Does Polarized Political Environment Hamper Foreign Investors? The Evidence from Parliamentary Democracies

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Abstract

The socio-political characteristics of the host environment influence investment decisions. The complexity of the political setup strengthens the need for advanced research in the field. The main contribution of this article is to identify the party polarization as a separate dimension of the political system. This paper examines the relationship between the foreign direct investment (FDI) inflows and the host country political factors: the party polarization and the political stability. Besides constructing the political polarization index in a traditional way, authors also formulate a novel measure, which explicitly shows the divergence of political parties on economic actions. By using the manifesto data of 50 parliamentary democracies based on fixed effects model, authors conclude that political polarization is an important socio-political factor which has been previously neglected in literature while addressing the determinants of foreign investments. The paper shows that the effect of political polarization on FDI inflows changes for country groups of different institutional and development indicators. Authors underline the importance of political instability in tackling the polarization impact on capital flows. Accounting together the two variables, the authors find a negative significant effect on FDI.

Keywords: political polarization; political instability; foreign direct investments; investment decisions.

JEL classification: C33; D72; F21; F23; F50; P16.

1. INTRODUCTION

The growth of FDI as one of the most visible consequences of globalization has attracted an enlarged attention among economists in last decades (Nunnenkamp, 2002). At the same time, the recent development in politics has heightened the need for advanced research on political polarization as a complex phenomenon in political science (Baldassarri and Gelman, 2008; Layman *et al.*, 2006). While many scholars have highlighted the role of polarization in addressing the issue of political vulnerability (Bohn, 2007; Corner *et al.*, 2012), others, have linked ideological differences and political environment to FDI

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(Halvorsen and Jakobsen, 2013; Nigh, 1985). However, combined studies addressing the direct linkage between the political polarization and the foreign investment inflows are still infrequent.

The main contribution of the article is to identify a party polarization as a separate element of the political system and investigate its effect on FDI. The political polarization index is measured based on the methodology provided by Dalton (2008). The paper is concentrated on the ideological differences related to economic arrangements. Therefore, the polarization index constructed in this study is a novel indicator which displays political party divergence explicitly on economic policies of our interest. In addition, the authors calculate the polarization index in a traditional way and compare results.

The information of political representation and party preferences are taken from Manifesto data version 2017a (Volkens *et al.*, 2017a). The data contains 46 parliamentary democracies in OECD and Central and Eastern European countries in the period of 1995-2016. Authors observe that political polarization significantly varies across countries and time periods. However, certain common trends between nations with similar economic and political establishments are still identifiable. The two polarization indices constructed in the article (economic and general) have a strong linear relationship. At the same time, they differ systematically for certain countries.

The results from the panel data fixed effect model indicate that political polarization is an important factor while studying foreign investors' decisions. Accounting together the political polarization and the political stability[1], authors find a negative significant effect on FDI. Results show that investors' attitudes towards the polarization changes with different levels of stability. In countries with very low political stability, foreign investors tend to prefer ideologically polarized environments. However, the results change when countries account high political stability.

Empirical results imply to two different effects of the political polarization on FDI inflows. On the one hand, the large polarization among political parties increases uncertainty on the policy, which together under high stability sends alarming signals to investors. On the other hand, political polarization influences the policy implementation process and institutional quality. Politically polarized systems are economically stronger, more flexible and less corrupted, which, in fact, attracts foreign investments.

Based on empirical findings, authors bring forward the main message of the paper that the political environment of the host country is an important factor influencing foreign investment decisions. Authors underline the complexity of the political platform and the difficulty to understand its effect on the economy. Results show that investigating together different political variables, such as stability and polarization, gives a better insight into the problem. Therefore, the main contribution of the paper is to study the relationship between FDI inflows and the political environment by examining the combined effect of political polarization together with political stability. Empirical results of the paper open a door for farther research concerning the effects of political factors on foreign investments.

The article is organized as follow. Section 2 is a literature review, explaining the theoretical connections between polarization and FDI. Section 3 introduces the data and methodology used for empirical analyses. The 4th Section derives results. The 5th Section concludes and provides recommendations for further research.

2. POLITICAL POLARIZATION AS A DETERMINANT OF FDI

There exists a growing academic literature studying the effects of host country characteristics on Foreign Direct Investment (FDI) inflows (Blonigen, 2005; Braunerhjelm *et al.*, 2010; Zhang and Markusen, 1999). One of the main branches of investigation focuses on the political environment as a socio-political attribute which attracts or distracts foreign investors (Buthe and Milner, 2008; Gastanaga *et al.*, 1998; Grzymala-Busse, 2006; Krifa-Schneider *et al.*, 2010).

The effect of political conditions on FDI has been addressed from different perspectives concerning political stability (Asiedu, 2006; Fatehi-Sedeh and Safizadeh, 1989; Schneider and Frey, 1985), institutional arrangements or regimes (Bayulgen, 2010; Guerin and Manzocchi, 2009; Jensen, 2003; Oneal, 1994) and ideological beliefs creating political business cycles (González *et al.*, 2008). However, the party polarization, an important dimension of the political spectrum (Dalton, 2008; Crepaz, 1990), is often ignored while studying the effect of political environment on the economy (Brown *et al.*, 2011). Our article contributes to a recent but growing literature that tries to explain the effects of economic policy uncertainty on the FDI.

Segregation of polarization from political stability is an extremely important task while investigating the effect of uncertainty on foreign investments. The political polarization, specified as the dispersion of parties on the ideological continuum (Dalton, 2008) differs from political stability measured as an index concerning orderly transfers, violent demonstration, social unrest and international tensions (Economist Intelligence Unit). Clearly, stability affects the polarization-FDI relationship, since the political turnout, one of the components of stability, is a precondition for the existence of polarization (Jacobson, 2000; Baldassarri and Bearman, 2007). However, the correlation between these two institutional variables is not perfect (Azzimonti, 2013). They affect the volatility of the economy in different ways. Addressing political stability together with political polarization while studying the cross-country differences is necessary.

The political polarization influences FDI inflows through two main channels: direct and indirect (Figure no. 1). The first channel identifies the direct effect of polarization on foreign investments, in which the degree of polarization is assumed to be a tool of information (Orriols and Balcells, 2012) for foreign investors to evaluate political conditions to make investment decisions.
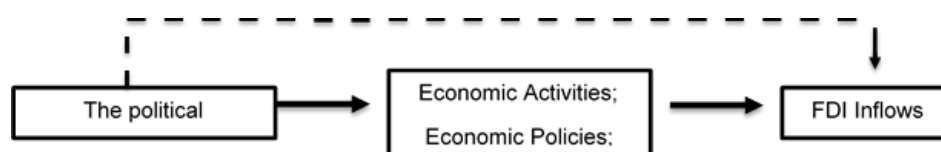

Figure no. 1 – The two channels of influence of the political polarization on FDI inflows
Source: compiled by authors

According to the second channel, the party polarization affects FDI inflows indirectly, through impacting the economic activities in the country. The degree of party polarization is a crucial factor of political decision-making process concerning economic policies (McCarty and Meirowitz, 2007; Alberto *et al.*, 1996), especially those, related to foreign investments (Svensson, 1998; Autor *et al.*, 2016, Azzimonti, 2014). Thus, it is depicted on rules and

regulations implemented in the country (Keefer and Knack, 2002; McCarty and Meirowitz, 2007) and reconditioning barriers to foreign investments. Economic outcomes are determined not only by productivity and innovation but changes in political beliefs. For example, the investment wedge is declined under the Republican party (Azzimonti, 2014). Ideologically polarized switches across economic policies, such as swings in the review financing and fluctuations in spending, creates risks for returning private investments (Azzimonti, 2011; Potrafke, 2011; Azzimonti, 2013), which also deters foreign investors.

The linkage between political polarization and economic outcomes, especially concerning foreign investments, is seldom studied. Hypothetically, polarization may have both: negative and positive effect on FDI. On one hand, the high political polarization neglects median voter theorem (Großer and Palfrey, 2014) by providing electorate an opportunity to form contrasting preferences on economic policies (Scervini and Segatti, 2012) which reinforces ideological voting (Lachat, 2008). Polarization, in this case, is assumed to be a sign of uncertainty, which deters foreign investors. On the other hand, polarization affects voting turnout positively (Knutsen, 2005; Crepaz, 1990) and reduces the probability of coalition formation. In this case, the high level of polarization provides natural checks and balances for ruling party and creates incentives for fair regulations and low corruption, which, in fact, attracts foreign investors (Brown et al., 2011). Moreover, the competition of political actors with contrary ideologies is found to have a positive effect on innovation in fiscal processes (Fernández-Villaverde et al., 2013), which accelerates development and sends preferable signals to foreign investors.

The relationship between political factors and FDI flows is inconclusive (Chakrabarti, 2001). While many studies (Ozler and Tabellini, 1991; Sauter and Walter, 2008) show the significant effects of political incentives on FDI, others argue that those conclusions are overemphasized and political variables are not good explanatories for FDI flow changes. For example, Arel-Bundock (2017) estimates the variation of statistical model of Political risk and FDI and shows that political variables used in the model do not account for the variation in FDI inflows. Additionally, Arel-Bundock (2017) by using the nonparametric machine learning approaches and out of sample tests show that gravity variables alone are able to predict firm behaviors. Authors of this paper partially agree with Arel-Bundock (2017) and similar research findings, that political variables are often misspecified and overlooked. These findings especially have important implications in globalization discussions. However, the authors argue that political environment of the host country is an important determinant of FDI, both direct and indirect. Economic agencies and players determine the investment decisions, however, economic entities function under rules of political players and denying the importance of those factors might lead to biased results.

According to Azzimonti (2013), an increase of polarization discourages the level of investment, production output, and employment. However, according to the tractable dynamic model of political economy by the same author (2011) polarization is distinguished from political uncertainty. While the larger polarization degree is associated with the higher relative price of investment, at the same time, the higher is the political instability, the lower is the relative price of investment (Azzimonti, 2011). Bohn (2007) constructs a political economy model that shows how political polarization and uncertainty reinforce each other and decrease investments. Alt and Lassen (2006) investigated the link between the political polarization, electoral cycles in fiscal balance and showed that cycles are larger in polarized systems.

Sauter and Walter (2008) investigates the effects of host country political environment on foreign capital flows and argues that theoretical explanation of Lucas paradox is highly related to political conditions. The paper finds that equity flows increase in the stable political systems and political polarization increases the demand for foreign creditors and FDI. At the same time Sauter and Walter (2008) underline the importance of the legal system, education and other institutional variables in the empirical investigation of political factors and FDI inflows. Thus, taking into account the diversity and divergence of countries in institutional development and political history and rule of law, the relationship between foreign capital flows and political factors, such as instability and polarization, may change. Aim of this paper is to investigate those links.

Political instability (losing the power) as a determinant of FDI is broadly studied. Alesina and Tabellini (1989) explain the relationship between private capital flows and uncertainty and argue that higher uncertainty creates the decrease in private investment thought the effect on the risk premium. Gulen and Ion (2015) derive a similar result and state that policy uncertainty is negatively associated with capital investment. Political polarization has been investigated together with other political variables by some authors before. For example, Azzimonti and Talbert (2014) have studied the effects of political turnover combined with polarization on economic fluctuations. Grechyna (2017) has analyzed effects of political factors on fiscal policy leading to increased polarization and volatility. However, the literature addressing the issue of polarization (heterogeneity) while discussing the volatility of political system concerning FDI outcomes is scarce. Commonly considered political variables such as stability and institutional variation only partly capture the core dynamic of the political process (Brown *et al.*, 2011). By exploring the impact of political polarization on foreign investments, this paper brings an additional value for the scholar interested in socio-political aspects of FDI.

3. DATA AND METHODOLOGY

3.1 Measuring political polarization

In the last two decades, the number of studies investigating political polarization has significantly increased (Conover *et al.*, 2011; Keefer and Knack, 2002). There are three common methods for measuring the political polarization index, namely manifesto, media and survey approaches (Prior, 2013; Schmitt, 2016). While survey and media methodologies mainly focus on capturing the polarization within public or the electorate (Davis and Dunaway, 2016), the manifesto approach directly concentrates on polarization among political parties (Franzmann and Kaiser, 2006).

In this study, we use manifesto methodology to construct political polarization index. The approach is in line with the aim of the paper to measure divergence on policies between political parties. Authors acknowledge that the polarization in party system is assumed to be highly correlated with the gap in electorate's values (Lachat, 2008) and an increase in the level of public polarization result in higher polarized parties in the system and vice versa (Wright and Berkman, 1986). However, the scope of an article is to explain the consequences of discrepancy in the ideological continuum between political actors, for which the index of party polarization is assumed to be a sufficient measure. Additionally, the manifesto approach

provides a possibility for the index to be comparable across countries, which is an extremely critical condition while conducting the cross-national study.

Authors formulate a political polarization index (PPI) by applying the methodology provided by Dalton (2008) (formula (1)).

$$Polarization = \sqrt{\sum_{i=1}^{n} (\frac{p_{i-wmean}}{5})^2 * V_i} \qquad (1)$$

where *Polarization* is an index ranging from 0 to 10 and indicates a polarization level per year and country. Polarization index equals 0 represents a party system where all parties occupy the same position on the left-right scale. Polarization index equals 10 represents a party system where all parties have contrasting ideological beliefs.

P is party's position on a left-right scale of party's preferences per election year, Wmean is an average party position in the country for the given year, V is party's vote share. Accounting party's vote share is a crucial aspect because while the presence of extreme parties is rather common, a system is considered (more) polarized when such parties are supported by the electorate (Dalton, 2008).

In this paper, the authors construct two different political polarization indices. First, we measure P, the party's position on a left-right scale, in a traditional way, where all policy preferences (Annex 3) that are usually considered to identify party position are used (Kleinnijenhuis and Pennings, 2001; Dalton, 2008; Klingemann, 2005; Powell, 1982; Sartori, 1976). Second, we also calculate party positions based on selected economic variables, which specifically affect investments. P in this case combines following economic preferences of political parties: Free Market Economy, Incentives: positive, Protectionism (Negative), Protectionism (Positive), Economic Orthodoxy, Market Regulations, Economic Planning, Controlled Economy and Nationalization (Annex 2)[2]. Thus, the political polarization index, introduced in this article is a novel, narrowed measure, which describes an ideological disagreement between political parties on economic strategies.

3.2 Data and Model

In this article, we concentrate on the cross-country panel data which contains information about 50 countries in 21 different period. Political data about party preferences and party vote shares are taken from Manifesto data version 2017a[3]. The dataset is created by Comparative Manifestos Project (CMP) and studies parties' election manifestos and composes parties' policy preferences. The main advantage of using the manifesto project dataset is that it provides the comparative content analyses of election programs and provides the possibility to conduct cross-country analyses (Mikhaylov *et al.*, 2008). As we observe parties' manifestos for only election years and in different countries election years are different, our panel data is unbalanced. In addition, we made an assumption that party polarization remains unchanged between election years and is the same as in the last election.

Our sample consists of 50 countries in the OECD and Central and Eastern Europe (Annex 4, Table no. 1). The aim is to study countries with similar democratic institutional arrangements and all countries chosen for our data are parliamentary democracies. This

approach is justified by the argument that partisan theory is only practiced in democratic systems (Hibbs, 1992) and the polarization of parties in other political regimes is not possible to be addressed. The time period covered in our sample is from 1995 till 2016. Election periods differ across nations, thus maximum number of elections per country is 7 (for Australia, Canada, Greece, Israel, Japan, New Zeeland, and Spain) and minimum - 1 year (for Azerbaijan).

Most of the previous studies exploring the determinants of foreign investment and location choice are based on the country-level panel data. The main advantage of using panel data is to control for unobserved country level heterogeneity. So, we apply fixed effect linear model which has the following specification:

$$Y_{it} = \propto_0 + \beta_{it} X_{it} + \alpha_i + \mu_{it} \qquad (2)$$

where Y_{it} is inward FDI stock for country i in period t, X_{it} contains information about country level observable characteristics including political polarization and other control variables (described below), α_i is country unobserved time-invariant component, and μ_{it} is the error term. The country unobserved component α_i can be removed by the within transformation:

$$(Y_{it} - \overline{Y}_\iota) = \beta (X_{it} - \overline{X}_\iota) + (\mu_{it} - \overline{\mu}_\iota) \qquad (3)$$

where $\overline{Y}_\iota$, $\overline{X}_\iota$ and $\overline{\mu}_\iota$ are the mean values over t=1,…, T period of time. The within estimate (fixed effect model) yields unbiased and consistent results, however time-constant unobservable α_i can be correlated with other observable covariates.

Main dependent variable is a stock of Foreign Direct Investment inflows taken as a share of GDP from the World bank dataset. A party polarization is based on Manifesto data, 2017a and calculated using the methodology provided by Dalton (2008). Besides, political polarization we also account the other control variables affecting the location choice of FDI. According to the latest review on determinants of FDI by Assuncao et al. (2011), there are three groups of factors which might have an effect on inward FDI.

First group is driven by location dimension of OLI paradigm which covers infrastructure, human capital, Economic stability and production cost. Countries with better quality of infrastructure are more likely to attract FDI (Vijayakumar et al., 2010), but this relationship is not unambiguously accepted. In order to control for the quality of infrastructure we add variable which measure the share of individuals using the internet. On average, the highest share of internet users is recorded in Iceland 75.5% followed by Norway 73.7% and Sweden 72.4%. The lowest value is in Ukraine (15.7%).

Countries with stable economic and financial circumstances are those which attract greater FDI inflows (Cleeve, 2008). Several indicators are used to measure economic and financial stability, with the inflation rate being one of the most usual measures. Inflation indicates price stability, which is one of the conditions of economic equilibrium. As Botrić and Škuflić (2006) conclude high inflation is a sign of economic instability and may become an impediment to FDI. We control for inflation which is measured by GDP deflator (annual %).

Not only economic stability but cheap production factors can also stimulate inward FDI. Together with capital, labor is one of the main production input, thus labor cost affect the cost structure of production. Dunning and Lundan (2008) reach the conclusion that low wage costs have a significant positive effect on attracting FDI. However, this is not the only

relationship between wage costs and FDI, some studies found the negative effect (Botrić and Škuflić, 2006) while others did not find a significant effect (Biswas, 2002). We add labor cost as a control variable in the model.

The second group of control variables is institutional. Institutional factors have attained the interests from scholars and policy makers since 1990. Institutional quality can explain the differences in development between countries. So variables such as political instability, corruption, and institutional quality can be included in the 'institutional' dimension and expected to have a negative effect on FDI. Political instability index is directly estimated by the Economist Intelligence Unit (EIU) dataset. The index measures the perceptions of the likelihood of political stability and/or politically motivated violence, including terrorism. The indicator covers aspects of orderly transfers, armed conflict, social unrest, international tensions, and violent demonstrations. In this model, we also study the joint effect of political polarization and political stability. As Bohn (2007) based on the political model of investment concluded, polarization and instability are mutually involved in the joint effect on investments.

New Trade theory constructs the third group of FDI determinants. It is expected that market size and growth have a positive effect on FDI (Asiedu, 2006; Cleeve, 2008; Mohamed and Sidiropoulos, 2010) but the results are not conclusive. For instance, Cleeve (2008) and Mohamed and Sidiropoulos (2010) found a positive relations between market growth and FDI while Mhlanga *et al.* (2010) and Vijayakumar *et al.* (2010) did not find any significant effect. GDP per capita is added to the model as a proxy for market size and GDP growth rate for market growth. There is an argument that countries might be more attractive for foreign investors if they liberalise their economies (Choong and Lam, 2010). So a positive effect is expected for the variable 'openness of the economy' on FDI, which is measured as external trade (export+import) in GDP.

Although the fixed effect model used here tackles various model specification problems, there might exists some other possible shortcomings that should be mentioned. Our analysis is based on the assumption that political factors are considered to be exogenous given. This is justified not only theoretical point of view (Partisan theory) and also evidence in empirical literature, considering political risks as exogenous factors (Savoiu *et al.*, 2013; Savoiu and Taicu, 2014; Busse and Hefeker, 2007; Rana and Kebewar, 2014). Authors acknowledge that political space is also influenced by economic factors and FDI which hypothetically may have an effect on the political environment. However, the effect is evident only in countries with very weak institutions (Kohler, 2010), such as India (Mohanty and Moharana, 2015), Nigeria (Akinlo, 2004) and others. Our sample consists of parliamentary democracies and all countries account solid institutional history (with the longer period of elections and political parties than accounted in the article). In addition, the polarization index introduced in the article is a consistent measure showing the divergence of political parties on the left-right scale and it does not take into account the preferences of political parties on foreign investment strategies.

Based on the model described above, the central hypothesis we test are the following:

- Political polarization discourages/encourage the inward FDI.
- The effect of political polarization on FDI is higher in less stable political environment.

4. EMPIRICAL RESULTS

The two polarization indices (economic and general) constructed in the article (measured in section 3.1) have a strong linear relationship (see Figure no. 3 and Figure no. 4 in Annex 5). In this section, we do not concentrate on both of those indices but mainly focus on the political polarization index (economic) which specifically shows divergence on economic policies.

Political polarization (economic) significantly varies across countries and time (Annex 5: Figure no. 5, Figure no. 6). However, certain common trends between nations with similar economic, social and political establishments together with similar developments in history are still identifiable (Figure no. 2).

The smallest FDI inflows and the lowest level of political polarization are found in countries which are classified as economics in Transition[4], such as, Georgia, Armenia, Azerbaijan, Bosnia and Herzegovina, Montenegro, Ukraine, and Albania (see Figure no. 2). At the same time transition economies represent the group with lowest political stability (see Figure no. 3).

Transition economies (such as Georgia, Armenia, Azerbaijan, Bosnia and Herzegovina, Montenegro, Ukraine, and Albania) are often characterized as economies with low level of institutional quality (Kostevc *et al.*, 2007), invalid justice system (Lotspeich, 1995), high level of corruption (Cuervo-Cazurra, 2008). Consequently, the low level of political polarization in those systems are associated with problems in political spectrum and likeliness of dictatorial regimes and practices. Those factors combined with the high instability are extremely discouraging for foreign investors and lead to the low level of FDI.

The largest FDI inflows and the highest political polarization is visible in most Scandinavian countries, such as, Norway, Denmark, Finland, and Sweden (see Figure no. 2). At the same time, Scandinavian countries are those with the highest political stability (see Figure no. 3). Those countries are known by the Nordic model[5], which is a combination of social welfare state together with economic system (Greve, 2007). In Scandinavian economies capitalism is merged with social benefit systems and provides great incentives for entrepreneurship (Witoszek and Midttun, 2018).

The political spectrum of Scandinavian economies is often polarized and provides a platform for combination of diverse ideas and policies (Fladmoe, 2012). The low or high polarization in this case does not send any signals to foreign investors. The high level of political polarization in those countries represents the natural consequences of political and economic reality of those nations.

Countries of Western Democracies (such as United Kingdom, United States, Germany, France, Belgium, Canada, Spain, and Netherlands) account the highest FDI and low polarization (see Figure no. 2). At the same time those countries are characterized with high political stability (see Figure no. 3). Those nations belong to a group of countries with traditional political systems. Those systems differ from other political settings by a long history and stable platform for political activities, which evidently result in convergence of political ideology to more center oriented policies (Kim and Fording, 1998). Low polarization in those democracies is a sign of stability and is favored by foreign investors.
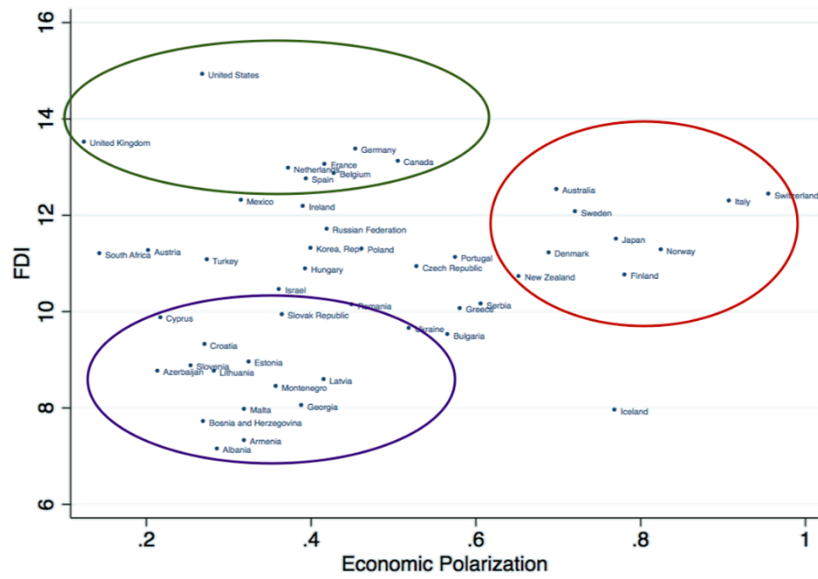
Figure no. 2 – Distribution of countries based on FDI inflows and the economic polarization. Political stability and polarization measures are taken as country averages for the period 1995-2016
Source: Authors own work
Note: Green circle: United States, UK, Netherland, Germany, France, Spain, Canada; Red Circle: Sweden, Norway Denmark, Finland, Australia, New Zealand; Blue Circle: Georgia, Albania, Latvia, Slovenia, Azerbaijan, Malta, Cyprus, Armenia

Figure no. 3 – Distribution of countries based on the political stability the economic polarization. Political stability and polarization measures are taken as country averages for the period of 1995-2016
Source: Authors own work

The ambiguous relationship between political polarization and the FDI inflows (as shown by Figure no. 2 and Figure no. 3) has institutional and historical explanations, as well as, is affected by economic management and arrangements of the nations, such as party systems and welfare state economic setting. Authors explain the relationship between FDI indlows and political polarization of the host country farther by discussing results of regression analyses and test empirically (FE model) if Political polarization discourages or encourage the inward FDI.

Results of FE model (MODEL 3, Table no. 1) indicate that the political polarization index and the political stability index (while accounting separately) do not have any significant effect on foreign direct investment (FDI) inflows. However, the interaction term of the variables (MODEL 4, Table no. 1) has a negative significant effect on FDI. This results (MODEL 3 and 4) indicate that political polarization and instability are interconnected variables. However, they represent neither substitutes nor complementary to each other, but they should be accounted together to address the overall impact of political environment on FDI.

Predictive margins (linear predictions) plot shows that different levels of political stability and polarization together have a diverse impact on FDI. In the case of high political stability, and large political polarization, foreign investments decrease. However, in the case of low political stability, FDI increases with higher political polarization (see Figure no. 4). Ozler and Tabellini (1991) model host country political incentives and argue that high political polarization might negatively affects the potential of the country to receive the credit from abroad. However, under unstable domestic environment together with the high polarization, high external debts are evident for many countries. This result is explained by the need to support policies which are offered by governments which express the short-term power. Similarly, empirical results of this paper indicate that for countries similar to transition economies, investors prefer politically polarized systems. The political polarization in those systems is not seen as negative a sign of instability and uncertainty, but the opposite. Polarization in political environment of transition systems enriches the decision-making processes and leads to higher efficiency in policy design and formation activities. In contrast, in countries such as Scandinavian states and western democracies, investors are distracted by the high political polarization. In this case polarization is seen as a sign of instability and possible policy changes and fluctuations in the economy, which are not favored by foreign investors.
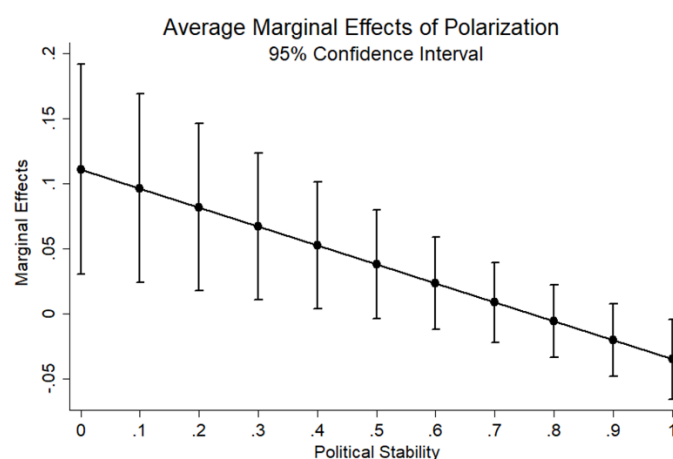

Figure no. 4 – Predictive Margins (linear Predictions) Plot

Table no. 1 – Regression results. FDI stock is the dependent variable.

VARIABLES	(1) POLS	(2) RE	(3) FE	(4) FE with interaction
Polarization	-0.003	-0.003	-0.003	0.111***
	[0.011]	[0.017]	[0.016]	[0.041]
Instability	0.687***	0.687**	0.687**	0.988***
	[0.205]	[0.340]	[0.325]	[0.338]
Polarization & Instability				-0.146***
				[0.045]
Internet	0.016***	0.016***	0.016***	0.016***
	[0.001]	[0.003]	[0.003]	[0.003]
Inflation	-0.015***	-0.015***	-0.015***	-0.016***
	[0.004]	[0.005]	[0.005]	[0.005]
labor cost	-14.321***	-14.321***	-14.321***	-14.160***
	[1.515]	[4.454]	[4.263]	[4.197]
Corruption	-0.115***	-0.115**	-0.115**	-0.107**
	[0.034]	[0.048]	[0.046]	[0.046]
Trade Openness	-0.000	-0.000	-0.000	-0.000
	[0.001]	[0.003]	[0.003]	[0.002]
Lag (Ln GDP)	2.076***	2.076***	2.076***	2.039***
	[0.179]	[0.455]	[0.435]	[0.423]
Lag (GDP Growth)	-0.006	-0.006	-0.006	-0.006
	[0.004]	[0.005]	[0.005]	[0.004]
Constant	-8.135***	-8.135**	-9.245**	-9.183**
	[1.369]	[3.557]	[4.119]	[4.046]
Country Fixed Effects	Yes	Yes	Yes	Yes
Observations	509	509	509	509
R-squared	0.972		0.808	0.813
Number of country		43	43	43
r-squared within		0.808	0.808	0.813
r-squared between		1	0.438	0.437
r-squared overall		0.972	0.460	0.460
rho		0	0.972	0.972

Note: Standard errors in brackets; *** p<0.01, ** p<0.05, * p<0.1

5. CONCLUSIONS AND RECOMMENDATIONS

The research aim of the paper is to explain how political factors change foreign investment decisions. We have investigated the data of 46 parliamentary democracies in OECD and the Central and Eastern Europe for the period of 1995-2016.

The main contribution of the paper lies in the effort to construct the novel measure of political polarization index and study the relationship between FDI inflows and political environment by examining the different political variables, stability and polarization.

Results from the FE model show that the effects of political polarization and political stability are only evident when accounted their joint effect on foreign investments. Moreover, the variation in the mix of the levels of political polarization and political stability differently affect the FDI inflows. In the case of high stability (countries similar to Scandinavia), the effect of polarization on FDI is negative. However, in case of the low

political stability (Countries similar to transition economies and former Soviet republics), foreign investors prefer more polarized political systems.

The main message of the paper is that political polarization is a complex, but important aspect of the political process which influences economic outcomes. The political polarization impacts foreign investment decisions through two different channels. On the one hand, in countries with high political stability, where ruling parties with opposite views change each other peacefully, high political polarization sends alarming signals to investors. In this case, the large polarization among political parties increases uncertainty on the economic policy, which deters investors. On the other hand, in countries, where political stability is low and social unrest is high, political polarization has a positive effect on foreign investment decisions. In this case, political polarization influences the policy implementation system itself. Countries, in which parties with opposing political ideologies exist, are more flexible and open to change. At the same time, higher polarization among political actors is a sign of democratic movements. High Polarization leads to less corrupted (Brown *et al.*, 2011) and economically stronger institutions, which, in fact, attracts foreign investors.

One of the main limitations in the cross-country studies of inducements of FDI is a country-specific political environment. We argue that the effect of political polarization may differ in countries with different characteristics. Due to the reduced number of observations, authors could not cluster countries according to development status, income or democratic indicators. Differences in the political arrangements or level of democracy lead to understanding and rationalizing the nature of polarization. Explaining the role of the polarization in different settings is an issue which has not yet been discussed in the literature. Continuing the research in this direction will provide a better understanding of the problem.

For the farther research in the field authors also recommend investigating the effects of political polarization on economic outcomes by incorporating different socio-political factors, such as corruption level, institutional quality, and rule of law.

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ANNEX 1

Definitions of the variables used in empirical analysis

Variables	Definition	Source
Dependent Variable		
FDI	Inward FDI stock	UNCTAD stat data
Independent Variable		
Political Polarization	The index of polarization of political parties on economic policies	Manifesto Project Dataset (version 2017b)*
Control Variables		
GDP growth	Annual percentage growth rate of GDP at market prices based on constant local currency.	World Bank national accounts data, and OECD National Accounts data files.
GDP per capita	Gross domestic product divided by midyear population (in constant 2010 U.S. dollars).	World Bank national accounts data, and OECD National Accounts data files
Inflation	The annual growth rate of the GDP implicit deflator	World Bank national accounts data, and OECD National Accounts data files.
Trade Openness	The sum of exports and imports of goods and services measured as a share of GDP	World Bank national accounts data, and OECD National Accounts data files
Taxes	Taxes on income, profits and capital gains as a percentage of the total tax	International Monetary Fund, Government Finance Statistics Yearbook and data files.
Internet	Individuals using the Internet as a share of the population	International Telecommunication Union, World Telecommunication/ICT Development Report and database
Labor cost	Compensation of employees divided by GDP (current LCU)	World Bank national accounts data, and OECD National Accounts data files
Other Variables		
Political Stability	The Political Stability and Absence of Violence index covering orderly transfers, armed conflict, social unrest, international tensions and violent demonstrations.	Economist Intelligence Unit (EIU)

Note: * Volkens *et al.* (2017b)

ANNEX 2

Variables used for calculation the political (economic) polarization index

Variable Code	Variable Name	Description
Variables accounted in political polarization index formula with a plus sign		
per401	Free Market Economy	Favorable mentions of the free market and free market capitalism as an economic model. May include favorable references to: • Laissez-faire economy. Superiority of individual enterprise over state and control systems; • Private property rights; • Personal enterprise and initiative; • Need for unhampered individual enterprises.
per402	Incentives: Positive	Favorable mentions of supply side oriented economic policies (assistance to businesses rather than consumers). May include: • Financial and other incentives such as subsidies, tax breaks etc.; • Wage and tax policies to induce enterprise; • Encouragement to start enterprises.
per407	Protectionism: Negative	Support for the concept of free trade and open markets. Call for abolishing all means of market protection (in the manifesto or any other country).
per414	Economic Orthodoxy	Need for economically healthy government policy making. May include calls for: • Reduction of budget deficits; • Retrenchment in crisis; • Thrift and savings in the face of economic hardship; • Support for traditional economic institutions such as stock market and banking system; • Support for strong currency.
Variables accounted in political polarization index formula with a minus sign		
per403	Market Regulation	Support for policies designed to create a fair and open economic market. May include: • Calls for increased consumer protection; • Increasing economic competition by preventing monopolies and other actions disrupting the functioning of the market; • Defense of small businesses against disruptive powers of big businesses; • Social market economy.
per404	Economic Planning	Favorable mentions of long-standing economic planning by the government. May be: • Policy plans, strategies, policy patterns etc.; • Of a consultative or indicative nature.
per406	Protectionism: Positive	Favorable mentions of extending or maintaining the protection of internal markets (by the manifesto or other countries). Measures may include: • Tariffs; • Quota restrictions; • Export subsidies.
per412	Controlled Economy	Support for direct government control of economy. May include, for instance: • Control over prices; • Introduction of minimum wages.
per413	Nationalization	Favorable mentions of government ownership of industries, either partial or complete; calls for keeping nationalized industries in state hand or nationalizing currently private industries. May also include favorable mentions of government ownership of land.

ANNEX 3

Variables used for calculation the political (general) polarization index

Variables accounted in political polarization index formula with a plus sign:

Variable Code	Variable Name	Description
Per104	Military: Positive	The importance of external security and defense. May include statements concerning: • The need to maintain or increase military expenditure; • The need to secure adequate manpower in the military; • The need to modernize armed forces and improve military strength; • The need for rearmament and self-defense; • The need to keep military treaty obligations.
Per 201_1	Freedom	Favorable mentions of importance of personal freedom in the manifesto and other countries. May include mentions of: • Freedom from state coercion in the political and economic spheres; • Freedom from bureaucratic control; • The idea of individualism
Per 201_2	Human Rights	Favorable mentions of importance of human and civil rights in the manifesto and other countries, including the right to freedom of speech, press, assembly etc.; supportive refugee policies.
Per 203	Constitutionalism: Positive	Support for maintaining the status quo of the constitution. Support for specific aspects of the manifesto country's constitution. The use of constitutionalism as an argument for any policy
Per 305_1	Political Authority: Party Competence	References to the manifesto party's competence to govern and/or other party's lack of such competence.
Per 305_2	Political Authority: Personal Competence	Reference to the presidential candidate's or party leader's personal competence to govern and/or other candidate's or leader's lack of such competence.
Per 305_3	Political Authority: Strong government	Favorable mentions of the desirability of a strong and/or stable government in general.
Per 305_4	Transition: Pre-Democratic Elites:	Positive Co-operation with pre-democratic authorities in the transition period; amnesty for former, non-Democratic elites; and 'let sleeping dogs lie' in dealing with the nomenclature of the former, non-Democratic regime.
Per 305_5	Transition: Pre-Democratic Elites:	Negative Against pre-democratic elite's involvement in democratic government; weeding out the collaborators of former, non-Democratic regime from governmental service; for truth commissions and other institutions illuminating recent history
Per 305_6	Transition: Rehabilitation and Compensation	References to civic rehabilitation of politically persecuted people in the authoritarian era; references to juridical compensation concerning authoritarian expropriations; moral compensation
Per 505	Welfare State Limitation	Limiting state expenditures on social services or social security. Favorable mentions of the social subsidiary principle (i.e. private care before state care);
Per 601_1	National Way of Life: positive	Favorable mentions of the manifesto country's nation, history, and general appeals. May include: • Support for established national ideas; • General appeals to pride of citizenship; • Appeals to patriotism; • Appeals to nationalism; • Suspension of some freedoms in order to protect the state against subversion.
Per 601_2	National Way of Life: Negative	Unfavorable mentions of the manifesto country's nation and history. May include: • Opposition to patriotism; • Opposition to nationalism; • Opposition to the existing national state, national pride, and national ideas.
Per 603	Traditional Morality: Positive	Favorable mentions of traditional and/or religious moral values. May include: • Prohibition, censorship and suppression of immorality and unseemly behavior; • Maintenance and stability of the traditional family as a value; • Support for the role of religious institutions in state and society.
Per 605_1	Law and Order: Positive	Favorable mentions of strict law enforcement, and tougher actions against domestic crime. Only refers to the enforcement of the status quo of the manifesto country's

Variable Code	Variable Name	Description
		law code. May include: • Increasing support and resources for the police; • Tougher attitudes in courts; • Importance of internal security
Per 605_2	Law and Order: Negative	Favorable mentions of less law enforcement or rejection of plans for stronger law enforcement. Only refers to the enforcement of the status quo of the manifesto country's law code. May include: • Less resources for police; • Reducing penalties; • Calls for abolishing the death penalty; • Decriminalization of drugs, prostitution etc
Per 606_1	Civic Mindedness General: Positive	General appeals for national solidarity and the need for society to see itself as united. Calls for solidarity with and help for fellow people, familiar and unfamiliar. May include: • Favorable mention of the civil society and volunteering; • Decrying anti-social attitudes in times of crisis; • Appeal for public spiritedness; • Support for the public interest
Per 606_2	Civic Mindedness: Bottom-Up Activism	Appeals to grassroots movements of social change; banding all sections of society together to overcome common adversity and hardship; appeals to the people as a united actor.
Per 401	Free Market Economy	Favorable mentions of the free market and free market capitalism as an economic model. May include favorable references to: • Laissez-faire economy. Superiority of individual enterprise over state and control systems; • Private property rights; • Personal enterprise and initiative; • Need for unhampered individual enterprises.
Per 402	Incentives: Positive	Favorable mentions of supply side oriented economic policies (assistance to businesses rather than consumers). May include: • Financial and other incentives such as subsidies, tax breaks etc.; • Wage and tax policies to induce enterprise; • Encouragement to start enterprises.
Per 407	Protectionism: Negative	Support for the concept of free trade and open markets. Call for abolishing all means of market protection (in the manifesto or any other country).
Per 414	Economic Orthodoxy	Need for economically healthy government policy making. May include calls for: • Reduction of budget deficits; • Retrenchment in crisis; • Thrift and savings in the face of economic hardship; • Support for traditional economic institutions such as stock market and banking system; • Support for strong currency.

Variables accounted in political polarization index formula with a minus sign:

Variable Code	Variable Name	Description
Per 103_1	Anti-Imperialism: State Centered Anti-Imperialism	Negative references to imperial behavior and/or negative references to one state exerting strong influence (political, military or commercial) over other states. May also include: • Negative references to controlling other countries as if they were part of an empire; • Favorable references to greater self-government and independence for colonies; • Favorable mentions of de-colonization.
Per 103_2	Anti-Imperialism: Foreign Financial Influence	Negative references and statements against international financial organizations or states using monetary means to assert strong influence over the manifesto country or other states. May include: • Statements against the World Bank, IMF etc.; • Statements against the Washington Consensus; • Statements against foreign debt circumscribing state actions.
Per 105	Military: Negative	Negative references to the military or use of military power to solve conflicts.

Variable Code	Variable Name	Description
		References to the 'evils of war'. May include references to: • Decreasing military expenditures; • Disarmament; • Reduced or abolished conscription.
Per 106	Peace	Any declaration of belief in peace and peaceful means of solving crises – absent reference to the military. May include: • Peace as a general goal; • Desirability of countries joining in negotiations with hostile countries; • Ending wars in order to establish peace.
Per 107	Internationalism: Positive	Need for international co-operation. May also include references to the: • Need for aid to developing countries; • Need for world planning of resources; • Support for global governance; • Need for international courts; • Support for UN or other international organizations.
Per 202_1	Democracy General: Positive	Favorable mentions of democracy as the "only game in town". General support for the manifesto country's democracy. May also include: • Democracy as method or goal in national, international or other organizations (e.g. labor unions, political parties etc.); • The need for the involvement of all citizens in political decision-making; • Support for parts of democratic regimes (rule of law, division of powers, independence of courts etc.).
Per 202_3	Representative Democracy: Positive	Favorable mentions of the system of representative democracy, in particular in contrast to direct democracy. This includes the protection of representative institutions and actors against direct democratic elements. .
Per 202_4	Direct Democracy: Positive	Favorable mentions of the system of direct democracy, in particular in contrast to representative democracy. This includes the call for the introduction and/or extension of referenda, participatory budgets and other forms of direct democracy.
Per 504	Welfare State Expansion	Favorable mentions of need to introduce, maintain or expand any public social service or social security scheme. This includes, for example, government funding of: • Health care • Child care • Elder care and pensions • Social housing
Per 506	Education Expansion	Need to expand and/or improve educational provision at all levels
Per 701	Labor Groups: Positive	Favorable references to all labor groups, the working class, and unemployed workers in general. Support for trade unions and calls for the good treatment of all employees, including: • More jobs; • Good working conditions; • Fair wages; • Pension provisions etc.
per403	Market Regulation	Support for policies designed to create a fair and open economic market. May include: • Calls for increased consumer protection; • Increasing economic competition by preventing monopolies and other actions disrupting the functioning of the market; • Defense of small businesses against disruptive powers of big businesses; • Social market economy.
per404	Economic Planning	Favorable mentions of long-standing economic planning by the government. May be: • Policy plans, strategies, policy patterns etc.; • Of a consultative or indicative nature.
per406	Protectionism: Positive	Favorable mentions of extending or maintaining the protection of internal markets (by the manifesto or other countries). Measures may include: • Tariffs; • Quota restrictions; • Export subsidies.
per412	Controlled	Support for direct government control of economy. May include, for instance:

Variable Code	Variable Name	Description
	Economy	• Control over prices; • Introduction of minimum wages.
per413	Nationalization	Favorable mentions of government ownership of industries, either partial or complete; calls for keeping nationalized industries in state hand or nationalizing currently private industries. May also include favorable mentions of government ownership of land.

ANNEX 4

Descriptive Statistics

Table no. 1 – Number of elections according to countries

Country	Number of Elections	Country	Number of Elections
Albania	2	Japan	7
Armenia	4	Korea, Rep.	5
Australia	7	Latvia	6
Austria	5	Lithuania	5
Azerbaijan	1	Luxembourg	3
Belgium	4	Malta	2
Bosnia & Herzegovina	6	Mexico	6
Bulgaria	6	Montenegro	2
Canada	7	Netherlands	6
Croatia	6	New Zealand	7
Cyprus	4	Norway	4
Czech Republic	6	Poland	5
Denmark	5	Portugal	5
Estonia	5	Romania	5
Finland	4	Russian Federation	4
France	4	Serbia	4
Georgia	6	Slovak Republic	5
Germany	5	Slovenia	5
Greece	7	South Africa	4
Hungary	5	Spain	7
Iceland	5	Sweden	5
Ireland	5	Switzerland	4
Israel	7	Turkey	5

Table no. 2 – Summary statistics

Variable	Obs.	Mean	Std. Dev.	Min	Max
Country	1005	25.65672	14.97769	1	51
Economic Polarization	242	0.4635196	0.2882982	0.039378	1.85289
General Polarization	243	1.332623	0.6993064	0.020548	4.40848
FDI (ln)	1005	10.73089	2.058441	4.63899	15.6705
GDP (ln)	1005	9.776293	1.009113	7.06658	11.4254
Corruption	823	5.8148	2.411299	0.25	10
Rule of law	825	0.7121098	0.2188008	0.125	1
Regulatory Quality	825	0.719	0.1546275	0.15	1
Stability	731	0.7168947	0.2025314	0.05	1
Labor cost	897	0.055171	0.0447981	0	0.367761
Internet	997	45.19017	30.17868	0.01	98.24
Trade openness	1005	86.72576	38.04008	18.35	245.86
Inflation	1005	5.357515	10.19418	-18.93	101.64

Table no. 3 – Correlation between variables

Variable	EP	GP	FDI (ln)	GDP (ln)	Corruption	RL	RQ	Stability	LC	Internet	TO	Inflation
Economic Polarization	1											
General Polarization	0.3967	1										
FDI (ln)	0.0691	0.1372	1									
GDP (ln)	0.2445	0.3974	0.6384	1								
Corruption	0.0799	0.2349	0.4567	0.7504	1							
Rule of law	0.1718	0.2817	0.4966	0.874	0.8315	1						
Regulatory Quality	0.1887	0.2108	0.4003	0.6963	0.5933	0.7259	1					
Stability	0.2503	0.1451	0.4158	0.7076	0.5831	0.7615	0.5924	1				
Labor cost	-0.0881	0.0718	-0.4599	-0.2505	-0.3217	-0.2368	-0.266	-0.3341	1			
Internet	0.1916	0.2645	0.4963	0.5933	0.5583	0.5388	0.493	0.3462	-0.2072	1		
Trade openness	-0.173	-0.1984	-0.29	-0.2315	-0.0972	-0.06	0.0091	0.0263	0.0263	0.1045	1	
Inflation	-0.0704	-0.2771	-0.3059	-0.4678	-0.3521	-0.4192	-0.4146	-0.33	0.1149	-0.445	0.0334	1

ANNEX 5

Graphical representations
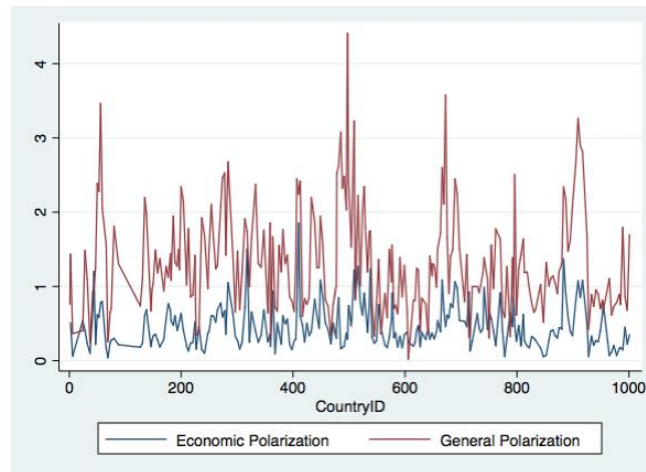
Figure no. 1 – Distribution of Economic and General polarization indices
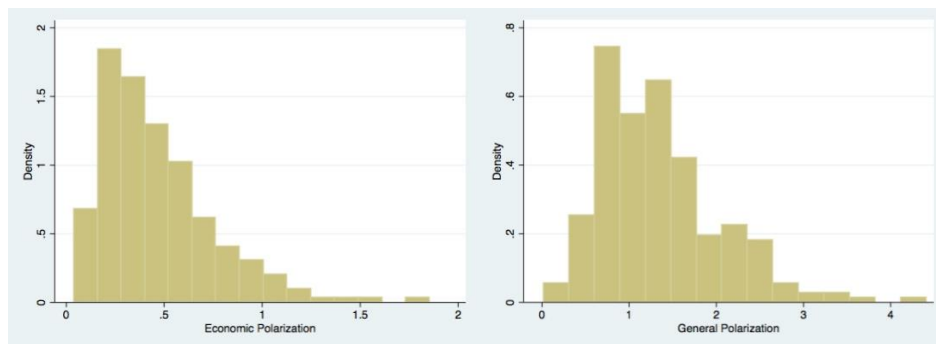
Figure no. 2 – Histograms of Economic and general polarization indices
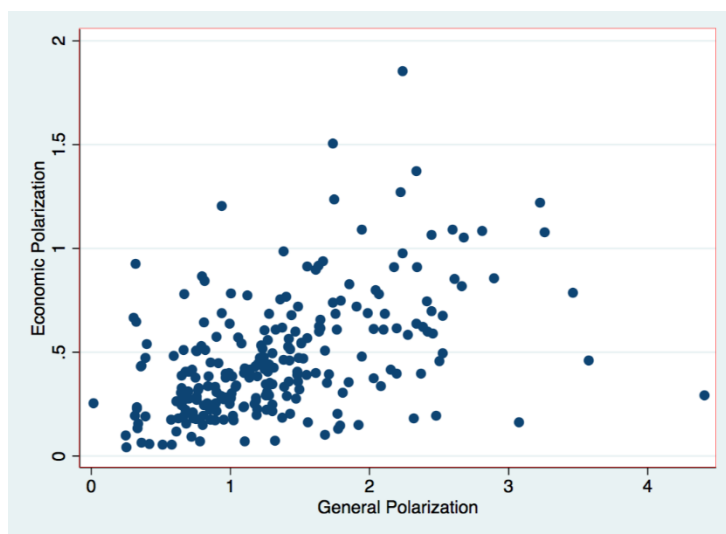
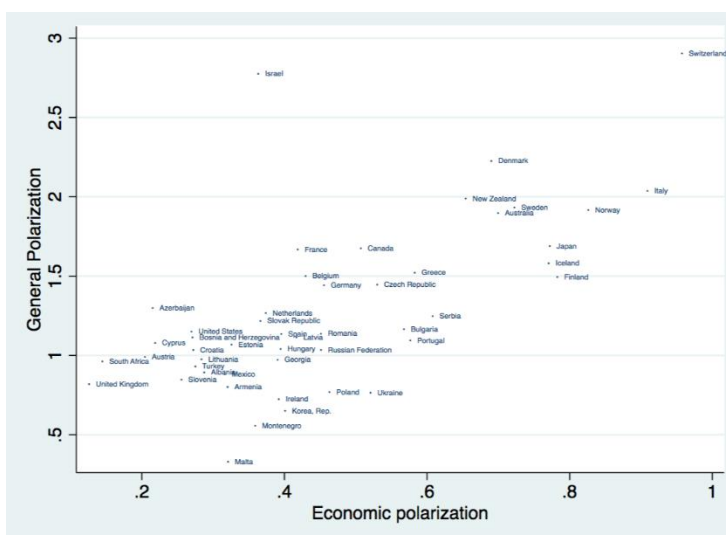**Figure no. 3 – The relationship between Economic Polarization and General polarization**

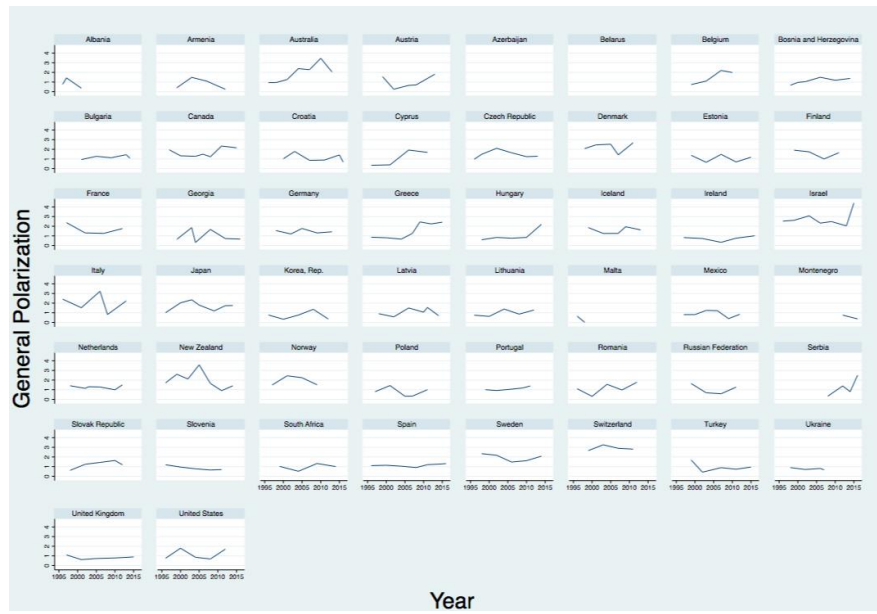**Figure no. 4 – Economic Polarization and General polarization (country averages)**

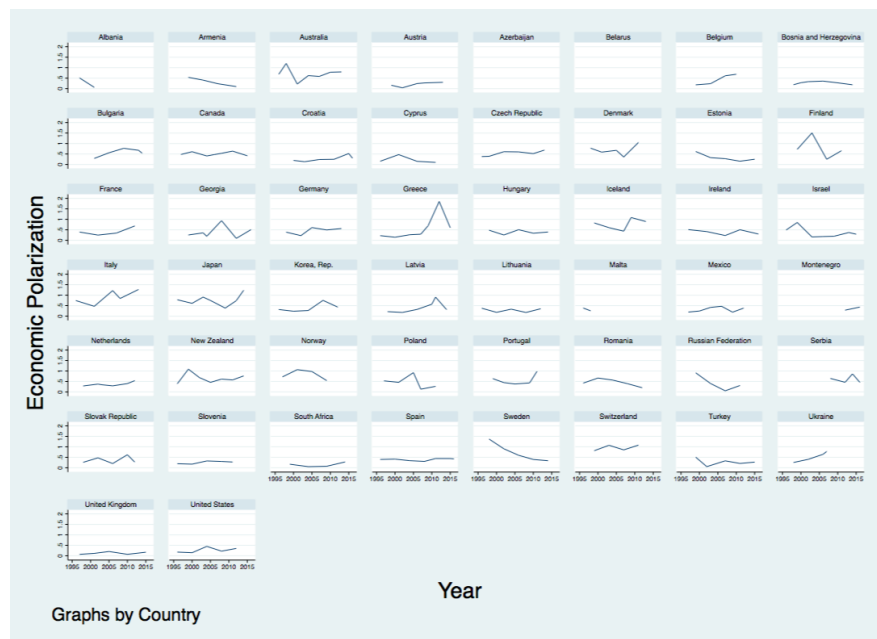**Figure no. 5 – Distribution of General polarization by countries**

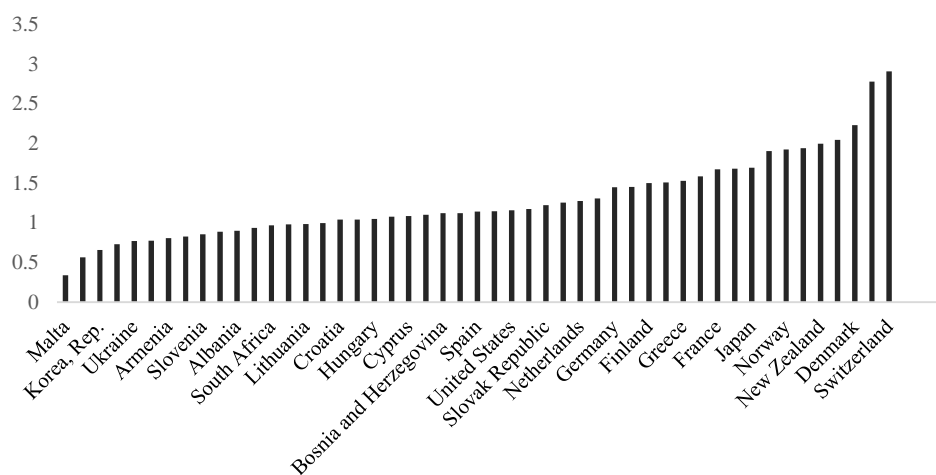**Figure no. 6 – Distribution of Economic polarization by countries**

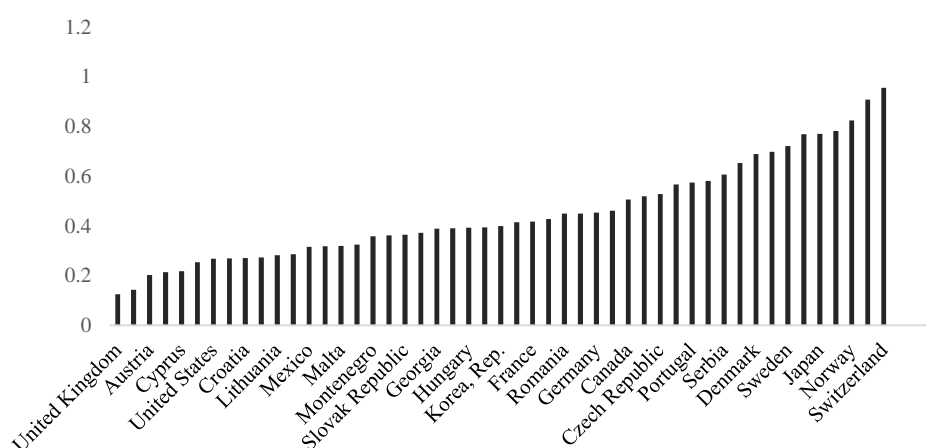**Figure no. 7 – Ranking of countries by General polarization index (country averaged)**

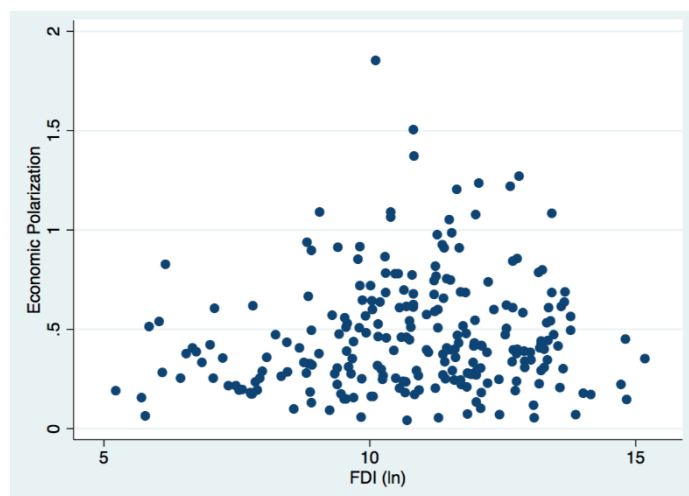**Figure no. 8 – Ranking of countries by Economic polarization index (country avarages)**

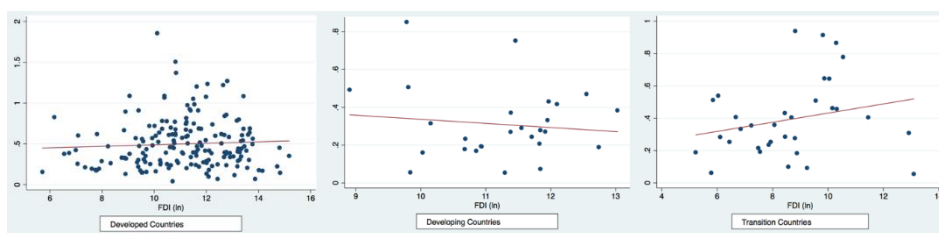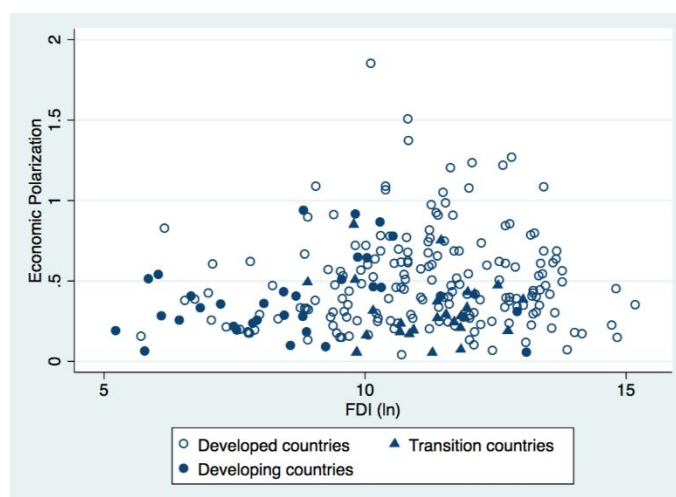**Figure no. 9 – The relationship between Economic Polarization and FDI**

Figure no. 10 – The relationship between Economic Polarization and FDI for Developed, Developing and Transition countries

Notes

[1] Political stability measure introduced in the empirical model is an index taken from Economist Intelligence Unit (EIU). The index covers aspects of orderly transfers, armed conflict, social unrest, international tensions and violent demonstrations.

[2] The data of party preferences are taken from Manifesto data version 2017a.

[3] The Manifesto Project analyses parties' election manifestos in order to study parties' policy preferences. Since October 2009, the Manifesto Project has been financed by a long-term funding grant from the German Science Foundation (DFG) as MARPOR (Manifesto Research on Political Representation). MARPOR continues the work of the Manifesto Research Group (MRG 1979-1989) and the Comparative Manifestos Project (CMP 1989-2009). In 2003, the project received the American Political Science Association's (APSA) award for the best dataset in comparative politics.

[4] United nations classification.

[5] Economic model which is used by Nordic countries, combining capitalism with welfare state and socialism elements (Greve, 2007).

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