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ABSTRACT

When a company decides to invest abroad, it can do it through the establishment of a new firm (greenfield investment) or by the purchase of an already existing firm. Although there is a vast empirical literature on the macroeconomic determinants of aggregate FDI, there are just a few studies examining the location-specific determinants of each entry mode. The aim of this study is to extend the previous work by Globerman and Shapiro (2005) through the analysis of panel data of 53 countries over the period 1996-2006, in order to identify the potential location-specific determinants of both M&A and greenfields. We have found evidence that there is a group of mode-encompassing variables which are common to all entry modes (such as economy's size, openness, governance and human development index) and mode-specific variables. Investor's protection and cultural variables seem to play an important role in the explanation of M&A and greenfields, respectively.

Keywords: Foreign Direct Investment, Cross Border Mergers and Acquisitions, Greenfield Investments

JEL Classification: F23; F40; G34

1. INTRODUCTION

When a company decides to invest abroad, it can do it in two different ways: i) through the establishment of a greenfield investment in new asset in a foreign country, ii) or through an investment by acquiring a pre-existent foreign firm or merging with a foreign firm. Therefore, the two main components of Foreign Direct Investment (FDI) are greenfield investments and mergers and acquisitions (M&A[1]).

We have witnessed, since the 90s, a massive increase on the volume of FDI, which has gained a major role in the process of economic growth. The internationalization of production allowed companies to explore their competitive advantages, led to the rise of competition, the increase in technology progress and the promotion of technology transfer. Consequently, literature on international business has been focused on identifying and assessing the determinants of FDI flows. Most studies, in this area, have been trying to find the key factors of FDI inflows and outflows, raising one of two central questions: i) why a company decides to invest abroad, i.e., why FDI outflows occurs; ii) or which factors make certain local attractive to FDI, i.e., why the FDI inflows are specific of certain countries. The first question is usually developed in a microeconomic perspective, bearing in mind the specific assets of the companies in the context of FDI decisions. The second question is related with the location determinants of FDI and with the characteristics of the host countries, which is studied in a macroeconomic perspective.

The empirical studies carried out at country and industry levels, have been concentrated on overall FDI, without distinguishing between the different modes of foreign investment. Actually, the studies focussed on the aggregate FDI inflows and outflows assume, implicitly, that the same factors influence all modes of FDI [Lall (2002)].

On the other hand, international M&A make up the most important means which companies use to attain the strategic aim of growth and are considered as the key mode of FDI, since the late 80s [UNCTAD (2006)].

However, it is important to state that, although there are several studies about the macroeconomic determinants of the aggregate FDI, very few of them have clearly focused on the determinants of FDI via M&A [Rossi and Volpin (2004), Globerman and Shapiro (2005), di Giovanni (2005), Aminiam and Campart (2005)] or via greenfield investments.

[1] We use the term "M&A" without distinction between "mergers" and "acquisitions". In fact, acquisitions dominate cross border M&A transactions.

In fact, after the literature review, we have concluded that most of the studies on the determinants of M&A or greenfields use a microeconomic perspective, trying to understand the companies' strategic decision on their foreign market entry.

Our approach consists on a different analysis. Therefore it is our main goal to study the macroeconomic determinants of cross border M&A and greenfield investments.

In this study, our primary interest is to evaluate the existence of mode-specific variables; these are location-specific variables that can influence in a distinctive way the preference given to one entry mode instead of another. In order to accomplish that, we have compared the estimated results for the inward FDI, M&A and greenfields equations and the outward FDI, M&A and greenfields. Although differences in the determinants of the inward and outward flows are also of some interest, they could help us to explain the empirical evidence, in which the most investor's countries are also the principal recipients.

Therefore, we have adopted as a basis the former study by Globerman and Shapiro (2005) who tried to find the location-specific determinants of cross border M&A. However, our study has two distinctive features. The first difference is that we will use a panel data of 53 countries, instead of a *cross-section* sample, over the period 1996-2006. And secondly, we will extend our analysis to the location-specific determinants of greenfield investments. Therefore, besides FDI and M&A in(out)flows, we will also include two additional equations associated with greenfield's in(out)bound.

The paper proceeds as follows. Section 2 provides an overview of the relevant literature. The sample selection and the model are explained in section 3. The main results of the study and the conclusions are presented in section 4 and 5, respectively.

2. LITERATURE REVIEW

Theoretically the analysis of the location determinants of FDI has been developed and modeled within the neoclassical and trade theory framework[2]. Empirically there have been a quite substantial number of studies, since the early 50s, which has been focusing in the analysis of mainly US outward FDI in different recipient countries[3]. Labour costs, infrastructure quality, openness, market size and economic growth seem to influence the decision where to invest [Culem (1988); Biswas (2002); Kyrkilis and Pantelis (2003)].

[2] See for example Krugman (1991); Markusen and Venables (1998) and Venables (1999).
[3] See Dunning (1993), Caves (1996), Chakrabarti (2001) and Blonigen (2005) for an update of the literature on FDI determinants.

Although there have been many empirical studies that examine the location determinants of aggregate FDI, relatively few have focused explicitly on identifying the determinants of FDI flows through the M&A mode [Rossi and Volpin (2004); Globerman and Shapiro (2005); di Giovanni (2005); Aminiam and Campart (2005)] or through greenfield, at country level.

A large number of studies identify, at a conceptual level, potential mode-specific determinants. Still others provide empirical evidence on FDI mode choice using samples of individual firms rather than using data at the country level.

Empirical evidence on the relevance of macroeconomic determinants of M&A or greenfields is indirectly supplied by studies of FDI entry mode choice [e.g. Kogut and Singh (1988); Andersson and Svensson (1994); Hennart and Reddy (1997); Barkema and Vermeulen (1998); Brouthers and Brouthers (2000); Harzing (2002) and Brouthers (2002)]. Such studies typically identify firm-specific factors conditioning the choice of FDI entry. However, to the extent that the characteristics identified differ across populations of firms in various home and host countries, they could contribute to potential differences in location-specific differences across home and host country firms in choosing the M&A mode in detriment of greenfield investments [Globerman and Shapiro (2005)].

The majority of the research suggests that the choice of a cross border M&A as a mode of entry into a foreign market is often influenced by: (1) firm-level factors such as multinational experience; local experience; product diversity and international strategy; (2) industry-level factors such as technological intensity, advertising intensity and sales force intensity; and (3) country-level factors such as market size and growth in the host country, cultural differences between the home and host countries, and the specific culture of the acquiring firm's home country (namely in terms of uncertainty avoidance and risk propensity). In table 1 we attempt to systematize empirical research that has been done about FDI entry modes determinants.

(Insert table 1)

As it has been stated before, few studies have been done to the analysis of macroeconomic determinants of cross border M&A and greenfield investments. Actually, as far as greenfields is concerned, the only available studies are at the firm level.

Recently, some works have been published on the location-specific determinants of M&A.

Globerman and Shapiro (2005) specify and estimate econometric models of the determinants of the inward and outward M&A in a 154 countries sample, across the period

1995-2001. Using the data published by UNCTAD, the authors identify variables that are potentially M&A mode-specific. They conclude, however, that in general, the most important variables which influence inward and outward M&A are the same that really influence the overall FDI. However, there are some differences in the structure of M&A and the models of aggregate FDI. In particular, the economic growth is an important determinant of aggregate FDI, but not of the M&A flows.

Another study on cross border M&A was performed by Evenett (2003), who evaluate, in banking system, the effect of US acquisitions in 13 OECD countries. The author presented evidence that the US acquisitions depended on a group of characteristics of the target country, namely: gross domestic product (GDP), distance from the United States, corporate tax rate, average tariff rate and legal system.

Rossi and Volpin (2004) reported the results of an econometric study of cross-country determinants of international and domestic M&A. They found that firms in countries with weaker investor protection are more likely to be acquired than those in countries with stronger investor protection, whereas buyers are more likely to be from countries with relatively strong investor protection.

More recently, there have come out a number of studies that include financial variables as determinants of international M&A. di Giovanni (2005) used the gravitational model to estimate the macroeconomic determinants in international M&A during the period 1990-1999 based on a large panel data sample. The author estimated the importance of several macroeconomic, financial and institutional variables in the explanation of these flows of international M&A. In particular, he realised that the size of the financial market measured by ratio of stock market capitalization to GDP has a strong positive correlation to M&A. This result reinforces the importance of domestic financial conditions in the stimulus of international investments, during the boom of the 90s. Additionally, he concluded that M&A flows tend to increase when directed to large economies with the same official language.

Aminian and Campart (2005) have also developed a gravitational model to analyse the macroeconomic determinants of all the M&A between Europe and Asia announced from 1/1/1999 to 31/12/2004. The authors identified some factors underlying the activity of M&A, such as the degree of openness, the exchange rates and, just as di Giovanni (2005), the financial deepness, measured by ratio of stock market capitalization to GDP.

Kamaly (2007) used a dynamic panel model to study the macroeconomic determinants of M&A in developing countries in the 1990s. The results show that the international interest rate affects the M&A in the anticipated negative direction and the openness has a positive

effect, but quantitatively its effect is minimal. On the contrary, the author confirmed that depreciation in the domestic exchange rate affects strongly and positively affects M&A in developing countries. Finally, and unexpectedly, the author concluded that a high level of activity and deepness of the stock market in developing countries reduces the amount of M&A directed to these same countries. This is an unexpected result once the majority of empirical research using data from the US has confirmed, most of the times, a positive connection between the stock revenue and M&A [di Giovanni (2005)].

To sum up, literature suggests that, while some characteristics seem to be relevant to all the entry modes of FDI, (mode-encompassing), there can be specific-location determinants (mode-specificity) that make, for example, M&A more attractive than greenfield, or vice-versa. In the next section we will define the data and the methodology used.

3. DATA SELECTION AND MODEL

Our empirical investigation consists in specifying and estimates six different equations to identify the cross country determinants of FDI, M&A and greenfields inflows and outflows.

To this purpose, we will extended the empirical model adopted by Globerman and Shapiro (2005), to test if there are, besides M&A mode-specific determinants, variables which are greenfields mode-specific.

Based on the specification of the model described in the next sub-section, we intend to test if the potential specific M&A and greenfields' variables are only statistically significant in the M&A and greenfields' equations, respectively. We are interested in identifying the mode-specific variables. That is, we will speculate about the existence of entry mode specific variables; these variables only explain each entry mode and do not determine the flows of the overall FDI.

Following the identification of the aims of the investigation, it is necessary to define the data and the methodology used in our model estimation.

3.1 Data Selection

Since our goal consists in the investigation of the mode-specific variables at the country level, we have chosen to include in the sample a reasonable diversity of countries, both developing and developed countries.

Unlike Globerman and Shapiro (2005) who have included in their analysis 154 countries, that is, the all group of countries available by UNCTAD database, we have decided

to carefully select some countries. So, in the final sample, we have only included the countries that, in the majority of the sample years, observed in(out)flows of FDI, M&A and greenfields different from zero. This criterion allowed us to obtain a 53 countries sample, as described in table 2.

(Insert table 2)

In spite of the possibility of a biased sample, this criterion allowed us to exclude a group of countries that didn't show relevant M&A and greenfields, during the sample period.

We selected 53 countries over the period 1996-2006. Nevertheless, for inward and outward greenfield investments, we could only cover the period 2002 to 2006, once we do not have the data for the previous years. Therefore, we have a panel data model, with 53 cross section observations (countries), distributed over 11 years, for FDI and M&A flows, and 5 years, for greenfields.

The database we will use for the dependent variables was recently made available and published by UNCTAD[4] on FDI, which allows us to make comparisons between those types of variables.

This database covers the inflows (inbound investment) of foreign direct investment and the outflows (outbound investment) of FDI for a great number of developed and developing countries, over several years. It allows, also, the analysis of both cross border acquisitions of domestic companies (inbound) and cross border purchases by domestic companies (outbound). For greenfields projects, UNCTAD only made available the number (not flows) of greenfields that each country has realized and has been recipient and it is only from 2002 onwards, as stated before.

In a short way, we will compile data of the six series related to the in(out)bound of aggregate FDI, cross border M&A and greenfield investments, in 53 countries over the period 1996-2006 (2002-2005, for greenfields).

In table 3 we summarize the broad characteristics of FDI data series. The values, in US dollars, of the total FDI and cross border M&A are expressed as natural logarithms. As for the greenfields, the values refer to the number of investment projects, also in natural logarithms. However, because there are two different units, it is not possible to compare the 6 variables in a direct way.

(Insert table 3)

[4] Through UNCTAD annual publication - *World Investment Report (WIR)* or through *FDI/TNC Database*.

We can then observe that the 6 variables are strongly correlated, especially between the FDI and M&A flows, probably due to the fact that greenfields are expressed in a different unit. Therefore, countries that show high flows of inflows (outflows) of FDI are, in average, more likely to observe large amounts of cross border sales (purchases) of companies, and also, be the destination (source) of large number of greenfields.

On the other hand, empirical evidence suggests that FDI growth since 2004, just like what had happened in the late 90s, has been done exclusively on the account of international M&A[5]. There is also evidence of diverging growth tendencies between the series of M&A and greenfields, which is not surprising, once companies tend to consider these two entry modes as alternative options.

As far as FDI and M&A flows is concerned (because these are the ones we can make direct comparisons), data also suggests that both the inflows and outflows of FDI are less concentrated than M&A flows.The variance of the logarithmic outcomes is often used as a measure of concentration [Globerman and Shapiro (2005)]. The variance of the logarithm of FDI series is lower than that of inbound M&A (IN-M&A), and that of FDO series is lower than the outbound M&A series (OUT-M&A). Consequently, we can suggest that cross border M&A activity, both inward and outward, is therefore concentrated among a smaller number of countries compared to FDI and FDO.

In short, given the importance of M&A activity as a source of FDI, and given the high correlation between the 6 variables, we are expecting to find strong similarities between the estimated equations for aggregate FDI and for the ones related to the two alternative entry modes.

However, there are significant differences between the three series, and we hope these differences can reflect the specific advantages of each country, which may be identifiable through the econometric analysis.

On the next section, all the variables will be described in detail.

4.2 Model

Besides the use of panel data sample, we believe that another feature that will allow us to deepen the analysis by Globerman and Shapiro (2005), consists in adding to their four regressions (two for FDI and two for cross border M&A) another two, related to the greenfield investments.

[5] UNCTAD (2006), *WIR*.

We will introduce two new regressions so that we will be able to incorporate the cross-country determinants of greenfields, and, consequently, we will estimate six separate groups of equations that obey to this general model:

$$Y_{it} = \beta_0 + \beta_1 GDP_{it} + \beta_2 GDPGROWTH_{it-1} + \beta_3 GI_{it} + \beta_4 OPENNESS_{it} + ... + \beta_4 X_{it} + u_{it} \quad (1)$$

i = 1, 2,….53 countries

t = 1996, 1997,….., 2006

Y_{it} represents each one of the 6 dependent variables described before, for the country i in the year t, i.e., the inflows and outflows of FDI, international M&A and the number of greenfields projects that country i was the destination or the source, in the year t[6]. Variable X represents the vector of control variables that will measure the location variables specific to each entry mode.

The other variables present in the model (GDP – Gross Domestic Product; GDPGROWTH – GDP Annual Growth Rate; GI – Governance Index and OPENNESS – Degree of Openness) are some of the explanatory variables that we intend to test, as being those that conceptually affect, equally, all the modes of FDI.

Unlike Globerman and Shapiro (2005) we will estimate those regressions in a panel data context and we will choose the methodology that, according to us, is the most appropriate.

The panel data analysis allows us to obtain more observations, more data variability, a greater number of freedom degrees, less multicollinearity problems, and so, a better estimate efficiency. In fact, these factors make up some of the advantages of using a panel data instead of using a cross-section analysis. Using a panel data allows us to combine the diversity of individual behaviours with the existence of dynamic adjustments [Marques (2000)]. The principal advantage of estimating with panel data is, with no doubt, the revelation of individual heterogeneity, which is often neglected in cross or time-section estimates, giving origin to biased results (Verbeek (2004) e Baltagi (1995)). This heterogeneity is captured by the fixed specific effects of the individuals (countries, in this case) or by the components of random effects, depending on the characteristics of the sample.

To sum up, the panel analysis might enrich the empirical research in a way that could not be possible if we used only time or cross section samples [Gujarati (2006)]. This is, in fact, the main reason why we decided to choose this type of analysis, in detriment of the one by Globerman and Shapiro (2005).

[6] The model is specified such that both dependent variables and GDP are measured in logarithms, with GDP coefficient measuring the elasticity of FDI series.

We will use the fixed effects model (FEM) [7] and the random effects models (REM) for the estimation of our panel data. Another possibility consists in using dynamic models, but, because it would take six consecutive years so that a country could be included [Gaud *et al.* (2005)] and, because in the greenfield's series we only have data from 2002 to 2006, we chose not to use this methodology in our work.

In order to choose the most appropriate estimator, we will use a statistic test, namely Hausman Test (1978). The Hausman statistic tests the null hypothesis that REM is appropriate for a particular sample compared to the FEM and allows us to decide which model gives the best estimation. The Hausman test allows verifying the presence of correlation between the unobservable heterogeneity and the explanatory variables [Wooldridge (2002)][8]. Additionally, we will present standard errors corrected for heterocedasticity and covariance based on the White's (1980) heterocedasticity-consistent standard errors method[9].

For each equation we have done a variety of alternative specifications, in order to assess the isolated effect of some variables. The problem of multicollinearity, which is usually reduced by the use of panel data, has become clear in some situations where the correlation of the explanatory variables was high[10], leading us to specify equations in which those variables were regressed separately.

4.2.1 Variables Specification

4.2.1.1 Mode-Encompasing Variables

In the specification of the explanatory variables, we will use, as a theoretical base, the studies related with FDI and entry mode determinants and, also, the studies that have recently focused on macroeconomic determinants of M&A, in particular, the Globerman and Shapiro'(2005) work.

[7] The fixed effects method is also know as Covariance Analysis or Dummy Variables Model. This model can also be interpreted as a classic regression model. If *N* is small enough, then the model can be estimated by OLS with the same regressors and dummy variables indicating the different countries (to identify the firms effect), the different years (to identify the period effect), or both of them [Greene (2000, p. 561].

[8] This consists of comparing the coefficients of the estimates for FEM and the estimates for REM. The null hypothesis is that the coefficients on both models are quite similar. If the coefficients differ from each other, the fixed effects estimation is simultaneously consistent and efficient. Consequently, if we do not reject the null hypothesis, we will interpret the REM results. On the other hand, if we reject the null hypothesis, we will analyze the FEM results.

[9] Violation of the assumption that the residuals are homocedastic has potentially serious implications on inferences based on these results. Thus, the application of panel data regressions, ignoring the possibility of a non-constant disturbance variance (heteroscedasticity) would lead to estimators that are unbiased and consistent but no longer efficient.

[10] See Table 5 – Descriptive Statistics and Correlation Matrix of Independent Variables.

Mode-encompassing variables are those which we hope influence FDI, no matter the entry mode adopted in foreign markets.

Like Rossi and Volpin (2004), we will include in the analysis the size of the economy using as a proxy the natural logarithm of Gross Domestic Product (GDP) and its growth rate (GDPGROWTH) as two variables susceptible of increasing the aggregate FDI.

It is expected that large markets are capable of attracting FDI due to economies of scale in production and distribution for goods sold in the host countries. On the other hand, large markets are, very often, associated with agglomeration economies that reduce the costs for all producers in that market. Conceptually, these advantages increase the possibility of inward FDI, regardless of mode.

Simultaneously, multinationals located in large markets, are more inclined to invest abroad because their position in a large domestic economy brings them firm-specific advantages. Kyrkilis e Pantelidis (2003), while studying the macroeconomic determinants of outward FDI, proved that the GDP is truly the most important factor in explaining these flows.

The growth of GDP (GDPGROWTH) will be included to capture future economic opportunities and the existence of economic rents [Globerman and Shapiro (2005)]. Specifically, a fast economic growth can contribute to some instability in the inputs and outputs markets that created above average profit potential for investors who identify those opportunities and possess the resources to exploit those opportunities. That is why we expect the growth of economy is positively related to the three variables that measure capital inflows [Serven and Solimano (1993), Culem (1988), Globerman and Shapiro (2005)].

As for the relation between GDP growth and outward FDI, Globerman and Shapiro (2005) showed a negative correlation. According to these authors, a growing economy attracts not only foreign investors but it also encourages domestic companies to invest locally.

Actually, we believe that the growth of GDP in the previous year causes a rise in the economy that will then stimulate local production. However, this market will be more saturated, due to internal competition, and, consequently, local companies will tend to invest abroad in order to avoid local competition [Bae and Hwang (1997)]. In fact, this seems to be the tendency observed in large developing countries[11], namely China and India, where the fast economic growth "(...) is causing them concern about running short of key resources and inputs for their economic expansion" [UNCTAD (2006: 164] and foreign investment comes

[11] The FDI from developing and transition economies reached $ 133 billions, in 2005, accounting for 17% of world FDI outflows [UNCTAD (2006)].

as a viable strategy. Unlike Globerman and Shapiro (2005), our hypothesis predicts that a rapid economic growth causes a rise in local markets competition, which leads to a saturation point and induces to a growth in outward FDI.

As for the variable governance environment (GI) it is expected that it affects both FDI and FDO flows, as stated by Globerman and Shapiro (2005).

Specifically, we can expect that "well governed" host countries attract more inward FDI compared to other countries that offer "less attractive" environments for private investment. Similarly, "well governed" countries can be expected to spawn companies with the capabilities to be competitive in foreign markets. This variable associated with governance infrastructure refers to a country's political, institutional an legal environment and it will be attained from a broad composite index that encompasses a wide diversity composed of country specific features, such as political instability, macroeconomic and regulatory policies, rule of law and the extent of corruption. Governance index is also likely to be relevant to all the modes of FDI, including M&A and greenfields.

This broad measure we intend to use, following Globerman and Shapiro (2005), was initially developed by Kaufmann, Kraay and Zoido-Lobaton (1999) and it has been, over the time, constantly updated and expanded by Kaufmann, Kraay and Mastruzzi (KKM) (2007). In the estimation, we will use an aggregate GI measure, through the calculus of a simple arithmetic average of the 6 sub-indices associated with the country's governance index (political stability and absence of violence; government effectiveness; regulatory quality; rule of law; control of corruption and voice and accountability).

Another FDI determinant is the Human Development Index (HDI), available by the United Nations. This index is composed of three sub-indices: GDP per capita, educational literacy and enrolment and life expectancy at birth. While, the health and education components are direct measures of human capital, the GDP per capita is a measure of wealth that we will use as a proxy measure for the amount of physical infrastructure[12].

Consequently, this index gives us an indication of the level of physical and human infrastructures in a given country, which we expect to be positively related to the FDI outflows. We expect these factors to be associated to the ability of companies to create firm-specific advantages; these advantages have been identified as necessary to international production [Dunning (1993), Caves (1996)]. That is the reason why we will include this variable only in the three equations related to FDI, de M&A and greenfields outflows.

[12] Rossi e Volpin (2004) used in their study the GDP per capita as a proxy of countries' wealth.

Additionally, we intend to include the degree of openness (OPENNESS) measured by the sum of exports and imports to the country's GDP. This variable is often used as a proxy to country's trade restrictions.

So, our hypothesis predicts that countries which exhibit higher levels of openness tends to attract more foreign investment, due to the reduction of trading costs. Actually, the most common argument is that a high degree of openness encourages either FDI or trading flows [e.g. Culem (1988), Janicki e Wunnava (2004)]. Consequently, a positive sign between the degree of openness degree and inward investments will be expected. Some studies, namely those by Aminian and Campart (2005) and Kamaly (2007) refer, likewise, the importance of this variable in explaining the activity of intermational M&A.

Kyrkilis and Pantelis (2003) refer that the liberalization of international economic trade in a country is expected to positively influence the outflows of all kinds of investments. First, the absence of capital controls allows the unrestricted funding of investments abroad. Second, an export-oriented economy permits firms to acquire relevant information relevant about foreign markets (knowledge, skills about organising foreign operations and marketing their products internationally). Finally, companies can choose to combat import competition through their involvement in the home markets of the import producing firms and a certain mode of retaliation is FDI.

We could have also introduced other variables such as the inflation rate, the country corporate tax and the labour cost. However, since the principal aim of this study is not to investigate the determinants of aggregate FDI, we chose not to include any more FDI mode-encompassing variables.

4.2.1.2 Mode-Specific Variables

From the potential variables that make M&A more attractive, the most obvious are those related to the liquidity and the efficiency of capital markets.

Like Globerman and Shapiro (2005), we intend to use the ratio of stock market capitalization to GDP (CAP), as one of the possible liquidity measures of those markets, and we hope that both acquisitions and sales of domestic companies are positively correlated to the markets liquidity. In the same way, di Giovanni (2005) and Aminian and Campart (2005) introduced this variable as an indicator of the size of the financial markets and observed a strong positive correlation between this and international M&A activity.

As an indirect measure of the markets efficiency, we will use, as suggested by Rossi and Volpin (2004), the investor protection index (INVPROT), defined as an interaction of an

index of shareholders rights with an index of the rule of law. Both indices were defined, previously, by LaPorta *et al.* (1998) and later, extended to transition economies by Pistor *et al.* (2000).

According to Rossi and Volpin (2004) international M&A may be facilitaded by legal systems and degree of investor protection in both home and host countries. Particularly, LaPorta *et al.* (1998) claim that the countries whose legal system originates in English Common Law are those who offer better shareholder protection, better protection of property rights protection and are more flexible to cope with economic changes, thereby offering better financial intermediation. So, a country's legal system has been identified as a critical determinant for the development of financial markets. Also, the shareholders protection has been associated to those markets [LaPorta *et al.* (1997 and 2000)][13].

To sum up, we will use two variables capable of influencing the country' M&A activity, namely: 1) the stock market capitalization as an indicator of the liquidity and size of the capital markets and 2) the investor protection index, as a proxy of the efficiency of these markets. These variables will be added to the 6 suggested equations and we expect them to be significant only in the M&A equations.

In the specification of greenfields specific variables, we will have to rely on the firm-studies of entry mode choice. Since the empirical research on greenfields macroeconomic determinants is almost inexistent, we have decided to consider only the country-level variables that were included in the firm-studies of entry mode choice.[14]

According to Kogut and Singh (1988), cultural factors can be pointed as the country-specific determinants which will have a greater impact in the choice of entry mode. According to these, the number of greenfield projects tends to increase with cultural distance. On the contrary, M&A activity tends to diminish with cultural distance, as the risk associated to the process of integration post-fusion will be higher. The authors believe that cultural context tends to be an indicator of the risk level of the country. Similar conclusions were drawn by Hennart and Reddy (1997), Harzing (2002) and Barkema and Vermeulen (1998).

Taking as a base the pioneer work by Kogut and Singh (1988) on the importance of cultural factors, we intend to test if these are positively correlated to greenfields.

[13] The introduction of a dummy variable for the legal system, which would assume the value 1 if the country had a legal system based on *commom law,* and zero, otherwise, doesn't allow us to estimate the regressions by the Fixed Effects Method (FEM). As this variable would, in most of the cases, be zero, the FEM couldn't capture the individual heterogeneity, leading to a singular matrix. Consequently, because estimating with this method is impossible to be put into practice, we have decided to exclude this variable from the study.

[14] See table 1 for a summary of the empirical research on determinants of FDI entry mode choice.

To this purpose, we will include in the 6 regressions, two variables associated with the countries´ cultural factors.

One is related to the cultural distance (CD), the other is related to the country's uncertainty avoidance (UA). Our hypothesis predicts that, the higher the cultural distance and the more adverse to uncertainty the country is, the higher the number of greenfields, in comparison to other FDI modes. This happens due to the risk, especially organizational risk, in terms of integration of the parent company in a foreign management.

The measures of both variables are the result of a work by Hofstede (1980), who considered that the differences in national cultures changed substantially within 4 dimensions: 1) masculinity; 2) power distance; 3) uncertainty avoidance and 4) individualism.

Concerning the variable Cultural Distance (CD) we will have to use a composite index of the 4 cultural dimensions, for each country in our sample.

As for the cultural dimension - uncertainty avoidance (UA), which refers to the society tolerance towards uncertainty and ambiguity, namely, the tolerance to accept new management practices, we will use the index that Hosftede proposed to this cultural dimension.

Table 4 presents in detail all the variables included in the estimations and their sources.

(Insert table 4)

In table 5 we present the means, the standard deviations, and the correlation coefficients of independent variables. The highest correlation is observed between the governance index (GI) and the human development index (HDI), the stock market capitalization (CAP) and the investor protection index. These high correlations indicate the generality and scope of the GI index. On the other hand, as expected, we observed a high correlation between the two variables associated to the cultural distance, which has led us to show the estimating results where the variables CD and UA were regressed, separately. Finally, we have concluded that CAP, attained by the ratio of stock market capitalization to GDP, was somehow related to all the others. In fact, as this variable is associated to capital market liquidity and has GDP as a denominator (which as also part of the description of OPENNESS and HDI, for example) this association was to be expected. Therefore, we present, in the next section, the estimating results where the variable CAP was, sometimes, excluded.

(Insert table 5)

6. EMPIRICAL RESULTS

According to the panel data methodology previously described, we present, in tables 6 to 11 the estimating results of the FDI series. We also present the attained results either by using the FEM or the REM, corrected from heteroscedasticity using White's method (1980). We will use the Hausman Test (1980) to decide for the most appropriate estimator in each sample.[15].

Several alternative specifications were tested in an attempt to assess the explanatory power of some independents variables.

6.1 Inflows Regressions

The basic results for the three inbound investments models are expressed in tables 6 to 8.

(Insert tables 6 to 8)

One of the main concerns in analysing these three tables is to verify if the potential specific M&A and greenfield variables are statistically significant in their own equations and not in aggregate FDI equations (FDI variable), i.e., we are interested in identifying the specific variables of the two entry modes.

As far as the mode-encompassing variables (GDP, GDPGROWTH, OPENNESS, GI) we can see that the majority is positively significant in almost all the estimating equations, as expected.

However, there are two differences related to these variables when we consider the three tables.

First, the variable GDPGROWTH seems to influence in a positive way the aggregate FDI inputs, not via M&A, once the variable is not significant in the M&A inflows equations (table 7). This result seems to be in accordance with the results attained by Globerman and Shapiro (2005), which suggest that the growth of economy represents the potential for economic rents to be created by the growth process. However, the appropriation of such rents may be associated to the establishment of new firms. Identical results were obtained by Zejan (1990) and Brouthers and Brouthers (2000) who stated that the growth of host markets

[15] Therefore, in table 6, for example, when we compare the equation (1) estimated by FEM with equation (9), estimated by REM, we verify that the observed value by the Hausman test is 13,532, being the critical value of the qui-quadratic distribution for 2 degrees of freedom at significance level of 1%, of 11,345. Under these circumstances, because the observed value is higher than the critical value, the hypothesis that REM might be appropriate is rejected.

encouraged greenfields instead of M&A. So, we have concluded that, although this variable is not significant in the M&A equations, it is important to explain FDI and also greenfields.

A second difference concerns the results obtained in the equations associated to greenfields (IN-GREEN), in which the variables related to GDP and OPENNESS are not significant when regressed together with cultural distance variables.

As for the mode-specific variables, we observed that the variable associated with markets' capitalization (CAP) is significant in all the equations. So, we did not get any evidence to prove our hypothesis about capitalization, as an indicator of the deepness of the stock markets, to be M&A mode specific. On the contrary, empirical evidence suggests that this variable affects all entry modes in a positive and undistinguished way.

Nevertheless, the investor protection variable (INVPROT) seems to influence only M&A. In fact, when we look at the three tables, we see that this variable is not significant in any of the equations associated either to FDI or greenfields. Its importance is only enhanced in M&A regressions when CAP, CD and UA variables are excluded. These are the variables with which INVPROT presents an important correlation[16,17].This result suggests that the higher the investors protection is, the more likely are companies to prefer M&A as an entry mode.

As for the two variables related to cultural distance (CD e UA) we have also found some evidence that they are relevant in explaining greenfields. We can see, on table 8, that these two variables are significant in explaining greenfields (and not in explaining aggregate FDI or M&A), but only when estimated, separately. One should not be surprised by this, since the UA variable is one of the cultural dimensions included in the cultural distance index, showing, between the two, a significant correlation. Therefore, the empirical evidence suggests that, separately, the two cultural distance variables enhanced greenfields, in detriment of M&A, according with Kogut and Singh (1988).

In short, we have observed there is a strong correspondence between the three series of investments and the mode-encompassing variables. In fact, the size of the economy, its openness and governance degree have a positive effect in all the entry modes positive, in an undistinguished way. One of the differences we can identify regards the influence of economic growth, which seems to affect, primarily, greenfields. As for the corroboration of M&A's potential specific variables, we did not find evidence, just like Globerman and

[16] See table 5 – Descriptive Statistics and Correlation Matrix of Independent Variables.
[17] This high correlation suggests that the investor protection impact on CAP can be, partially, due to its role in the growth of markets liquidity.

Shapiro (2005), that the capitalization of the stock market is specific to M&A inflows. However, we observed that the INVPROT is only significant in M&A equations, making it a specific factor of that entry mode. Additionally, we have found sufficient statistical evidence which allows us to conclude that variables associated cultural distance and aversion to risk, when regressed separately, increase the probability of the investments being made via the establishment of new branches.

6.2 Outflows Regressions

The basic results for the three outbound investments models are expressed in tables 9 to 11.

(Insert tables 9 to 11)

There is a considerable symmetry between the regressions related to the inbound and outbound investments, in what concerns to the variables associated with markets' size (GDP) and the governance index. The results allow us to conclude that larger economies show more FDI inflows and outflows, no matter the investment form. Likewise, "well governed" countries encourage not only multinationals to establish firms abroad, but they also facilitate the growth of domestic multinationals, which, on their turn, establish their own branches abroad, too.

Additionally, the human development index (HDI) reports a positive and significant effect in all the outflows equations. As expected, we have concluded that companies located in countries with good physical and human infrastructures show a greater ability in creating firm-specific advantages necessary for international production.

Still referring to the mode-encompassing variables, we enhance two important differences related to the regressions presented in tables 6 to 8.

The first is related to the variable GDPGROWTH which presents a positive and significant effect in the FDO and OUT-M&A equations, but not in the OUT-GREEN equations. This positive relationship, as opposed to Globerman and Shapiro (2005), comes to reinforce our hypothesis that a country with a high economic growth (lagged one year) ends up stimulating domestic firms to invest abroad, in order to compensate the saturation of domestic markets. On the other hand, we have realized that companies in countries with high growing levels prefer M&A as an entry mode. If a high GDP's growth attracts, primarily, investments via *greenfields*, on the other hand, it also pushes companies into foreign expansion through M&A, maybe because this is the quickest way to materialize their internationalization advantages. In fact, according to the publication *World Investment Report*

(2006) from UNCTAD, this seems to be very clear in large developing economies, such as China and India.

A second difference concerns the variable OPENNESS which, as opposed to the inflows equations, is only significant in the FDO equations, although it shows, as expected, a positive sign. In this case, evidence suggests that, the more open to the exterior the country is, the more it will invest abroad. The same result was attained by Kyrkilis and Pantelis (2003). However, we did not find evidence that the degree of openness affects directly the purchase of companies or the establishment of new affiliates abroad.

As for the M&A specific variables we have found evidence that allows us to conclude that the deepness and the size of capital markets, measured by the variable CAP, have a positive and significant effect in the FDO and M&A equations (tables 9 e 10). Consequently, at least in what outflows concerns, capitalization seems to stimulate companies to invest abroad, especially through M&A. However, there is no evidence that CAP is an M&A specific variable, since it is significant in the overall FDO equations.

In what concerns the second M&A specific variable – INVPROT – we have seen it is significant and has a positive sign, according to what was expected, only in the M&A equations and when regressed together with GDP and GDPGROWTH (equation 3 in table 10). Additionally, we have observed that, in greenfields equations (6), (7) and (8) from table 11, CAP is also significant, but it shows a negative sign. So, both results corroborate our hypothesis that the higher is the investor protection, the higher is the likelihood of companies to invest abroad through M&A, in detriment of greenfield investments. Therefore, there is some evidence that CAP is an M&A specific variable.

In a symmetrical way to the results attained in the inflows models, the two cultural distance variables (when regressed, separately) are only significant in greenfields equations. This result proves our hypothesis that when the countries' cultural distance and aversion to risk are high, companies tend to invest less, but when they invest, they choose to do it via *greenfields.* This latter result suggests, with some limitations, that cultural variables may be greenfields specific.

In short, we can state that there is a considerable symmetry with the inflows equations. However, different results are also observed. The economic growth's variable exerts a positive impact on aggregate FDO, especially via M&A, as opposite to Globerman and Shapiro (2005).

Additionally, we have found evidence, although with some restrictions, that the investor protection index and the variables associated to the cultural distance (when regressed

separately) can be considered as M&A and greenfields specific determinants, respectively.

7. CONCLUSIONS

The aim of this study consists in identifying the specific factors of each entry mode, namely M&A and greenfield investments. In order to do that, we have compared the determinants of M&A and greenfields inflows and outflows, with the determinants of aggregate foreign direct investment. In doing so, we consider whether there mode-specific determinants.

Through the introduction of greenfields in(out)bound equations, we have extended the analysis by Globerman and Shapiro (2005) who have only investigated the determinants of cross border M&A inflows and outflows. Simultaneously, we have adopted a panel data analysis, where we combined a cross-section sample of 53 countries over a period of 11 years, between 1996 and 2006.

In general, we can conclude that there is a group of variables which are important in explaining any form of investment, both inbound and outbound. The size of the economy, the degree of openness and the governance level are, in most cases, positively correlated with all series of inward and outward investment. Additionally, the coefficient values are very similar in each group of equations. Only for the case of outbound equations, we had also observed a positive sign between human development index and all forms of outbound investments.

There are, however, some differences between the structure of M&A, greenfields and aggregate FDI. In particular, and according to Globerman and Shapiro (2005), we have seen that economic growth is an important determinant in attracting FDI, but only for greenfields. On the other hand, this growth tends to push a rise in outward investments, i.e., the investments made by national companies abroad, especially via M&A. In other words, a country that shows a fast economic growth tends to be host, primarily, of foreign investment via the establishment of new firms; simultaneously, this country encourages its companies to invest abroad, through M&A.

As for the existence of mode-specific determinants, we can conclude, with some reservations, that the investor protection index is important to understand both M&A inflows and outflows. This result suggests that the investor protection may, under certain conditions (when we exclude in M&A regressions, variables such as capitalization and cultural distance), stimulate M&A and be pointed as specific factor of this FDI entry mode, which contradicts the evidence attained by Globerman and Shapiro (2005).

With respect to stock market capitalization variable, we did not find any evidence that this variable is specific to cross border M&A.

Additionally, we have seen that the two variables associated to cultural distance, when regressed separately, influence in a positive way the likelihood of companies to choose greenfields. Consequently, the evidence suggests, with some assurance, that these two variables play an important role in deciding for greenfields as a FDI entry mode.

To sum up, we may conclude that the introduction of the panel data, when compared to the work of Globerman and Shapiro (2005), allowed us to gather more conclusive evidence about the mode- specific determinants.

However, there was an important aspect that we could not analyse in this study because the number of observations was different in each regression and because greenfields' series were expressed in different units of measure. It was the magnitude of the effects and its comparison between each investment's series. This might be an interesting and important aspect to be studied in a future work.

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Tables

Table 1 – Summary of Empirical Research on Determinants of FDI Entry Mode Choice

Determinants	Relation between determinants and the propensity to acquire		
	Positive	**Negative**	**Insignificant**
Firm-level Factors			
Foreign Experience	Hennart and Reddy (1997) Harzing (2002) Brouthers (2002)	Wilson (1980)	Caves and Mehra (1986) Kogut and Singh (1988) Hennart and Park (1993)
Multinational Experience	Caves and Mehra (1986) Brouthers and Brouthers (2000) Barkema and Vermeulen (1998) Andersson and Svensson (1994)		Kogut and Singh (1988)
Product Diversification	Wilson (1980)	Hennart and Reddy (1997) Kogut and Singh (1988) Brouthers and Brouthers (2000) Zejan (1990)	Caves and Mehra (1986) Hennart and Park (1993) Harzing (2002) Kogut and Singh (1988)
Relative Size of Investment	Caves and Mehra (1986) Andersson and Svensson (1994) Barkema and Vermeulen (1998) Brouthers and Brouthers (2000) Hennart and Park (1993)		

(continue)

Table 1 – Summary of Empirical Research on Determinants of FDI Entry Mode Choice

(continued)

Industry-level Factors			
R&D Intensity		Kogut and Singh (1988) Hennart and Park (1993) Brouthers and Brouthers (2000) Andersson and Svensson (1994) Anand and Delios (2002)	Caves and Mehra (1986)
Advertising Intensity	Anand and Delios (2002)		Caves and Mehra (1986) Kogut and Singh (198 Hennart and Park (1993)
Concentration Ratio			Hennart and Reddy (1997) Anand and Delios (2002)
Industry Growth	Caves and Mehra (1986) Hennart and Reddy (1997)		Hennart and Park (1993) Anand and Delios (2002)
Country-level factors			
Cultural Distance		Kogut and Singh (1988) Harzing (2002) Barkema and Vermeulen (1998)	Brouthers and Brouthers (2000) Hennart and Reddy (1997)
Market Size in host Country			Barkema and Vermeulen (1998) Zejan (1990)
Market Growth in host Country		Zejan (1990) Brouthers and Brouthers (2000)	Andersson and Svensson (1994) Barkema and Vermeulen (1998)
Market Development in host Country	Andersson and Svensson (1994)		Barkema and Vermeulen (1998) Zejan (1990)

Table 2 – List of Countries included in the sample 1996-2006

Groups	Countries
Developed Countries	Germany; Australia; Austria; Belgium; Canada; Denmark; Norway; Slovakia; Slovenia; Spain; United States; Estonia; Finland; France; Greece; Netherlands; Hungary; Ireland; Israel; Portugal; United Kingdom; Czech Republic; Sweden; Switzerland; Italy; Israel; Luxembourg; Japan; New Zealand.
Developing Countries	South Africa; Argentina; Brazil; Bulgaria; Chile; China; Colombia; Croatia; Philippines; Hong Kong; India; Indonesia; Malaysia; México; Peru; Republic of Korea; Romania; Russia; Singapore; Egypt; Turkey; Taiwan; Thailand; Venezuela

Note: United Nations criteria

Table 3 – Descriptive Statistics and Correlation Matrix of Dependent Variables

	Mean (Standard deviation)	(1)	(2)	(3)	(4)	(5)	(6)
FDI	8,563 (1,479)	1,00					
FDO	7,719 (2,507)	0,621	1,00				
IN-M&A	7,647 (1,931)	0,723	0,615	1,00			
OUT-M&A	6,909 (2,891)	0,631	0,699	0,707	1,00		
IN-GREEN	4,479 (1,044)	0,599	0,367	0,447	0,356	1,00	
OUT-GREEN	3,956 (1,599)	0,523	0,790	0,584	0,637	0,490	1,00

Notes:

FDI – Natural logarithmic of FDI inflows (current prices, millions of U.S. Dollars), in country *i* in year *t*.

FDO – Natural logarithmic of FDI outflows (current prices, millions of U.S. Dollars), in country *i* in year *t*.

IN-M&A - Natural logarithmic of inward M&A FDI (current prices, millions of U.S. Dollars), in country *i* in year *t*.

OUT-M&A - Natural logarithmic of outward M&A (current prices millions of U.S. Dollars), in country *i* in year *t*.

IN-GREEN - Natural logarithmic of the number of projects of greenfields realized by foreign firms in country *i* in year *t*.

OUT-GREEN - Natural logarithmic of the number of projects of greenfields realized by the domestic firms of country *i* in year *t*.

Source: - United Nations Conference on Trade and Development (UNCTAD), *FDI/TNC Statistics Database On-line* [http://stats.unctad.org/FDI] and *World Investment Report,* various years.

Table 4 – Variables Definition

Variable	Definition	Source
	Dependent Variables	
FDI	Natural logarithmic of FDI inflows (current prices, millions of U.S. Dollars), in country *i* in year *t*.	United Nations Conference on Trade and Development (UNCTAD), *FDI/TNC Statistics Database On-line*, [http://stats.unctad.org/FDI].
FDO	Natural logarithmic of FDI outflows (current prices, millions of U.S. Dollars), in country i in year *t*.	United Nations Conference on Trade and Development (UNCTAD), *FDI/TNC Statistics Database On-line*, [http://stats.unctad.org/FDI].
IN-M&A	Natural logarithmic of inward M&A (current prices, millions of U.S. Dollars), in country *i* in year *t*.	United Nations Conference on Trade and Development (UNCTAD), *FDI/TNC Statistics Database On-line*, [http://stats.unctad.org/FDI].
OUT-M&A	Natural logarithmic of outward M&A (current prices millions of U.S. Dollars), in country *i* in year *t*.	United *Nations* Conference on Trade and Development (UNCTAD), *FDI/TNC Statistics Database On-line*, [http://stats.unctad.org/FDI].
IN-GREEN	Natural logarithmic of the number of projects of greenfields realized by foreign firms in country *i* in year *t*.	United Nations Conference on Trade and Development (UNCTAD), *World Investment Report*, various years.
OUT-GREEN	Natural logarithmic of the number of projects of greenfields realized by the domestic firms of country *i* in year *t*.	United Nations Conference on Trade and Development (UNCTAD), *World Investment Report*, various years.
	Independent Variables	
GDPGROWTH	Annual growth rate of Gross Domestic Product (GDP) in country *i* in yea *t-1*. Gross Domestic Product at constant market prices.	International Monetary Fund (2007), *World Economic Outlook Database*, [http://www.ifm.org/external/pubs/ft/weo/2007/02/weodata].
GDP	Natural logarithmic of Gross Domestic Product (GDP) at current prices (millions of U.S. Dollars), in country *i* in year *t*.	International Monetary Fund (2007), *World Economic Outlook Database 2007*, [http://www.ifm.org/external/pubs/ft/weo/2007/02/weodata].
GI	Governance Index in country *i* in year *t*. This index was estimated by Kaufmann Kraay e Mastruzzi (KKM), and has been used as a proxy of country's political, institutional and legal environment. It was obtained by the arithmetic mean of 6 sub-indices, such as: 1) Political Instability and Violence; 2) Government Effectiveness; 3) Quality Burden; 4) Rule of Law; 5) Corruption Control e 6) Voice and	Kaufmann, Kraay and Mastruzzi (2007), "Governance Matters VI: Governance Indicators for 1996-2006", *World Bank Policy Research Department,* WP 4280, [http://info.worldbank.org/governance/wgi2007/].

	Political Freedom. The index is defined in a scale of 0 ("bad" governed) to 100 ("well" governed). Is not available information for the years 1997, 1999 and 2001 But, since the country's values are too similar across the analysis period, we assumed for the missing years, the values observed in the preceding year.	
OPENNESS	Openness of country *i* in year *t*. This index is given by the sum of exports and imports as a share of GDP.	International Monetary Fund (2007), *World Economic Outlook Database 2007*, [http://www.ifm.org/external/pubs/ft/weo/2007/02/weodata].
HDI	Human Development Index of country *i* in year *t*. This index is composed by three sub-indices: 1) GDP per capita, 2) Education, measured by a combination of adult literacy and the combined gross primary, secondary and tertiary enrolment and 3) Life Expectancy at Birth. Is not available information for Taiwan; since it is not considered has a UN member.	United Nations, *Human Development Report*, various years, [http://hdr.undp.org/en/].
CAP	Ratio of Stock Market Capitalization to GDP in country *i* in year *t*. Is not available information for the year 1997 and for Taiwan?	World Bank, *World Development Indicators (1998-2002),* New York. World Bank, *World Development Indicators On-line,* [http://web.worldbank.org/WBSITE/EXTERNAL/DATASTATISTICS/0,,contentMDK:20398986~isCURL:Y~pagePK:64133150~piPK:64133175~theSitePK:239419,00.html.
INVPROT	Investor Protection Index in country *i* in year *t*. It was developed by LaPorta *et al.* (1998) and later extended to transition economies by Pistor *et al.* (2000), as an interaction of an index of shareholder (antidirector) rights, and an index of the rule law.	World Bank, *Doing Business (2005-2007),* New York, [http://www.doingbusiness.org/CustomQuery/].

	For recent years, the World's Bank publication - *Doing Business* has also available information for this index. The values are comprehended between 0 (minimum protection) and 10 (maximum protection). However, this publication only available information since 2004 (inclusive). But, since the indices developed by La Porta et al. (1998) and World Bank are not directly comparables, we must have to adopt only one. Consequently, we adopt the index available by World Bank, since it gives us more recent information. For the missing years we assumed the information we have for the last year available (2004) because the values are too constant across the sample.	
CD	Cultural Distance in country *i* in year *t*. Is an index composed by four cultural dimensions, developed by Hofstede, such as: 1) masculinity; 2) power distance; 3) uncertainty avoidance and 4) individualism. Recently, Hofstede construct one additional dimension for some countries – Long- Term Orientation. The CD index was constructed as the arithmetic mean of the four (or five) cultural dimensions indices' for each country. For Croatia and Slovenia is not available information. For the Egypt case we assume the values that Hofstede has calculated for Arabic World.	Hofstede (1980), *Culture´s Consequences: International Differences in Work-Related Values,* Beverly Hills CA: Sage Publications. The indices are available at http://www.geert-hofstede.com/
UA	Uncertainty Avoidance in country *i* in year *t*. This variable is one of the cultural dimensions purposed by Hofstede (1980) and is one of the components of CD index. For Croatia and Slovenia is not available information. For the Egypt case we assume the values that Hofstede has calculated for Arabic	Hofstede (1980), *Culture´s Consequences: International Differences in Work-Related Values,* Beverly Hills CA: Sage Publications. The index is available at http://www.geert-hofstede.com/

	World.	

Table 5 – Correlation Matrix of Independent Variables

	Mean (Standard deviation)	**(1)**	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**
GDP	12,231 (1,419)	1,00								
GDPGROWTH	3,675 (3,263)	-0,073	1,00							
GI	71,085 (21,932)	0,173	-0,089	1,00						
HDI	0,853 (0,089)	0,270	-0,147	0,826	1,00					
OPENNESS	0,719 (0,554)	-0,342	0,127	0,197	0,159	1,00				
CAP	70,682 (72,022)	0,168	0,041	0,380	0,286	0,400	1,00			
INVPROT	5,734 (1,685)	-0,071	0,066	0,328	0,178	0,399	0,363	1,00		
CD	54,089 (9,147)	0,177	-0,005	-0,323	-0,174	-0,143	-0,183	-0,335	1,00	
UA	63,809 (23,183)	-0,020	-0,154	-0,243	-0,023	-0,422	-0,381	-0,350	0,555	1,00

Estimation Results

The tables 6 at 11 reports the regression of the variables associated with the inbound and outbound investment series when and the group of independent variables. These tables' presents the results estimated using fixed Effects Model (FEM) and Random Effects Model (REM). The numbers in parenthesis are the standard errors corrected for heterocedasticity using White (1980) method. Also reports the F test and adjusted R^2, tests for assessing the adjustment quality, and the Hausman (1978) test, a test with H_0: random effects are consistent and efficient, versus H_1: random effects are inconsistent, in order to choose the most appropriate model for each particular regression.

Table 6: Regression of FDI Dependent Variable

	FEM								REM							
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**	**(10)**	**(11)**	**(12)**	**(13)**	**(14)**	**(15)**	**(16)**
C	-5,880*	-5,510*	-3,691***	-4,915*	-4,653**	-7,042***	-9,776	-9,919	-1,835**	-2,648*	-1,659***	-2,473*	-1,649***	-1,385	-1,337	-1,371
	(-6,027)	(1,591)	(1,916)	(1,910)	(1,992)	(4,143)	(6,395)	(6,432)	(0,847)	(0,829)	(0,927)	(0,872)	(0,873)	(1,077)	(1,030)	(1,103)
GDP	0,905*	0,856*	1,049*	0,867*	0,713*	0,634*	0,626*	0,599*	0,727*	0,779*	0,778*	0,781*	0,724*	0,705*	0,703*	0,702*
	(0,130)	(0,131)	(0,132)	(0,133)	(0,138)	(0,220)	(0,197)	(0,229)	(0,068)	(0,066)	(0,069)	(0,066)	(0,066)	(0,071)	(0,068)	(0,074)
GDPGROWTH	0,019***	0,020***	0,024**	0,025**	0,020***	0,018	0,019***	0,018	0,030*	0,021***	0,030*	0,021***	0,017	0,020***	0,020***	0,020***
	(0,012)	(0,012)	(0,012)	(0,012)	(0,011)	(0,012)	(0,012)	(0,012)	(0,011)	(0,011)	(0,011)	(0,011)	(0,011)	(0,011)	(0,011)	(0,011)
GI	0,040*	0,042*		0,042*	0,044*	0,046*	0,044*	0,045*	0,019*	0,015*		0,016*	0,015*	0,015*	0,015*	0,015*
	(0,009)	(0,009)		(0,042)	(0,009)	(0,010)	(0,010)	(0,011)	(0,004)	(0,004)		(0,005)	(0,004)	(0,005)	(0,004)	(0,005
OPENNESS		0,826*		0,829*	0,662**	0,497***	0,504***	0,502***		0,706*		0,743*	0,591*	0,568*	0,561*	0,557*
		(0,260)		(0,260)	(0,295)	(0,301)	(0,299)	(0,302)		(0,158)		(0,166)	(0,178)	(0,180)	(0,184)	(0,193)
INVPROT			-0,113	-0,131	0,113	0,102	0,073	0,078			0,103	-0,050	-0,067	-0,060	-0,061	-0,061
			(0,238)	(0,232)	(0,264)	(0,266)	(0,269)	(0,270)			(0,066)	(0,065)	(0,063)	(0,067)	(0,066)	(0,067)
CAP					0,004*	0,004*	0,004*	0,004*					0,003*	0,003*	0,003*	0,003*
					(0,001)	(0,001)	(0,001)	(0,001)					(0,001)	(0,001)	(0,001)	(0,001)
CD						0,062		0,027						-0,001		0,001
						(0,103)		(0,119)						(0,012)		(0,015)
UA							0,101	0,085							-0,001	-0,001
							(0,125)	(0,145)							(0,004)	(0,006)
Adjusted R^2	0,746	0,750	0,736	0,750	0,765	0,744	0,744	0,743	0,219	0,252	0,196	0,250	0,277	0,265	0,265	0,262
F Statistic									13,532*	12,921**	6,050	12,602**	17,066*	17,062**	17,270**	17,312**
Hausman Test	31,380*	31,544*	29,950*	30,956*	31,254*	27,335*	27,358*	26,822*	54,360*	48,986*	47,286*	38,971*	34,817*	27,208*	27,170*	23,568*
N	571	571	571	571	531	509	509	509	571	571	571	571	531	509	509	509

Standard errors in parentheses.
* significant at 1%
** significant at 5%
*** significant at 10%

Table 7: Regression of IN-M&A Dependent Variable

	FEM								REM							
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**	**(10)**	**(11)**	**(12)**	**(13)**	**(14)**	**(15)**	**(16)**
C	-8,429*	-8,061*	-6,611*	-7,350*	-5,306***	-5,739	-19,049**	-18,277**	-5,195*	-5,892*	-5,251*	-5,962*	-4,870*	-3,967*	-4,161*	-3,918*
	(2,359)	(2,336)	(2,799)	(2,821)	(3,028)	(6,016)	(9,306)	(9,353)	(0,862)	(0,915)	(1,002)	(0,936)	(0,927)	(1,062)	(1,013)	(1,064)
GDP	1,141*	1,017*	1,224*	1,032*	0,799*	0,843*	0,540***	0,688**	0,905*	0,954*	0,978*	0,952*	0,875*	0,869*	0,841*	0.866*
	(0,194)	(0,192)	(0,192)	(0,195)	(0,207)	(0,324)	(0,286)	(0,335)	(0,069)	(0,073)	(0,075)	(0,072)	(0,071)	(0,072)	(0,068)	(0,074)
GDPGROWTH	-0,002	-0,011	0,002	-0,011	-0,010	-0,009	-0,002	-0,001	-0,001	-0,006	-0,001	-0,006	-0,009	-0,007	-0,008	-0,007
	(0,017	(0,017)	(0,017)	(0,017)	(0,017)	(0,016)	(0,017)	(0,017)	(0,016)	(0,016)	(0,016)	(0,016)	(0,016)	(0,015)	(0,015)	(0,015)
GI	0,030**	0,033**		0,033**	0,042*	0,039**	0,039*	0,034**	0,025*	0,022*		0,022*	0,021*	0,020*	0,021*	0,020*
	(0,014)	(0,013)		(0,013)	(0,014)	(0,015)	(0,014)	(0,015)	(0,005)	(0,004)		(0,005))	(0,005)	(0,004)	(0,004)	(0,004)
OPENNESS		1,370*		1,375*	1,251*	1,241*	1,008*	1,174**		0,411**		0,384**	0,107	0,120	0,041	0,102
		(0,383)		(0,383)	(0,446)	(0,505)	(0,466)	(0,505)		(0,182)		(0,191)	(0,199)	(0,190)	(0,190)	(0,201)
INVPROT			0,128**	0,120***	0,100***	-0,158	-0,249	-0,274			0,162**	0,105	0,013	-0,001	0,011	0,001
			(0,065)	(0,068)	(0,060)	(0,062)	(0,062)	(0,060)			(0,067)	(0,067)	(0,062)	(0,062)	(0,059)	(0,061)
CAP					0,002**	0,002**	0,002**	0,002**					0,003*	0,003*	0,003*	0,003*
					(0,001)	(0,001)	(0,001)	(0,001)					(0,001)	(0,001)	(0,001)	(0,001)
CD						0,005		-0,148						-0,013		-0,012
						(0,151)		(0,174)						(0,011)		(0,013)
UA							0,281	0,372							-0,003	-0,001
							(0,184)	(0,233)							(0,004)	(0,005)
Adjusted R^2	0,662	0,669	0,691	0,690	0,670	0,666	0,667	0,667	0,281	0,281	0,227	0,283	0,324	0,332	0,343	0,338
F Statistic	21,657*	21,979*	21,381*	21,564*	20,200*	19,460*	19,599*	19,257*	76,606*	57,789*	57,752*	46,758*	44,105*	37,775*	39,622*	34,149*
Hausman Test									5,174	13,410*	9,374**	13,380*	13,613**	14,233**	21,216*	20,907*
N	581	581	581	581	540	520	520	520	581	581	581	581	540	520	520	520

Standard errors in parentheses.
* significant at 1%
** significant at 5%
*** significant at 10%

Table 8: Regression of IN-GREEN Dependent Variable

	FEM								REM							
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**	**(10)**	**(11)**	**(12)**	**(13)**	**(14)**	**(15)**	**(16)**
C	-4,437*	-3,901**	-4,311*	-3,589**	-2,057	-16,053***	-10,065	-18,992***	-2,017*	-2,657*	-2,469*	-2,642*	-2,502*	-3,226***	-2,078**	-2,845*
	(1,636)	(1,636)	(1,378)	(1,714)	(1,848)	(8,653)	(8,222)	(10,350)	(0,705)	(0,702)	(0,727)	(0,726)	(0,773)	(0,945)	(0,930)	(0,949)
GDP	0,717*	0,646*	0,728*	0,655*	0,586*	0,129	0,496*	0,124	0,544*	0,584*	0,536*	0,585*	0,578*	0,558***	0,576*	0,522*
	(0,108)	(0,111)	(0,109)	(0,113)	(0,125)	(0,308)	(0,161)	(0,309)	(0,068)	(0,054)	(0,055)	(0,054)	(0,058)	(0,062)	(0,061)	(0,064)
GDPGROWTH	0,019***	0,017***	0,019***	0,017***	0,018***	0,013	0,015	0,015	0,032***	0,022**	0,033*	0,022**	0,022**	0,022**	0,022**	0,023**
	(0,010)	(0,010)	(0,010)	(0,010)	(0,011)	(0,011)	(0,010)	(0,011)	(0,009)	(0,009)	(0,009)	(0,009)	(0,009)	(0,009)	(0,010)	(0,010)
GI	0,029**	0,030*		0,030*	0,033*	0,030**	0,033**	0,033**	0,016*	0,015*		0,016*	0,018*	0,016*	0,017*	0,017*
	(0,011)	(0,011)		(0,011)	(0,012)	(0,013)	(0,013)	(0,013)	(0,004)	(0,004)		(0,004)	(0,004)	(0,004)	(0,003)	(0,004)
OPENNESS		0,525**		0,531**	0,207	0,024	0,151	0,011		0,536*		0,540*	0,532*	0,520*	0,493*	0,384**
		(0,230)		(0,230)	(0,313)	(0,342)	(0,330)	(0,344)		(0,124)		(0,130)	(0,156)	(0,158)	(0,165)	(0,167)
INVPROT			-0,056	-0,068	-0,125	-0,144	-0,166	-0,162			0,0290	-0,005	-0,010	0,012	-0,018	0,005
			(0,107)	(0,107)	(0,129)	(0,131)	(0,136)	(0,136)			(0,048)	(0,050)	(0,050)	(0,053)	(0,054)	(0,053)
CAP					0,003**	0,002**	0,003**	0,002***					0,001	0,001	0,001	0,001
					(0,001)	(0,001)	(0,001)	(0,001)					(0,001)	(0,001)	(0,001)	(0,001)
CD						0,358***		0,322						0,014		0,030**
						(0,217)		(0,228)						(0,010)		(0,012)
UA							0,181***	0,077							-0,005	-0,011**
							(0,110)	(0,148)							(0,004)	(0,005)
Adjusted R^2	0,903	0,904	0,903	0,904	0,904	0,900	0,899	0,900*	0,302	0,347	0,297	0,344	0,351	0,342	0,338	0,357
F Statistic	45,436*	45,619*	45,497*	44,696*	39,700*	37,173*	36,763*	36,368*	39,121*	36,133*	38,179*	28,692*	22,100*	17,667*	17,348*	16,531*
Hausman Test									20,342*	12,734**	21,178*	13,161**	28,301*	31,626*	27,491*	29,311*
N	265	265	265	265	265	225	225	225	265	265	265	265	265	225	225	225

Standard errors in parentheses.
* significant at 1%
** significant at 5%
*** significant at 10%

Table 9: Regression of FDO Dependent Variable

	FEM								REM							
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**	**(10)**	**(11)**	**(12)**	**(13)**	**(14)**	**(15)**	**(16)**
C	-21,422*	-21,128*	-16,429*	-21,037*	-20,762*	-15,806*	-15,019***	-13,184	-17,284*	-17,217*	-12,674*	-17,350*	-16,210*	-14,801*	-15,315*	-14,830*
	(2,389)	(2,491)	(2,558)	(2,845)	(3,038)	(0,067)	(8,851)	(9,137)	(1,386)	(1,349)	(1,515)	(1,418)	(1,388)	(1,574)	(1,481)	(1,587)
GDP	1,254*	1,272*	1,955*	1,274*	1,308*	1,486*	1,407*	1,524*	1,105*	1,182*	1,525*	1,181*	1,138*	1,159*	1,096*	1,133*
	(0,228)	(0,232)	(0,179)	(0,235)	(0,245)	(0,314)	(0,297)	(0,330)	(0,095)	(0,096)	(0,113)	(0,097)	(0,091)	(0,099)	(0,097)	(0,106)
GDPGROWTH	0,039**	0,038**	0,045*	0,038**	0,029***	0,028***	0,026	0,025	0,047*	0,039**	0,050*	0,039**	0,029***	0,029***	0,029***	0,029***
	(0,016)	(0,016)	(0,017)	(0,017)	(0,017)	(0,017)	(0,017)	(0,017)	(0,016)	(0,016)	(0,016)	(0,016)	(0,016)	(0,016)	(0,016)	(0,016)
GI	0,022***	0,021		0,021	0,018	0,019	0,025***	0,020	0,016**	0,018**		0,017**	0,015***	0,013***	0,013***	0,014***
	(0,013)	(0,013)		(0,013)	(0,014)	(0,015)	(0,014)	(0,016)	(0,008)	(0,007)		(0,008)	(0,008)	(0,008)	(0,008)	(0,008)
HDI	14,088*	13,380*		13,379*	11,673*	14,521*	12,932*	14,609*	11,729*	9,950*		10,035*	9,453*	9,381*	10,151*	9,880*
	(3,096)	(3,526)		(3,530)	(3,607)	(4,380)	(3,875)	(4,390)	(1,845)	(1,900)		(1,924)	(1,842)	(1,864)	(1,964)	(1,992)
OPENNESS		0,168		0,169	0,230	0,128	0,025	0,143		0,624*		0,602**	0,505**	0,469**	0,440***	0,468***
		(0,400)		(0,401)	(0,466)	(0,497)	(0,477)	(0,499)		(0,222)		(0,235)	(0,241)	(0,244)	(0,258)	(0,265)
INVPROT			-0,007	-0,021	0,125	0,149	0,185	0,171			0,249*	0,024	0,005	-0,022	-0,011	-0,024
			(0,313)	(0,307)	(0,361)	(0,356)	(0,361)	(0,361)			(0,114)	0,087)	(0,080)	(0,085)	(0,084)	(0,086)
CAP					0,002	0,002***	0,002***	0,002***					0,004*	0,004*	0,004*	0,004*
					(0,002)	(0,001)	(0,001)	(0,001)					(0,001)	(0,001)	(0,001)	(0,001)
CD						-0,180		-0,152						-0,025		-0,017
						(0,173)		(0,187)						(0,016)		(0,019)
UA							-0,138	-0,076							-0,009	-0,006
							(0,184)	(0,199)							(0,006)	(0,008)
Adjusted R^2	0,846	0,845	0,839	0,845	0,849	0,849	0,849	0,849	0,408	0,426	0,272	0,423	0,469	0,460	0,458	0,457
F Statistic	54,031*	52,996*	52,335*	51,976*	49,637*	48,470*	48,402*	47,541*	94,249*	81,539*	68,451*	67,258*	64,139*	52,163*	51,721*	45,867*
Hausman Test									6,261	5,256	13,665*	5,134	10,296	11,612	10,506	11,201
N	543	543	543	543	502	481	481	481	543	543	543	543	502	481	481	481

Standard errors in parentheses.
* significant at 1%
** significant at 5%
*** significant at 10%

Table 10: Regression of OUT-M&A Dependent Variable

	FEM								REM							
	(1)	**(2)**	**(3)**	**(4)**	**(5)**	**(6)**	**(7)**	**(8)**	**(9)**	**(10)**	**(11)**	**(12)**	**(13)**	**(14)**	**(15)**	**(16)**
C	-17,051*	-16,795*	-10,402**	-16,389*	-15,313*	-5,873	-11,767	-8,158	-15,512*	-15,804*	-12,696*	-16,507	-14,808*	-13,631*	-13,906*	-13,674*
	(3,680)	(3,774)	(4,038)	(4,389)	(4,885)	(9,569)	(14,375)	(14,639)	(1,755)	(1,734)	(1,692)	(1,792)	(1,710)	(1,861)	(1,743)	(1,843)
GDP	0,477	0,500	1,393*	0,507	0,435	0,843***	0,536	0,815	1,172*	1,252*	1,387*	1,238	1,166*	1,164*	1,089*	1,110*
	(0,359)	(0,366)	(0,275)	(0,369)	(0,397)	(0,507)	(0,478)	(0,525)	(0,108)	(0,112)	(0,127)	(0,111)	(0,101)	(0,109)	(0,106)	(0,117)
CRESGDP	0,114*	0,113*	0,124*	0,113*	0,112*	0,106*	0,106*	0,107*	0,109*	0,102*	0,112*	0,102	0,0924*	0,093*	0,081*	0,091*
	(0,025)	(0,025)	(0,025)	(0,025)	(0,026)	(0,026)	(0,027)	(0,027)	(0,023)	(0,023)	(0,024)	(0,023)	(0,024)	(0,024)	(0,024)	(0,024)
GI	0,035***	0,035***		0,035***	0,038***	0,036	0,045**	0,035	0,038*	0,038*		0,034	0,032*	0,028*	0,026*	0,026***
	(0,019)	(0,020)		(0,020)	(0,021)	(0,024)	(0,023)	(0,024)	(0,010)	(0,010)		(0,010)	(0,010)	(0,010)	(0,010)	(0,010)
HDI	17,664*	16,881*		16,892*	15,241*	21,600*	17,098*	21,523*	5,702**	4,402***		4,921	4,238***	4,894**	6,137**	5,978
	(4,899)	(5,508)		(5,514)	(5,830)	(7,240)	(6,384)	(7,257)	(2,438)	(2,465)		(2,482)	(2,309)	(2,338)	(2,448)	(2,501)
OPENNESS		0,194		0,196	0,057	0,256	-0,026	0,245		0,541**		0,397	0,0045	0,067	-0,161	-0,011
		(0,623)		(0,624)	(0,755)	(0,812)	(0,787)	(0,815)		(0,269)		(0,285)	(0,279)	(0,281)	(0,292)	(0,315)
INVPROT			0,305**	0,295***	0,068	0,058	0,072	0,038			0,363*	0,142	0,098	0,058	0,066	0,058
			(0,155)	(0,165)	(0,305)	(0,302)	(0,304)	(0,303)			(0,116)	(0,097)	(0,085)	(0,089)	(0,085)	(0,088)
CAP					0,004**	0,004**	0,004**	0,004**					0,007*	0,007*	0,007*	0,007*
					(0,002)	(0,002)	(0,002)	(0,002)					(0,002)	(0,002)	(0,002)	(0,002)
CD						-0,364		-0,391						-0,022		-0,009
						(0,278)		(0,305)						(0,016)		(0,019)
UA							-0,106	0,068							-0,012***	-0,010
							(0,298)	(0,328)							(0,007)	(0,008)
Adjusted R^2	0,710	0,710	0,703	0,709	0,703	0,686	0,685	0,686	0,327	0,339	0,218	0,344	0,428	0,416	0,427	0,422
F Statistic	25,436*	24,946*	24,933*	24,470*	22,125*	20,116*	20,016*	19,727*	68,754*	58,236*	52,734*	49,782*	56,210*	45,356*	47,438*	41,366*
Hausman Test									12,135**	12,501*	8,039**	12,503***	13,342***	13,374***	12,863	14,149
N	559	559	559	559	518	499	499	499	559	559	559	559	518	499	499	499

Standard errors in parentheses.
* significant at 1%
** significant at 5%
*** significant at 10%

Table 11: Regression of OUT-GREEN Dependent Variable

	FEM								REM							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
C	-12,256*	-11,847*	-6,799*	-10,942*	-8,038**	-8,537	-19,513***	-17,434	-10,058*	-10,263	-8,051*	-10,421*	-9,595*	-8,848*	-9,414*	-8,874*
	(3,148)	(3,335)	(1,956)	(3,370)	(3,851)	(13,349)	(11,695)	(15,716)	(1,055)	(1,055)	(0,988)	(1,100)	(1,221)	(1,307)	(1,251)	(1,317)
GDP	0,364***	0,367***	0,951*	0,387***	0,323	0,295	0,206	0,280	0,829*	0,872	0,913*	0,869*	0,817*	0,878*	0,827*	0,869*
	(0,217)	(0,217)	(0,154)	(0,217)	(0,237)	(0,457)	(0,263)	(0,457)	(0,060)	(0,062)	(0,074)	(0,063)	(0,071)	(0,074)	(0,074)	(0,080)
GDPGROWTH	-0,007	-0,008	-0,008	-0,007	-0,005	-0,004	0,001	0,002	-0,005	-0,011	-0,013	-0,012	-0,014	-0,014	-0,014	-0,014
	(0,014)	(0,014)	(0,014)	(0,014)	(0,015)	(0,015)	(0,016)	(0,016)	(0,012)	(0,012)	(0,013)	(0,012)	(0,013)	(0,013)	(0,013)	(0,013)
GI	0,031**	0,031***		0,033**	0,041**	0,044**	0,036***	0,037***	0,019*	0,018		0,017*	0,016**	0,014**	0,014**	0,014*
	(0,016)	(0,016)		(0,016)	(0,017)	(0,019)	(0,019)	(0,020)	(0,006)	(0,006)		(0,006)	(0,006)	(0,006)	(0,006)	(0,007)
HDI	16,017*	15,385*		15,791*	14,348**	14,383**	13,269**	14,037**	2,748***	2,150		2,329	2,229	1,860	2,563	2,044
	(4,837)	(5,127)		(5,791)	(5,629)	(7,014)	(5,840)	(7,018)	(1,532)	(1,544)		(1,576)	(1,669)	(1,640)	(1,755)	(1,781)
OPENNESS		0,127		0,140	-0,125	-0,104	-0,162	-0,140		0,323		0,302*	0,130	0,161	0,056	0,140
		(0,336)		(0,335)	(0,465)	(0,493)	(0,480)	(0,494)		(0,136)		(0,145)	(0,183)	(0,180)	(0,191)	(0,201)
INVPROT			-0,180	-0,236	-0,298	-0,304***	-0,358***	-0,358***			0,122***	0,024	0,013	-0,010	0,003	-0,010
			(0,151)	(0,147)	(0,184)	(0,185)	(0,193)	(0,193)			(0,064)	(0,053)	(0,057)	(0,059)	(0,058)	(0,059)
CAP					0,003	0,003	0,002	0,002					0,002**	0,003*	0,003*	0,003*
					(0,002)	(0,002)	(0,002)	(0,002)					(0,001)	(0,001)	(0,001)	(0,001)
CD						0,345***		0,237						-0,018***		-0,016
						(0,196)		(0,216)						(0,011)		(0,013)
UA							0,346***	0,226							-0,005	-0,001
							(0,205)	(0,211)							(0,005)	(0,006)
Adjusted R^2	0,922	0,923	0,919	0,923	0,916	0,914	0,914	0,667	0,526	0,537	0,365	0,530	0,534	0,554	0,544	0,549
F Statistic	56,792*	55,566*	54,581*	55,069*	44,155*	42,130*	42,436*	19,257*	73,531*	61,461*	50,979*	50,107*	38,754*	35,304*	33,936*	30,936*
Hausman Test									26,513*	22,540*	7,582***	24,872*	22,693*	23,298*	23,774*	25,105*
N	262	262	262	262	232	222	222	520	262	262	262	262	232	222	222	222

Standard errors in parentheses.
* significant at 1%
** significant at 5%
*** significant at 10%

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