

DETERMINANTS OF REINVESTED EARNINGS AS A COMPONENT OF FOREIGN DIRECT INVESTMENT

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ABSTRACT

Previous studies have overwhelmingly treated Foreign Direct Investment (FDI) as a monolithic variable rather than a multidimensional one. However, FDI consists of three main components. This study investigates the responsiveness of reinvested earnings as a sub-component of FDI in the 80 countries to the macro-economic indicators and individual country risks for the 2006–2012 period. The study found strong evidence that reinvested earnings are positively correlated with the political risk ratings (confidence level), GDP, GDP growth rate, and consumer confidence level of each individual host country and are negatively associated with repatriation and payment delay risk ratings.

Key Words: FDI, foreign reinvested earnings, foreign retained earnings, dynamic panel data

JEL Codes: C23, F21, F23, F24, F29

DAĞITILMAYAN YABANCI KARLARIN BELİRLEYİCİLERİ

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ÖZET

Daha önceki çalışmalar Yabancı Yatırımları (YY) bir bütün olarak ele almış, YY'ların finansal bileşenlerini göz ardı etmiştir. Oysa yabancı yatırımlar üç şekilde finanse edilebildiğinden üç ayrı bileşenden oluşmaktadır. Bu çalışmanın amacı, 80 ülkede yabancı yatırımların finansmanında önemli bir paya sahip olan dağıtılmayan karlar bileşenin belirleyicilerini 2006-2012 dönemi için incelemektir. Çalışma, dağıtılmayan yabancı karlar ile politik risk, GSYH, GSYH büyüme oranı ve tüketici güven endeksi arasında pozitif bir ilişkiyi, buna karşılık dağıtılmayan karların memlekete geri gönderilme ile alacakların gecikme risk indeksleri arasında negatif bir ilişkiyi desteklemektedir.

Anahtar Kelimeler: DYY, Yabancı Dağıtılmayan Karlar, Dinamik Panel Veri

JEL Kodları: C23, F21, F23, F24, F29

INTRODUCTION

International trade and the activities of multinational firms (MNFs) have been of growing interest to both developed and developing countries since the 1990s due to their contributions to the globalization of the international economy and national economic growth. Despite the fact that the volume of FDI flows exceeds the volume of global international trade, what drives a foreign investor regarding where, when, and how to invest is still a controversial subject debated in the FDI literature.

Furthermore, an analysis of FDI literature reveals that previous studies have mostly operationalized FDI as a unidimensional variable rather than a multidimensional one without questioning the nature of FDI. However, FDI consists of three main components (new equity, reinvested earnings, and inter-company debt flows), such that FDI includes not only initial transactions, but also subsequent equity and debt transactions.

A distinctive feature of the reinvested earnings as a subsequent component is that they are offshore, locked-out cash and are thus characterized as sequential investments emerging over the long run. As Lundan (2006) noted, "one can safely assume that reinvested earnings are the only component that arises particularly in the host country."

Hanlon (2015, 180) et al. states that "Under the agency theory, managers retain cash under their control and grow the firm rather than pay the cash to shareholders." Thus, as the stock of FDI becomes more mature, undistributed cash holdings are likely to be utilized to compensate for the growth of existing firms or for new investments in the existing market. Furthermore, the assumption of reinvested earnings as marginal investments in the host country implies a perception of higher reinvested earnings being a good signal of higher long-run confidence on the part of existing investors, while a repatriation of earnings may mean the reverse.

Thus, reinvested earnings may also stand for an important policy means to attract potential foreign investments in the existing market. Yet, unlike the irreversible equity investments, Multinational Firms (MNF's) part of their earnings undistributed to the shareholders are "hot money" by their very nature, and thus they are more likely exposed to the risks and uncertainties in the market.

A critical analysis of global FDI flows data issued by UNCTAD (2008) reported that "Reinvested earnings accounted for about 30% of total FDI

inflows as a result of increased profits of foreign affiliates, notably in developing countries.” Even though reinvested earnings constitute the important portion of the global FDI stock, this type of investment has not received the deserved attention in the extant literature except for a handful of studies that examined its relation with corporate tax systems. An empirical analysis of reinvested earnings with respect to its determinants therefore may provide important insights for the future FDI policy formations aimed at attracting the green-field investments.

Nevertheless, three financial FDI components may be dependent of each other through substitution or complementary interaction. Rather than studying them in isolation, this structure therefore necessitates an empirical framework allowing the simultaneous treatment of the responsiveness of reinvested earnings to the risks and macro-economic fundamentals.

Therefore, the main objective of this study is to investigate the responsiveness of reinvested earnings in the 80 (developing, developed, and transition) countries to the macro-economic indicators and individual country risks for the 2006–2012 period. The paper contributes to the existing literature as follows: First, the study demonstrates the relationship between reinvested earnings and the main macro-economic fundamentals. Second, by using unconditional host country risk ratings, the new evidence on the stability of reinvested earnings across the risk is explained from a new perspective. Third, by employing a dynamic panel specification and thus addressing issues such as the persistence and endogeneity of the components, the study predicts whether the reinvested earnings for individual countries are substitutes for or complements to the other components (equity investments and intra-company loans), or independent from other components.

1-Literature Review

As the flows of foreign capital become easier from one country to another in the global world, determinants of FDI become more of issue for both developed and developing countries. Koyuncu (2010) stated in his study that capital flows became the most important event in the world economy after the 1990s because of the rapid changes in the political environment and improvements in technological developments in international markets. Not only do the changing macroeconomic factors around the world affect FDI outflows, but host country-specific factors also lead to movements of FDI from one destination to another that offers better investment environments. From a general perspective, as Dunning (1977) suggested, there are three primary

motivations for FDI outflows, which are foreign market-seeking FDI, efficiency (cost reduction)-seeking FDI, and resource-seeking FDI. Based on this framework, researchers have analyzed motivators of FDI outflows and inflows in both developed and developing countries.

Kayam (2009) investigated the home country factors that encourage FDI outflows for 65 developing and transition countries for the 2000–2006 periods. Finally, she concluded that small market size, trade conditions, costs of production, and local business conditions within the home country are the major push factors that cause FDI outflows. Moreover, Buckley et al. (2007) examined the determinants of Chinese FDI outflows. They found that Chinese FDI outflows are highly correlated with political risks experienced in the country, cultural proximity with the host country, and the host country's natural resources endowments. On the other hand, Tolentino (2008) examined the relationships between home country-specific macroeconomic factors and FDI outflows of China and India for the period between 1982 and 2006. He had an interesting conclusion, arguing that country-specific factors of China such as the interest rate, openness to international trade, income per capita, human capital, technological capability, exchange rate, and exchange rate volatility do not have a significant effect on FDI outflows in China, while India's technological capability results in FDI outflows in India.

Although, there is an abundant literature regarding what motivates foreign investors where to invest and how much to invest, most of these studies have disregard how these investments are financed. Foreign investors first decide where to invest then decide how much to invest. Thus, foreign investment decisions are strongly tied to how these investments are financed. This study is therefore aimed to find out the determinants of reinvested earnings as the important portion of FDI financial components. Perhaps one of the most outstanding analyses of reinvested earnings as a subsequent component of total FDIs was conducted by Lundan (2006). She grouped six explanatory factors of reinvested earnings into the following three categories:

- i) Those encouraging reinvestment: Factors associated with a favorable investment climate have a positive effect on foreign investors' decisions to hold their earnings in a host country. For example, a strong growth rate in a host country market and rising income levels in a given industry may signal new investment opportunities in the host market.

ii) Those encouraging repatriation: Movements in the exchange rate tend to have a deterring effect on repatriation, such that a depreciation of the host currency tends to discourage repatriation. Similarly, higher corporate tax rates in the host country are also expected to have a deterring effect on reinvested earnings and, consequently, to accelerate the repatriation of earnings.

iii) Agency consideration: Factors affecting a multinational corporation's (MNC's) decisions regarding the amounts of dividend payments may also encourage repatriation. For example, countries that have high market or political risks or that are culturally or institutionally different from the home country of the MNC are likely to cause high levels of repatriation.

Oseghale and Nwachukwu (2010), Chakravarty and Xiang (2011), Salorio and Brewer (2013), and Taylor, Mahabir, Jagessar, and Cotton (2013) have also contributed to the field by analyzing factors affecting the reinvestment of earnings. Oseghale and Nwachukwu (2010) empirically proved that good governance, market size, the market growth rate, the exchange rate, the quality of labor, and the profitability of existing operations are all positively correlated with reinvested earnings. Similarly, Chakravarty and Xiang (2011) concluded that access to external financing, property rights, the extent of private ownership, and a relative competitive advantage all have significant effects on the decisions of foreign investors concerning the level of earnings retained in a host country. In a recent paper, Taylor (2013) et al. argued that as the economic growth of a host country and the profitability of foreign firms increase, foreign investors tend to hold reinvested earnings in the country. In contrast, a depreciation of the host currency and an increase in the host country's government consumption seem to decrease the volume of reinvestments. Saloria and Brewer (2013) proposed a similar theory to the previous studies in which they pointed out that reinvested earnings are likely to be associated with corporate taxes rates, exchange rates, interest rates, and the operational needs of MNCs in particular countries. They also noted that retained earnings are likely to be responsive to the restrictions on the remittance of profits to the parent company.

2- Data and Methodology

2.1. Data

The flows of reinvested earnings in the 80 (developed, developing, and transition) countries are defined as our dependent variable. ¹These data were attained from the International Monetary Fund (IMF) Balance of Payments standard presentation (BOP5) data dissemination server (www.imf.org). All variables in level form are measured in millions of U.S. dollars, and their short definitions and data sources are provided below. Statistical data on the risk ratings include a composite index of economic, financial, and political risk and a separate index for each of the sub-categories. Furthermore, risk ratings on investment profile, repatriation, payment delays, contract viability, consumer confidence, and legislative strengths come from the Political Risk Service (PRS) Group's International Country Risk Guide 2012 electronic data server (www.prsgorup.com). The remaining variables, including GDP, growth, taxes, and real exchange rates, were drawn from the World Bank data dissemination server (www.worldbank.org).

Reinvested Earnings. This refers to the direct investors' shares (in proportion to equity held) of the undistributed earnings of a direct investment enterprise. Reinvested earnings are considered to be additional capital for direct investment enterprises. They are recorded as direct investment income, with an offsetting capital transaction.

CR Index. The designation "country risk (CR) index" is defined as the composite index of the financial risk, political risk, and economic risk indices of the 80 (developed, developing, and transition) countries for the period between 2006 and 2012. The data points of the CR index range from very high (00.0–49.5) to very low risk (80.0–100); that is, as the points get higher, the risks get lower. One may also read the CR index as a "confidence level" index. Most studies use CR indices or ratings taken from different sources to capture the

¹ **The country list in the analysis:** Argentina, Armenia, Australia, Austria, Azerbaijan, Bangladesh, Belarus, Belgium, Bolivia, Botswana, Bulgaria, Cameroon, Chile, China (Hong Kong), China (Main Land), Colombia, Costa Rica, Croatia, Cyprus, Czech Republic, Denmark, Dominica, Ecuador, El Salvador, Estonia, Finland, France, Germany, Greece, Guatemala, Honduras, Hungary, India, Ireland, Israel, Italy, Japan, Kazakhstan, Korea, Latvia, Lithuania, Luxemburg, Malawi, Mali, Malta, Mexico, Mongolia, Morocco, Namibia, Netherlands, New Zealand, Nigeria, Norway, Panama, Pakistan, Papua New Guinea, Paraguay, Peru, Philippines, Poland, Portugal, Romania, Russia, Senegal, Sierra Leone, Slovakia, Slovenia, Spain, Sri Lanka, Sweden, Switzerland, Tanzania, Thailand, Turkey, USA, Uganda, United Kingdom, Uruguay, Venezuela, Zambia.

impact of political, economic, or financial risks on FDI flows (for examples, see the studies conducted by Bilgili et al. (2012), Arbatli (2011), Janicki and Wunnava (2004), Carstensen and Toubal (2003), and Bevan and Estrin (2004)). CR risk index is incorporated into the model to measure the impact of economic, financial, and political uncertainties arising in the individual country on company earnings.

Financial Risk. PRS defines financial risk ratings as “a means of assessing a country’s ability to pay its way by financing its official, commercial and trade debt obligations.” Risk ratings range from a high of 50 (least risk) to a low of 0 (the highest risk). This type of risk rating is included in the model to identify the impact of the financial risk of each host country, if any, on the repatriation decision regarding reinvested earnings.

Economic Risk. PRS defines economic risk ratings as “a means of assessing a county’s current economic strengths and weakness.” Risk ratings range from a high of 50 (least risk) to a low of 0 (the highest risk). Inclusion of economic risk ratings is intended to assess if the economic welfare of each individual country causes higher locked-out foreign cash.

Political Risk. PRS defines political risk ratings as “a means of assessing a country’s political stability.” Political risk ratings range from a high of 100 (least risk) to a low of 0 (the highest risk). Since the reinvested earnings are “hot money” or cash in hand, they are very likely to be sensitive to explicitly unsteady political risk factors. Thus, inclusion of this kind of risk assessment into the model is warranted.

Investment Profile. As the measure of a combination of factors that lie outside the conventional political, financial, and economic risk components affecting investment in a host country, the term “investment profile” is defined by the PRS group as the amalgam of the following three components: Contract Viability/Expropriation, Profits Repatriation, and Payment Delays. In this respect, it may not be a perfect substitute for the host country CR index variable. A score of 4 points indicates very low risk while a score of 0 corresponds to very high risk for the investment profile and separate index of each sub-component (contract viability, repatriation, and payment delays risks). That is, as the points increase, the risks decrease.

Repatriation. This type of risk ratings shows the extent to which reinvested earnings can be remitted out of the host country. The risk factors taken into consideration by PRS include exchange controls, excessive bureaucracy, a poor banking system, etc. This study is the first to employ the

repatriation ratings of each individual country to measure impacts of such controls on the repatriation of reinvested earnings.

Consumer Confidence. PRS defines consumer confidence risk ratings as “the level of consumer confidence vis-a-vis credible surveys based on the economic growth, investment conditions etc.” If the main objective of foreign investors is to serve foreign market (market-seeking FDI) rather than to export (resource-seeking FDI), consumer confidence may be a good proxy for brand loyalty and desired investment conditions in the foreign market, which induce MNFs to retain reinvested earnings to grow the firms. Consumer confidence index is incorporated into the model to assess the impact of optimism or pessimism of foreign investors about future course of economy on their decision in repatriating reinvested earnings abroad.

Legislative Strengths. PRS defines legislative strength risk ratings as “whether the government can realize its policy program through the legislative arm of government.” Legislative strength shows the ability of the government to interfere in the market. A higher legislative strength may serve as a better investment climate under the control of government enforcement.

Contract Viability. PRS defines contract viability risk ratings as “the risk of unilateral contract modification or cancellation and, at worst outright expropriation of foreign owned assets.” Contract viability risk ratings show the ability of foreign investors to secure their contracts by legal sanctions. Thus, it may be a good proxy for a secured investment environment that may stimulate higher reinvested earnings in the country.

Payment Delays. Payment delays risk ratings shows the risks associated with receiving and exporting payments from the country. The factors taken into consideration by PRS are poor liquidity, exchange controls, an adequate banking system, etc. This type of risk rating predicts the ability of foreign investors to secure a balance of payments accounts and thus to meet the liquidity needs of MNFs in the host market. Therefore, a higher confidence in payment delay risk may lead investors to repatriate company earnings to the parent company.

Gross Domestic Product (GDP). GDP is used as a proxy to account for the market size of each host country (see the studies of Bilgili et al. (2012), Campa (1993), Dumludağ (2009), Erdal and Tataoğlu (2002), Eşiyok (2011), and Tokunbo and Lloyd (2009)). A saturated local market and the subsequent weakening of local demand represent a primary driver for foreign investors to

invest abroad. Hence, the larger GDP may cause foreign investors to keep reinvestments in the host market to meet higher domestic demand.

Growth. The rate of growth in the GDP variable reflects the growth and development of an economy. Lundan (2006, 40) stated that “The most obvious macro-level determinant of investment opportunities is the rate of growth in GDP.” Accordingly, the GDP growth rate may be a good proxy to measure the impact of (un)favorable investment conditions on the reinvestment decisions of foreign investors in a host country.

Real Effective Exchange Rate. Real effective exchange rate (REX_t) is the nominal effective exchange rate (a measure of the value of a currency against a weighted average of several foreign currencies) divided by a price deflator or index of costs. An analysis of the FDI literature reveals mixed evidence regarding the impact of exchange rate levels on FDI inflows. For example, while Froot and Stein (1991) and Cushman (1985) claimed a negative correlation between FDI and exchange rate levels, Campa (1993) proposed the opposite. As far as reinvested earnings are concerned, however, one can safely assume a positive impact of REX_t appreciation on the funds remitted to a home country. Moreover, given that the latter can be seen as the opportunity cost of keeping funds in a host market, a negative correlation with reinvested earnings may be expected.

Corporate Tax. The primary reason for investors to invest abroad is to gain profit. Corporate taxes levied by a host country government obviously represent an extra cost, thus reducing the profit of a foreign affiliation in a host market. Lundan (2006) and Saloria and Brewer (2013) reported that the corporate tax rate is one of the most important macro-economic determinants of reinvested earnings.

The expected impacts of the variables, based on economic theory, are summarized in Table 1 below.

Table 1: Expected Sign of the Coefficients

Variable	Effect
Reinvested earnings	+/-
Equity Capital	+/-
Loan	+/-
CR index	+
Financial risk	+
Economic risk	+

Political risk	+
Investment profile	+
Repatriation	-
Consumer confidence	+
Legislative strengths	+
Contract viability	+
Payment delays	-
GDP	+
Growth	+
Real exchange rate	+
Corporate tax	-

2.2. Model Specification

A dynamic panel model is specified for reinvested earnings as component of FDI, with i indexing countries and t indexing time. The specified model can be expressed as follows:

$$y_{i,t} = \alpha_{0t} + \alpha y_{i,t-1} + \sum_{k=1}^{10} \beta_k Cr_{kit} + \sum_{k=1}^4 \gamma_k X_{kit} + \eta_i + v_{i,t} \quad (1)$$

The second term following the time-varying α_{0t} in the equation is the lagged dependent variable. To account for the interdependence, following the dynamic terms in the equation, the contemporaneous effects of the other two components are included. Furthermore, a set of country risk (Cr) variables—such that summing up to ten implies that the composite index of the host country, a separate index for each economic risk, political risk, financial risk and risk ratings on investment profile, repatriation, payment delays, contract viability, consumer confidence, and legislative strengths—are included. X_k represents a set of macroeconomic variables that affect the reinvested earnings: namely, GDP, growth, real effective exchange rate (REX_i), and corporate tax. We have also incorporated time dummies between 2007 and 2011 in order to capture the impacts of important events, if any, such as the global financial crisis triggered by the U.S. real estate property market collapse at the end of 2007, on the reinvested earnings component.

2.3. Methodology

The Arellano and Bond (1991) method is generally considered the appropriate method of estimation for dynamic panel specification. There are several reasons for choosing this estimator. The first is to control for unobserved country-specific effects, which cannot be handled using country-specific dummies because these are not directly observable. Second, the estimator is capable of handling the simultaneity bias associated with the possible endogeneity of some of the explanatory variables. Moreover, FDI and components are inherently dynamic in nature like many similar economic variables. In this respect, Arellano and Bond (1991) proposed a generalized method of moment (GMM) procedure that is both unbiased and efficient. The main principle of this method is based on the utilization of the orthogonality conditions that exist between lagged values of y_{it} and the disturbance v_{it} . The method proceeds in several steps.

To eliminate the country effect, the model is converted to first differences. We can illustrate this using the reinvested component as follows:

$$\Delta y_{i,t} = \alpha \Delta y_{i,t-1} + \sum_{k=1}^{10} \beta_k \Delta Cr_{kit} + \sum_{k=1}^4 \gamma_k \Delta X_{kit} + u_{i,t} \quad (2)$$

where $\Delta y_{it} = y_{it} - y_{i,t-1}$ and so on, and $u_{i,t} = v_{i,t} - v_{i,t-1}$. This eliminates the country effect while leaving the time effect intact. Analogous equations can be similarly specified for the other two components. Since the time effect was unrestricted to begin with, $\Delta \alpha_{0t} = \lambda_t$ is an unrestricted time factor and can be modeled with a time-specific dummy variable.

Lagged values of y_{it} can serve as valid instruments provided that they are orthogonal to the disturbances $u_{i,t}$ as suggested by Arellano and Bond (1991). This is valid as long as the error term is serially uncorrelated and the lags of the explanatory variables are weakly exogenous. This standard approach is called GMM in differences (GMM-dif) since instruments used for equations in differences (Eq.4) are in level form.

Alternatively, lagged first differences of $y_{i,t}$ can serve as additional instruments as proposed by Arellano and Bover (1995) and Blundell and Bond (1998) particularly when Arellano and Bond estimator might perform poorly due to the existence of large autoregressive parameters or persistent

explanatory variables. Under such circumstances they have shown that the lagged levels of the variables become weak instruments.

The usage of these additional instruments lead to what is described GMM system estimation (GMM-sys). With the inclusion of extra instruments, although we inevitably create additional moment conditions associated with both first differenced and level form, we are thus able to reduce biases and imprecisions by incorporating additional information. While many disappointing features of the standard GMM-dif approach can be overcome by GMM-sys, this may also come at a cost as the time dimension grows, since with the resulting increase in the number of instruments the power of the tests may weaken. However, the costs of this trade-off between efficiency and power of tests may be alleviated by adopting Roodman's (2009) instrument reduction technique by way of imposing lag limits and collapsing the instrument matrix. Consequently, we have adopted the system approach. Hence all equations prefixed as GMM, denote GMM system estimation results.

The consistency of this estimator is contingent upon specification tests. The main test, also called the J test, was developed by Hansen (1982) and is a test of over-identifying restrictions. If the instruments are jointly valid under the null hypothesis, the empirical moments have zero expectation, such that the J statistic is distributed as a χ^2 with the degrees of freedom being equal to the degree of over-identification. The other test checks the null hypothesis of no serial correlation of the differenced error term. In this test, a large p value is indicative of an appropriate specification of the model.

3- Empirical Results

By employing yearly data from 2006 to 2012, a dynamic panel data equation is estimated for reinvested earnings flows as a component of total FDI in the 80 (developed, developing, and transition) countries. Four alternative one-step GMM system results for reinvested earnings are given in Table 2. At this point, one may question the reason for omitting some variables rather than employing them all together in one GMM (e.g., GMM5). The answer is tied to a strong collinearity among particular risk variables (i.e., composite index versus separate index of each sub-component; investment profile versus payment delays, repatriation, contract viability, etc.). To ensure the robustness of estimates, the estimate for the coefficient of a lagged dependent variable should lie between the fixed effect (FE) and ordinary least squares (OLS) estimates. These are provided in the bottom of Table 2, and the values of the

coefficients of the lagged dependent variables for each one-step GMM system model lie between the FE and OLS estimates.

Table 2: Estimation Results of One-Step System GMM

	GMM1-sys	GMM2-sys	GMM3-sys	GMM4-sys
Constant	204.9135 (0.008)**	-35.8104 (0.444)	-158.552 (0.020)*	-250.098 (0.004)**
Earnings_{t-1}	0.7859 (0.00)**	0.7974 (0.00)**	0.7995 (0.00)**	0.7958 (0.00)**
Equity	-0.0663 (0.353)	-0.0602 (0.412)	-0.0576 (0.420)	-0.0554 (0.407)
Loan	0.0692 (0.617)	0.0683 (0.632)	0.0526 (0.700)	0.0412 (0.745)
CR index	2.9068 (0.003)**	—	—	6.0840 (0.035)*
Financial risk	—	—	1.8627 (0.113)	—
Economic risk	—	—	—	-2.8564 (0.458)
Political risk	—	—	1.7249 (0.020)*	—
Investment profile	—	-4.3278 (0.176)	—	—
Repatriation	-20.1541 (0.037)*	—	—	0.7743 (0.929)
Consumer confidence	2.2450 (0.816)	22.7683 (0.049)*	18.8228 (0.079)	12.4337 (0.186)
Legislative strengths	7.3284 (0.501)	9.6317 (0.375)	1.4213 (0.898)	-4.6836 (0.714)
Contract viability	—	—	-5.2089 (0.557)	-6.2259 (0.585)
Payment delays	—	—	-29.1764 (0.019)**	-43.4792 (0.010)**

GDP	0.1709 (0.014)**	0.1668 (0.032)*	0.1687 (0.018)**	0.1755 (0.012)**
Growth	2.1610 (0.022)*	1.7205 (0.028)*	1.8336 (0.021)*	1.9895 (0.028)*
Real exchange rate	0.2777 (0.310)	0.0381 (0.861)	0.1979 (0.421)	0.3310 (0.289)
Corporate tax	-0.1685 (0.360)	-0.2273 (0.110)	-0.2243 (0.097)	-0.2100 (0.115)
d7	17.3786 (0.202)	16.6214 (0.228)	23.9500 (0.107)	29.0329 (0.141)
d8	-23.4081 (0.030)*	-24.4681 (0.038)*	-18.5618 (0.123)	-7.3315 (0.452)
d9	22.0020 (0.040)*	15.7748 (0.105)	21.6770 (0.027)*	26.3120 (0.011)**
d10	36.8545 (0.00)**	32.1730 (0.001)**	35.2152 (0.001)**	37.9283 (0.004)**
d11	13.9936 (0.257)	11.8498 (0.319)	13.9507 (0.227)	15.7338 (0.220)
Wald	1513.04	2519.91	3161.33	2426.06
Ch²(16)	(0.00)*	(0.00)**	(0.00)**	(0.00)**
Prob > Ch²				
Number of obs.	318	318	318	318
Instruments	20	19	22	23
Arellano bond AR(2)	0.771	0.701	0.692	0.689
Hansen test	0.139	0.150	0.150	0.155
OLS	0.8165	0.8164	0.8200	0.8292
Fixed effect	0.1976	0.1808	0.1568	0.2138

Note 1: ** denotes the 1% significance level, whereas * denotes the 5% significance level. The standard errors of the coefficients are in parentheses.

Note 2: Inclusion of time dummies for 2009 GFC and 2012 GFC lead multicollinearity problem and lead us to drop the 2012 time dummy from the regression.

Table 2 yields estimation outputs for reinvested earnings in four different one-step systems GMM (GMM1-sys, GMM2-sys, GMM3-sys, and GMM4-sys). Both the Hansen and the AR (2) test results reveal no evidence of misspecification associated with over-identification or serial correlation. Thus, the use of Roodman's instrument reduction technique by way of collapsing instruments does not lead loss of information. Furthermore, rejection of the Wald test ensures the evidence of having no over-identification problems among moment conditions.

We have kept macro-economic indicators of reinvested earnings across all four equations. Although, we could not find any effects of REX and corporate tax rate on reinvested earnings. We have proved that regardless of which specification is used, GDP and growth are statistically significant and positively correlated with reinvested earnings across all GMM-sys equations.

As the GDP increases, foreign investors are likely to keep their undistributed earnings in the host country to fulfill the cost of expanded operations aiming to meet the domestic demand. The positive effect of higher GDP on undistributed earnings also shows that investors are highly market-oriented and evaluate the new market potential to expand the foreign firm in the country. On the other hand, the straightforward implication of a larger GDP growth rate is higher production and sales volumes—and thus increased profit for both domestic firms and MNCs. Therefore, an increase in the GDP growth rate motivates investors to increase their reinvested earnings in the host county in order to take advantage of potential investment opportunities.

Furthermore, reinvested earnings are shown to be positively correlated with CR index (confidence level) of individual countries in both (GMM1-sys and GMM4-sys) specifications. This means that after a rise in the CR index, investors feel more optimistic about future host market potentials and delay their repatriation decisions. On the other hand, inclusion of a separate risk index of each sub-component in different specifications reveals that reinvested earnings are, indeed, only associated positively with political risk ratings. Our intuition is that the positive effect of the CR index on reinvested earnings is primarily the result of the political risk ratings as a sub-component. Additionally, a strong positive effect of political risk ratings on the reinvested earnings in the (GMM3-sys) specification shows that an increase in political

risk (political confidence level) induces foreign managers to keep reinvested earnings in the host market. In other words, a safe political environment leads investors to decrease remitted earnings to the parent company.

The traditional wisdom seems to view FDI as being “bolted down” and unable to leave “so easily at the first sign of trouble.” However, contrary to popular belief, we proved that reinvested earnings flows as an important sub-component of total FDI are rather sensitive to the risks associated with unsteady political uncertainties as such in portfolio investments and may lead to a reversal of reinvestment at the first signs of political uncertainty.

Moreover, a strong negative association among reinvested earnings and payment delays implies that foreign investors tend to repatriate their earnings when they secure the reimbursements arising from their business relationships. Thus, an increase in the confidence level with respect to the payment delay risk positively affects remitted earnings to the parent country. Put differently, investors tend to keep earnings as a compensation tool to meet the liquidity requirements for daily operations. But, when they ensure the balance of payments accounts and outstanding receivables, they prefer to cover their cash requirements with their claims while they repatriate their earnings to the parent company.

In line with our expectations, a strong negative relationship between repatriation risk ratings and reinvested earnings is also confirmed by the results. This means that an increase in the repatriation risk rate (confidence level) facilitates the repatriation of earnings to the parent company, thereby leading to a decrease in the amount of reinvestments. In other words, unless foreign investors do not face any constraints with regard to repatriation of their earnings to the overseas countries, such as exchange controls, excessive bureaucracy, or a poor banking system, they are encouraged to increase their remitted earnings to the parent company or abroad.

The effect of a favorable investment environment on the reinvested earnings is once more confirmed with a positive association between consumer confidence and reinvested earnings. As again expected, an increase in the consumer confidence level stimulates foreign investors to hold their retain earnings in the host market to take advantage of new investment opportunities. That means that the consumer confidence level in the market may be perceived as an important indicator of brand loyalty for the products of foreign companies whose primary objective is to serve the domestic market. On the other side, since the consumers are the last users of final products and

are thus closer to the market, they may also reflect the best hearsay information about the investment conditions and growth opportunities in the market.

Yet, the study could not prove any effects of separate indices of CR ratings (Economic risk and Financial risk), and other risk measures of investment profile, legislative strengths and contract viability on the reinvested earnings. Lastly, the study has also failed to cover any effect of other sub-components (equity capitals and intra-company loans) of total FDI on reinvested earnings as well. Meaning that, there is no interdependence relationships among the reinvested earnings and the other two components. Independence of each component from another may be the natural result of global financial crisis on reinvested earnings. Although, reinvested earnings may be used to finance additional investments in the host market, the amount of remitted earnings may rise due to the post- crisis uncertainty in the host market. Thus, as outflows of remitted earnings increase, this may reduce the possible interaction between reinvested earnings and other two sub-components.

SUMMARY AND CONCLUDING REMARKS

Although there are a few related studies in the existing literature, this study attempts to offer a new insight into the FDI area. First, the determining factors of company earnings as a sub-component of total FDI in 80 (developed, developing, and transition) countries have been investigated in a simultaneous setting. Second, the effects of unconditional individual country risk ratings thought to have a direct effect on explicitly retained earnings have been taken into consideration. Third, the resiliency of offshore cash exposed to the individual country risks is explained from a new perspective.

The main findings point out that reinvested earnings are clearly market- and profit-oriented. In this way, a larger market and a higher GDP growth rate stimulate investors to hold their cash earnings in the host market to capture new investment opportunities. Thus, the likelihood of higher company earnings with the increase in the consumer confidence level is not surprising.

On the other side, the positive impact of composite risk ratings on the company earnings seems to be mainly driven by the political risk ratings. This means that investors are highly responsive to the political uncertainty in the host market and thus a safe political environment is perceived as an ideal destination to keep the funds to compensate for new growing opportunities.

Finally, the empirical findings show a negative linkage of company earnings with payment delays and repatriation risk ratings. In other words, the likelihood of company earnings reversal to the parent company is tied strongly to the extent an investor is allowed to increase remitted earnings. Moreover, a negative effect of payment delays risk ratings on company earnings may be the results of the investors' higher confidence in the re-payments of their claims, and thus as the liquidity requirements are met by receivable claims, they are more likely to repatriate their earnings rather than keeping them as a compensation tool.

REFERENCES

- Arbatli, Elif. 2011. "Economic Policies and FDI Inflows to Emerging Market Economies." IMF Working Paper, 11/192.
- Arellano, M., and S. Bond. 1991. "Some Tests of Specification for Panel Data: Monte Carlo Evidence and an Application to Employment Equations." *The Review of Economic Studies* 58 (2): 277–297.
- Arellano, M., and O. Bover. 1995. "Another Look at the Instrumental Variable Estimation of Error-Components Model." *Journal of Econometrics* 68 (1): 29–51.
- Auerbach, A. J., and K. Hassert. 1993. "Taxation and Foreign Direct Investment, in the United States, A Reconsideration of the Evidence." In *Studies in International Taxation*, edited by A. Giovannini, R. G. Hubbard, and J. Slemrod. Chicago: Chicago University Press: 119–148
- Bevan, Alan A., and S. Estrin. 2004. "The Determinants of Foreign Direct Investment into the European Transition Economies." *Journal of Comparative Economics* 32 (4): 775–787.
- Bilgili, F., N.S. Tülüce Halıcı, and İ. Doğan. 2012. "The Determinants of FDI in Turkey: A Markow Regime-Switching Approach." *Economic Modelling* 29 (4): 1161–1169.
- Blundell, R., and S. Bond. 1998. "Initial Conditions and Moment Restrictions in Dynamic Panel Data Models." *Journal of Econometrics* 87 (1): 115–143.
- Brewer, Thomas L. 1993. "Government Policies, Market Imperfections and Foreign Direct Investment." *Journal of International Business Studies* 24 (1): 101–120.

- Buckley, P. J., Clegg, J., Cross, A. R., Liu, X., Voss, H., & Zheng, P. (2007). The determinants of Chinese outward foreign direct investment. WestminsterResearch <http://www.wmin.ac.uk/westminsterresearch>
- Campa, Jose Manuel. 1993. "Entry of Foreign Firms in the United States under Exchange Rate Uncertainty." *The Review of Economics and Statistics* 75 (4): 614-622.
- Carstensen, K., and F. Toubal. 2003. "Foreign Direct Investment in Central and Eastern European Countries: A Dynamic Panel Analysis." Kiel Working Paper no.1143.
- Chakravarty, S., and M. Xiang. 2011. "Determinants of Profit Reinvestment by Small Business in Emerging Economies." *Financial Management* 40 (3): 553-590.
- Cushman, David O. 1985. "Real Exchange Rate Risk, Expectations and the Level of Direct Investment." *The Review of Economics and Statistics* 67 (2): 297-308.
- Desbordes, Rodolphe. 2007. "The Sensitivity of U.S. Multinational Enterprises to Political and Macroeconomic Uncertainty: A Sectoral Analysis." *International Business Review* 16 (6): 732-750.
- Dunning, J. H. 1977. Trade, location of economic activity and the MNE: A search for an eclectic approach. In B. Ohlin, P. O. Hesselborn, & P. M. Wijkman (Eds.), *The international allocation of economic activity*(pp. 395-418). London: Macmillan.
- Dumludağ, Devrim. 2009. "An Analysis of the Determinants of Foreign Direct Investment in Turkey: The Role of Institutional Context." *Journal of Business Economics and Management* 10 (1): 15-30.
- Erdal, F., and E. Tataoğlu. 2002. "Locational Determinants of Foreign Direct Investment in an Emerging Market Economy: Evidence from Turkey." *Multinational Business Review* 10 (1): 21-27.
- "Ernst and Young's Attractiveness Survey." Russia, 2013 (www.ey.com)
- Eşiyok, Bülent 2011. "Determinants of Foreign Direct Investment in Turkey: A Panel Study Approach." MPRA paper 36538, University Library of Munich, Germany.

- Froot, K. A., and J. C. Stein. 1991. "Exchange Rates and Foreign Direct Investment: An Imperfect Capital Market Approach." *The Quarterly Journal of Economics* 106 (4): 1191–1217.
- Hansen, Lars Peter. 1982. "Large Sample Properties of Generalized Method of Moments Estimator" *Econometrica* 50 (4): 1029–1054.
- Janicki, J., and P. Wunnava. 2004. "Determinants of Foreign Direct Investment: Empirical Evidence from EU Accession Candidates." *Applied Economics, Taylor & Francis Journals* 36 (5): 505–550.
- Kayam, S.S. 2009. Home market determinants of FDI outflows from developing and transition economies. Economic and Social Research Center, ITU Faculty of Management, <http://mpira.ub.uni-muenchen.de/16781/>
- Kimino, S., N. Driffield, and D. Saal. 2012. "Do Keiretsu Really Hinder FDI into Japanese Manufacturing?" *International Journal of the Economics of Business* 19 (3): 377–395.
- Kundu, Sumit K., and Farok J. Contractor. 1999. "Country Location Choices of Service Multinationals: An Empirical Study of the International Hotel Sector." *Journal of International Management* 5 (4) (Winter): 299–317.
- Koyuncu, F. 2010. Türkiye’de Seçilmiş Makroekonomik Değişkenlerin Doğrudan Yabancı Sermaye Yatırımları Üzerindeki Etkisinin Yapısal Var Analizi: 1990–2009 Dönemi [The effects of some macroeconomics variables on FDI in Turkey: A structural vector autoregression between the period 1990–2009]. *Ekonomi Bilimleri Dergisi*, 2(1), 1309–8020.
- Loree, D. W., and S. E. Guisinger. 1994. "Policy and Non-policy Determinants of U.S. Equity Foreign Direct Investment." *Journal of International Business Studies* 26 (2): 281–299.
- Lundan, Sarianna M. 2006. "Reinvested Earnings as a Component of FDI: An Analytical Review of the Determinants of Reinvestment." *UN Transnational Corporations* 15 (3): 33–64.
- Oseghale, B. D., and O. C. Nwachukwu. 2010. "Effect of the Quality of Host Country Institutions on Reinvestment by United States Multinationals: A Panel Data Analysis." *International Journal of Management* 27 (3): 497–510.
- Roodman, David. 2009. "How to Do xtabond 2: An Introduction to Difference and System GMM in Stata." *The Stata Journal* 9 (1): 86–136.

- Salorio, Eugene M., and Thomas L. Brewer. 2013. "Components of Foreign Direct Investment Flows." *Latin American Business Review* 1 (2): 27–45.
- Taylor, T., R. Mahabir, V. Jagessar, and J. Cotton. 2013. "Examining Reinvestment in Trinidad and Tobago." Central Bank of Trinidad and Tobago, Spain: Working Paper 10.
- Tokunbo, S. O., and A. A. Lloyd. 2009. "Foreign Direct Investment and Exchange Rate Volatility in Nigeria." *International Journal of Applied Econometrics and Quantitative Studies* 9 (2): 1–13.
- Tolentino, P.E. 2008. The determinants of the outward foreign direct investment of China and India: Whither the home country? *Working Paper Series, United Nations University – Maastricht Economic and social Research and training center on Innovation and Technology*. <http://www.merit.unu.edu>
- UNCTAD "World Investment Report 2008." 2008. New York and Geneva: United Nations.
- Wolff, Guntram B. 2007. "Foreign Direct Investment in the Enlarged EU: Do Taxes Matter and To What Extent?" *Open Economic Review* 18 (3): 327–346.