile state at that time, while the least fragile countries are Poland, Czech Republic, Latvia and Slovenia. A small standard deviation in the case of NTOM (0.58), along with an average coefficient of 0.51, shows that, over time, all countries in the region have opened their domestic markets to foreign trades.

Before analysing model results, some econometric diagnostic tests were used to confirm the validity of the regression. Tests for the existence of a unit root have confirmed that most variables are stationary of order I(1), and that our model is specified in the first differentials that have proved to be stationary.

In this way, consistent estimates of model parameters were obtained and the spurious regression problem was solved. Table 2 shows the results of unit root tests for several types of different tests (Im, Pesaran and Shin, ADF-Fisher, and PP-Fisher, Levin, Lin and Chu and Breitung) in the first difference.

Table 2. Descriptive statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
lnFDI	255	7.834565	1.19857	4.370117 (ALB,2000)	9.724665 (EST,2013)
SFI	255	1.879167	1.946455	0	7
ECR	255	33.29792	3.333266	21.5 (LVA,2008)	39.5 (EST, 2011)
TAX	255	17.9735	5.81122	10 (BLG, BiH, ALB)	35 (MDA, 2000)
INT	255	2.129167	1.040992	0	3
lnGDPPC	255	9.040615	0.741644	6.87553	10.14437

				(MDA,2000)	(SLO,2008)
EAF	255	66.96681	8.296457	43.75	88
				(BGR,2000)	(EST,2002)
NTOM	255	0.5123761	0.5806836	0.0221312	2.395012
				(MDA,2000)	(POL,2008)
CRISIS	255	0.125	0.3314101	0	1

Source: authors' calculations

Table 3. Unit Root Tests

Test Variable	Unit Root Tests				
	Im, Pesaran and Shin W-stat	ADF-Fisher Chi square	PP - Fisher Chi-square	Levin, Lin and Chu	Breitung t-stat
	First Difference				
lnFDI	-1.4924*	37.8715	43.5868*	-4.41307***	-5.02276***
SFI	-8.99336***	104.305***	154.015***	-9.20372***	-5.6483***
ECR	-10.5287***	148.11***	175.533***	-14.0865***	-7.09133***
TAX	-4.66379***	46.1964***	53.9455***	-5.63533***	-6.77667***
lnGDPPC	-3.67856***	59.0345***	62.0167***	-7.06201***	-4.80408***
EAF	-9.43753***	134.918***	182.814***	-11.3161***	-6.53689***
NTOM	-4.70456***	71.1877***	68.3842***	-7.83581***	-5.62705***

Im, Pesaran and Shin W-stat, ADF-Fisher Chi square, PP - Fisher Chi-square, Levin, Lin and Chu, Breitung t-stat null hypothesis is presence of unit root. Im, Pesaran and Shin W-stat, ADF-Fisher Chi square, PP - Fisher Chi-square, Levin, Lin and Chu unit root test with intercept, Breitung t-stat intercept and trend.*, **, *** indicates significant at 10%, 5%. 1%atfirst difference. The lag length selected based on Schwarz criterion.
Source: authors' calculations

As presented in Table 3, all employed variables are stationary at 1% significance level after the first order differential and of order I(1). Next, the co-integration assumption between FDI and explanatory variables was tested by Kao. Spurious regression and residual-based tests for co-integration in panel data for estimating their long-run behaviour (Table 4) were made. The findings of Kao Residual Co-integration Test provide strong evidence that the null hypothesis of non-existence of co-integration can be rejected in favour of the alternative hypothesis (panels in the data are co-integrated).

Table 4. Kao Residual Co-Integration Test

Kao Residual Co-integration Test		
Series: lnFDI SFI ECR TAX INT lnGDPPC EAF NTOM CRISIS		
Included observations: 240		
Null Hypothesis: No cointegration		
	t-Statistic	Prob.
ADF	-6.822911	0.0000
Residual variance	0.028147	
HAC variance	0.026881	

Source: authors' calculations

Table 5. Determinants of FDI stock in SEE countries and CE countries

Variable	Panel[1]	SEE[2]	CE[3]
SFI	-0.06413527	-0.00613375	-0.11488661
	[-1.78]*	[-0.18]	[-2.04]**
ECR	-0.02577272	-0.03256475	-0.01982968
	[-2.76]***	[-2.11]**	[-1.69]*
TAX	-0.05346151	-0.11654985	0.00174079
	[-1.1]	[-1.18]	[0.07]
INT	0.13846636	0.14129686	0.13598968
	[2.29]**	[2.56]**	[1.27]
lnGDPPC	2.9653428	3.7292794	2.2968982
	[6.27]***	[4.38]***	[5.79]***
EAF	-0.00523023	-0.00791282	-0.00288296
	[-0.55]	[-0.6]	[-0.2]
NTOM	3.202992	4.6939605	1.8983946
	[1.75]*	[1.29]	[1.28]
CRISIS	-0.07173994	-0.11136725	-0.03706604
	[-0.89]	[-0.98]	[-0.31]
Constant	-17.530603	-21.785433	-13.807628
	[-5.29]***	[-3.73]***	[-4.08]***

The t-statistics are shown in parentheses [ ], ***, ** and *, and are statistically significant at 1 %, 5% and 10% levels, respectively
1 Panel- Albania, Bosnia, Croatia, North Macedonia, Bulgaria, Romania, Moldova, Slovakia, Czech R., Hungary, Poland, Slovenia, Estonia, Latvia, Lithuania
2 SEE countries - Albania, Bosnia, Croatia, North Macedonia, Bulgaria, Romania, Moldova
3 CE countries - Slovakia, Czech R., Hungary, Poland, Slovenia, Estonia, Latvia, Lithuania
Source: authors' calculations

The results of the MG estimator are reported in Table 5. In addition, the regression model is estimated for two sub-panels, more precisely about the panel CE countries and panel of SEE countries which have certain contractual relations with the EU.

The variables lnGDPPC and ECR are statistically significant at 1% significance level, while SFI and NTOM are statistically significant at 10% significance level for the whole dataset. Also, a variable INT is statistically significant at 10% significance level in determination of FDI.

In both subpanels, a variable of market size measured by lnGDPPC contributes positively to FDI at the 5 % significance level. Given the dominant share of CE countries in the total of FDI stock analysed countries, this result is not surprising. It is consistent with the findings of Georgantopoulos and Tsamis (2011), Rahman and Jirasavetakul (2018), Janicki and Wunnava (2004) and Bevan and Estrin (2000). Moreover, it is evident that, in the case of SEE countries, the coefficient of lnGDPPC is 3.72 and has a higher effect on FDI compared to CE countries, in which the coefficient is slightly lower at 2.29.

In addition, for our main independent variable EAF, we found a statistically insignificant relationship with FDI for both subpanels. It is contrary to our expectations and to the study done by Bayraktar (2015), Kekić (2005), Walch and Wörz (2012 and Rahman and Jirasavetakul (2018), but it is in line with the study done by Babić (2016) and Zhang (2012).

At the level of the whole data set, the corporate tax rate variable is found to be an insignificant determinant of FDI and it is not in line with the theoretical expectations confirmed by Carstensen and Toubal (2004), Gorbunova, *et al.,* (2012), Walch and Worz (2012), Rahman and Jirasavetakul (2018) and Bellak and and Leibrecht (2009). This is not surprising, considering that both regions tend to have high tax burdens.

A SFI variable appears to be a significant determinant of FDI at the level of the whole data set, as expected. This relationship is not clear enough for the SEE countries. One of the potential explanations for this relationship is the fact that the whole data set also includes the CE countries with less political risk and policy uncertainty. This situation is also evident from the separate regression run for the CE countries, where a negative and statistically significant relationship between State Fragility and FDI was found at the 5% significance level.

The finding for this variable is consistent with findings of previous studies done by Mádr and Kouba (2015), Marshall and Cole (2014) and Tintin (2011). Even though State Fragility is not statistically significant in the SEE countries, its expected sign is valid this time. It may be explained by the fact that the countries of the SEE region still have a very high political risk which seriously deteriorates the investment climate in the region. The EU enlargement process, as well as other different aspects of the EU integration process were expected to have a positive impact on FDI, as shown by Clausing and Dorobantu (2005) and Campos and Kinoshita (2003),Walch and Worz (2012), Estrin and Uvalic (2013), Bevan and Estrin (2004), Rahman and Jirasavetakul (2018) and Babić (2016). This is especially confirmed and relevant for the SEE countries at the 1% significance level, while statistically negative

relationships between the EU integration process and inward FDI was found in the CE countries.

In fact, there are some differences between the CE countries and SEE countries in terms of influence of the EU integration processes on FDI performances. One possible interpretation is that the time series in our sample starts in 2000 and continues onwards while the CE countries became EU members in 2004. This means that not all phases of EU accession have been taken into consideration for CE countries. However, the findings for the whole dataset show that the EU integration variable has a positive and statistically significant impact on FDI at 5% significance level.

Moreover, the study did not find any statistical evidence that FDI was affected by the global financial crisis.

Finally, it is evident from the findings of the regression model that a variable trade openness offers different results. For example, for both datasets, trade openness did not prove to be significant at the level of the whole SEE and CE region, while for the whole dataset, FDI stock was positively affected at the 10% level. The findings of trade openness for the whole dataset are in line with the findings from recent studies done by Globerman and Shapiro (2002) and Walch and Wörz (2012), where a very high trade openness ratio in the region is led by the more closely integration with the EU and thus, attributed to a more liberal trade regime.

The findings for macroeconomic stability and FDI are also somewhat different and unclear. The expected impact of macroeconomic stability on FDI was strongly positive but, surprisingly, we found an inverse relationship for the whole data set, the SEE region and the CE region at 1%, 5% and 10% levels, respectively. One of the possible interpretations is a high current account deficit and a high budget deficit in many of the countries in the sample, which cause macroeconomic instability.

Conclusions

The findings of this research in both European regions reveal that the factor of political stability, market size and the EU integration process can be a good predictor of FDI stocks. However, the study did not find evidence that both European regions can benefit from a current business regulatory environment measured by EAF. It can be interpreted that, with a process of closer integration with the EU, higher costs of doing business are expected due to harmonization with EU standards. Also, the findings reveal that the traditional economic variables (trade openness and tax rate) can no longer be considered sufficient and do not provide a guarantee to attract foreign investors.

In addition, the study confirmed that a contractual relationship between SEE countries and the EU have proven to be relevant and has helped these transition countries to pursue new economic policies to attract additional foreign investment. The regression variables used at the subpanel level offered a slightly more

sophisticated explanation of FDI stocks between the two regions. In accordance with the previous empirical literature, our findings confirmed a statistical significance of the variable market size of the recipient country at the level of the whole dataset. In fact, the positive statistical impact comes from the EU integration process, which emphasizes the importance of joining the EU in order to attract FDI flows. Therefore, the efforts in the field of economic policy should focus on creating conditions for improving the above-mentioned determinants and for setting up market friendly policies.

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