Economic Institutions and the OFDI Location Strategies of Emerging Market Multinationals: Evidence from Transition Economy Firms in the EU

Abstract:

Using an extensive data set on the Outward Foreign Direct Investment (OFDI) projects from Central and Eastern European Countries (CEEC), this study empirically examines the impacts of host country economic institutions, including property rights protection, corruption, taxation, business operating regulations and economic stability, on firms' location decisions in the European Union (EU), while controlling for other conventional determinants of location choice. From a data set of 24,726 location decisions of 951 firms for a time period from 1995 to 2010, the robust empirical evidence suggests that a corruption-free country with a lower tax burden and friendly business regulations positively influence the OFDI location choice strategies of CEEC multinationals. However, these factors vary depending on whether the host country has an advanced economy (EU15: original member countries of the EU), or an emerging economy (CEEC). The effects of economic institutions are more profound on the location activities in the advanced economies of the EU than in other CEEC. Furthermore, CEEC investors generally prefer to be located in countries that have better institutions than their home countries.

Keywords: Outward FDI, Conditional-logit, Location Choice, Emerging Economies, Economic Institutions, CEEC

Introduction

Do economic institutions matter for the decisions involving the location of Outward Foreign Direct Investment (OFDI)? Recently, this question has been largely analyzed for the OFDI activities of advanced economies (e.g., Daude and Stein, 2007). However, a significant rise in OFDI from emerging economies has heightened the need to address this issue in the context of Emerging-Economy Multinational Enterprises (EMNEs).[1]

The New Institutional Economics (NIE) framework highlights the role of economic institutions in increasing (reducing) the transaction costs in relationships between the investment risks and uncertainties in host countries (North, 1990; Dunning 2004). In contrast to conventional multinational enterprises, EMNEs are generally associated with different ownership characteristics idiosyncratic to their home countries (lower levels of economic, institutional and technological developments), their late arrival into the international business atmosphere and limited resources (Child and Rodriguez, 2005; Buckley et al., 2007; Ramamurti, 2009), thus exposing them to higher investment uncertainties in countries with weak market-supporting economic institutions. While the existing literature has suggested extensions to the traditional theory to explain the international dispersion activities of

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[1] The global share of OFDI from EMNE increased from 34% in 2005 to 51% in 2011. Although financial crisis caused a sharp decline, the projected share of OFDI is expected to gain momentum in coming years (UNCTAD, 2012).

EMNEs (e.g., Mathews, 2002; Luo and Tung, 2007), there has been little debate on the role of economic institutions in OFDI location activities.

Along these lines, this study aims to make contributions to the extant literature in several ways. First, this study builds upon the NIE setting that provides a more comprehensive theoretical framework through which to empirically investigate the role of economic institutions for OFDI location activities. Second, the study focuses on firm-level OFDI activities of firms from the emerging economies of the European Union (EU).[2] Firms from Central and Eastern European Countries (CEEC) are becoming increasingly integrated into regional and global business through OFDI, particularly after their respective countries became members of the Union (Jaklič and Svetličič, 2003). Additionally, in contrast to the existing investigations on the subject (see Pye, 1998; Devereux and Griffith, 1998; Grosse and Trevino, 2005; Tintin 2013), this study does not focus on one or multiple CEEC nor on inward investments to the CEEC. Instead, it analyzes the determinants of the OFDI location for the complete set of CEEC that joined the EU in 2004 and 2007.[3] Thus, this study provides some original empirical insights that specifically explain the impacts of various institutional factors influencing the OFDI location decisions of CEEC firms.[4] Third, the study contributes to the contemporary evidence by examining the OFDI location decisions of CEEC firms in both emerging (CEEC) and advanced economies (EU15: the original 15 member states) of the EU. Hence, this study is the first to systematically examine and compare the influences of the economic institutions of advanced and emerging economies on the location strategies of EMNEs. Finally, this study analyzes how the relative institutional differences between source and destination countries interplay with the location decisions of CEEC firms. In this way, this study contributes to the debate on the impact of "institutional distance/difference" on the OFDI activities (e.g., Bénassy-Quéré et al., 2007). Additionally, the study extends the institutional difference analysis by differentiating the effects of common borders, industries and firm size.

With regard to the selection of institutional factors, the scholarly agreement is inconclusive due the analytical difficulties pertaining to the measurements and definitions of institutional effects. However, these empirical investigations have identified several factors that influence cross-country OFDI location decisions, notably focusing on the interaction of firms and institutions for firms from advanced economies or on the inward investments in emerging economies. For instance, the prospects of property rights protection, adequate direct/indirect taxation, the absence of persistent bureaucratic ramifications, corruption, business regulatory environments (rules for opening, closing and financing businesses) and price inflation are associated with OFDI location activities (Disdier and Mayer, 2004; Cassou, 1997, Devereux and Griffth, 1998; Wei, 2000; Hoskisson et al., 2000; Cotton and Ramachandran, 2001; Lankes and Venables, 1996). Thereby, in addition to the conventional OFDI location determinants, this study employs a number of indices reflecting the institutional strength of host countries in terms of property rights protection, the level of corruption, national taxation, business regulations and macroeconomic stability.

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[2] Previous studies on emerging economies' OFDI have demonstrated the role of economic institutions on the OFDI flows/stocks while pointing out the need for a firm-level analysis (e.g., Kang and Jiang, 2012).

[3] The EU analysis is based on the rationale in which the initial international expansion of firms is concentrated regionally (Johanson and Vahlne, 1977), which is particularly the case for CEEC firms. These firms are new players in international business and only a small share (0.83%) of OFDI from CEEC goes beyond the EU (EUROSTAT, 2012).

Empirically, this study utilizes firm-level data (Greenfield OFDI projects) in the cross-country settings for a set of firms from the 10 emerging (former transition) economies of the EU (Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia) in the period from 1995 to 2010. The estimation results are obtained through a discrete choice maximum likelihood procedure within the framework of the utility maximization approach (Mcfadden, 1974).

The remainder of the paper proceeds as follows: The next section provides the theoretical background and develops hypotheses. Section 3 discusses the data and variables used in this study. Section 4 explains the econometric methodology employed. Section 5 reports and discusses the results, and section 6 concludes.

Underlying Theory and Hypothesis

Theoretical background

The complexities comprising OFDI dynamics make it difficult to analyze location determinants under a unified analytical framework. However, traditional International Business (IB) scholarship suggests different explanations of the issue (for a review of the theoretical developments of IB theory, see Faeth, 2009). Drawing upon previous theories of firms' international expansion[5] the eclectic paradigm of Dunning (1977, 1979, 1988) highlights the location determinants pertaining to the interactions of the Ownership, Location and Internalization (OLI) advantages of firms. The eclectic paradigm emphasizes rational profit-seeking OFDI decisions on the part of investors in the existing endogenous (firm-specific) and exogenous (location-specific) advantages. On one hand, the endogenous attributes, such as sophisticated production, innovation and commercial competences, enable firms to exploit their competitive advantages amongst market asymmetries. The intrinsic attributes of host locations (e.g., market potential, infrastructure, and natural resources), on the other hand, facilitate the successful implementation of firms' key strategic OFDI motives.[6] Therefore, the ensuing returns emerging from the synergies of the OLI advantages actuate market-oriented OFDI in a particular country rather than exporting or licensing them.

Although the underlying assumptions of the eclectic paradigm are demonstrated to be robust across the intricacies of firms' cross-border investments, they are considered to be too broad for a full analytical implementation and lack a uniform formalization in different aspects (Buckley and Hashai, 2008). Traditional IB theory and the eclectic paradigm in particular focus on the OLI capabilities of firms in macroeconomic environments to gain economic efficiency in host countries through firm-market interactions while lacking extra-market institutional content (Dunning, 1993a; Sethi et al., 2002).[7] The new institutional economics approach, however, associates the economic institutions (e.g., property rights protection, corruption, taxation, business regulatory provisions, and economic stability) of host countries with the economic efficiencies of investing firms. A favorable and efficient market-supporting institutional regime reduces the OFDI transaction costs in uncertain business

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[5] The eclectic paradigm (as name suggests) broadly advances the contributions of earlier IB researchers (e.g., Caves, 1971; Hymer, 1976; Buckley and Casson, 1976).
[6] Building upon OLI, Dunning's taxonomy of investment motives (Dunning, 1988, 1993a) includes market-seeking, resource-seeking, efficiency-seeking and strategic-asset-seeking OFDI.
[7] Dunning himself acknowledged the lack of institutional aspects in his original eclectic paradigm and extended his research accordingly in the later developments of the paradigm (Dunning, 2004, 2006; Dunning and Lundan 2008).

environments (North, 1990, 1991; Wheeler and Mody, 1992; Hoskisson et al., 2000; Wei, 2000; Grosse and Trevino, 2005).

The NIE approach has been developed in accordance with the relevance of the "regulative" element of general institutional theory.[8] The regulative element consists of legal provisions and rules defined by government regimes overseeing economic activities (Scott, 2001). The particular focus of the NIE approach is on the intersection of formal institutional provisions and operating firms that arise from the market imperfections that shape the investment behavior of the foreign firms (Harriss et al., 1995; Oliver, 1997). In the views of North (1990), supporting institutions are essential for market dynamics and set the *rules of the game* for economic activities. A well-functioning and market-supporting institutional environment facilitates foreign investors by eliminating or reducing unnecessary hurdles in business operations and maintaining such activities in host locations (Estrin et al., 1997; Wei, 2000). Foreign firms are likely to perceive reductions in the transaction costs and profit maximizations in the presence of well-functioning business regulatory environments and supporting policies (Hoskisson et al., 2000; Daude and Stein, 2007).

The institutional aspects (investments, governance and business regulatory systems) of a host country become even more important for the international relocation activities of an EMNE. EMNEs are widely considered to be fundamentally different from conventional multinational enterprises in several firm-specific and country-specific aspects. They emerge from highly imperfect markets with lower levels of technological and institutional developments. In contrast to firms from advanced economies, these firms generally lack the resources necessary to optimally offset the costs of foreign entry.[9] Thus, these firms are more exposed to the risks and uncertainties associated with investments in new locations. CEEC firms in particular can be more responsive to institutional aspects due to these firms' unique backgrounds compared to other emerging-economy firms. CEEC firms originate in countries that are undergoing significant structural, economic and institutional transformations in the post-communist period. Unlike multinational enterprises from other emerging economies, these firms are relatively much newer in the international business environment, and they contain weaker ownership characteristics and have inherited state-owned enterprise infrastructures (Svetličič and Jaklič, 2003). As a result of these observations, it may be fair to argue that these firms are more prone to the influences of the host-country economic institutional environments on their OFDI location activities, which can be related to their limited experience and resources in overcoming the costs associated with investment uncertainties.

Hypothesis Development

Property Rights Protection

The protection of property rights in terms of the efficient enforcement of contracts and reduced government intervention is considered an important institutional determinant of the

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[8] The institutional theory identifies three key elements of the socio-economic institutional environment: the cultural-cognitive (e.g., socially shared beliefs and expectations), the normative (e.g., socially shared identities and frameworks for mutual values/interests), and the regulative (e.g., formal/official regulations and laws) elements (Scott, 1995; Scott, 2001).

[9] A large body of IB scholars has argued the different characteristics of firms from the emerging economies and their different internationalization strategies (see among others Mathews, 2002, 2006; Luo and Tung 2007; Peng et al., 2008; Ramamurti 2009).

OFDI location decisions, as described by Smith (1976). Firms are interested in the proper enforcement of legal contracts to ensure smooth business transactions. The extent of government participation in such enforcement is crucial, as a higher level of government intervention in executing and implementing business contracts would reduce the liberty and certainty of investing firms in their economic activities in host countries. Moreover, the "foreignness" attributes of investing firms increase the costs of "exit" in the case of weak enforcement of contracts among business entities and/or bureaucratic hurdles imposed by governments for acquiring or leaving assets. Firms prefer thus to establish subsidiaries in countries where contract enforcement is overlooked by independent judiciaries and where bureaucracy exists with limited government interventions.

Contractual activities are often executed among private entities within a value chain for supply issues (North, 1991; Porter 1985). However, this notion also extends to contractual activities between government and private entities (North and Weingast, 1989; Barro, 1996; Olson, 2000). In either case, foreign firms resort to the presence of a higher level of property rights due their limited ethnic and cultural ties in host countries (Kostava and Zaheer, 1999). Thus, CEEC investors may be likely to choose a country with greater prospects for private property accumulation, preservation and protection where the government's guarantee for property rights protection is indicated through an efficient judiciary system that enforces contractual arrangements with minimum government expropriation. Therefore, the following hypothesis is posited:

> *Hypothesis 1: CEEC firms are more likely to be located in countries offering better property rights protection.*

Corruption

Corruption is another factor that may drastically affect efficiency of OFDI activities. The presence of corruption incurs additional costs on foreign investors in establishing subsidiaries in host countries. Corruption arises from the misuse of discretionary authority, unchecked or endorsed by weak legal systems of host countries (Jain, 2001). Corruption can affect the business operations through improper policy conduct, consequently increasing the costs of business (Bardhan, 1997).

However, while the literature extensively analyzes the effects of corruption in host countries on the location of OFDI, the results are inconclusive and lack agreement. Host-country corruption on the one hand incurs additional costs of establishing subsidiaries and discourages investments (Hines, 1995; Wei, 2000). On the other hand, corruption may provide investors with way to address the problem of inefficient bureaucracies (Bardhan, 1997). However, Kauffman and Wei (1999) find the opposite. They find that corruption, instead of facilitating investment, increases transaction costs due to the time consumed in such negotiations. Although, CEEC firms are expected to be more sensitive to the risks and uncertainties attached to OFDI activities, the higher level of corruption in CEEC firms' home countries may prompt investors from these countries to facilitate business operations through corruption in host countries. Due to the inconclusive significance of corruption in OFDI activities, the second hypothesis states the following:

> *Hypothesis 2: OFDI from CEEC firms are positively/negatively affected by corruption in host countries.*

Taxation

A higher imposition of taxes in terms of direct and indirect taxes increases the costs of establishing and maintaining businesses in host countries. This conclusion is evident from several studies within the European context that suggest that intra-EU trade is more responsive to the differences in tax rates in host countries (Gorter and Parikh, 2003). A meta-analysis on the effects of tax rates on OFDI in Europe by de Mooij and Ederveen (2001) finds a negative relationship between tax rates in host locations and OFDI. The study also observes a lack of unified measurements and methodologies among researchers that have examined the influences of the taxation policies in host countries on OFDI activities.

Foreign subsidiaries are always prone to double taxation, including taxation both at home and in host countries. Tax treaties or exemptions in the case of the EU, however, reduce this burden by giving firms relief from taxations in their home locations. This is particularly true for corporate income taxation, and most of the studies analyzing the effects of corporate taxation on OFDI in the EU find a negative effect of higher tax rates on OFDI. For instance, a study by Bellak and Leibrecht (2009) uses panel gravity-model settings to analyze the effect of corporate taxation on OFDI and finds a negative relationship, especially in CEEC. Similarly, for OFDI locations in Europe, Gorter and Parikh (2003) find a negative relationship, depicting a 4% increase in OFDI by a 1% decrease in effective corporate tax. Devereux and Griffith (1998) also find a negative relationship between effective taxes and OFDI locations for US multinationals in Europe.

Several studies use corporate tax as a measurement of the effect of taxation on OFDI location choices. However, corporate taxes alone cannot incorporate all the other government-imposed taxes. Foreign investors are also cautious with the costs incurred by top marginal and income taxes (de Mooij and Ederveen, 2003). The primary objective of investor firms is to reduce the transaction and subsidiary establishment costs. A higher level of fiscal burden in a host country would increase the costs of business, thus decreasing the likelihood of OFDI being located there. Thus, the following is asserted:

> *Hypothesis 3: CEEC firms are more likely to be located in countries with reduced tax burdens.*

Business Regulations

Business regulations constituting the ease of business and transactions can be an important factor affecting the location choice of OFDI. The level of difficulty in starting a business or the time it takes to establish and operate subsidiaries in host countries may affect OFDI location strategies. However, the intricacies involved in befitting measurements of business regulations hamper a proper analysis. Limited empirical evidence suggests that the time it takes to start a business in a host country and the regulations on supplies affect the location strategies of firms (Djankov et al., 2002; Botero et al., 2004).

Moreover, convenient availability and access to financial resources in host countries positively influence investors' location strategies (La Porta et al., 1997; Djankov et al., 2008). Financial governance freedom and limited government control on financial institutions in host countries provide investing firms with increased certainty and financial security. Given the constrained resources of the emerging economy firms, it may be argued that CEEC firms are particularly interested in locations with an efficient government regulatory environment

for business activities. The transaction costs vesting the establishment and shutdown of their business activities may increase with a complicated set of operating and financial regulations. Furthermore, regulations on securing financing limit the efficiency of investing firms in a host country. Therefore, the following is posited:

> *Hypothesis 4: CEEC firms are more likely to be located in countries with friendly business and financial regulations.*

Economic stability

Macroeconomic instability in host locations may disturb market activities in terms of increased transaction costs due to a higher level of input prices. As a result, a lower level of economic competition may arise, thus disrupting market activities. In addition, empirical evidence suggests that economic instability increases the risks and uncertainties attached to the outcome of investments. For example, Clausing and Dorobantu (2005) find a negative relationship between macroeconomic instability and the likelihood of OFDI locations being established in number of CEEC countries. The rate of inflation is employed as a somewhat conventional measure of economic stability where higher inflation rates would suggest a lower level of economic stability. In addition to inflation, weak price control mechanisms may decrease the profitability of investing firms. Thus, price stability and a history of low inflation in host countries reflect efficient monetary management by the government and policy makers.

Other empirical evidence contains mixed results on the impact of monetary governance on OFDI location choice. For instance, a survey carried out by Lankes and Venables (1996) among European investors finds macroeconomic stability to be an important determinant because it helps to measure the risk of investment attached to OFDI in a particular country. However, this importance is not uniform across all studies; some studies in the European context find the effect of economic stability on OFDI to be insignificant. For example, a study by Botrić and Škuflić (2006) on 15 European countries finds that inflation has no significant effect on OFDI location. Therefore, the following is posited:

> *Hypothesis 5: OFDI from CEEC firms are positively/negatively affected by the macroeconomic stability of host countries.*

Data and Variables

Data Description

The firm-level data on the OFDI projects in the EU come from Bureau van Dijk's AMADEUS database (Online version 2012).[11] The data consist of firms owned by investors (mother firms) located in the 10 emerging economies of the EU (Bulgaria, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Romania, Slovakia and Slovenia).[12] The observed time period is 1995-2010 because the data on many of the independent variables

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[11] AMADEUS is a database of comparable firms' activities based on both public and private companies in Europe. It contains comprehensive information on around 19 million companies. This dissertation, however, only takes into account firms located in the then 27 member states of the EU.

[12] An "investor" is defined as either a direct shareholder with a minimum of 10% equity in the host-country affiliate or the ultimate owner of the home enterprise with a minimum of 25% indirect ownership.

were not available before 1995. Given the fact that the data contain a year of entry for each firm, it is possible to link this cross-sectional data to the time-series information of various host country-specific location determinants.

In the dataset, 1,313 firms from the CEEC have been identified to have had subsidiaries in the EU between 1995 and 2010. 1,036 CEEC firms were from member states of the EU that invested in other member states. Table 1A (in the Annex) reveals that the majority of the firms from the CEEC, 58%, invested in other CEEC countries, and the remaining 42% firms invested in EU15. The Czech Republic (33.5%) and Poland (29.6%) own the highest number of subsidiaries, followed by Estonia (7.7%), Lithuania (7.1%) and Slovakia (6.1%). The investors from relatively new member states Bulgaria and Romania own a small share of subsidiaries in the sample, 1.4% and 1.5%, respectively. However, this trend also extends to the states that have been members the longest, as 3.1% of subsidiaries are owned by Slovenian investors and 5.1% are owned by Hungarian investors. Approximately 58% of foreign affiliates are located in other CEEC countries of the EU, and only approximately 42% are located in the EU15 countries. The largest destinations are the Great Britain (GB) (19.5%), Slovakia (18.5%) and Germany (10.5%). It is also evident that the GB is home to the largest share of affiliates in the EU15, with investors exclusively located in Poland. Another interesting feature is that almost all foreign affiliates based in Slovakia have Czech investors, and affiliates based in the Czech Republic are owned by Slovakian firms. In addition, Table 1A also reveals that the majority of OFDI from CEEC target neighboring countries. It suggests that OFDI from CEEC are mainly driven under the influence of geographical and historical proximities.

Table 1 presents the distribution of OFDI among different sectors of source and destination countries in the data. The sector distribution of the data is analyzed using European industrial classifications (NACE).[14] The majority of investments from CEEC come from the same sector, supporting the argument proposed by several studies that international OFDI activities are dominated by horizontal OFDI (e.g., Brainard, 1997; Markusen and Maskus, 2002). Moreover, vertical OFDI is also apparent, if not dominant, in the sample. Generally, OFDI distribution supports the studies that consider OFDI activities to mainly be a mix of horizontal and vertical direct investments. One limitation in this regard involves the generic distribution of sectors (manufacturing and services) in the data, which does not allow for an in-depth argument about the types of OFDI under study.

Table 1 Share of horizontal and vertical OFDI in the sample

Industrial Classification	Share in total sample (in %)
Manufacturing (parent) – Manufacturing (affiliate)	8.35
Manufacturing (parent) – Services (affiliate)	36.90
Service (parent) – Manufacturing (affiliate)	3.76
Services (parent) – Services (affiliate)	50.99
Total	100

Source: Own calculations based on AMADEUS database (2012)

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[14] The statistical classification of economic activities in the European community, *Nomenclature statistique des activités économiques dans la Communauté européenne*, which is generally referred to as NACE, is the European equivalent of NAICS (North American Industrial Classification System), consisting of up to four digits of industrial classification. We have used the first two digits of NACE (Revision.2) to divide our sample into respective sectors.

Figure 2 displays the yearly distribution of the foreign affiliates of CEEC investors in the EU. The yearly entry of CEEC affiliates confirms the generally increasing trend in the OFDI from emerging, without significantly large variance until 2007-2008. However, a decline in investments after 2008 can be observed, which appears to be a clear result of the global financial crisis. Furthermore, a slight increase from 2004 onwards depicts the increased entry of CEEC firms in general, as 8 out of 10 CEEC became members of the EU in 2004. This increased entry corresponds to the relaxed investment policies within the Union.

Figure 1 Annual entry rates of CEEC affiliates in the EU
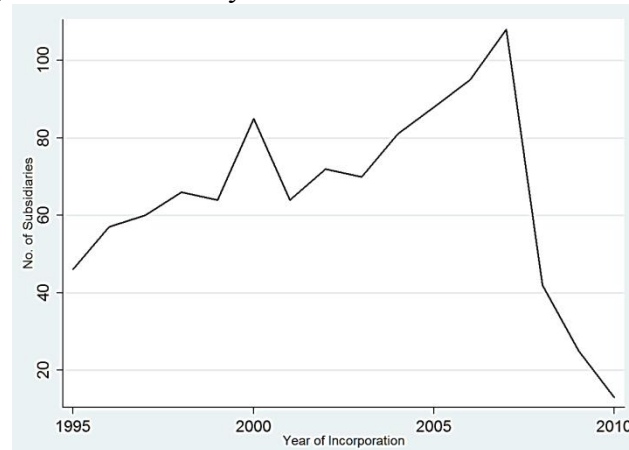
Source: Own calculations based on AMADEUS database (2012)

Variables

Dependent Variable

The dependent variable (CHOICE) is a binary variable of the location choice (entry of a foreign affiliate) in a particular country by CEEC firms from a subset of 26 possible other host countries within the EU.

Economic institution variables and measurement

The measurement of institutional variables has been a disputed issue among researchers, leading to rather controversial results. The difficulties in the measurement of economic institutions have led several researchers to employ macroeconomic variables (inflation rates, taxation) as proxies of institutional quality (e.g., Bellak and Leibrecht, 2009). Additionally, some researchers have emphasized the importance of the business regulatory provisions of host locations (e.g., Lim, 2001), thus leading to the use of different indices in OFDI location studies, particularly in gravity model settings (e.g., Tintin, 2013). However, using an index as a measurement of institutional quality has drawn some criticism due to an index's perception-based computation and the possibility of high correlations with other institutional indices (La Porta et al., 1999). Because this study examines the effects of economic institutions on firm-level location decisions rather than on OFDI flows/stocks, it can be argued that locations (countries) are selected on the perceptions of the individual investor subjected to the returns associated with the investment in a particular host country. Therefore, this study employs the Heritage Foundation's (HF) indices of economic freedom. The availability of large time-

series HF data, firm-level observations (24,726) and intra-country analysis reduces the issue of possible idiosyncratic correlation and allows the analysis of data in both time and cross-sectional dimensions. A detailed list of variables, sources, measurements and time periods is given in Table 2.

Table 2 Variable, symbols and measurements

Variables	Symbols	Type & Measurement
Dependent Variable		
Choice	CHOICE	Binary(0-1) Location choice from a set of 26 alternative countries within the European Union
Independent Variables		
Property right protection	PP	Index (0-100), 0- no property right protection, 100- full property right protection*
Freedom from Corruption	CF	Index(0-100), 0-no freedom from corruption, 100-full freedom from corruption*
Fiscal Freedom	FF	Index (0-100), 0- no fiscal freedom, 100- full fiscal freedom*
Business Freedom	BF	Index (0-100), 0-no business freedom, 100-full business freedom*
Financial Freedom	FiF	Index (0-100), 0-no financial freedom, 100-full financial freedom*
Monetary Freedom	MF	Index (0-100), 0-no monetary freedom, 100-full monetary freedom*
Control Variables		
Market Size	MKTSIZE	Log Annual GDP per capita of the host country (000s)***
Market Growth	MKTGROW	% age, Log Annual GDP growth of the host country***
Research endowments	R&D	% age, share of GDP dedicated to Research & Development***
Skilled Labor	HRSTO	Log Human Resource in Science and Technology(000s) in the host country**
Land	PDENS	Log People per square km of land area (00s) in the host country***
Infrastructure	INF	Log % of paved roads in total roads of the host country**
Proximity	Proximity	Log Euclidean distance in km between capital of home country and the alternative's****

Sources (2012, 2013): *Heritage Foundation, **Eurostat, ***World Bank, ****Own calculations

Property rights protection
In the analysis, HF's index of property rights (PP) is used as proxy of property rights protection. The index reflects that the government of the host country guarantees property rights against unlawful confiscation/closure of the private property and legal regulations for entry/exit contractual activities.

Freedom from Corruption
HF's index of freedom from corruption practices (CF) represents the extent of corruption in the host country. The index is based on Transparency International's corruption perception index.

Fiscal freedom
HF's index of fiscal freedom (FF) measures the burden of direct and indirect taxes on operating firms in the host economies (e.g., corporate tax, income tax, and top marginal tax).

Business regulations
This study uses two indices to measure the regulatory provisions that administer the business operations. First, HF's index of business freedom (BF) is derived from the time consumption and difficulty involved in starting and licensing businesses in the host country. Secondly, the index of financial freedom (FiF) represents the extent of government intervention in financial activities and banking efficiency in securing financing.

Monetary Freedom
The level of the economic stability in host countries is measured through HF's index of monetary freedom (MF). The index is established using weighted averages of the price stabilities and the inflation rates in the host country.

Control variables

In the analysis, unbiased estimations are ensured by employing a number of control variables widely believed to exert effects on the location decisions in the literature. The traditional theory has highlighted the influence of the host country's market in attracting market-seeking investments (Dunning, 1977; Coughlin et al., 1991; Pusterla and Resimini, 2007). This study uses GDP per capita as a proxy of market size (MKTSIZE) and the annual GDP growth rate as a proxy of the host country's market growth (MKTGROWTH). Scholars have further emphasized the particular relevance of knowledge-seeking OFDI for EMNE (Mathews, 2006; Luo and Tung, 2007). Thus, this study controls for the knowledge- and technology-related aspects of the host country through the measurement of the total research endowment expenditures as a percentage of GDP (R&D) and the total skilled labor/human resources in science and technology occupations (HRSTO). Higher spending on research by a country indicates the priority given to knowledge-generation activities, whereas the availability of skilled labor reflects the knowledge stock in the host country. Additionally, two variables control for the efficiency-related aspects of the host country: Population density (POPDENS) is used to reflect land prices and the availability of commercial property related to the aspects of urbanization, and communication infrastructure is presented through the percentage of paved roads (ROADS), which agrees with the existing studies on the subject (Biswas, 2002; Asiedu, 2006; Vijayakumar et al., 2010). Finally, geographical proximity (PROXIMITY) measures the distance between the capital cities of the source and the destination countries. Geographical proximity is considered an important location determinant that is associated with the internal organizational transactions, the reduction in the operating costs and the investment risks in new locations.

Methodology

This study explores the hypothesis using a simplified model of the decision-making process among CEEC investors (similar approaches can be found in the studies by Devereux and Griffith, 1998; Basile et al. 2008). The main assumptions of this model are comprised of three steps:

1. An investor (a CEEC multinational enterprise) decides to invest in another market.
2. The investor decides the most appropriate medium of internationalization (e.g., export, OFDI).
3. The investor chooses a market for future investment through the most relevant type of investment (OFDI in this analysis).

This study directly addresses the third step of this model, in which a country is chosen by a CEEC investor above other countries in the EU based on certain advantages of the chosen host country. It is assumed that such selection by a CEEC investor depends on the expected profitability perceived and the potential benefits offered by host country. The potential benefits are identified through the comparative advantage of one country over alternative countries and are associated with the country's investment environment (location-specific institutional factors) for OFDI. Moreover, country-level institutional determinants are assumed to be uniform across all alternative countries in the EU. Furthermore, it is assumed in this analysis that the investment decision was made one year prior to the actual investment, as the failure to do so would create an endogeneity issue, i.e., the foreign affiliate's investment may potentially affect the independent variables through its own activity.

To empirically test the presented theoretical model, the random utility maximization approach provides a reasonable basis for obtaining reliable empirical results (Guimarães et al., 2004). The random utility maximization approach has been extensively used in the studies on firm-level location choice since McFadden's first devised the framework (1974). This framework takes into consideration the assumption that the evaluation of a decision maker (the investor in this analysis) among available alternatives (countries in this analysis) can be represented by an expected utility (profit) function through a maximum likelihood procedure.

Applying the model specified by Guimarães et al. (2004) at the country level, we assume the existence of j choices among EU countries with j=1,….,j and N investors with i=1,…..,N. Thus, the profit derived by investor i by locating in country j is given by

$$\pi_{ij} = \beta' z_{ij} + \epsilon_{ij},$$

where β is a vector of unknown parameters, z_{ij} is a vector of observed explanatory variables, and ϵ_{ij} is a random term. Thus, the profit for investor i of locating in country j is composed of a deterministic and a stochastic component. The investor will choose the country that will yield him the highest expected profit. If the ϵ_{ij} are independently and identically distributed (iid), it can be shown that

$$P_{ij} = \frac{e^{\beta' z_{ij}}}{\sum_{j=1}^{J} e^{\beta' z_{ij}}}$$

where P_{ij} is the probability that investor i locates in country j. If we let $d_{ij} = 1$ in case investor i picks choice j, and $d_{ij} = 0$ otherwise, then the log likelihood of the conditional logit model as

$$\log L_{cl} = \sum_{i=1}^{N} \sum_{j=1}^{J} d_{ij} \log P_{ij} ,$$

Along these lines, the conditional logit regression model for the expected profit (π_{ij}) of a CEEC investor is specified as:

$$\pi_{ij} = \beta_1 PP_{jt_{i-1}} + \beta_2 CF_{jt_{i-1}} + \beta_3 FF_{jt_{i-1}} + \beta_4 BF_{jt_{i-1}} + \beta_5 FiF_{jt_{i-1}} + \beta_6 MF_{jt_{i-1}}$$
$$+ \beta_7 MKTSIZE_{jt_{i-1}} + \beta_8 MKTGROWTH_{jt_{i-1}} + \beta_9 R\&D_{jt_{i-1}} + \beta_{10} HRSTO_{jt_{i-1}}$$
$$+ \beta_{11} PDENS_{jt_{i-1}} + \beta_{12} INF_{jt_{i-1}} + \beta_{13} ROXIMITY_j + \epsilon_{ij} ,$$

(I)

where the parameters β_1 to β_6 constitute the institutional variables related to the main hypotheses discussed in Section 2, and β_7 to β_{13} constitute control variables for country-specific location choice.

Additionally, the existing literature suggests institutional differences among countries as sources of comparative advantages, and institutional differences have been found to influence OFDI activities (Levchenko, 2004; Habib and Zurawicki, 2001; Bénassy-Quéré et al., 2007). Therefore, another specification drawn to that involves the effects of institutional difference on the expected profitability of CEEC investors:

$$\pi_{ij} = \beta_1 \Delta PP_{jt_{i-1}} + \beta_2 \Delta CF_{jt_{i-1}} + \beta_3 \Delta FF_{jt_{i-1}} + \beta_4 \Delta BF_{jt_{i-1}} + \beta_5 \Delta FiF_{jt_{i-1}} + \beta_6 \Delta MF_{jt_{i-1}}$$
$$+ \beta_7 MKTSIZE_{jt_{i-1}} + \beta_8 MKTGROWTH_{jt_{i-1}} + \beta_9 R\&D_{jt_{i-1}} + \beta_{10} HRSTO_{jt_{i-1}} \qquad \text{(II)}$$
$$+ \beta_{11} PDENS_{jt_{i-1}} + \beta_{12} INF_{jt_{i-1}} + \beta_{13} ROXIMITY_j + \epsilon_{ij},$$

where the parameters β_1 to β_6 constitute the differences between the institutional indices of the home and host country.

Finally, the interaction effects of border, sector and firm heterogeneity are introduced in the baseline specification (II) corresponding to the main exogenous variables and in line with the key hypothesis of the study:

$$\boldsymbol{\pi_{ij}} = \beta'z_{ij} + \gamma'Borderdum_i * v_{ij} + \delta'Sectordum_i * v_{ij} + \varepsilon'Sizedum_i * v_{ij} + u_{ij}, \qquad \text{(III)}$$

where β is a vector of unknown parameters, z_{ij} is the vector of the observed explanatory variables specified in Specification 2, γ is a vector of the unknown parameters from the interaction between $Borderdum_i$ and v_{ij}, is a vector that contains a linear combination of all exogenous variables (institutional differences), δ is a vector of the unknown parameters from the interaction between $Sectordum_i$ and v_{ij}, ε is a vector of the unknown parameters from the interaction between $Sizedum_i$ and v_{ij}, and finally, u_{ij} is a random term.

$Borderdum_i$ represents a dummy variable that equals one if the respective affiliate of investor **i** is located in the bordering country of the investor's country and zero otherwise, $Sectordum_i$ represents a dummy variable that equals one if the investor i belongs to the manufacturing sector in its home country and zero otherwise, $Sizedum_i$ represents a dummy variable that equals one if the number of employees of investor **i** is above 250 and zero otherwise.

Tables 3 and 4 present the descriptive and the collinearity statistics, respectively. The Variance Inflation Factor (VIF) is computed before and after the regressions; the mean VIF (2.92) is well below the acceptable threshold of 10 (Neter et al. 1985), and the Tolerance level for each variable is more than 0.1. These values indicate that the estimation data do not suffer from serious problems of multicollinearity. However, the variable of host country wages (an appropriate variable to approximate efficiency-seeking behavior) has to be excluded from the specifications due to high correlation and no suitable instrument could be identified.

Table 3 Descriptive statistics of Variables

Variables	Observations	Mean	Std. Deviation
PP	24726	71.9494	18.3277
CF	24726	62.6414	21.71226
FF	24726	57.201	14.69697
BF	24726	75.1191	9.964759
FiF	24726	67.2725	15.9083
MF	24726	78.4012	13.65912
MKTSIZE	24726	9.49296	0.9190593
MKTGROWTH	24726	3.6408	2.850488
R&D	24726	1.35305	0.897347
HRSTO	24726	7.16406	1.474153
PDENS	24726	172.442	233.0282
INF	24726	52.2837	26.74736
PROXIMITY	24726	6.85167	0.6471716

Source: Own calculations

Table 4 Collinearity statistics

Variables	1	2	3	4	5	6	7	8	9	10	11	12	13	VIF	SQRT-VIF	Tolerance	R-Squared
1. PP	1													4.02	2	0.249	0.751
2. CF	0.7859	1												6.03	2.46	0.1659	0.8341
3. FF	-0.4624	-0.542	1											2.32	1.52	0.4313	0.5687
4. BF	0.4923	0.5043	-0.0568	1										1.74	1.32	0.574	0.426
5. FiF	0.44	0.3792	0.0249	0.4444	1									1.8	1.34	0.5542	0.4458
6. MF	0.5493	0.5468	-0.2187	0.3948	0.4067	1								2.87	1.69	0.3485	0.6515
7. MKTSIZE	0.7705	0.7858	-0.4829	0.5055	0.3806	0.7475	1							6.04	2.46	0.1656	0.8344
8. MKTGROWTH	-0.2098	-0.1925	0.3969	0.0239	0.102	0.0323	-0.1798	1						1.36	1.16	0.7379	0.2621
9. R&D	0.5944	0.7968	-0.6334	0.3018	0.2296	0.4608	0.6656	-0.2249	1					3.94	1.98	0.254	0.746
10. HRSTO	0.0748	0.2395	-0.3971	-0.1053	-0.0503	0.0956	0.1708	-0.2569	0.3769	1				2.47	1.57	0.4054	0.5946
11. PDENS	0.2256	-0.0802	-0.068	0.013	0.062	0.0845	0.1039	-0.1523	-0.1286	-0.2746	1			1.51	1.23	0.6615	0.3385
12. INF	0.2474	0.0975	0.1502	0.2282	0.4003	0.0866	0.1837	0.209	-0.0245	-0.6172	0.262	1		2.62	1.62	0.3821	0.6179
13. PROXIMITY	0.0662	0.0157	0.0746	0.0841	-0.0681	0.0454	0.1225	-0.0123	-0.1843	-0.141	0.1655	-0.0465	1	1.31	1.14	0.7642	0.2358
														Mean VIF: 2.92			

Source: Own calculations

Estimation Results

The estimation sample consists of the location choices of 951 CEEC investing firms (between 1995 and 2010) after adjusting for the missing observations and inconsistencies in the data. As previously discussed, the signs and the coefficients of the main explanatory variables depict the importance of the host country's economic institutions for the OFDI location decisions of the CEEC investors. Several models are tested to check the robustness of the regression models and the relative importance of key hypothesis of this study.

Main Results

Table 5 presents the results of the regression model stipulated in Specification (I) for the location choices of CEEC firms. Column (I) reports the conditional logit model estimation results for the full sample by estimating the choices by the CEEC firms from each source country of its location in each host country. The remaining columns of Table 5 represent the geographical subsets of the sample. Column (II) displays the estimation results of the location choices of 399 CEEC firms in the fifteen advanced economies of the EU (EU15), whereas Column (III) shows the results for the location choices of 552 CEEC firms in other CEEC. The underlying intention in such geographical differentiation is to detach the differences among investors analogous to the attributes of the host countries (advanced economies and the emerging economies of the EU). The test statistics of all estimations are significantly different from zero, thus allowing the interpretation of the coefficients of the estimations.

Table 5 shows that the aspects of property rights protection (PP) in host countries did not influence the likelihood of OFDI by CEEC investors. However, we may reject the null hypothesis because property rights protection is a positive and significant determinant (at the 5% level) of location choice in the advanced economies of the EU. This result lends some support to Hypothesis (1) in line with some evidence on the importance of contract enforcements and property rights in foreign locations (e.g., Kostava and Zaheer, 1999). Nonetheless, this result is insignificant for the location decisions in other CEEC (see Column III of Table 5). These results suggest that CEEC firms would prefer the countries with better protection of property rights while investing in the advanced economies of the EU rather than in CEEC. This result can be linked to the intense economic competition and high risks of exit from the markets in the EU15. Given the argument that emerging-economy firms are limited in resources and competitively disadvantageous, CEEC investors may be inclined to seek protection against potential market exit in the presence of challenging economic competition.

Freedom from corruption practices (CF) is an economically and statistically significant determinant of the choice of the location of OFDI by the CEEC firms in the EU, confirming hypothesis (2). CF is also significant (at 0.1% level) for the investments made in the EU15. However, the effect of freedom from corruption is insignificant for investors located in other CEEC. These empirical results demonstrate that, although a lower level of corruption in host countries has a strong influence on the location choice of CEEC, this influence varies in general according to the host country group. CEEC investors do not consider the level of corruption in other CEEC to be an important investment concern, which may reinforce the view that firms may resort to corruption practices to speed up business operations and transactions in host countries that possess inefficient bureaucracies (Bardhan, 1997), a typical case of the post-communist countries consisting of significant levels of corruption (Sandholtz and Taagepera, 2005).

Table 5 CLM Estimation results of the Specification (I)

	All (I)	EU15 (II)	CEEC (III)
PP	-0.000778 (0.00497)	0.0352[*] (0.0173)	0.00564 (0.00851)
CF	0.0351[***] (0.00488)	0.0265[*] (0.0132)	-0.0105 (0.00810)
FF	0.0415[***] (0.00451)	0.0405[***] (0.01000)	-0.00708 (0.00954)
BF	0.0474[***] (0.00525)	0.00225 (0.0125)	0.0592[***] (0.00974)
FiF	0.0115[***] (0.00311)	0.0211[*] (0.00915)	0.0110 (0.00585)
MF	0.00654 (0.00481)	0.0253 (0.0347)	0.0159[**] (0.00595)
MKTSIZE	-1.045[***] (0.129)	1.023 (0.675)	-2.658[***] (0.390)
MKTGROWTH	0.0308 (0.0174)	-0.0443 (0.0671)	0.0877[***] (0.0250)
R&D	-0.622[***] (0.122)	-0.670[**] (0.241)	2.027[***] (0.374)
HRSTO	0.712[***] (0.0491)	1.096[***] (0.177)	0.605[**] (0.212)
PDENS	0.00235[***] (0.000358)	-0.000445 (0.00123)	-0.00584 (0.00516)
INF	-0.0112[***] (0.00316)	-0.00569 (0.00954)	-0.00232 (0.00672)
PROXIMITY	-1.582[***] (0.0601)	-0.693[***] (0.163)	-2.640[***] (0.133)
Firms	951	399	552
N	24726	5985	6072
AIC	4460.1	1303.0	1496.7
BIC	4565.6	1390.0	1583.9
Log lik.	-2217.1	-638.5	-735.3
Chi-squared	1184.9	586.3	551.3

Standard errors in parentheses, [*] $p < 0.05$, [**] $p < 0.01$, [***] $p < 0.001$

With regard to the influence of the host country taxation issue, fiscal freedom (FF) in the host country had a positive and significant (at 0.1 %) effect on the location choice of CEEC investors in the EU. This result supports Hypothesis (3) that a country's lower tax burden increases the likelihood of choosing that country for OFDI by CEEC firms. While the coefficient of the variable remains significant for the investments made in the EU15, it is found insignificant for location choice in the CEEC, which goes against some existing evidence (e.g., Bellak and Leibrecht, 2009). A possible explanation for this contradiction

could be the difference between the prevailing tax regimes in the EU15 and the CEEC. Taxes, and especially corporate taxes, are generally lower in several CEEC, and thus the tax burden imposed on foreign investors in CEEC is comparatively lower than in the EU15.

The coefficients of business regulatory variables, i.e., business freedom (BF) and financial freedom (FiF), are also economically and statistically significant (at the 1% level) in the full sample estimation, confirming hypothesis (4) and supporting other empirical evidence on the subject (e.g., Botero et al., 2004, Djankov et al., 2002). However, business freedom turns out to be an insignificant determinant of location choice in the EU15 and a significant determinant in CEEC. The costs of starting and maintaining a business may be higher in CEEC due to inefficient bureaucracies and the institutional remnants of communist regimes. Therefore, the intrinsic attributes of CEEC institutions can make investors cautious of failed outcomes. In contrast, in the EU15, business freedom is supported through comparatively efficient business friendliness and long-standing privatizations, although these aspects are not uniform across all EU15 countries.

Similarly, the effects of host country financial freedom differ across the EU15 and CEEC, this variable appears to be a significant determinant in the EU15 and an insignificant determinant in the CEEC. Advanced economies of the EU15 are traditionally home to significant levels of inward investments, and it may be difficult to secure local financing for business operations in the presence of a large number of foreign investors. Consequently, it may also be challenging for CEEC investors to secure financing in the host countries of the EU15.

Surprisingly, monetary freedom turns out to be insignificant for the whole sample and for investments in the EU15. However, it significantly (at the 5% level) affected the likelihood of investment by CEEC investors in other CEEC. Thus, we cannot reject hypothesis (5). A possible interpretation of this result could reside in the different price control mechanisms in the advanced and the emerging economies of the EU. CEEC are considered to be comprised of excessive monetary supply and inefficient price controls. Therefore, CEEC investors may be more sensitive to the level of inflation to avoid costs of investments and profit reduction in similar economies, confirming the findings of other researchers (e.g., Clausing and Dorobantu, 2005). Moreover, CEEC investors may have experienced the adverse effects of poor monetary mechanisms in their host countries, thus making them warily conscious of the effects of macroeconomic instability.

Regarding the control variables employed in the estimations, the results in Table 5 reveal a significantly negative effect of the host country's market size (MKTSIZE) on the likelihood of establishing OFDI in the whole sample estimation and in the subgroup of CEEC. These results imply that the market differences in the sets of host countries do not possibly explain the OFDI location dynamics defined by the host market sizes. However, market growth (MKTGROWTH) positively influenced the likelihood of investments in the CEEC. This result therefore partly supports traditional international business theory that states that OFDI is attracted by the market growth of host economies. Furthermore, a negative coefficient of the host country's research endowments (R&D) can be observed in the whole sample estimation and in the EU15 subgroup, whereas a positive influence is observed in the CEEC subgroup. However, the availability of the skilled labor (HRSTO) inferred a positive effect on the location probability of CEEC investors in the whole sample and in the subsets. The implication arising from these results suggests that the knowledge-related aspects of host countries partly matter for the location of foreign affiliates by the firms from CEEC. The

coefficients of the population density (PDENS) are statistically and positively significant for the whole sample and are negative for the subset of CEEC, whereas they are insignificant for the subset of EU15 countries. The results suggest that OFDI by CEEC firms is less likely in countries with similar population densities. The results in Columns (I, II and II) also display a statistically significant negative effect of infrastructure (INF) on the location probability of CEEC firms, however, while the geographical proximity (PROXIMITY) effect is insignificant in both subsets of the CEEC and EU15 countries. Moreover, the coefficients of proximity in all three models are negative and statistically significant. These results are in line with the existing theory, which states that OFDI is negatively related to the geographical distance between the home country of investors and the host country.

Results on the effects of Institutional Difference

Table 6 shows the conditional logit estimation results corresponding to the regression specifications (II and III). The results are obtained by estimating the effects of the relative differences (institutional distance) between the institutional aspects (property rights protection, freedom from corruption, fiscal freedom, business freedom, financial freedom and monetary freedom) of the source country and the host country on the location choice of the CEEC firms.[15]

The estimation results of specification (II) are displayed in Column IV (Table 6). The results reveal that apart from property rights protection and monetary freedom in host countries, the location probabilities of CEEC investors were positively influenced by the differences between the institutional aspects of the home and host countries. It is interesting to note that the coefficients of the freedom from corruption, fiscal freedom, business freedom and financial freedom are significantly larger (compared to the results of Column I of Table 5), which implies that CEEC investors preferred to locate their affiliates in countries with comparatively less corruption, lower tax burdens, more friendly business environments and better prospects of securing financing than in their home countries. Therefore, the institutional differences inferred larger effects on the likelihood of location choices from CEEC investors than those of the institutional quality of the host countries.

It is assumed in the baseline model (Column IV of Table 6) that the differences in economic institutions affect the utility function of CEEC investors uniformly for the likelihood of establishing locations in the EU. Models V-VII of Table 6 relax this restriction by introducing the interaction effects of bordering countries, manufacturing firms and larger firms against the control group of all OFDI projects. In doing so, it is possible to examine how common border and sector/size heterogeneities respond to the institutional difference of the investing firms on the location choice. In addition to the firm-specific effects, the investments in bordering countries may interact differently for location activities on the grounds of cultural, historical and geographical connections.

The results in Column (IV) reveal that the effects of freedom from corruption and financial freedom were significantly small on the likelihood of establishing locations in bordering countries compared to the control group, while the effects of fiscal freedom and monetary freedom were significantly larger on the location probabilities of CEEC investors.

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[15] Because the study utilizes indices to capture the effects of the institutional quality, it was possible to compute differences between the country-level economic institutions.

Table 6 CLM Estimation results of Specifications (II) and (III)

| | CLM BASE MODEL | CLM INTERACTION MODELS | | |
| | All | Border | Sector | Size |
	(IV)	(V)	(VI)	(VII)
Institutional Difference				
Δ PP	0.314	0.332	0.368	0.522
	(0.258)	(0.300)	(0.322)	(0.319)
Δ CF	1.512***	1.123***	1.219***	1.536***
	(0.196)	(0.215)	(0.238)	(0.226)
Δ FF	2.441***	1.636***	2.907***	3.400***
	(0.266)	(0.286)	(0.355)	(0.314)
Δ BF	2.611***	2.922***	2.861***	3.267***
	(0.378)	(0.445)	(0.519)	(0.473)
Δ FiF	1.433***	2.389***	1.483***	1.652***
	(0.200)	(0.256)	(0.265)	(0.237)
Δ MF	-0.234	-0.385	-0.183	-0.252
	(0.163)	(0.235)	(0.185)	(0.170)
Controls				
MKTSIZE	-0.999***	-0.904***	-1.010***	-1.022***
	(0.116)	(0.126)	(0.118)	(0.120)
MKTGROWTH	0.0564**	0.0325	0.0549**	0.0563**
	(0.0173)	(0.0186)	(0.0174)	(0.0174)
R&D	-0.633***	-0.430***	-0.637***	-0.647***
	(0.114)	(0.117)	(0.115)	(0.116)
HRSTO	0.678***	0.670***	0.689***	0.692***
	(0.0490)	(0.0595)	(0.0494)	(0.0495)
PDENS	0.00219***	0.00128**	0.00216***	0.00225***
	(0.000373)	(0.000453)	(0.000376)	(0.000370)
INF	-0.0151***	-0.00975**	-0.0144***	-0.0145***
	(0.00318)	(0.00337)	(0.00318)	(0.00319)
PROXIMITY	-1.669***	-1.232***	-1.665***	-1.686***
	(0.0599)	(0.0858)	(0.0603)	(0.0607)
Interaction Variables				
PP		0.539	0.0161	-0.497
		(0.330)	(0.475)	(0.484)
CF		-0.802**	0.614*	-0.204
		(0.263)	(0.308)	(0.335)
FF		2.179***	-0.931*	-3.235***
		(0.273)	(0.464)	(0.523)
BF		-0.359	-0.468	-1.901*
		(0.424)	(0.731)	(0.766)
FIF		-2.289***	-0.133	-0.847*
		(0.275)	(0.355)	(0.384)
MF		1.622***	-0.0608	0.534
		(0.259)	(0.343)	(0.430)
Firms	951	951	951	951
N	24726	24726	24726	24726
AIC	4408.2	4206.7	4386.7	4335.0
BIC	4513.7	4360.9	4540.9	4489.2
Log lik.	-2191.1	-2084.4	-2174.4	-2148.5
Chi-squared	1202.8	1341.3	1210.5	1228.7

Standard errors in parentheses, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

These results suggest the following: First, CEEC investors tended to prefer bordering countries with relatively lower tax burdens and stable economies compared to their host countries. Second, the comparative levels of corruption and regulations concerning securing

local financing were not of significant value for CEEC investors in bordering countries. The first observation is in line with the traditional theory in which firms initially expand to neighboring countries after gaining experience in the domestic market and look for the prospects of higher profitability in similar but new environments (Johanson and Vahlne, 1977, 2009). Furthermore, it would be more beneficial for CEEC investors if investments are made in neighboring countries in which the tax burdens and higher inflation rates do not affect the profitability of firms. With regard to the second observation, CEEC firms operate in the similar business environments of bordering countries based on common historical and political ties among CEEC, where countries were either under a common regime type (communism) or consisted of one country (Yugoslavia). Likewise, the CEEC investors would be more familiar with the similar bureaucratic inefficiencies in business operations and securing financing, thus making them less sensitive to the differences between home and host countries in the levels of corruption and financial regulations.

The results concerning the sector heterogeneity of investors are reported in Column VI of Table 6. The results demonstrate that manufacturing firms preferred countries with higher freedom from corruption than their respective countries. However, the effect of differences in the fiscal freedoms of home and host countries on the location decisions was positive but smaller than those on the control group. These results suggest that investors from the manufacturing sector are, by and large, less affected by institutional differences than firms in the service sector. Manufacturing firms are nevertheless comparatively more sensitive to corruption in host countries, where supply inputs are hampered by corrupt systems. Moreover, manufacturing firms are also likely (though less than service industry firms are) to invest in countries providing more fiscal freedoms than their home countries, corresponding to higher profitability after taxation.

Finally, Column (VII) presents the estimation results by interacting the observed variables with the sizes of the firms (i.e., large firms against the control group of small firms). The coefficients suggest that larger firms were generally less affected by the country differences pertaining to fiscal freedom, business freedom, and financial freedom than the small and micro firms were. These results can be related to the resourcefulness of large firms with regard to investment risks and the uncertainties.

Conclusion

This study has sought to contribute to the existing knowledge of the outward foreign direct investment location activities of EMNEs, particularly those from the European Union. Given the substantial increase in the OFDI of emerging economies, scholars have suggested the need to modify traditional international business theory with regard to different characteristics of the firms from these economies (Child and Rodrigues, 2005; Ramamurti, 2009, 2012). Although a large body of scholars has empirically demonstrated how firms from emerging economies respond to the attributes of host country markets (e.g., Buckley et al., 2007), there has been little discussion of the role of the institutional environments that encompass investment activities. The efficiency of an institutional environment is associated with the reduction in investment uncertainties and the costs of doing/maintaining business in foreign countries (Bardhan, 1997; Estrin et al., 1997).

This study argues that in addition to conventional factors, the economic institutional environments of host countries are also important for EMNEs due to these firms' weak ownership characteristics. These firms are more likely to be affected by investment

uncertainties and business operation costs in host economies. Moreover, while it is important to analyze the role of economic institutions for the OFDI location activities in emerging economies, it is equally important to analyze the influence of economic institutions on the location activities of emerging market firms in advanced economies. Therefore, this study has empirically examined the influence of different economic institutions on the firm-level OFDI location strategies of firms from Central and Eastern European countries. The theoretical foundation of this study was built on a relatively new component of the extant literature, namely, new institutional economics (North, 1990; Scott 2001). In this way, this study has focused on the role of economic institutions in the OFDI location decisions of 951 CEEC firms for the period from 1995 to 2009. Along with traditional determinants of OFDI, six institutional indices were employed to measure the impact of the institutional strength of a host country on the location choices of foreign affiliates owned by CEEC firms in the EU. The estimation results were obtained using widely used discrete choice maximum likelihood procedures (McFadden, 1974).

Apart from the complexities raised from the measurement of institutional quality, this study was able to interpret interesting findings. The robust empirical evidence suggests that a corruption-free country with a low tax burden and friendly business regulations positively influences the OFDI location choice strategies of CEEC firms. However, these factors vary depending on the location of the country of the investment. The effects of economic institutions are more profound on the location activities in the advanced countries of the EU than in other CEEC. Furthermore, CEEC investors generally prefer to be located in countries that have more stable institutions than their home countries.

The empirical evidence presented in this study indicates two possible implications for the OFDI location choice debate. First, in addition to the traditional determinants of the location choice of the emerging economy firms, institutional factors play an important role. Moreover, with regard to CEEC firms, this role is not only limited to the location strategies adopted for investing in other CEEC economies but is also more evident in choosing OFDI locations in the advanced economies of the European Union. Secondly, the empirical findings of this study confirm that the institutional differences between the home and host countries play a major role in OFDI activities (Bénassy-Quéré et al., 2007).

This study suffers from number of limitations that should be addressed in future research. First, the firm-level data employed in this study are restricted to the location decisions of CEEC firms. To find more information about the relevance of economic institutions on the OFDI location activities of emerging economy firms, future researchers should look at OFDI from other emerging economies. This way, the similarities and differences between firms from different emerging economies can be isolated on the grounds of home-country effects. Secondly, future research should address the shortcomings with regard to the accurate measurements of the variables used in this analysis. This limitation could be overcome by using proxies of economic institutions at a more disaggregated level of explanatory power to capture the effects of unobserved institutional factors, especially informal institutions. Finally, the conditional logit estimation technique suffers from the assumption of IIA (independence of irrelevant alternatives).[16] Future research may approach this limitation by employing alternative estimation methods subject to the availability of data.

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[16] The assumption holds that there is no unobserved correlation across location alternatives.

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Table 1A   Distribution of CEEC owned foreign affiliates across OFDI source and destination countries within the EU (1995-2010)

Source	Destination																									Total	%
	AT	BE	BG	CZ	DE	DK	EE	ES	FI	FR	GB	GR	HU	IE	IT	LT	LU	LV	NL	PL	PT	RO	SE	SI	SK		
Bulgaria	1	0	0	0	4	0	0	0	0	0	0	1	0	0	1	0	0	0	2	4	0	0	0	0	1	14	1.4
Czech Republic	9	0	7	0	34	0	0	2	0	5	8	0	4	1	5	3	0	3	7	70	0	5	0	3	181	347	33.5
Estonia	0	0	0	1	0	0	0	0	1	0	2	0	0	1	0	22	1	49	1	2	0	0	0	0	0	80	7.7
Hungary	3	1	1	2	10	0	1	0	0	3	2	0	0	1	3	0	0	0	8	6	0	7	0	2	3	53	5.1
Lithuania	0	0	1	1	0	0	25	0	0	1	1	0	0	0	0	0	0	37	1	7	0	0	0	0	0	74	7.1
Latvia	0	0	0	0	1	0	30	1	0	2	0	0	0	0	0	11	0	0	1	1	0	0	0	1	1	49	4.7
Poland	4	0	0	19	46	4	3	5	0	4	185	0	2	2	1	15	1	4	4	0	0	3	1	0	4	307	29.6
Romania	4	1	4	1	3	0	0	0	0	1	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	16	1.5
Slovenia	4	1	1	3	7	0	0	1	0	1	1	0	0	1	0	1	0	1	2	4	1	1	3	0	0	33	3.2
Slovakia	3	0	0	40	4	0	0	1	0	0	2	0	1	1	0	0	0	0	0	8	0	1	0	2	0	63	6.1
Total	**28**	**3**	**14**	**67**	**109**	**4**	**59**	**10**	**1**	**17**	**202**	**1**	**7**	**7**	**11**	**52**	**2**	**94**	**26**	**102**	**1**	**17**	**4**	**8**	**190**	**1,036**	
%	2.7	0.3	1.4	6.5	10.5	0.4	5.7	1.0	0.1	1.6	19.5	0.1	0.7	0.7	1.1	5.0	0.2	9.1	2.5	9.8	0.1	1.6	0.4	0.8	18.3	100%	

Source: AMADEUS Database (online edition 2012)