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# HOW ECONOMIC UNCERTAINTY AFFECTS FOREIGN DIRECT INVESTMENT INFLOWS: EVIDENCE FROM CENTRAL AND EASTERN EUROPEAN COUNTRIES

## ABSTRACT

This paper investigates the impact of the Economic Uncertainty (proxied by World Uncertainty Index of Ahir et al., 2018) on the foreign direct investments (FDI) inflows for 10 countries in Central and Eastern Europe for the period of 1990-2018. Panel data analysis shows that economic uncertainty in a country does not have any statistically significant effect on FDI inflows. However, European uncertainty and global uncertainty dampen the FDI inflows to CEE countries (Central and Eastern European Countries). This shows that the regional (European) and global uncertainty rather than domestic uncertainty affect the FDI inflows. This finding provides important implications for policy makers.

**Keywords:** Economic uncertainty, foreign direct investment, CEE countries, panel data

## 1. Introduction

The world economy has been liberalized due to the increase in free trade and international investments since 1980s. Foreign direct investment (FDI) is one of the most important aspects of the globalization, playing a crucial role in the global economy. The growth of FDI in this period has been remarkable. It has significantly increased in the last decades all over the world. According to UNCTAD (2019)<sup>1</sup>, the global FDI flows are 1.3 trillion USD. The FDI flows are important for host countries and therefore the countries compete with each other and develop strategies to attract more FDI. This is especially vital for developing economies where FDI serves as a powerful engine for economic growth and development.

This importance brought it to the top of the economic agenda in many countries of the developing world. In other words, for the host countries, there are many determinants of FDI inflows that might vary from country to country. For example, political stability, the legal system, the level of bureaucracy, macroeconomic indicators, tax policies, the investment climate, and the costs of doing business can be mentioned as the main determinants of FDI. Nevertheless, the impact of the economic and political uncertainty on the FDI has been a popular issue in recent years. The uncertainty in the economic and political environment has an important effect on FDI inflows.

As in other developing countries, FDI inflows are also crucial for the Central and Eastern European Countries (CEEC & EU11) in their developing process. Most of CEEC countries are the former communist countries and their economies are in the transition and developing process after the East Bloc collapsed in 1989. FDI has been an important driver of the transition and developing process of the CEEC. FDI has been driving economic growth in many countries of CEE. Therefore, attracting more FDI has become a key component of national strategies for these countries. Largely sourced from the more advanced European countries, FDI has played a strong role in the export-led growth of these countries that are new members of the EU (Jirasavetakul, Rahman, 2018). In other words, Kornecki (2011) mentions that FDI has played a vital role during the development and modernization process in CEEC. Likewise, Alter and Wehrlic (1993) report that FDI has been an important catalyst for the economic transformation in transition economies and therefore attracting more FDI has been on the top of the public policy agenda in these countries for many years. In this regard, there is competition among CEEC for attracting more FDI. They have attracted large FDI inflows since 1990. Although FDI inflows have declined after the 2008 global economic and financial crisis, the region is still an attractive place for FDI inflows compared to other emerging-market regions.

On the other hand, the coronavirus (COVID-19) outbreak, which began in Wuhan, China, has expanded to almost everywhere and has become a global pandemic. As Karabulut et al. (2020) mention, the number of infections and deaths has increased rapidly. As has been observed, this global pandemic has serious effects on the global economy and output, world trade, capital flows, investments, and other economic and social indicators. In this regard, it can be said that FDI inflows to CEE countries will also be affected by this global pandemic. Additionally, as this research shows, there is a close relation between uncertainty and FDI. It is clear that this global pandemic has increased global economic uncertainty.

This paper investigates the impact of the Economic Uncertainty (proxied by World Uncertainty Index of Ahir et al., 2018) on FDI inflows for 10 countries in Central and Eastern Europe. To our knowledge, this is the first paper using the new index of Ahir et al. (2018) as a determinant of FDI inflows in the

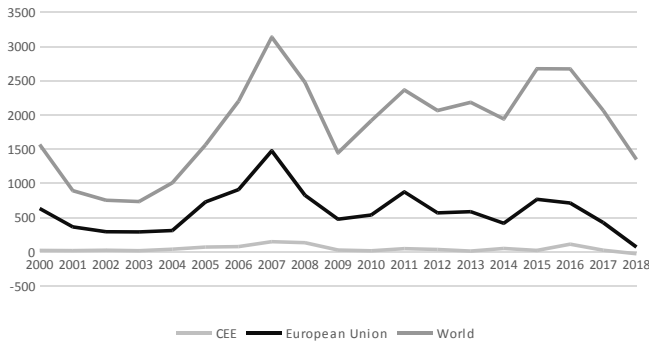
Central and Eastern Europe countries where FDI inflows play an important role for economies. By using data on 10 Central and Eastern Europe countries from the period 1990 to 2018, we show that economic uncertainty in a country does not have any statistically significant effect on FDI inflows. However, European uncertainty and global uncertainty dampen the FDI inflows to CEE countries. This shows that the regional and global uncertainty rather than domestic uncertainty affect the FDI inflows. We have investigated the impact of domestic, regional (Europe) and global uncertainties. We believe that the findings can provide insights to policy makers.

This paper is organized as follows. Section 2 displays the trends in FDI inflows to Central and Eastern European countries. In Section 3, we review the existing literature on uncertainty and the relationships between uncertainty and FDI. Section 4 presents the data and methodology. Section 5 presents the empirical results. Finally, the last section brings our conclusions.

## **2. FDI Inflows to CEE Countries**

In this section, we present the FDI inflows data to Central and Eastern European Countries and compare them with the global trends. Figure 2 presents the FDI inflows (in billion USD) to CEE, EU and the world. The impact of global financial crisis in 2008-2009 can be clearly observed from Figure 1. In 2008 and 2009, global FDI flows decreased significantly and CEE countries were also affected by the crisis. Although FDI inflows tend to recover after the crisis, the post-crisis trends have not been achieved yet. From 2000 to 2008, the share of CEE countries in global FDI inflows rose from 1.48% to 5.51%. In the transition periods, CEEC managed to attract rising FDI inflows. However, after the crisis, the share of CEE countries in global FDI inflows tends to be relatively lower and stable. FDI inflows to both groups has decreased over the last years. For example, the value of FDI inflows to CEEC rose from 23.1 billion USD to 150.36 billion USD from 2000 to 2007, however, this value is only around 27.02 billion USD in 2017. Once we check the behavior of FDI inflows for Central and Eastern European Countries, EU, and the world, we see that the flows to CEE countries are highly correlated with the global trends.

**Figure 1 Foreign direct investment, net inflows (in billion USD) in Central and Eastern European Countries, European Union, and the World**



Note: CEEC includes Bulgaria, Croatia, Czech Republic, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, and Slovenia.

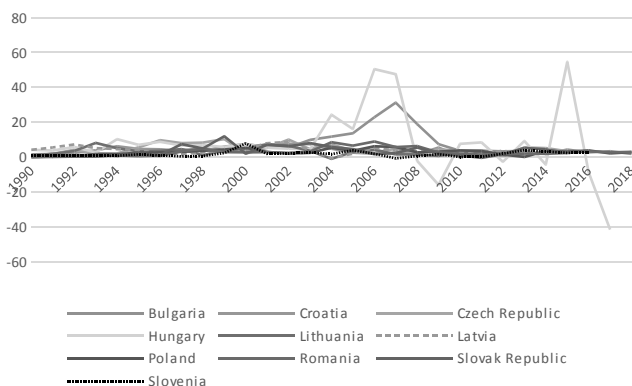
Source: World Bank

Figure 2 presents the FDI inflows to GDP (Gross Domestic Product) ratio for each country in Central and Eastern Europe. It can be seen that most of the countries display similar trends, however, especially Hungary and Bulgaria to a certain degree have very volatile FDI / GDP ratios. Countries experienced increasing FDI / GDP ratios from 1990 to 2007 (till the global financial crisis). The transition period and the increasing openness to global economic conditions created an attractive environment for global businesses. After the crisis, the performance of those countries tends to be relatively stable.

In Figure 3, we compare the FDI to GDP ratio of Central and Eastern Europe Countries with the

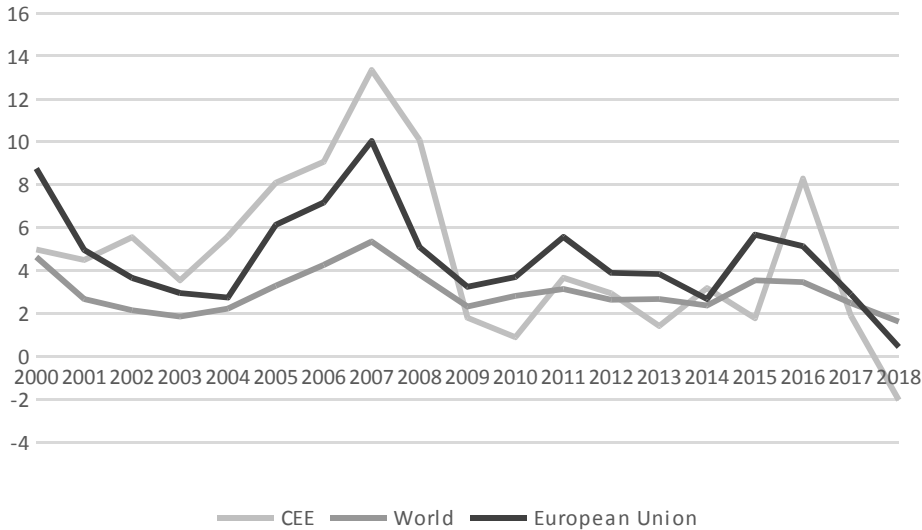
European Union and the World. We see that CEE countries managed to attract higher FDI inflows until the global financial crisis. This implies that CEE countries performed better than the EU and the world in terms of attracting FDI inflows. However, after the global financial crisis, CEE countries' performance decreased compared to the EU and the world. This might reflect a need for a new strategy development for CEE countries to attract more FDI inflows. The positive impact of transition and openness periods seems to have decreased with the global financial crisis. Therefore, the region and its members should develop new and alternative plans to create a more attractive economic environment.

**Figure 2 Foreign direct investment, net inflows (% of GDP) in Central and Eastern European Countries**



Source: World Bank

Figure 3 Foreign direct investment, net inflows (% of GDP) in the CEE, European Union, and World



Source: World Bank

In other respects, besides the global FDI flows, the FDI flows and entrepreneurship movement among the CEE countries are also very important for their development. There are close historical, cultural, and economic relations among most of the countries in the region and this creates FDI flows and entrepreneurship movement among them. The total amount of FDI flows among these countries may not be high relatively, however, it can be argued that it is nonetheless very important. For instance, Turkey has a large entrepreneurship movement and FDI flows to some countries in the region.

### 3. Literature review

Since the 1980s, a large number of studies have been focused on determinants of FDI flows. The existing literature focuses on these determinants and also argues the relationships between FDI flows and a range of factors. For instance, Bui et al. (2018) focus on the relationship between gender inequality and FDI in developing countries. Several studies analyze the relations between uncertainty (economic and political) and other economic variables, such as FDI. In other words, uncertainty has been a hot topic, especially in the last decade. Researchers have long discussed the impact of uncertainty on

FDI flows. In this context, Gupta et al. (2019) examine the impact of geopolitical risks on trade flows, among 164 developing and developed countries in the period 1985 to 2013. Furthermore, Goel and Saunoris (2017) consider the influences of political uncertainty on corruption. Emerging literature has explored the relationships between uncertainty and the product and financial markets. For instance, Le and Nguyen (2018) analyze the behaviors in the market for safe vegetables under information asymmetry. Vardar et al. (2018) examine the shock transmission and spillover of volatility in commodity and stock markets for the advanced and emerging markets.

The uncertainty-investment relationship has been examined intensively for several decades now. In this regard, the uncertainty-FDI inflows relationship has also been a popular topic in recent decades. In an earlier study, Firoozi (1997) develops a stochastic model of FDI by multinational companies under cost uncertainty and documents fundamental parameters of the FDI-uncertainty association. Chen et al. (2019) examine the impact of policy uncertainty on FDI by using data on 126 countries from 1996 to 2015. Additionally, Vadla-

mannati (2012) studies the impact of political risk on FDI by using U.S. firms' investments in 101 developing countries in 1997-2007 period. In their paper, Solomon and Ruiz (2012) focus on African, Asian, and Latin American economies to explore how political risk and macroeconomic uncertainty affect FDI patterns.

Abdel-Latif (2019) examines the FDI response to political shocks, i.e. whether FDI inflows are affected by the political or institutional quality by using a panel VAR methodology for 146 countries over the period 1989 to 2015. Julio and Yook (2016) examine the impact of political uncertainty (measured by election timing) on cross-border capital flows. In the literature, there are also some country-specific studies. For instance, Noria and Fernández (2018) investigate the impact of uncertainty on FDI inflows into manufacturing subsectors in Mexico. Furthermore, Ramasamy (2003) focuses on the FDI and uncertainty relationship for the Malaysian case and explains the behavior of potential foreign investors during periods of uncertainty. In recent years, an increasing number of studies have examined the relationship between EPU (Economic Policy Uncertainty) and FDI. For instance, Hsieh et al. (2019) analyze the impact of EPU on FDI by using the recently developed Economic Policy Uncertainty Index. They explore the impact of economic policy uncertainty on the outward FDI of the USA. It is found that there is a strong relationship between the EPU Index and outward FDI flows. This effect is documented not only for the U.S. EPU Index but also EPU Indices of the host countries. Canh et al. (2019) investigate the effects of the domestic economic policy uncertainty and the world uncertainty (WUI) on FDI inflows. The sample of the study includes data from 21 economies over the period 2003 to 2013. The authors document that besides the host country's EPU, the global uncertainty and uncertainty in other countries also determine the FDI inflows.

#### 4. Data and methodology

The macro-economic data are obtained from "World Development Indicators" (WDI) of the World Bank. The data period of the study is from 1990 to 2018 and includes 10 European Union member states from Central and Eastern Europe,

namely Bulgaria, Croatia, Czech Republic, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia, and Slovenia. Due to some missing yearly data for some countries, we end up with an unbalanced panel data.

Based on Kumari and Sharma (2017), Aziz and Mishra (2016), and Jimborean and Kelber (2017), we estimate the following model:

$$FDI_{i,t} = B_0 + B_1 WUI_{i,t} + B_2 C_{i,t-1} + \varepsilon_{i,t} \quad (1)$$

where  $FDI_{i,t}$  is the FDI net inflows (in natural logarithm), and  $C_{i,t}$  represents the determinants in the country  $i$  at time  $t$ , human capital (HUMCAP-proxied by the gross tertiary education enrollment rate), inflation rate (INFLATION-proxied by a change in annual consumer prices), market size (GDP current US\$ in natural logarithm), GDP growth rate (GD-PGR), and trade openness (TRADEOP-proxied by the ratio of total trade to GDP).  $WUI_{i,t}$  is World Economic Uncertainty Index for country  $i$  and time  $t$ , developed by Ahir et al. (2018)<sup>2</sup>. WUI is the main variable of interest in the study. Mainly, this is a kind of extension of the Economic Policy Uncertainty Index of Baker et al. (2016). Ahir et al. (2018) calculate the frequencies of uncertainty and its variants in the Economist Intelligence Unit (EIU) country reports. The country-level data in WUI is comparable across the countries because the values are scaled by the number of words in each report (Ahir et al., 2018). In this regard, this index can be considered as superior to Economic Policy Uncertainty. The EPU Index is developed for each country by using different sources. However, the World Uncertainty Index (WUI) is constructed for 143 individual countries on a quarterly basis from 1996 onwards. We use several alternative measures: 1) Economic Uncertainty of Each Country (EU), 2) Global Economic Uncertainty (GEU), 3) Economic Uncertainty in Europe (EEU). All uncertainty measures are used in natural logarithm and the related data set is available at <https://worlduncertaintyindex.com/>. This enables us to examine the effects of uncertainty on the country, global, and European level. The descriptive statistics of the data is available in Table 1. The mean value of FDI is 20.99 with a standard deviation of 1.8. We run Im-Pesaran-Shin (IPS) unit root test (Im et al., 2003) to examine if the data is stationary or not. According to the IPS results, it is documented that country-level variables are stationary<sup>3</sup>.

**Table 1** Descriptive statistics

Variable	Mean	Std. Dev.	Min	Max
FDI	20.99	1.80	9.21	25.04
GDP	24.67	1.02	22.48	27.10
GDPGR	0.03	0.04	-0.15	0.12
TRADEOP	1.05	0.34	0.39	1.90
INFLATION	0.38	1.44	-0.02	15.00
HUMCAP	0.48	0.21	0.08	0.89
EEU	6.22	0.38	5.40	7.05
EU	-2.07	0.70	-4.61	-0.48
GEU	-1.91	0.28	-2.30	-1.27

Note: FDI=FDI net inflows (in natural logarithm); HUMCAP=Gross tertiary education enrollment rate; INFLATION=Inflation rate; GDP=Gross Domestic Product (in natural logarithm); GDPGR=annual GDP growth rate; TRADEOP=Ratio of total trade to GDP; EU=Economic Uncertainty; EEU=European Economic Uncertainty; GEU=Global Economic Uncertainty

Source: Author

We extend Model 1 by introducing the lag of FDI ( $FDI_{i,t-1}$ ) in the model as follows (Jimborean, Kelber, 2017):

$$FDI_{i,t} = B_0 + B_1 FDI_{i,t-1} + B_2 WUI_{i,t} + B_3 C_{i,t-1} + \varepsilon_{i,t} \quad (2)$$

In Model 3, we consider the lagged effect of uncertainty ( $WUI_{i,t-1}$ ) as investment decisions can be made in advance; therefore, their impact can be observed with one year lag:

$$FDI_{i,t} = B_0 + B_1 FDI_{i,t-1} + B_2 WUI_{i,t-1} + B_3 C_{i,t-1} + \varepsilon_{i,t} \quad (3)$$

The data set of the study constitutes a panel as it has both time and cross-sectional dimensions. Fixed effects and random effects techniques are the most commonly used static models for analyzing panel data. If there is no correlation between the disturbance term and the explanatory variables, random and fixed effects models provide consistent estimations. However, if the correlation exists, the random-effects model is inconsistent and the fixed-effects model should be preferred over the random-effects model (Tahir, Khan, 2014). We employ the Hausman test (1978) to decide between fixed and the random-effects model.

## 5. Findings

The estimations of Model 1 are presented in Table 2. The columns represent the estimations by using uncertainty in the country, Europe and the world, respectively. The Hausman test results imply that the random-effects method is more appropriate, therefore we present the RE estimations. It is shown that the economic uncertainty of a country does not affect the FDI inflows to that country, as the coefficient of “EU” is statistically insignificant. For 10 countries in Central and Eastern Europe, economic uncertainty is not a determinant of FDI attractiveness. However, the coefficient of European Economic Uncertainty is -0.626 (statistically significant at 1%), implying that a rise in uncertainty in Europe will lower FDI inflows in CEE countries. This is in line with the expectations, as EU countries constitute an important part of FDI inflows to CEE countries (Jirasavetakul, Rahman, 2018). Global uncertainty has also a negative and statistically significant effect on FDI flows. Our findings contradict with Canh et al. (2019), who find that economic policy uncertainty in the country has a negative effect on FDI while an increase in uncertainty at the global level could increase FDI inflows into the country. This can be

explained by the data set of Canh et al. (2019), which includes mostly advanced economies. In terms of other control variables, we find that only the market size, proxied by GDP, and the annual growth rate of GDP positively affect FDI inflows. Economic conditions matter in attracting more FDI inflows for those countries. This finding is in line with Jimborean and Kelber (2017) and Kumari and Sharma (2017). We also control for the impact of 2008 global financial crisis by introducing CRISIS dummy variable which takes the value of 1 for the years of 2008 and 2009 and zero otherwise. We

find the financial crisis has a negative effect and our main finding holds in all estimations.

In terms of diagnostic tests, we first test for heteroscedasticity and find evidence of its presence. Therefore, we use the robust standard errors to deal with heteroscedasticity. We implement Ramsey's RESET (Regression Equation Specification Error Test) by using square of the fitted values. Misspecification is rejected implying that there is no trait of model misspecification. We perform Wooldridge test for serial correlation in panel data models in Stata and no serial correlation is detected.

**Table 2 Regression results**

Variables	Model 1 (RE)	Model 1 (RE)	Model 1 (RE)	Model 1 (RE)
GDPGR	10.569*** (1.57)	11.606*** (1.574)	10.737*** (1.44)	11.212*** (1.46)
GDP	1.236*** (0.16)	1.126*** (0.17)	1.345*** (0.15)	1.298*** (0.15)
INFLATION	-0.021 (0.08)	-0.0213 (0.08)	-0.000 (0.07)	-0.022 (0.08)
HUMCAP	0.031 (0.60)	-0.12 (0.615)	-0.139 (0.56)	-0.092 (0.56)
TRADEOPP	0.138 (0.34)	0.354 (0.35)	0.625 (0.35)	0.634 (0.38)
EU	-0.065 (0.08)	-0.0607 (0.08)		
EEU			-0.636*** (0.17)	
GEU				-0.685* (0.31)
Crisis		0.699*** (0.23)		
Constant	-9.901** (3.60)	-7.414* (3.89)	-8.953* (3.49)	-13.069*** (3.70)
R <sup>2</sup>	0.64	0.65	0.66	0.65
N	227	227	227	227

Note: Robust standard errors are given in parenthesis under each coefficient. \*\*\*, \*\*, and \* represent 1, 5 and 10% significance level, respectively. The dependent variable is FDI inflows.

Source: Author

In Table 3, we present the estimations for Model 2 and Model 3. The Hausman test results imply that the fixed-effects method is more appropriate, therefore we present the FE estimations for Model 2 and 3. It is shown that there is a positive and statistically significant coefficient for lagged FDI. This implies that countries that attracted a higher level of FDI in a period are more likely to attract FDI in the next period. Coefficients of GDP and GDP growth rate

are positive and statistically significant in line with Model 1. The negative effect of economic uncertainty in Europe and the world still negatively affects FDI inflows while domestic uncertainty does not have a statistically significant effect. In terms of the lagged effect of uncertainty measures, we find that only lag of uncertainty in Europe is statistically significant at 10% and has a negative effect on FDI inflows.

**Table 3 Regression results for additional analysis**

Variables	Model 2 (FE)	Model 2 (FE)	Model 2 (FE)	Model 3 (FE)	Model 3 (FE)	Model 3 (FE)
L.FDI	0.348*** (0.05)	0.276*** (0.05)	0.292*** (0.05)	0.329*** (0.05)	0.268*** (0.05)	0.293*** (0.05)
GDPGR	5.768*** (1.47)	7.623*** (1.38)	7.590*** (1.39)	7.905*** (1.41)	7.990*** (1.39)	7.982*** (1.40)
GDP	0.836*** (0.21)	1.024*** (0.21)	0.967*** (0.21)	0.896*** (0.21)	1.036*** (0.22)	0.950*** (0.21)
INFLATION	0.062 (0.07)	0.061 (0.07)	0.038 (0.07)	0.077 (0.07)	0.063 (0.07)	0.056 (0.07)
HUMCAP	-0.365 (0.63)	-0.486 (0.62)	-0.384 (0.62)	-0.852 (0.66)	-0.611 (0.63)	-0.487 (0.63)
TRADEOPP	0.072 (0.35)	0.465 (0.36)	0.654 (0.39)	0.266 (0.36)	0.366 (0.36)	0.390 (0.39)
EU	-0.052 (0.07)					
EEU		-0.464** (0.16)				
GEU			-0.742** (0.28)			
L.EU				0.031 (0.08)		
L.EEU					-0.344* (0.17)	
L.GEU						-0.371 (0.30)
Constant	-6.934 (4.47)	-7.460 (4.45)	-10.897* (4.68)	-7.849 (4.65)	-8.192 (4.52)	-9.523 (4.88)
R <sup>2</sup>	0.75	0.74	0.74	0.63	0.63	0.62
N	2190	225	225	219	225	225

Note: Standard errors are given in parenthesis under each coefficient. \*\*\*, \*\*, and \* represent 1, 5 and 10% significance level, respectively. The dependent variable is FDI inflows.

Source: Author



## 6. Conclusion

In recent decades, numerous studies have examined the factors affecting FDI inflows. Uncertainty has become increasingly important in the global economy and the world has been suffering from a rising uncertainty, especially in the last decades. We analyze the impact of the Economic Uncertainty (proxied by World Uncertainty Index of Ahir et al., 2018) on the FDI inflows for 10 countries in Central and Eastern Europe. More specifically, we use domestic, European, and global economic uncertainty in the analysis. Our empirical findings show that economic uncertainty in a country does not have any statistically significant effect on FDI inflows. On the contrary, European uncertainty and global uncertainty dampen the FDI inflows to CEE countries. This shows that the regional and global uncertainty rather than domestic uncertainty affect the FDI inflows. To our knowledge, this is the first study using the new index of Ahir et al. (2018) as

a determinant of FDI inflows in CEE countries. In terms of control variables, we only find that GDP and GDP growth rate positively affect FDI inflows.

Policy makers can benefit from the findings. Rising regional and global uncertainties will be an obstacle for attracting FDI to CEE countries. During such periods, those countries should develop strategies such as providing tax incentives or tax exemptions, and easing the procedures for doing business to attract more FDI. Those strategies can be considered as the necessary steps to attract FDI at all times, however, during uncertainty special emphasis should be given.

The finding of this paper cannot be generalized as it provides insights from CEE countries. This is a limitation of the paper. Future studies can extend the analysis by using quarterly data. Moreover, a comparison within Europe and other regions can be performed. Also, studies can compare economic uncertainty in the host and home countries.

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## ENDNOTES

- 1 UNCTAD (2019), "World Investment Report 2019", available at: [https://unctad.org/en/PublicationsLibrary/wir2019\\_en.pdf](https://unctad.org/en/PublicationsLibrary/wir2019_en.pdf).
- 2 See Ahir et al. (2018) and <https://worlduncertaintyindex.com/> for details about the World Uncertainty Index.
- 3 The results are available upon request.

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## KAKO EKONOMSKA NESIGURNOST UTJEČE NA PRILJEV IZRAVNIH STRANIH ULAGANJA: PRIMJER ZEMALJA SREDIŠNJE I ISTOČNE EUROPE

### SAŽETAK

U ovom se radu istražuje utjecaj ekonomske nesigurnosti (približna procjena prema svjetskom indeksu nesigurnosti kako je definiran u Ahir i sur. 2018) na priljev izravnih stranih ulaganja (FDI) za 10 zemalja središnje i istočne Europe u razdoblju 1990. - 2018. Analiza panel podataka pokazuje da ekonomska nesigurnost zemlje nema statistički značajan utjecaj na priljev izravnih stranih ulaganja. Međutim, europska i globalna nesigurnost koče priljev izravnih stranih ulaganja u zemlje središnje i istočne Europe. Priljev izravnih stranih ulaganja znatno više ovisi o regionalnoj (europskoj) i globalnoj nesigurnosti, nego li o nesigurnosti određene zemlje. Taj zaključak ima važne posljedice za tvorce politika i donositelje strateških odluka.

**Ključne riječi:** ekonomska nesigurnost, izravna strana ulaganja, zemlje središnje i istočne Europe, panel podatci

## Appendix 1 Literature Review

Author and Date	Method	Modelling Parameters
Bui, Hoai & Vo (2018)	Generalized Method of Moments(GMM)	1992-2011 period, FDI, infrastructure, market size, inflation, openness, unemployment, institution and social rights and gaps (tertiary, health and secondary gaps, political and social rights)
Goel and Saunoris (2017)	Cross Sectional OLS	1986-2005 period, 100 countries, corruption, political assassinations, fragility, political legitimacy, colony, GDP, general government, final consumption and bureaucracy quality
Vardar et al. (2018)	VAR-BEKK GARCH Model	05 July, 2005 - 14 October, 2016 period,10 countries, stock market indices
Chen et al. (2019)	Panel Fixed Effects	1996-2015 period, 126 countries, electoral results, FDI, GDP, GDP growth, trade openness, real interest rates and population
Vadlamannati (2012)	Multilevel Mixed-effects Linear IV Approach	1997-2007 period, 101 developing countries, FDI, GDP per capita, GDP per capita growth rate, population, infrastructure, domestic credit/GDP, exchange rate, oil exports share, labor growth, FDI policy reforms index
Solomon and Ruiz (2012)	Fixed Effects Panel Data, GMM	1985-2004 period, 28 developing countries, FDI, exchange rate, GDP, labor force, natural resource, inflation, openness, literacy rate, GARCH, investment profile and dummy variables
Abdel-Latif (2019)	VAR, DID, Propensity Score Matching	1989-2005 period, 146 countries, FDI, GDP annual growth rate, policy index, political shocks
Noria and Fernandez (2018)	GMM, ARCH, GARCH	2007-2015 period, manufacturing subsectors, FDI, uncertainty index, cash flow, interest rate, exchange rate, export/GDP, industrial production, Federal Fund rate