BALKAN SOSYAL BILIMLER DERGISI 2020 9(18) 51-57

Balkan Journal of Social Sciences

BJSS

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Araştırma Makalesi ● Research Article

Does Institutional Environment Affect Outward Foreign Direct Investment?: Panel Study

Kurumsal Çevre Doğrudan Yabancı Yatırım Çıkışlarını Etkiler mi?: Panel Veri Çalışması

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MAKALE BİLGİSİ

Makale Geçmişi:
Başvuru tarihi: 3 Kasım 2020
Düzeltme tarihi: 2 Aralık 2020
Kabul tarihi: 7 Aralık 2020

Anahtar Kelimeler:
DYY Stoku Çıkışı
DYY Akışı
Özgürlük
Kurumlar
Rassal Etkiler Modeli

ÖZ

Bu çalışma, 1990-2011 yıllarını kapsayan dönem için kurumsal yapı ile doğrudan yabancı yatırım (DYY) çıkışı arasında bir ilişki olup olmadığını incelemektedir. Bu amaçla, üç farklı kurumsal yapı göstergesinden yararlanılmıştır. İfade ve basın özgürlüğü, din özgürlüğü ve seçimlerde kendi kaderini tayin hakkının kurumsal yapıyı gösterdiği düşünülmektedir. Rassal etkiler modelinin kullanıldığı çalışmada, dışarıya yönelik DYY ile kurumsal yapının kalitesi arasında negatif yönlü bir ilişki olduğu tespit edilmiştir. Dışa açıklık ve beşeri sermaye yatırımları kontrol değişkenler olarak modellere eklendiğinde seçimlerle kendi kaderini tayin etme indeksi istatistiksel anlamlılığını yitirmektedir. Ancak bu durumda dahi diğer ampirik bulgular hala geçerliliğini korumaktadır.

ARTICLE INFO

Article history:
Received November 3, 2020
Received in revised form December 2, 2020
Accepted December 7, 2020

Keywords:
Outward FDI Stock
Outward FDI Flow
Freedom
Institutions
Random Effects Model

ABSTRACT

This study is an attempt to find if there is any association between institutional environment and outward foreign direct investment (FDI) for the period between 1990 and 2011. For this aim three different institutional structure indicators are utilized. Freedom of speech and press, religion freedom and electoral self-determination are put into use. There is a negative linkage between outward FDI and the quality of institutional structure using random effects model (REM). Although electoral self-determination loses its statistical significance, empirical findings still hold even if the openness and human capital investment proxies are added to the models as control variables.

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1. Introduction

Foreign direct investment (FDI) can be defined as the direct investment of foreign-owned multinationals in any sector of a target economy. It can take place by purchasing shares of a company in the host country or possessing a business instead in that country. If the legislation allows, foreigners may prefer to establish a company as well.

Companies conduct feasibility studies before investing in a project. They search for the potentials of the targeted sector, demand for their good or service in the market and try to predict their potential profit. Multinationals have to follow similar steps in a broader scope. Not only target economy but also source economy features need to be considered carefully. Host economy and source economy characteristics are nonseparable parts of a picture for multinationals to examine before deciding on whether to invest or not in an economy. All aspects of the investment destination are subject to investigation. Economic, financial, cultural, social, political factors affect FDI location decisions. Interaction of these variables also play an important role on encouraging foreign capital (George & Harandi, 2013). Therefore, the question needs to be handled in a multidimensional approach.

The relationship between economic freedom and FDI is widely used as a research topic in the literature. Yet, this study deals with the association between outward FDI and institutional environment in the home country. We expect this will provide a more comprehensive point of view on the subject. To reflect the situation of political and social environment, freedom of speech and press, religion freedom and electoral self-determination are considered as the indicators of institutional structure throughout this research.

Kolstad and Wiig (2012) focus on the host economy characteristics which are thought to attract Chinese outward FDI. Empirical findings show that Chinese capital prefers large markets and large amount of natural resources endowed countries, and economies with low quality institutions. However, this kind of behavior may be peculiar to China because Chinese multinationals' investment decisions reflect features of Chinese economy. So, analyzing host economy characteristics do not only reveal the preferences of multinationals in the host economy, but also reflects what factors capital owners escape from in their home country. Witt and Lewin (2007) show that incompatibility between companies' needs and source economy institutional environment makes outward FDI an exit door. For Lucke and Eichler (2016), the FDI to developing countries prefers better institutions in the host economy. On the other hand, FDI to developed countries seeks for a more corrupt and unstable political environment in the host economy. And, there is a chance that capital owners may not mind the low quality of institutions in the host economies because they are familiar with in their home country, like in the case of China (Andreff, 2016).

Institutional environment and the quality of institutional structure have utmost importance to attract FDI. That is the reason how Sub- Saharan Africa encourage inward FDI despite its lack of natural resources. Legal system, rule of law, market size and population can be counted as the main determinants attracting FDI (Fofana,2014). So, institutions can patch the gaps caused by the abundance of natural resources in order to create an attractive business environment for FDI.

Carmen Stoian (2013) focuses on the home country institutional characteristics that are expected to affect outward FDI. 20 Central and Eastern Europe economies are investigated. GDP per capita and inward FDI are in a positive association with outward FDI, but technological level of the home country is in negative relationship with outward FDI. In addition, reforms enhancing competition boost outward FDI. However, trade liberalization reforms or European union membership do not enhance outward FDI.

Chiappini and Viaud (2020) assert that size of the market, relative exchange rate, and trade openness attract Japanese outward FDI in developing economies. Corruption, and instability in the financial sector have a deterring impact on the Japan-owned capital in the target economies. In addition to these literature-based factors, industrial features are also effective on the Japanese outward FDI. That is, industries requiring high labor costs with less developed technology have tendency to be resettled abroad by using Japanese capital.

Lee et al.'s (2016) study attempts to find determinants of Singaporean outward FDI. Outward FDI has risen in line with increasing GDP per capita of Singapore from 1985 onwards. Sectoral distribution of Singaporean FDI prefers to invest in financial and insurance services of developed economies, in manufacturing of less developed economies. The reason why the less developed economies such as Thailand, Malaysia, Indonesia, and China are preferred for manufacturing may be that wage levels are relatively lower compared to the rest of the world. But the enlarging market size of the Singapore seems to be the stimulant behind rising outward FDI.

Imtiaz and Bashir (2017) reveal that economic freedom in South Asian countries is a significant factor that canalize inward FDI. Especially fiscal and trade freedom are the most effective parts of economic freedom. However, this does not necessarily mean that FDI from countries with less economic freedom prefers South Asian economies. FDI from home countries with developed institutional structure may still invest in South Asia due to features other than freedom such as input costs, and transportation costs.

Rather than focusing on one side of the FDI relationship between host and home country economies, Xu (2019) bases his research on the bilateral FDI relationship among 155 countries. Economic freedom in both host countries and home countries are found to be positively associated with bilateral FDI. Because home countries' economic freedom

seems to have more explanatory power on FDI, home country economic freedom can increase outward FDI, rather than increasing inward FDI. In contrast, Bénassy-Quéré et al. (2007) found that the impact of source country institutions on outward FDI is very low that can be neglected.

Kalotay and Sulstarova (2010) show that Russian FDI focuses on both home country and host country factors. The main focus in home country is the market size. Home country GDP is positively related to outward FDI of Russia. Moreover, host economy GSP, share of natural resources in host economy exports and the share of service sector in the GDP of the host country are the factors positively affecting outward FDI of Russia.

For source countries from Latin America, Subasat and Bellos (2011a) claim that government size raises outward FDI. In addition, tariffs, import barriers, and regulations, especially labor market regulations, lead outward FDI to increase as well. Government spending, financial and business freedoms are also in a positive association with outward FDI. It is not surprising to see that restrictive regulations on the source economy markets encourage capital to fly away. And legislation that provide home country to be integrated to international markets causes outward FDI to increase. Different sample such as transition economies produce similar results. The freer the source economy, the greater the outflow (Subasat & Bellos, 2011b).

In his research studying the exports and outward FDI in a relatively homogenous sample, Egger (2001) asserts that the nature of the relationship between exports and outward FDI cannot be same under different circumstances. For instance, changes in transportation costs within Europe make exports and outward FDI substitutes of each other. But the shocks in the growth rate of market size of Europe make two variables to be complementary to each other. That is, the context is important to decide on how outward FDI changes in accordance with various factors.

As it is seen from the literature above, the relationship between FDI and freedom or what affects the FDI decisions is not clear. It depends on the which economy FDI is originated from and which country FDI targets. This study tries to find the effect of home country peculiarities on the escaping FDI. The rest of the study is designed as follows. Second part is for the details of the data and the method utilized in the analyses. Third part is left for the empirical findings and discussion. Last part concludes the study.

2. Data and Method

2.1. Data

The broadest dataset is composed of 142 countries for the period between 1981 and 2011. But the years between 1990 and 2011 are used for 25 countries. As dependent variables, two indicators of FDI are utilized. Both FDI outward flow and FDI outward stock are investigated. Both variables are in percentage of total world. FDI flows are composed of transactions counted during a year. FDI stocks, on the other hand, are composed of accumulated value held at the end of a year. FDI flows include three items: "acquisition or disposal of equity capital, reinvestment of earnings which are not distributed as dividends, and inter-company debt" (UNCTAD, 2020a). Data are retrieved from UNCTADstat database of UNCTAD (2020b).

As independent variables, freedom of speech and press, freedom of religion, electoral self-determination indices of CIRI Human Rights Project (2014) are retrieved. Freedom of speech and press shows if freedoms of speech and press are affected by censorship conducted by governments. A score of 0 means that censorship is complete, 1 means that there is some censorship, and 2 stands for no government censorship. Freedom of religion shows if the exercise and practice of religious beliefs are restricted by government. 0 means that restrictions are severe and widespread, 1 means that restrictions are moderate. And 2 indicates that there is no restriction at all. Electoral self-determination shows to what extent free and fair elections can be used as a right of citizens to change government. 0 indicates that the right exists but there is also some limitation. 1 means that free and fair elections are moderately held while free and fair elections take place in case of 2.

Two control variables are utilized in the analyses. First, imports of goods and services as percentage of GDP is used. It is used as a proxy for openness of the home economy. Government expenditure per student in tertiary education expressed as percentage of GDP per capita is utilized as a proxy for human capital investment. It shows how much of the domestic resources are spend on the formation of an educated human capital endowment. The data for these control variables are from World Development Indicators DataBank of the World Bank (2020).

2.2. Method

We investigated the impact of home country institutional characteristics on outward FDI flows and stocks. The data are unbalanced. We estimated the following univariate and multivariate random time effect models (REM) respectively:

$$FDI_{it} = \alpha + \beta INST_{it} + (\tau_t + u_{it}) \qquad (i)$$

$$FDI_{it} = \alpha + \beta_1 INST_{it} + \beta_2 IMP_{it} + \beta_3 EXP_{it} + (\tau_t + u_{it}) \qquad (ii)$$

it subscript is for the *i-th* source country's observation at time *t* for the corresponding variable. α is the intercept term and τ_t stands for time-specific effects which affect all of the source countries same. That is, τ_t is change across

time but not vary across countries. u_{it} is idiosyncratic error term of the model. INST stands for freedom of speech and press, freedom of religion, and electoral self-determination depending on the model. IMP shows imports of goods and services. And EXP means government expenditure on tertiary education. First Hausman test is conducted to decide whether the appropriate regression model is fixed effects (FEM) or random effects model (REM). For Hausman test, null hypothesis is that preferred model is REM. If the null hypothesis is rejected, then the proper choice is FEM. If it cannot be rejected, then the true model specification is REM.

3. Empirical Findings

There are two possible model specifications: FEM and REM. For all 12 models, null hypothesis which says the preferred model is REM cannot be rejected, at 1% level of significance. So Hausman test results show that all models are REM as they are listed in Table 1.

Table 1: Hausman Test Results

	Chi-Sq Statistic	Prob.	Model Specification
(1)	3.351116*	0.0672	REM
(2)	2.200304	0.532	REM
(3)	1.308084	0.2527	REM
(4)	1.545765	0.6717	REM
(5)	0.550434	0.4581	REM
(6)	2.303675	0.5118	REM
(7)	2.865676*	0.0905	REM
(8)	2.525567	0.4707	REM
(9)	3.541569*	0.0598	REM
(10)	2.499908	0.4753	REM
(11)	1.098126	0.2947	REM
(12)	2.14589	0.5427	REM

***p<0.01, **p<0.05, *p<0.1

Table 2 shows the model estimates where the dependent variable is outward FDI stock. Outward FDI stock is in a negative association with import of goods and services and government expenditure on tertiary education although the significance is weak for the coefficient estimates of EXP. That is, as imports of the source economy rise, capital owners escape less from the home country. But the causality is not known in this case. Whether FDI outstocks cause imports to decrease or vice versa is an unanswered question. Yet it is not illogical to expect that domestic capital owners tend to use sources on importing goods and services rather than investing at home, especially if the domestic currency gains value against the trade partners of the country.

Estimates of the government expenditure on tertiary education are negative showing that human capital investment is in a negative relationship with outward FDI. In other words, as government spends more resources on education, especially on higher education, domestic-owned multinationals prefers to invest at home more. So, capital owners cherish qualified workforce and prefers to keep resources in home country if the workforce is high-skilled.

The main focus of the analyses is on the linkage between institutional environment and FDI movements. All three variables of institutional structure is in a negative association with FDI outstock. The rise in indices of these three indicators mean that the restrictions become less severe. Hence, as freedom of speech and press strengthens FDI escapes less from the home country. The same is valid for freedom of religion and electoral self-determination. For all three cases, when the estimation results are checked for robustness by adding control variables for openness (IMP) and human capital investment (EXP), the magnitude of the institutional estimates becomes smaller. The coefficient estimate of electoral self-determination becomes insignificant even the level is chosen 10 %.

Table 2: Outward FDI Stock Estimations

Variables	(1) Outward FDI Stock	(2) Outward FDI Stock	(3) Outward FDI Stock	(4) Outward FDI Stock	(5) Outward FDI Stock	(6) Outward FDI Stock
SPEECH	-0.119022*** (0.017856)	-0.042162** (0.021066)				
RELIG			-0.100414*** (0.014632)	-0.050147*** (0.017937)		
ELECT					-0.077100*** (0.015688)	-0.018061 (0.018237)
IMP		-0.003949*** (0.000811)		-0.003638*** (0.000819)		-0.004314*** (0.000790)

EXP		-0.002005* (0.00102)		-0.002112** (0.001012)		-0.002039* (0.001036)
Constant	0.189086*** (0.020936)	0.363479*** (0.052361)	0.184011*** (0.019850)	0.367578*** (0.051510)	0.167363*** (0.022503)	0.364953*** (0.057296)
Selected Model	REM	REM	REM	REM	REM	REM
Observations	451	206	451	206	451	206
Adjusted R-squared	0.090506	0.151286	0.093836	0.167123	0.050111	0.138286

***p<0.01, **p<0.05, *p<0.1

Standart deviations are in parentheses.

To check the robustness of the empirical findings, outward FDI flows is utilized as the dependent variable instead of stock variable, and the results are reported in Table 3. The findings are like stock case. On the other hand, the coefficient estimates are larger for outward FDI flows without any exception. Coefficient estimates of openness (IMP) and human capital investment (EXP) shows the negative relationship with the outward FDI. The last column of Table 3 for the statistical results of model (12) shows that electoral self-determination becomes insignificant as the control variables for openness and human capital investment are added into model as it is in the FDI stock case.

Table 3: Outward FDI Flow Estimations

Variables	**(7) Outward FDI Flow**	**(8) Outward FDI Flow**	**(9) Outward FDI Flow**	**(10) Outward FDI Flow**	**(11) Outward FDI Flow**	**(12) Outward FDI Flow**
SPEECH	-0.248225*** (0.039672)	-0.070199* (0.037675)				
RELIG			-0.203959*** (0.032683)	-0.066616** (0.032272)		
ELECT					-0.184303*** (0.034600)	-0.042070 (0.032768)
IMP		-0.005753*** (0.001451)		-0.005489*** (0.001474)		-0.006333*** (0.001408)
EXP		-0.004091** (0.001814)		-0.004194** (0.001811)		-0.004274** (0.001838)
Constant	0.394166*** (0.046773)	0.579874*** (0.093164)	0.373766*** (0.044020)	0.577448*** (0.092281)	0.376701*** (0.049811)	0.600985*** (0.102327)
Selected Model	REM	REM	REM	REM	REM	REM
Observations	441	206	441	206	441	206
Adjusted R-squared	0.081255	0.115022	0.078969	0.118408	0.059508	0.10703

***p<0.01, **p<0.05, *p<0.1

Standart deviations are in parentheses.

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4. Conclusion

There is a negative relationship between freedom of speech and press and outward FDI. Religion freedom is also in a negative association with outward FDI. Citizens ability of self-determination via elections has a negative linkage to outward FDI. Country's openness and the quality of workforce are also negatively related to outward FDI. On the other hand, comparative status of those variables for host and source economies could be more important for FDI decisions. Hence, bilateral analyses may create different results in terms of the analyzed relationship.

There are a lot of factors a multinational company to process before investing in an economy. Both host economy and source economy characteristics need to be examined. Their comparative institutional environment and legislative infrastructure are significant for the profitability of a firm. And there is not a unique and satisfying answer for which feature of an economy is the most important for foreigners to invest in an economy, and what causes domestic capital owners to fly away. Bilateral analyses are important to decide on what capital owners care to canalize their resources in an economy. Discrepancy in a specific institutional factor between two economies may lead company owners to ignore shortcomings of a host economy. Hence, there is a need for more bilateral analyses to be conducted. In our study, sectoral differences are not taken into account. And firm-level data are not concerned in this study. Analyses considering firm-level data may give the preferences of firms rather than aggregate strategy of whole economy.

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