

Do The Determinants of International Equity Investment Holdings Differ Across Investors? Evidence for Europe

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Abstract

This paper investigates the determinants of international equity investment holdings of institutional and noninstitutional investors, from EU countries, at the end of years 2001 to 2006. The results show that there are statistically significant differences in international equity investment holdings between institutional and non-institutional investors, leading us to conclude for the heterogeneity of their international preferences. These preferences remain fairly stable over the sample period. Furthermore, the results suggest that the determinants of international equity investment holdings do differ across institutional and noninstitutional investors. Particularly, size variables tend to be more relevant for institutional than for noninstitutional investors, while information costs and familiarity variables tend to be more important for noninstitutional than for institutional investors.

Keywords: *Portfolio Choice; Investment Decisions; Financial Institutions*

JEL classification: *G11, G20*

1. Introduction

The benefits of international portfolio investments are well documented in the finance literature. The most established benefit of foreign investments is risk diversification. In purely a domestic scenario, total portfolio risk reduction can be achieved through the combination of assets whose returns are not perfectly positively correlated (Markowitz 1952). However, since all domestic assets tend to be affected by common sources of risk, even extensive diversification cannot eliminate systematic or domestic market risk (Sharpe 1963). In his seminal work, Solnik (1974) shows that it is possible to further reduce total portfolio risk through international diversification due to the markedly low

correlation coefficient across different national stock markets, which can be attributed to country and/or industry specific factors¹. In fact, several empirical studies have demonstrated that, although the correlation coefficients across stock markets vary over time (e.g. Longin and Solnik 1995, Solnik et al. 1996) and tend to increase in periods of high stock market volatility (e.g. King et al. 1994, King and Wadhvani 1990, Ramchand and Susmel 1998), they remain at levels that are attractive from the risk-diversification viewpoint (e.g. Odier and Solnik 1993). Furthermore, by adjusting the international asset allocation towards markets with superior expected returns, an investor can simultaneously reduce the risk and increase the expected return of their portfolios, ensuring a higher risk-adjusted expected return (Shapiro 2000). In fact, Odier and Solnik (1993) find that global asset allocation offers large potential gains in terms of risk-adjusted performance for investors of all major countries, this way supporting the results of previous studies (e.g. Grubel 1968, Levy and Sarnat 1970, Grauer and Hakansson 1987).

In view of the fact that international diversification offers dramatic opportunities for improving risk-return trade-offs, rational investors should invest abroad. As a matter of fact, the International Capital Asset Pricing Model (ICAPM) suggests the existence of an optimal portfolio, internationally diversified according to the relative importance of each country to the world market capitalization, that in equilibrium should be held by investors worldwide. However, the empirical literature documents substantial evidence that investors worldwide do not hold this optimal portfolio (e.g. French and Poterba 1990, Tesar and Werner 1995b, Cooper and Kaplanis 1994). Particularly, in relation to the predictions of the ICAPM, investors tend to overweight domestic equities (home bias) and underweight foreign equities (foreign bias)². These biases are still severe nowadays, despite the trend towards increasing international diversification, and the reduction of the home and foreign bias, especially in developed countries (e.g. Amadi 2004a, Baele et al. 2007, Sercu and Vanpepe 2007, Ferreira and Miguel 2007a).

Numerous studies have attempted to provide theoretical explanations for the lack of international diversification of investors' portfolios. Sercu and Vanpepe (2007) identify five main theories: (i) hedging domestic risk, (ii) implicit and explicit costs of foreign investments, (iii) information costs, (iv) corporate governance and transparency, and (v) behavioral biases. A first potential explanation for the home bias in equity portfolios is that domestic assets serve as a better hedge for home-country specific risks, namely inflation risk (Adler and Dumas 1983), real exchange rate risk (Fidora et al. 2007), domestic consumption risk (Chue 2007), and the risk from non-tradable wealth components, such as human capital (Julliard 2002, Coen 2001, Baxter and Jermann 1997, Bottazzia et al. 1996, Brainard and Tobin 1992) and non-financial income (Massa and Simonov 2006). However, none of the studies that consider hedging domestic risks as an explanation for the home bias provide truly convincing results.

A second possible explanation for the home bias focuses on the role of barriers to international investments (Black 1974, Stulz 1981, Errunza and Losq 1985), such as capital and foreign exchange controls and capital market regulations, and of transaction costs (Martin and Rey 2004), such as banking commissions and fees and exchange rate transaction costs. Although they may have been important in the past, nowadays the few existing barriers to international investments are not binding enough to explain the equity home bias (Halliday 1989). Transaction costs also cannot be a reasonable explanation for the home bias, since the turnover rate was found to be higher on foreign

¹ Empirical evidence suggests that country specific factors, such as economic and political factors, clearly dominate industry specific factors in explaining the low correlation across national stock markets (Lessard 1973, Solnik and De Freitas 1998, Heston and Rouwenhorst 1994, Heston and Rouwenhorst 1995, Griffin and Karolyi 1998), even within European Union (Rouwenhorst 1999).

² The domestic bias reflects the extent to which investors' overweight home markets in their portfolios, while the foreign bias reflects the extent to which investors underweight or overweight foreign markets (Chan, Covrig and Ng 2005, Ferreira and Miguel 2007a).

than on domestic equity³ (Tesar and Werner 1995a). Even when turnover rate has been found to be similar for foreign and domestic equity, transaction costs still failed as an explanation for home bias (Warnock 2002).

The third potential explanation relates to information costs (Merton 1987, Gehrig 1993, Brennan and Cao 1997, Brennan et al. 2005). According to the information costs theory, investors are better informed on the risk-return characteristics of domestic assets than of foreign assets and therefore they perceive the latter as more risky than the former. This, in turn, induces risk-averse investors to hold domestic assets, explaining the home bias. The information costs theory has gained support in the recent empirical literature (e.g. Lane and Milesi-Ferretti 2008, Mishra 2007, Faruquee et al. 2004, Al-Khail 2003, among others).

The fourth potential explanation for the equity home bias phenomenon is related to country and firm-level governance and transparency. According to this theory, country or political risk (Dahlquist et al. 2003), poor national accounting standards and practices (Pagano et al. 2001, Ahearne et al. 2004), as well as the lack of legal protection of minority shareholders (La Porta et al. 1999) can deter investors from investing abroad and therefore explain the lack of foreign diversification of investors' portfolios. The governance and transparency theory has also found some support in recent empirical studies (e.g. Gelos and Wei 2005, Aggarwal et al. 2005, among others), although the effects of variables proxing country risk and investor protection are in general less significant than those proxing information costs.

Finally, the behavioral-based explanations attribute the home bias to investor-specific behavioral bias such as familiarity (Huberman 2001), recognition (Goldstein and Gigerenzer 1999, Boyd 2001), patriotism (Morse and Shive 2008), optimism (Kilka and Weber 2000, Strong and Xu 2003) and overconfidence (Odean 1999, Barber and Odean 2000, Barber and Odean 2001, Barber and Odean 2008). Behavioral-based explanations have also gained some support in empirical studies, especially familiarity. For instance, Ackert et al. (2005) show that investors have higher perceived familiarity with local and domestic as opposed to foreign securities and, in turn, invest more in such securities. Coval and Moskowitz (1999) and Ivkovic and Weisbenner (2005) present evidence of a familiarity bias due to geographic proximity. Grinblatt and Keloharju (2001) suggest that investors exhibit a preference for nearby and same language and culture firms. The distinction between familiarity and information costs is, however, ambiguous. For instance, several authors use geographical proximity as a proxy of information costs, while others as a measure of familiarity. Ke et al. (2009) suggest that the preference for physically proximate investments is driven by familiarity rather than information asymmetries. In contrast, Massa and Simonov (2006) argue that familiarity-driven investment decisions are a rational response to information constraints and not a behavioral bias. DeMarzo et al. (2004) find that the impact of familiarity depends on the degree to which the investor is informed: more informed investors are less affected by familiarity.

Recent empirical studies try to provide some evidence on the determinants of international portfolio investment and of the home and foreign bias phenomenon. Such studies differ in several aspects, such as the type of asset under analysis, the type of investor considered, the origin and destination countries considered and the year of investment considered. Table 1 presents the classification of empirical studies according to these criteria, while table 2 and 3 presents the most commonly dependent and independent variables used in these studies.

According to the type of investor, such studies typically base the analysis on (1) aggregate data for all investors in one or more origin countries (e.g. Lane and Milesi-Ferretti 2008, Ferreira and Miguel

³ If trading in foreign assets is more expensive, one would expect a smaller amount of transactions in foreign assets than in domestic assets and not the other way around.

2007a, Mishra 2007, Coeurdacier and Guibaud 2005, Portes and Rey 2005, Ahearne, Grier and Warnock 2004, Amadi 2004a, Amadi 2004b, Martin and Rey 2004, Al-Khail 2003) or (2) disaggregate data for one particular type of investor in one or more origin countries, such as mutual funds (e.g. Gande and Parsley 2010, Chan et al. 2005, Gelos and Wei 2005, Aggarwal, Klapper and Wysocki 2005), pension funds (Timmermann and Blake 2005) and households (Kyrychenko and Shum 2006). In this respect, both types of studies are limited since they don't allow the comparison of the determinants of international portfolio decisions across different types of investors.

These limitations motivate the following research questions: is the geographic distribution of international portfolio investment the same for all type of investors? Do they exhibit homogeneous or heterogeneous preferences? Are these preferences constant or not over time? Are the investment portfolio investment decisions of different type of investors motivated by the same factors? Is the importance attributed to each factor equal? Based on the information costs theory, one should expect that more informed investors, namely institutional investors, should invest more abroad, than less informed investors, namely noninstitutional or individual investors. In fact, Graham et al. (2009) suggest that more competent investors are more likely to invest in international assets. Grinblatt and Keloharju (2001), Goetzmann and Kumar (2004) and Karlsson and Norden (2007) also suggest that less sophisticated or less experienced investors are more home-biased than sophisticated investors. Furthermore, one should expect that the international portfolio investment decisions of more informed investors should be more motivated by financial concerns and less influenced by familiarity issues, while the reverse should be expected for less informed investors, as suggested by DeMarzo, Kaniel and Kremer (2004).

This study investigates the determinants of international equity investment holdings of different types of investors, namely institutional and noninstitutional investors, from European Union (EU) countries, for the years 2001 to 2006. The objectives of this paper are threefold. First, we compare the geographic distribution of international equity investment holdings across different types of investors, in order to analyze the homogeneity or the heterogeneity of their international investment preferences. Second, we compare the geographic distribution of international equity investment holdings of different types of investors across years, in order to analyze the consistency of their international investment decisions over time. Third, we investigate the determinants of the geographic distribution of international equity investment holdings of different types of investors and test if the importance attributed to each determinant differs across investors.

This study offers important contributions to the existing literature. First, this study is the first to investigate the determinants of international equity investment holdings using data disaggregated by investor type. By using data disaggregated by investor type, we are able to purge the study from the hypothesis of homogeneity of preferences across different types of investors, which underlies studies that use aggregated data for all investors of one or more origin countries. Instead, we assume the homogeneity of preferences within each type of investors. Second, this study is the first to investigate the determinants of international equity investment holdings considering simultaneously institutional and non-institutional investors. This allows us to compare the determinants of international equity investments holdings across different type of investors, which was not addressed by previous studies, as they either considered all investors aggregately, or considered just one specific type of investors. Third, this study is the first to consider continuous 6 years of data. Previous studies just considered: one year (e.g. Al-Khail 2003, Faruqee, Li and Yan 2004, Amadi 2004a, Lane and Milesi-Ferretti 2008), two years (e.g. Chan, Covrig and Ng 2005); two or three discontinuous years (e.g. Berkel 2007, Ferreira and Miguel 2007a). The consideration of a continuous 6 years period, from 2001 to 2006, allows us to consider the evolution of the geographical distribution of international equity investments in recent years, characterized by the

increasing globalization of financial markets and the subsequent increase in international equity investments.

Our main findings can be summarized as follows. There are statistically significant differences in international equity investment holdings between institutional and non-institutional investors, suggesting the heterogeneity of their international preferences. The differences in international equity investment holdings of both institutional and noninstitutional investors over the years are not statistically significant, leading us to conclude for the consistency of their international preferences. Furthermore, the results suggest that the determinants of international equity investment holdings do differ across institutional and noninstitutional investors. Particularly, size variables tend to be more relevant for institutional than for noninstitutional investors, while information costs and familiarity variables tend to be more important for noninstitutional than for institutional investors. We also find that the return chasing behavior is more pronounced for institutional than for noninstitutional investors. Capital markets controls as well as transparency variables are not significant determinants of international equity holdings of both institutional and noninstitutional investors, probably due to the low capital market controls and the good transparency ratings of EU countries.

The remainder of this paper is organized as follows. Section 2 describes the research design. Section 3 presents and discusses the empirical results. Finally, section 4 concludes the major findings of the paper.

2. Research Design

2.1. Sample

To investigate the determinants of international equity investment holdings of institutional and noninstitutional investors, we use the geographical distributions of international equity investment holdings by sector of the holder country, disclosed by the Coordinated Portfolio Investment Survey (CPIS) of the International Monetary Fund (IMF), for several countries and several years. We consider the international equity investment holdings of institutional investors, which aggregate banks, insurance, mutual fund, other financial institutions, and of noninstitutional investors, which aggregate nonfinancial companies, households and other nonfinancial institutions, from European Union (EU) countries at the end of years 2001 to 2006. Specifically, taking into account the availability of data⁴, the EU sample considers: 2 type of investors, institutional investors (aggregating banks, insurance, mutual fund, other financial institutions) and noninstitutional investors (aggregating nonfinancial companies, households and other nonfinancial institutions); 12 investment origin countries from the EU (Austria, Denmark, Finland, France, Germany, Greece, Italy, Netherlands, Portugal, Spain, Sweden, United Kingdom); 14 investment destination countries from the EU (Austria, Belgium, Denmark, Finland, France, Germany, Greece, Italy, Ireland, Netherlands, Portugal, Spain, Sweden, United Kingdom); 6 years of investment (2001 to 2006);. From the sample of origin and destination countries, we excluded Luxembourg, as well countries that joined the EU in May 2004 (Cyprus, Czech Republic, Estonia, Hungary, Latvia, Lithuania, Malta, Poland, Slovakia and Slovenia) and in January 2007 (Bulgaria and Romania). Belgium and Ireland do not disclose the geographical distributions of international equity investment holdings by sector of the holder country, and this is the reason why these countries are not included on the sample of investment origin countries but are on that of destination countries. To avoid outliers we have eliminated origin-destination countries pairs for which there are less than 3 years observations. We also eliminated negative holdings observation (due to short-selling). Considering these criteria, we have a total of 3386 observations in the EU sample.

⁴ In fact, not all countries disclose information of the geographical distributions of international equity investment holdings by sector of the holder country. This is the case of Belgium and Ireland.

2.2. Variables

To evaluate the determinants of international equity investment holdings of institutional and noninstitutional investors, we use as dependent variable the natural logarithm of the value of international equity investment holdings of investor k of origin country i invested in equities of destination country j in year t , as disclosed by CPIS IMF (hereafter holdings). As independent variables we use several measures that have been pointed out in the literature as possible determinants of international equity investment holdings. To evaluate the relative size of each investor k in the origin country i we use the natural logarithm of the value of international equity investment holdings of investor k of origin country i in year t divided by the total value of international equity investment holdings of origin country i in year t , as disclosed by CPIS IMF. This measure also proxies for the international experience of the investor. We also control for the relative size and development of the capital markets of the origin and destination countries by using the ratio of the market capitalization to GDP of each country in year t . These measures can also proxy for the demand and supply of equities assets, respectively. Data on origin and destination countries market capitalizations and GDP are obtained from the World Bank. As a proxy for the diversification potential, we use the correlation coefficient between the monthly returns of stock market indices of origin country i and destination country j over a five year period (including year t). The returns of stock market indices of origin and destination countries were calculated based on the respective monthly prices obtained from the MSCI. We also include the mean and standard deviation of the returns of stock market indices of origin country i and of destination country j , over a five years period (including the year t), to measure the return and risk of the stock market of origin and destination countries, respectively, and to evaluate the return chasing and risk-aversion behavior of investors. To proxy for the predictions of ICAPM, we also include the weight of destination country j on world market capitalization. Data on destination country and world market capitalization is collected from the World Bank. As a proxy for domestic risks, specifically exchange rate risk, we use a dummy variable that equals one if origin and destination countries are members of EMU and therefore they bear no exchange rate risk. This measure is constructed on the basis of the CIA World Fact Book information. To evaluate the barriers to international investments in the origin and destination countries we use the International Capital Markets Control index, from the Economic Freedom of the World (EFW), which is the average of two other indices, namely the Foreign Ownership/Investment Restrictions and the Capital Controls indices. As a proxy for information costs, we use three measures that capture economic links between origin and destination countries and thus the flow of information between both countries. Specifically, we use: (1) bilateral trade, which is the sum of bilateral exports (exports of country i to country j in year t divided by total exports of country i in year t) plus bilateral imports (imports of country i from country j in year t divided by total imports of country i in year t); (2) bilateral FDI, which is the sum of bilateral inward FDI (inward FDI of country i from country j in year t divided by total inward FDI of country i in year t) and bilateral outward FDI (outward FDI of country i to country j in year t divided by total outward FDI of country i in year t); and (3) bilateral migration, which is the sum of bilateral immigration (immigrants in country i from country j in year t divided by total immigrants in country i in year t) and bilateral emigration (immigrants in country j from country i in year t divided by total immigrants in country j in year t). Data to construct these measures is obtained from the United Nations Statistics Division Commodity Trade Statistics Database (COMTRADE), OECD Foreign Direct Investment Statistics, and OECD International Migration Database, respectively. As a proxy for familiarity between origin and destination countries, we use the geographical distance between the capital cities of origin country i and destination country j (data is from CEPII Geodesic Distance database), as well as cultural distance. Cultural distance is evaluated, as in Grosse and Goldberg (1991), by the averaged sum of the absolute values of the differences between origin and destination countries ratings in each one of the 5 cultural dimensions proposed by Geert Hofstede: Power

Distance Index, Individualism, Masculinity, Uncertainty Avoidance Index e Long-Term Orientation. Data is from the Geert Hofstede website. This measure was considered in Wu (2006) and Grosse and Trevino (1996) as a determinant of FDI, but it has never been used as a determinant of international equity investment holdings. We also use a set of dummy variables that equal one if origin and destination countries: are contiguous; share the same official language; have had a colonial relationship; have the same predominant religion, namely Catholicism, Orthodoxy, Protestantism. Data for contiguity, common official language and colonial relationship dummies is from CEPII Geodesic Distance database. The religion dummy is constructed on the basis of the CIA World Fact Book and Hitchcock and Esposito (2004) information. Finally, to proxy for transparency in both origin and destination countries we use the Corruption Perceptions Index, from Transparency International, which measures the perception of corrupt practices in both public and private sectors, scoring countries on a scale from 10 (very clean) to 0 (highly corrupt). Table 4 summarizes the variables used in this study, while Table 5 and 6 presents the descriptive statistics and the correlation matrix for those variables.

2.3. Estimation

First, we compare the geographic distribution of international equity investment holdings across institutional and noninstitutional investors, in order to analyze the homogeneity or heterogeneity of their preferences. To test the null hypothesis of the equality of holdings across institutional and noninstitutional investors, we use the t test.

Second, we compare the geographic distribution of international equity investment holdings of institutional and noninstitutional investors across years, to analyze the consistency or inconsistency of their preferences. To test the null hypothesis of the equality of holdings of institutional and noninstitutional investors across years, we use the Anova test.

Third, we investigate the determinants of the geographic distribution of international equity investment holdings of both institutional and noninstitutional investors and test if the importance attributed to each determinant differs across investors. Thus, we run separate OLS regressions for each type of investor that explain holdings by a set of independent variables, specified in the previous subsection, as well as a set of dummy variables that capture the origin country, the destination country and the year of investment fixed effects:

$$H_{kijt} = \alpha + \beta \cdot X_{kijt} + \phi_i + \varphi_j + \gamma_t \quad (1)$$

Where is H_{kijt} the value of international equity investment holdings of investor k of origin country i invested in equities of destination country j in year t (in natural logarithm form); X_{kijt} is the set of independent variables; ϕ_i is a set of origin country dummy variables, φ_j is a set of destination country dummy variables, and γ_t is a set year of investment dummy variables.

We use White's robust standard error estimation. By running separate regressions for each investor, we will be able to identify the importance and significance of each independent variable in the determination of international equity investment holdings of both institutional and noninstitutional investors. We then test the significance of the differences across institutional and noninstitutional investors through the statistical test for comparing the regression coefficients across subsamples, proposed by (Cohen 1983). Basically, this implies running a single pooled OLS regression for both types of investors including differential independent variables that are the outcome of the product of

each independent variable by a dummy variable (d_k) that equals one if investor k is an institutional investor and zero if investor k is a noninstitutional investor:

$$H_{kijt} = \alpha + d_k + \beta.X_{kijt} + \beta'.X_{kijt}.d_k + \phi_i + \varphi_j + \gamma_t \quad (2)$$

We then made a joint F test to the significance of all differential coefficients (d_k and β'), usually known as the Chow test, as well as joint F tests to the significance of all differential coefficients within a specific group of variables.

3. Empirical Results

3.1. *International investment decisions of EU institutional and noninstitutional investors*

Figure 1 depicts international holdings of EU institutional and noninstitutional investors by year of investment. As expected, institutional investors have higher holdings than noninstitutional investors. Table 7 presents the results of the mean differences in international holdings between institutional and noninstitutional investors, the respective t-tests and its statistical significance. These differences are presented for all years (overall) and for each year of investment. The results suggest that there are statistically significant differences in international holdings between institutional and noninstitutional investors, leading us to conclude for the heterogeneity of their international preferences.

Table 8 presents the results of the mean differences in international holdings between consecutive years of investments⁵, the respective t-tests and its statistical significance. These differences are presented for all investors (overall), institutional investors and noninstitutional investors. The results suggest that there are no statistically significant differences in international holdings over the years of both institutional and noninstitutional investors leading us to conclude for the consistency of their international preferences.

3.2. *Determinants of international equity investment holdings of EU institutional and noninstitutional investors*

Table 9 presents the regression results on the determinants of international equity holdings for EU institutional investors. As expected, the value of international equity holdings is positively and significantly affected by institutional investors' relative size. The relative size of the origin and destination capital markets also matters. Institutional investors from more financial developed countries tend to have higher international equity holdings, specifically in equities from more financially developed countries. Financial variables, such as risk, return and return correlation, are also important in explaining of international equity holdings. Institutional investors from countries where domestic equity returns are lower and less volatile tend to invest more internationally, specifically in equities with higher and less volatile returns, which is at odds with the return chasing behavior and the risk-aversion of investors. However, they also tend to invest more in foreign equities that have higher return correlation with domestic equities, thus reducing the power of international portfolio diversification. Confirming the predictions of the ICAPM, institutional investors tend to invest more in equities from countries with higher share in the world market capitalization. All the effects are statistically significant (except that from origin country equity

⁵ For simplicity, we only present here the mean differences for consecutive years of investment. Additional results are available upon request.

returns). As expected, the coefficient of the EMU dummy is positive and statistically significant, suggesting that the absence of exchange rate volatility is important to foster international equity investment holdings. The effects of capital market controls of both origin and destination countries on international equity holdings are not statistically significant. This finding is somewhat expected since there are few capital market controls within EU. Information costs variables and familiarity variables improve considerably the fit of the regression, suggesting the importance of these variables in the explanation of international equity investment holdings. As predicted, trade, FDI and migration linkages affect positively the international equity holdings of institutional investors (the effect is statistically significant for trade and FDI). With respect to variables proxying familiarity, international equity holdings tend to be lower between geographically distant origin and destination countries (although not significantly), while the same language and religion contribute to significantly increase them. Cultural distance and contingency have the opposite signs, relatively to what was expected. Finally, international equity investment holdings are positively affected by transparency of both origin and destination countries, but only the effect of the latter is statistically significant. The importance of transparency measures is, in terms of explanatory power, lower than expected, probably because EU countries have above mean ratings.

Table 10 presents the regression results on the determinants of international equity holdings of EU noninstitutional investors. The value of international equity holdings of noninstitutional investors is positively and significantly affected by their relative size, and positively, albeit not significantly, affected by the relative size of the capital markets of origin and destination countries. Financial variables also affect the international equity holdings of noninstitutional investors. Like institutional investors, noninstitutional investors tend to neglect the power of international diversification (they tend to hold more foreign equities whose return is positively correlated with the return of domestic equities) and to present the return chasing behavior (noninstitutional investors from countries with lower domestic equity returns tend to invest more internationally, specifically in equities with higher returns). Nevertheless, the return chasing behavior is not statistically significant for noninstitutional investors. Furthermore, like institutional investors, noninstitutional investors from countries with more volatile domestic equity returns tend to invest more internationally, but, contrary to institutional investors, they tend to invest more in more volatile foreign equities, which is not consistent with the risk-aversion behavior hypothesis. The predictions of the ICAPM are also followed by noninstitutional investors as they tend to invest more in equities from countries with a higher share in the world market capitalization. Nevertheless, the effects of financial variables are not statistically significant (except that from return correlation). As for institutional investors, the effect of EMU membership on international equity holdings is positive and statistically significant, suggesting the importance of the absence of exchange rate volatility for engaging in international equity investment holdings, while the effect of capital market controls on international equity holdings is not statistically significant. Information costs variables and familiarity variables considerably improve the fit of the regression, suggesting the importance of these variables in explaining international equity investment holdings of noninstitutional investors. Variables proxying for information costs, such as trade, FDI and migration linkages, affect positively the international equity holdings of noninstitutional investors, although the effect is only statistically significant for FDI. With respect to variables proxying familiarity, international equity holdings tend to be lower between geographical and cultural distant origin and destination countries (the effect is only significant for geographical distance), while the same language and religion contribute to significantly increase them (the effect is only significant for religion). As in the case of institutional investors, the contingency dummy exhibits a sign which is opposite to what was expected, not being statistically significant, though. Finally, international equity investment holdings are positively affected by transparency of both origin and destination countries, but none of these variables are statistically significant. Moreover, they do not contribute to improve the fit of the regression.

Table 11 presents the results of the differences on the determinants of international equity holdings between EU institutional and noninstitutional investors. The overall Chow test conducted to assess the significance of all differential variables is always statistically significant, suggesting that the determinants of international equity investment holdings do differ across EU institutional and noninstitutional investors. The tests conducted to assess the significance of the differential variables within a specific group of variables suggest that variables proxing size, finance, and information and familiarity, are statistically significant, whereas variables proxing barriers to international investments and transparency are not statistically significant. We next analyze in more detail these differences. Within the group of variables proxing for size, the results suggest that investors' relative size affect positively and significantly international holdings of institutional investors more than of noninstitutional investors. The importance of origin and destination country's relative size also differs significantly across investors. Specifically, origin country relative size matters more for institutional investors than for noninstitutional investors, while destination country relative size is more important for the latter than for the former. Within the financial variables, only the effects of origin and destination countries equity returns differ across investors: the effect of origin (destination) country equities' returns is significantly lower (higher) for institutional investors. Barriers to international investments tend to be more important for noninstitutional investors than for institutional investors, although the differences are only statistically significant for capital market controls in the destination country. Variables proxing for information costs and familiarity tend to affect more the international equity holdings of noninstitutional investors than of institutional investors. Nevertheless, only the effect of bilateral trade is significantly different across investors. The effects of transparency of the origin (destination) country are more important to institutional (noninstitutional) investors, although the differences are not significant.

3.3. *Robustness tests*

In order to check the results in other scenarios, we perform robustness checks that include the use of alternative dependent variables, the use of alternative independent variables and the consideration of the EMU sub-sample.

Alternative dependent variables

For robustness purposes, we consider two alternative dependent variables: (1) portfolio weights, measured as the natural logarithm of the ratio of international equity investment holdings of investor k of origin country i invested in equities of destination country j in year t to the total value of international equity investment holdings of investor k of origin country i in year t , calculated based on CPIS IMF data; and (2) foreign bias, measured as the natural logarithm of the ratio of portfolio weights, as defined previously, to optimal portfolio weights, where optimal weights is the ratio of market capitalization of destination country j in year t to the difference between the world market capitalization and the origin country i market capitalization in year t , calculated based on market capitalization data from World Bank⁶. Thus a positive (negative) foreign bias indicates over(under)-investment, i.e., investor k from country i invests, in year t , more (less) in equities of destination country j relatively to the ICAPM predictions. In some situations, we also consider the absolute

⁶ This foreign bias measure is based on the foreign bias adjusted measure proposed by Bekaert and Wang (2009). Basically, the adjustment made to the traditional foreign bias measure involves excluding the investment made by investors of origin country in its own equity assets from the optimal allocation problem (note that we exclude the domestic assets from the total amount of assets held by investors from origin country when calculating the actual portfolio weights of investors in the origin country and exclude the market capitalization of origin country of the world market capitalization in the calculation of optimal portfolio weights). According to Bekaert and Wang (2009), this adjustment allows to determine more precisely the determinants of under and over-investment relatively to the predictions of the ICAPM, since the adjusted measure is conditional to the existence of home bias.

value of the foreign bias measure, so we can evaluate the magnitude of the degree of foreign bias, without taking into account the direction of that bias (i.e. over or under investment).

Figure 2 depicts international portfolio weights, foreign bias and absolute foreign bias of EU institutional and noninstitutional investors by year of investment. As expected, institutional investors have higher portfolio weights than noninstitutional investors. Foreign bias is found to be positive for institutional investors and negative for noninstitutional investors, which means that institutional investors overweight other EU countries equities, whereas noninstitutional investors underweight other EU countries equities, relatively to the predictions of the ICAPM. Furthermore, once we take the absolute value of foreign bias, we can see that the foreign bias tends to be significantly stronger for noninstitutional investors. Table 12 presents the results of the tests to the mean differences in international portfolio weights, foreign bias and absolute foreign bias between institutional and noninstitutional investors, the respective t-tests and its statistical significance. These differences are presented for all years (overall) and for each year of investment. The results suggest that there are statistically significant differences in international portfolio weights and foreign bias between institutional and noninstitutional investors, leading us to conclude for the heterogeneity of their international preferences. Table 13 presents the results of the tests to the mean differences in international portfolio weights, foreign bias and absolute foreign bias between years of investments⁷, the respective t-tests and its statistical significance. These differences are presented for all investors (overall) and for institutional and noninstitutional investors. The results suggest that there are no statistically significant differences in international portfolio weights and foreign bias of institutional and noninstitutional investors over the years, which indicates consistency of their international preferences.

Table 14 presents the regression results on the determinants of portfolio weights for EU institutional and noninstitutional investors, as well as the differences between them. The regression results on the determinants of portfolio weights of EU institutional investors (model 1) are basically equal to those found for international holdings in terms of sign and significance of coefficients. In fact, only the effect of investor relative size and risk of origin country equities loses its statistical significance. The regression results on the determinants of portfolio weights for EU noninstitutional investors (model 2) also corroborate those found for international holdings. Some specific differences are worth mention, specifically the one related with the negative and statistically significant effect of investor size on portfolio weights. Capital market controls and transparency of the origin country also suffer a change of sign, but maintain their non statistical significance. The differences on the determinants of portfolio weights between EU institutional and noninstitutional investors (model 3) are basically equal to those found for portfolio holdings. In fact, only the effect of capital markets controls in the destination country lose its statistical significance, all other effects maintain the previous signs and statistical significances. Once more, the statistical significance of the overall Chow test suggests that the determinants of portfolio weights do differ across EU institutional and noninstitutional investors, especially those proxying for size, finance, and information and familiarity.

Table 15 presents the regression results on the determinants of foreign bias for EU institutional and noninstitutional investors, as well as the differences between them. The regression results on the determinants of foreign bias of EU institutional investors (model 1) generally corroborate those found for international holdings. Some specific differences should be noted, though. In particular, destination country capital market relative size suffers a change of sign but maintains its non statistical significance. Also, investor relative size, risk of origin country equities and transparency of origin country loses its statistical significance. The regression results on the determinants of foreign bias for EU noninstitutional investors (model 2) also corroborate those found for international holdings. Some specific differences are worth mention, namely the one related with the

⁷ For simplicity, we only present here the mean differences for consecutive years of investment. Additional results are available upon request.

negative and statistically significant effect of investor size on portfolio weights. Capital market controls and transparency of the origin country also suffer a change of sign, but maintain their non statistical significance. Note that the same specific differences were found when using portfolio weights. The differences on the determinants of foreign bias between EU institutional and noninstitutional investors (model 3) are basically equal to those found for portfolio holdings. In fact, as in the case of portfolio weights, only the effect of capital markets controls in the destination country loses its statistical significance. All other effects maintain their previous signs and statistical significance. Once more, the statistical significance of the overall Chow test suggests that the determinants of foreign bias do differ across EU institutional and noninstitutional investors, especially those proxing for size, finance, and information and familiarity.

Thus, the use of alternative dependent variables does not significantly change the results.

Alternative independent variables

An additional robustness test involves the use of an alternative variable to the transparency. In this context, we use a governance measure, as measured by the mean of the six Worldwide Governance Indicators (WGI) of the World Bank: voice and accountability, political stability and absence of violence, government effectiveness, regulatory quality, rule of law, control of corruption. The index ranges from 0 (lowest governance) to 100 (highest governance). Table 16 presents the regression results on the determinants of international holdings for EU institutional and noninstitutional investors, as well as the differences between them, using the governance measure. The results on the determinants of international holdings of EU institutional investors (model 1) are basically equal to those using the transparency measure. The only differences rely on the new governance measure. Governance of both origin and destination countries governance are not statistically significant determinants of international holdings of EU institutional investors. Moreover, the inclusion of these variables does not contribute to improve the fit of the regression. The regression results on the determinants of international holdings for EU noninstitutional investors (model 2) are equal to those obtained when using the transparency measure, with no difference worth mentioning. Once again, governance of both origin and destination countries governance are not statistically significant and they do not contribute to improve the fit of the regression. The differences on the determinants of international holdings between EU institutional and noninstitutional investors (model 3) are also robust to the use of the governance measure. In fact, the statistical significance of the overall Chow test still suggests that the determinants of international holdings do differ across EU institutional and noninstitutional investors, especially those for proxing size, finance, and information and familiarity. Governance of both origin and destination countries tend to influence the international holdings of noninstitutional investors more than of institutional investors, but the differences remain not statistically significant.

Overall, the use of an alternative independent variable does not significantly change the results.

EMU sample

For robustness purposes, we also consider a sub-sample that considers origin and destination countries from the European Monetary Union (EMU). To define the EMU sample we have applied the same criteria as for the EU sample. Thus, the EMU sample considers institutional investors and noninstitutional investors of 9 EMU origin countries (Austria, Finland, France, Germany, Greece, Italy, Netherlands, Portugal, Spain) in equities from 11 EMU destination countries (Austria, Belgium, Finland, France, Germany, Greece, Italy, Ireland, Netherlands, Portugal, Spain) in each of the 6 years of investment considered (2001 to 2006), with a total of 1722 observations.

Table 17 presents the regression results on the determinants of international holdings for EMU institutional and noninstitutional investors, as well as differences between them. The results for EMU institutional investors (model 1) mirror those found for EU institutional investors. Thus, the

value of international equity holdings is positively and significantly affected by institutional investors' relative size, as well as positively, albeit not significantly, affected by the relative size of the origin and destination capital markets. International equity holdings of EMU institutional investors are also significantly affected by the return (positively) and risk (negatively) of foreign equities and by the share of the foreign country on world market capitalization (positively), thus being consistent with the return chasing and risk-aversion behavior of institutional investors. The predictions of the ICAPM are not followed by EMU institutional investors, unlike what was found for EU. EMU institutional investors also tend to invest more internationally if the return and risk of domestic equities are lower. They also tend to invest more in foreign equities that have higher return correlation with domestic equities, neglecting the benefits of international portfolio diversification. Nevertheless, none of these effects are statistically significant. The effect of capital market controls on international equity holdings is not statistically significant and the inclusion of these variables does not contribute to increase the variance explained. Information costs and familiarity variables have explanatory power, although only trade and FDI significantly affect international equity holdings of EMU institutional investors. As for EU institutional investors, trade is positively related with international equity holdings, supporting the information content of trade as well as the complementarity of trade of goods and capital. Curiously, the effect of FDI is, for EMU institutional investors, negative. EMU institutional investors' international equity holdings are also positively affected by migration linkages, cultural distance, contingency, common language and religion, and negatively affected by the geographical distance between origin and destination countries. Nevertheless, none of these effects is statistically significant. The effects of origin and destination countries' transparency on international equity holdings are positive but, once more, not statistically significant.

The results for EMU noninstitutional investors (model 2) also mirrors those found for EU noninstitutional investors. Thus, the value of international equity holdings of EMU noninstitutional investors is positively and significantly affected by their relative size and negatively, albeit not significantly, affected by the size of the origin and destination countries capital markets. Noninstitutional investors from EMU countries where domestic equities have lower returns and risk tend to invest more internationally, specifically in foreign equities with higher returns and lower risk and whose returns are more correlated with domestic equities. The predictions of the ICAPM are not followed by EMU noninstitutional investors. Nonetheless, these effects are not statically significant. The effect of capital market controls on international equity holdings is, once again, not statistically significant. Like for EU noninstitutional investors, trade positively affects international equity holdings. However, unlike the results obtained for EU noninstitutional investors, FDI and migration linkages negatively affect international equity holdings of EMU noninstitutional investors. Nevertheless, none of these effects are statistically significant. Within familiarity variables, geographical distance negatively affects international equity holdings of EMU noninstitutional investors, while cultural distance, contingency, language and religion affects them positively. Nevertheless, only the effect of contingency and language are statistically significant. Finally, transparency of both origin and destination countries are not statistically significant.

The differences on the determinants of international holdings between EU institutional and noninstitutional investors (model 3) are also robust. The overall Chow test is always statistically significant suggesting that the determinants of international holdings do differ across EMU institutional and noninstitutional investors. The tests to differences within each group of variables suggest that all of them (size, finance, barriers to international investments, information and familiarity and transparency) are statistically significant. We next analyze in more detail these differences. Within the group of variables proxing for size, the results suggest that investors' relative size and destination country relative size affect significantly the international equity investment holdings of institutional investors more than of noninstitutional investors. On the contrary, the origin

country relative size affects the international equity investment holdings of noninstitutional investors more than of institutional investors, although the difference is not statistically significant. Financial variables tend to affect the international holdings of institutional investors more than noninstitutional investors, although the differences are not statistically significant. Within the set of variables proxying for barriers to international investments, capital market controls in the origin country affect institutional investors more than noninstitutional investors, although not significantly. Conversely, capital market controls in the destination country affect significantly noninstitutional investors more than institutional investors. Variables proxying for information costs and familiarity tend to be more important for noninstitutional than for institutional investors, although the differences are only statistically significant for contingency and language variables. As for the EU sample, the effects of transparency of the origin (destination) country are more important to institutional (noninstitutional) investors, although the differences are not significant.

Generally, the consideration of an alternative sub-sample did not significantly alter the results.

4. Conclusion

In this study we investigate the determinants of international equity investment holdings of EU institutional and noninstitutional investors for the years 2001 to 2006. We start by comparing the geographic distribution of international equity investment holdings across and noninstitutional investors to analyze the homogeneity or the heterogeneity of their international investment preferences. Next, we compare the geographic distribution of international equity investment holdings of institutional and noninstitutional investors across years to analyze the consistency the constancy or the inconstancy of their international investment decisions. Finally, we investigate the determinants of the geographic distribution of international equity investment holdings of institutional and noninstitutional investors and test if the importance attributed to each determinant differs across investors.

First, the results show that, overall, there are statistically significant differences in international equity investment holdings between institutional and noninstitutional investors, leading us to conclude for the heterogeneity of their international preferences. Particularly, institutional investors tend to have significantly higher international equity investment holdings, as well as portfolio weights, than noninstitutional investors. Furthermore, institutional investors tend to overweight, whereas noninstitutional investors tend to underweight, equities from other EU countries in their portfolios. The degree of foreign bias tends to be significantly stronger for non-institutional investors than for noninstitutional investors.

Second, there are no statistically significant differences in international equity investment holdings of both institutional and noninstitutional investors over the years, indicating consistency in their international preferences.

Third, the results of the regression using differential group dummy variables suggest that the determinants of international equity investment holdings do differ across institutional and noninstitutional investors. Particularly, investors' relative size as well as both origin and destination countries' relative sizes tend to affect positively the international equity investment holdings of both institutional and noninstitutional investors. The impact of these variables is significantly different across investors: Investors' and origin countries' relative sizes tend to affect significantly the international equity investment holdings of institutional investors more than of noninstitutional investors, while the reverse is true for destination country relative size. Financial variables, such as risk, return and return correlation, are also important in explaining international equity holdings. Institutional (noninstitutional) investors with lower return and lower (higher) risk tend to invest more internationally, hold equities with higher returns, lower (higher) risk and higher return correlation with domestic equities, from countries with higher weight on world market capitalization. Thus, the results suggest the returns chasing behavior of both institutional and noninstitutional investors, the

risk aversion of institutional investors and the risk loving behavior of noninstitutional investors. The results also suggest that both types of investors neglect the benefits of international diversification. The correlation between origin and destination countries equity returns and the destination country equity returns is significantly more important to institutional investors than to noninstitutional investors. The differences in other financial variables are not statistically significant. The results also suggest that the absence of exchange rate risk, as measured by the EMU membership, is significantly important to foster international equity investment holdings of both institutional and noninstitutional investors. On the contrary, the effects of origin and destination countries' capital market controls on international equity holdings are not statistically significant, which may be due to the few existing capital market controls within the EU. Nevertheless, the impact of destination country capital market controls on holdings is more pronounced for noninstitutional investors than for institutional investors. Information costs and familiarity assume an important role in the explanation of international equity holdings of both institutional and noninstitutional investors. Trade, FDI and migration linkages are important vehicles of information transmission, contributing to increase the international equity holdings of both institutional and noninstitutional investors. Geographical proximity, common language and religion are also important drivers of international equity holdings, especially for noninstitutional investors. Finally, origin and destination countries' transparency also contributes to increase, albeit not significantly, the international equity holdings of both institutional and noninstitutional investors. This may be due to the high ratings of transparency attributed to EU countries. These results, overall, are robust to the use of alternative dependent and independent variables, as well as to the consideration of EMU sub-sample.

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Figure 1

International equity holdings of institutional and noninstitutional investors by year of investment

This figure depicts the international holdings of institutional and noninstitutional investors by year of investment. For a detailed description of international holdings please see table 4.

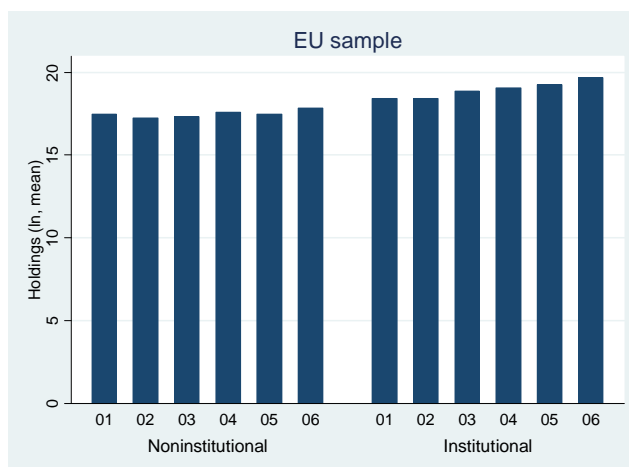


Figure 2

International portfolio weights and foreign bias of institutional and noninstitutional investors by year of investment

This figure depicts, from top to bottom, international portfolio weights, foreign bias and absolute foreign bias of institutional and noninstitutional investors by year of investment. International portfolio weights is the ratio of the value of international equity investment holdings of investor k of origin country i invested in equities of destination country j in year t to the total value of international equity investment holdings of investor k of origin country i in year t (in natural logarithmic form). Foreign bias is the ratio of international portfolio weights, as defined previously, by optimal portfolio weights, the latter being measured by the ratio of market capitalization of destination country j in year t to the difference between world market capitalization and origin country market capitalization in year t . Absolute foreign bias is the absolute of foreign bias, as defined previously.

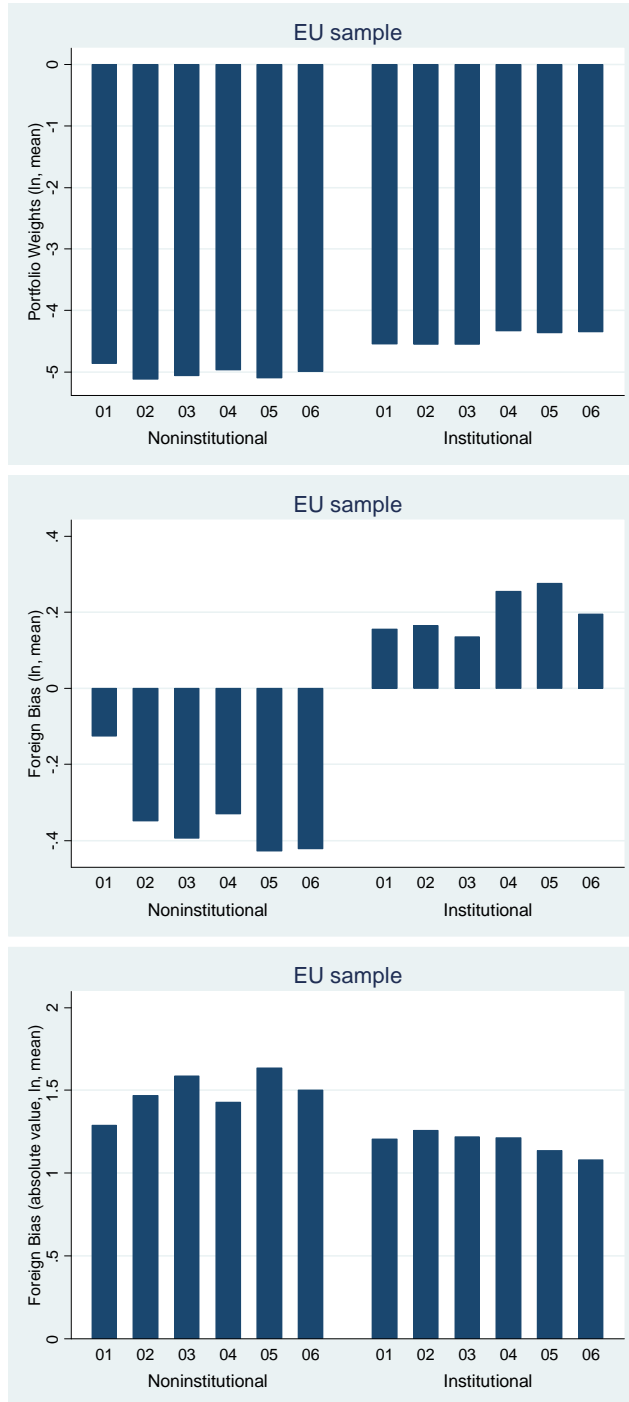


Table 1
Classification of empirical studies on the determinants of international portfolio investment

This table classifies the empirical studies on the determinants of international portfolio investment according to several classification criteria. Classification criteria are presented in the first and second columns, while empirical studies are presented in the third column.

Classification Criteria		Empirical Studies
Type of Assets Considered	Equity	Gande and Parsley 2010, Monteiro and Manso 2009, Bailey et al. 2008, Ferreira and Miguel 2007a, Mishra 2007, Chan, Covrig and Ng 2005, Coeurdacier and Guibaud 2005, Gelos and Wei 2005, Liljebloom and Loflund 2005, Portes and Rey 2005, Timmermann and Blake 2005, Ahearne, Grier and Warnock 2004, Amadi 2004a, Amadi 2004b, Faruqee, Li and Yan 2004, Martin and Rey 2004, Al-Khail 2003
	Bonds	Ferreira and Miguel 2007b
	Both	Fidora, Fratzscher and Thimann 2007, De Santis and Gerard 2006, Kyrychenko and Shum 2006, Khorana et al. 2005
Type of Investor Considered	Aggregate	Monteiro and Manso 2009, Lane and Milesi-Ferretti 2008, Ferreira and Miguel 2007a, Mishra 2007, Coeurdacier and Guibaud 2005, Portes and Rey 2005, Ahearne, Grier and Warnock 2004, Amadi 2004a, Amadi 2004b, Martin and Rey 2004, Al-Khail 2003
	Institutional Investors	Ferreira and Matos 2008
	Mutual Funds	Gande and Parsley 2010, Chan, Covrig and Ng 2005, Gelos and Wei 2005, Aggarwal, Klapper and Wysocki 2005
	Pension Funds	Timmermann and Blake 2005
	Individual Investors	Bailey, Kumar and Ng 2008
Households	Kyrychenko and Shum 2006	
Origin and Destination Countries Considered	One specific Origin Country Several Destination Countries	Finland (Al-Khail 2003), UK (Timmermann and Blake 2005), USA (Bailey, Kumar and Ng 2008, Kyrychenko and Shum 2006, Aggarwal, Klapper and Wysocki 2005, Ahearne, Grier and Warnock 2004)
	One specific Destination Country Several Origin Countries	Finland (Liljebloom and Loflund 2005), Portugal (Monteiro and Manso 2009)
	More than one Origin and Destination Countries	Bekaert and Wang 2009, Ferreira and Matos 2008, Foad 2008, Lane and Milesi-Ferretti 2008, Fidora, Fratzscher and Thimann 2007, Chan, Covrig and Ng 2005, Coeurdacier and Guibaud 2005, Gelos and Wei 2005, Portes and Rey 2005, Faruqee, Li and Yan 2004, Martin and Rey 2004
Years of Investment Considered	One specific	1997 (Ahearne, Grier and Warnock 2004, Faruqee, Li and Yan 2004, Al-Khail 2003); 2001 (Lane and Milesi-Ferretti 2008, Coeurdacier and Guibaud 2005, Amadi 2004b)
	More than one year	Gande and Parsley 2010, Monteiro and Manso 2009, Bailey, Kumar and Ng 2008, Ferreira and Matos 2008, Ferreira and Miguel 2007a, Fidora, Fratzscher and Thimann 2007, Mishra 2007, De Santis and Lührmann 2006, Chan, Covrig and Ng 2005, Gelos and Wei 2005, Khorana, Servaes and Tufano 2005, Portes and Rey 2005, Timmermann and Blake 2005, Amadi 2004a, Al-Khail 2003, Kyrychenko and Shum 2006, Martin and Rey 2004

Table 2

Dependent variables used in empirical studies on the determinants of international portfolio investments

This table presents the main dependent variables used in empirical studies on the determinants of international portfolio investments. The first column presents the most commonly used measures of international portfolio investments, while the second column indicates references of some empirical studies where those measures have been used.

Dependent variable used	Studies
Portfolio Flows	Gande and Parsley 2010, Monteiro and Manso 2009, Portes and Rey 2005, Martin and Rey 2004
Portfolio Holdings	Daude and Fratzscher 2008, Ferreira and Matos 2008, Lane and Milesi-Ferretti 2008, Mishra 2007, Kyrychenko and Shum 2006, Coeurdacier and Guibaud 2005, Aggarwal, Klapper and Wysocki 2005, Faruqee, Li and Yan 2004, Al-Khail 2003
Portfolio Weights	Weights (Foad 2008, Aggarwal, Klapper and Wysocki 2005, Amadi 2004a, Amadi 2004b, Al-Khail 2003); Change in Weights (De Santis and Gerard 2006, Kyrychenko and Shum 2006, Gelos and Wei 2005, Liljeblom and Loflund 2005, Timmermann and Blake 2005)
Home Bias	Bekaert and Wang 2009, Foad 2008, Ferreira and Miguel 2007a, Fidora, Fratzscher and Thimann 2007, Chan, Covrig and Ng 2005
Foreign Bias	Bekaert and Wang 2009, Ferreira and Miguel 2007a, Chan, Covrig and Ng 2005, Liljeblom and Loflund 2005, Aggarwal, Klapper and Wysocki 2005, Ahearne, Grier and Warnock 2004

Table 3

Independent variables used in empirical studies on the determinants of international portfolio investments

This table presents the main independent variables used in empirical studies on the determinants of international portfolio investments. The first column presents the category of the independent variable, the second column presents the most commonly used measures within each category, and the third column indicates the references of some empirical studies where those measure have been used.

Proxing	Independent variable used	Studies
Risk Diversification	Return Correlation	Bekaert and Wang 2009, Foad 2008, Lane and Milesi-Ferretti 2008, Fidora, Fratzscher and Thimann 2007, Ferreira and Miguel 2007a, Mishra 2007, Chan, Covrig and Ng 2005, Coeurdacier and Guibaud 2005, Portes and Rey 2005, Amadi 2004b, Faruqee, Li and Yan 2004
	Growth Rate Correlation	Daude and Fratzscher 2008, Lane and Milesi-Ferretti 2008, Fidora, Fratzscher and Thimann 2007, Mishra 2007, Portes and Rey 2005
	Growth Rate-Return Correlation	Lane and Milesi-Ferretti 2008, Mishra 2007
	Differences in Industrial Structure	Bekaert and Wang 2009, Ferreira and Miguel 2007a
	Idiosyncratic Risk	Ferreira and Matos 2008, Liljeblom and Loflund 2005, Al-Khail 2003
Return	Return	Bekaert and Wang 2009, Monteiro and Manso 2009, Foad 2008, Ferreira and Miguel 2007a, De Santis and Gerard 2006, Chan, Covrig and Ng 2005, Coeurdacier and Guibaud 2005, Gelos and Wei 2005, Faruqee, Li and Yan 2004, Aggarwal, Klapper and Wysocki 2005, Amadi 2004a, Martin and Rey 2004
	Reward-to-risk ratio	Ahearne, Grierer and Warnock 2004, Al-Khail 2003, Amadi 2004b
	Others	Dividend Yield (Monteiro and Manso 2009, Ferreira and Matos 2008, Timmermann and Blake 2005); Price-to-Earnings (Monteiro and Manso 2009, Faruqee, Li and Yan 2004); Book-to-Market (Ferreira and Matos 2008, Liljeblom and Loflund 2005); ROE (Ferreira and Matos 2008); ROI (Liljeblom and Loflund 2005); Earnings per share (Liljeblom and Loflund 2005)
Risk	Return Var/Std.Dev.	Foad 2008, Timmermann and Blake 2005
	Systematic Risk	Liljeblom and Loflund 2005
Size	Market Cap.	Daude and Fratzscher 2008, Ferreira and Matos 2008, Ferreira and Miguel 2007a, Driessen and Laeven 2007, Mishra 2007, Coeurdacier and Guibaud 2005, Portes and Rey 2005, Martin and Rey 2004, Al-Khail 2003
	Market Cap. to GDP	Bekaert and Wang 2009, Ferreira et al. 2009, Ferreira and Matos 2008, Ferreira and Miguel 2007a, Chan, Covrig and Ng 2005, Aggarwal, Klapper and Wysocki 2005
	Weight on World Market Cap.	Foad 2008, Amadi 2004b
	Population	Khorana, Servaes and Tufano 2005
Development	GDP	Gande and Parsley 2010
	<i>per capita</i> GDP	Ferreira, Miguel and Ramos 2009, Ferreira and Miguel 2007a, Chan, Covrig and Ng 2005, Coeurdacier and Guibaud 2005, Gelos and Wei 2005, Khorana, Servaes and Tufano 2005, Al-Khail 2003
	GDP Growth	Ferreira and Miguel 2007a, Chan, Covrig and Ng 2005
	Trade to GDP	Ferreira and Miguel 2007a, Chan, Covrig and Ng 2005
	FDI to GDP	Ferreira and Miguel 2007a, Chan, Covrig and Ng 2005
	Turnover	Gande and Parsley 2010, Bekaert and Wang 2009, Ferreira, Miguel and Ramos 2009, Ferreira and Miguel 2007a, Chan, Covrig and Ng 2005
Exchange Rate Risk	Emerging Market Dummy	Gande and Parsley 2010, Ferreira and Miguel 2007a, Chan, Covrig and Ng 2005
	Exchange Rate Var/Std.Dev.	Bekaert and Wang 2009, Foad 2008, Fidora, Fratzscher and Thimann 2007
	Exchange Rate Regime	Aggarwal, Klapper and Wysocki 2005, Gelos and Wei 2005
	Currency Union Dummy	Lane and Milesi-Ferretti 2008, Fidora, Fratzscher and Thimann 2007, Coeurdacier and Guibaud 2005, Portes and Rey 2005
Barriers	Foreign Ownership Restrictions	Bekaert and Wang 2009, Ahearne et al 2004, Amadi 2004b
	Capital Controls	Ferreira and Miguel 2007a, Chan, Covrig and Ng 2005
	Capital Market Openness	Bekaert and Wang 2009, Edison and Warnock 2003, Bekaert 1995
	Capital Account Openness	Bekaert and Wang 2009, Daude and Fratzscher 2008
	Withholding Tax	Bekaert and Wang 2009, Ferreira and Miguel 2007a, Chan, Covrig and Ng 2005, Aggarwal et al 2004
	Tax Treaty	Lane and Milesi-Ferretti 2008, Coeurdacier and Guibaud 2005

Table 3 (continued)

Proxing	Independent variable used	Studies
Transaction Costs	Transaction Costs	Ferreira et al 2009, Ferreira and Miguel 2007a, Chan, Covrig and Ng 2005, Portes and Rey 2005, Ahearne et al 2004, Amadi 2004b, Martin and Rey 2004
	Phone Costs	Mishra 2007, Faruqee, Li and Yan 2004
	Financial Market Sophistication	Portes and Rey 2005
Information Costs	Geographical Distance	Bekaert and Wang 2009, Daude and Fratzscher 2008, Ferreira and Matos 2008, Foad 2008, Lane and Milesi-Ferretti 2008, Ferreira and Miguel 2007a, Fidora et al 2007, Chan, Covrig and Ng 2005, Coeurdacier and Guibaud 2005, Portes and Rey 2005, Amadi 2004b, Faruqee et al 2004, Al-Khail 2003
	Trade	Bilateral Trade (Lane and Milesi-Ferretti 2008, Portes and Rey 2005, Al-Khail 2003); Bilateral Trade to Total Trade (Bekaert and Wang 2009, Ferreira and Miguel 2007, De Santis and Gerard 2006, Chan, Covrig and Ng 2005, Al-Khail 2003); Bilateral Trade to GDP (Coeurdacier and Guibaud 2005, Ahearne et al 2004); Bilateral Imports (Mishra 2007); Bilateral Imports to GDP (Fidora et al 2007); Unilateral Trade to GDP (Bekaert and Wang 2009, Driessen and Laeven 2007, Amadi 2004a, 2004b); Trade Balance (Al-Khail 2003); Trade Agreement Dummy (Daude and Fratzscher 2008, Fidora et al 2007)
	FDI	Al-Khail 2003
	Migration	Bilateral Migration (Daude and Fratzscher 2008); Bilateral Immigration to Population (Foad 2008, Amadi 2004b); Bilateral Emigration to Population (Foad 2008)
	Cross-Listing	(Monteiro and Manso 2009, Ferreira and Matos 2008, Ahearne et al 2004, Amadi 2004)
	Internet	Internet Users to Population (Bekaert and Wang 2009, Khorana et al 2005, Amadi 2004)
	Telephone	Telephone call traffic (Daude and Fratzscher 2008), Telephone call traffic to GDP (Portes and Rey 2005), Number of phone lines (Faruqee et al 2004)
Familiarity	Common Geographical Region	Portes and Rey 2005
	Common Border	Foad 2008, Fidora et al 2007, Coeurdacier and Guibaud 2005, Portes and Rey 2005, Amadi 2004b
	Common Language	Bekaert and Wang 2009, Daude and Fratzscher 2008, Foad 2008, Lane and Milesi-Ferretti 2008, Ferreira and Miguel 2007, Fidora et al 2007, Mishra 2007, Chan, Covrig and Ng 2005, Coeurdacier and Guibaud 2005, Portes and Rey 2005, Amadi 2004b, Faruqee et al 2004, Al-Khail 2003
	Colonial Links	Daude and Fratzscher 2008, Lane and Milesi-Ferretti 2008, Fidora et al 2007, Coeurdacier and Guibaud 2005)
	Common Legal System Origin	Daude and Fratzscher 2008, Lane and Milesi-Ferretti 2008, Fidora et al 2007, Mishra 2007
Transparency Governance	Corruption	Gande and Parsley 2010, Bekaert and Wang 2009, Daude and Fratzscher 2008, Fidora et al 2007, De Santis and Gerard 2006
	Country Risk	Ferreira et al 2009, Daude and Fratzscher 2008, Driessen and Laeven 2007, Ferreira and Miguel 2007, Fidora et al 2007, Chan, Covrig and Ng 2005, Gelos and Wei 2005, Al-Khail 2003
	Credit Rating	Ferreira and Miguel 2007, Chan, Covrig and Ng 2005
	Legal System Efficiency	Daude and Fratzscher 2008, Ferreira and Miguel 2007, Fidora et al 2007, Chan, Covrig and Ng 2005, Khorana et al 2005, Aggarwal et al 2004, Al-Khail 2003
	English Common Law Dummy	Gande and Parsley 2010, Ferreira et al 2009, Ferreira and Miguel 2007, Chan, Covrig and Ng 2005
	Minority Shareholders Protection Anti-Director Rights	Ferreira and Miguel 2007, Chan, Covrig and Ng 2005, Gelos and Wei 2005, Aggarwal et al 2004, Al-Khail 2003
	Firms Closely Held	Ferreira and Matos 2008, Gelos and Wei 2005, Al-Khail 2003
	Insider Trading Law Dummy	Bekaert and Wang 2009, Khorana et al 2005
	Accounting Standards Index	Daude and Fratzscher 2008, Ferreira and Miguel 2007, Chan, Covrig and Ng 2005, Khorana et al 2005, Aggarwal et al 2004, Ahearne et al 2004, Al-Khail 2003
Financial Disclosure Index	Daude and Fratzscher 2008, Ferreira and Matos 2008, Fidora et al 2007, Gelos and Wei 2005	

Table 4
Dependent and Independent variables used in this study

This table presents the dependent and independent variables used in this study. The first column presents the category of the dependent or independent variable. The second column presents the variable(s) used within each category. The third column presents the dimension of each variable, i.e., the level at which they vary, namely at the level of each investor k , origin country i , destination country j and year of investment t . The fourth column presents a description of the variable, particularly the way it is measured. Finally, the fifth column presents the data source.

Proxy	Variable	Dim.	Description	Data Source
International Equity Holdings	Holdings	kijt	the value of international equity investment holdings of investor k of origin country i invested in equities of destination country j in year t (in natural logarithmic form)	CPIS IMF
Size	Investor Size	kit	the value of international equity investment holdings of investor k of origin country i in year t divided by the value of international equity investment holdings of origin country i in year t	CPIS IMF
	Market Size	it	The ratio of market capitalization of origin country i in year t and GDP of origin country i in year t	World Bank
	Market Size	jt	The ratio of market capitalization of destination country j in year t and GDP of destination country j in year t	World Bank
Diversification	Correlation	ijt	correlation coefficient between the monthly returns of stock market indices of origin country i and destination country j over a five years period (including the year t)	MSCI
Return	Return	it	mean of monthly returns of the stock market index of origin country i over a five years period (including the year t)	MSCI
	Return	jt	mean of monthly returns of the stock market index of destination country j over a five years period (including the year t)	MSCI
Risk	Risk	it	Standard deviation of monthly returns of the stock market index of origin country i over a five years period (including the year t)	MSCI
	Risk	jt	Standard deviation of monthly returns of the stock market index of destination country j over a five years period (including the year t)	MSCI
ICAPM	MCapWorld	it	The ratio of market capitalization of destination country j in year t and world market capitalization in year t	World Bank
Exchange Rate Risk	EMU	ijt	A dummy variable that equals one if origin and destination countries are members of EMU	CIA World Fact Book
Barriers to International Investments	Control	it	The International Capital Markets Control index is the average of Foreign Ownership/ Investment Restrictions and Capital Controls indices. The index ranges from 0 to 10 , where higher scores mean less restrictions on foreign capital transactions	Economic Freedom of the World
	Control	jt	The International Capital Markets Control index is the average of Foreign Ownership/ Investment Restrictions and Capital Controls indices. The index ranges from 0 to 10 , where higher scores mean less restrictions on foreign capital transactions	Economic Freedom of the World
Information costs	Trade	ijt	Sum of bilateral exports (exports of country i to country j in year t divided by total exports of country i in year t) plus bilateral imports (imports of country i from country j in year t divided by total imports of country i in year t)	United Nations COMTRADE Database
	FDI	ijt	Sum of bilateral inward FDI (inward FDI of country i from country j in year t divided by total inward FDI of country i in year t) and bilateral outward FDI (outward FDI of country i to country j in year t divided by total outward FDI of country i in year t)	OECD Foreign Direct Investment Statistics
	Migration	ijt	Sum of bilateral immigration (immigrants in country i from country j in year t divided by total immigrants in country i in year t) and bilateral emigration (immigrants in country j from country i in year t divided by total immigrants in country j in year t)	OECD International Migration Database

Table 4 (continued)

Proxy	Variable	Dim.	Description	Data Source
Familiarity	Geodist	ij	geographical distance between the capital cities of origin country i and destination country j (in natural log form)	CEPII Geodesic Distance database
	Cultdist	ij	Averaged sum of the absolute values of the differences between origin and destination countries ratings in each one of the 5 cultural dimensions proposed by Geert Hofstede: power distance index, individualism, masculinity, uncertainty avoidance index e long-term orientation.	Geert Hofstede website
	Contingency	ij	A dummy variable that equal one if origin and destination countries are contiguous	CEPII database
	Language	ij	A dummy variable that equal one if origin and destination countries share the same official language	CEPII database
	Religion	ij	A dummy variable that equal one if origin and destination countries have the same predominant religion, namely Catholicism, Orthodoxy, Protestantism.	CIA World Fact Book; Hitchcock and Esposito (2004)
Governance Transparency	Corruption	it	The Corruption Perceptions Index measures the perception of corrupt practices in both public and private sectors, scoring countries on a scale from 10 (very clean) to 0 (highly corrupt).	Transparency International
	Corruption	jt	The Corruption Perceptions Index measures the perception of corrupt practices in both public and private sectors, scoring countries on a scale from 10 (very clean) to 0 (highly corrupt).	Transparency International

Table 5
Descriptive statistics

This table presents the descriptive statistics for the dependent and independent variables used in this study. The first column presents the independent variables. The second column presents the dimension of each variable (i.e. the level at which they vary, namely at the level of each investor k, origin country i, destination country j and year of investment t). The fourth to eighth presents the number of observations, the mean, the standard deviation, the minimum and the maximum value of each variable, respectively. For a detailed description of independent variables please see table 4.

Variable	Dim.	Obs	Mean	Std. Dev.	Min	Max
Holdings	kijt	3386	18.4604	2.70564	6.773166	24.6555
Investor Size	kit	3386	-2.486996	1.396522	-7.775256	-.4939685
Market Size	it	3386	77.68812	30.86882	12.68853	159.6271
Market Size	jt	3386	75.97208	33.89086	12.68853	159.6271
Correlation	ijt	3386	.6674035	.1469616	-.02101	.95663
Return	it	3386	.0053489	.005935	-.00756	.02804
Return	jt	3386	.0049681	.0070744	-.00756	.02804
Risk	it	3386	6.645411	1.795156	3.74034	12.68332
Risk	jt	3386	6.68198	1.9979	3.74034	13.11663
MCapWorld	jt	3386	.0179843	.0204682	.0008659	.0812047
Control	it	3386	7.252391	1.029361	5.16636	9.47503
Control	jt	3386	7.500966	1.114427	5.16636	9.54088
Trade	ijt	3386	.096838	.0983942	.00669	.74002
FDI	ijt	2892	.0952163	.1229379	-.00116	.9116
Migration	ijt	1780	.049714	.0625284	.0011	.61788
Geodist	ij	3386	7.121789	.5668898	5.15348	8.12058
Cultdist	ij	3386	23.01282	9.476162	5.2	46.6
Corruption	it	3386	7.425199	1.744383	4.15363	9.71437
Corruption	jt	3386	7.64303	1.496856	4.15363	9.9

Table 6

Correlation matrix

This table presents the correlation matrix for the independent variables used in this study. The first column presents the independent variables, the second column presents the dimension of each variable (i.e., the level at which they vary, namely at the level of each investor k, origin country i, destination country j and year of investment t) and the remaining columns present the correlation coefficient between each pair of independent variables. For a detailed description of independent variables please see table 4.

		Inv.Size	MrkSize	MrkSize	Corr.	Return	Return	Risk	Risk	MCapW	Control	Control	Trade	FDI	Migr.	Geodist	Cultdist	Corrupt	Corrupt
Investor Size	kit	1																	
Market Size	it	0.0478	1																
Market Size	jt	-0.0456	0.0426	1															
Correlation	ijt	-0.0961	0.2264	0.0243	1														
Return	it	-0.0569	0.2668	0.3152	0.3093	1													
Return	jt	-0.0177	0.3174	0.3346	0.1543	0.6304	1												
Risk	it	0.0001	-0.1163	-0.0580	-0.4043	-0.4858	-0.2078	1											
Risk	jt	-0.0116	-0.1334	-0.1424	-0.3942	-0.2295	-0.1644	0.0825	1										
MCapWorld	jt	-0.0005	-0.1046	0.4211	0.1878	0.0392	-0.0595	-0.0022	-0.4897	1									
Control	it	0.0430	-0.0930	-0.1262	-0.2641	-0.3344	-0.2649	-0.1410	0.2357	-0.0612	1								
Control	jt	0.0148	-0.1539	0.1577	-0.1475	-0.2261	-0.2862	0.1621	-0.2421	0.3176	0.2734	1							
Trade	ijt	0.0102	-0.0430	-0.1666	0.3500	0.0633	-0.0448	-0.0283	-0.0789	0.3392	-0.0362	-0.0202	1						
FDI	ijt	-0.0665	0.0869	0.3726	0.3122	-0.0206	-0.0439	0.1348	-0.1261	0.2018	-0.0963	0.1618	0.3767	1					
Migration	ijt	-0.0453	0.1721	0.0676	0.2100	-0.0333	0.0594	-0.0213	0.0603	-0.0236	-0.0053	-0.0478	0.2706	0.4280	1				
Geodist	ij	0.0509	-0.1688	-0.0033	-0.2882	-0.0352	-0.0269	0.1521	-0.0349	0.0716	-0.1798	-0.0328	-0.4970	-0.4646	-0.5026	1			
Cultdist	ij	0.0945	-0.0066	0.0607	-0.1481	-0.0562	-0.1120	0.0331	-0.0889	0.1409	0.0419	0.1296	-0.2694	-0.1183	-0.2771	0.4070	1		
Corruption	it	0.0112	0.5631	-0.0046	0.0368	0.0112	0.0523	0.0041	0.1391	-0.1594	0.2215	-0.0923	0.0956	0.1226	0.1442	-0.4095	-0.0709	1	
Corruption	jt	-0.0487	-0.0273	0.5512	0.0449	0.0533	0.0120	0.0915	0.1161	0.1024	-0.0598	0.2165	0.0356	0.3537	0.1424	-0.1567	-0.0095	0.0760	1

Table 7
International equity holdings for institutional and noninstitutional investors

This table presents the tests of the mean differences in international holdings between institutional and noninstitutional investors. The mean for institutional investors, the mean for noninstitutional investors, the mean difference between institutional and noninstitutional investors as well as the respective t-test and its statistical significance are presented. These values are presented for the overall sample containing all years (second column) and for each year of investment (third to eight columns). For a detailed description of international holdings, portfolio weights, foreign bias please see table 4. Statistical significance * p<0.05, **p<0.01, *** p<0.01

Mean	Overall	2001	2002	2003	2004	2005	2006
Institutional	18.96613	18.42169	18.41305	18.86241	19.05465	19.2605	19.66597
Noninstitut.	17.49625	17.46625	17.24303	17.33057	17.57344	17.46279	17.8285
Diff.	1.469889	.9554381	1.17002	1.531839	1.481204	1.797706	1.837462
t	15.80***	4.02***	4.84***	6.64***	6.91***	8.02***	8.66***

Table 8
International equity holdings by years of investment

This table presents the tests of the mean differences in international holdings between consecutive years of investment. In line, the mean for each year, the mean difference between consecutive years, the respective t-test and its statistical significance are presented. These values are presented for the overall sample containing all investors (third column), institutional investors (fourth column) and noninstitutional investors (fifth column). For a detailed description of international holdings please see table 4. Statistical significance * $p < 0.05$, ** $p < 0.01$, *** $p < 0.01$

Mean	Overall	Institut.	Noninstit.
2006	19.007771	19.66597	17.8285
2005	18.611161	19.2605	17.46279
Diff.	.3966107	.4054676	.3657112
t	2.55**	2.22**	1.47
2005	18.611161	19.2605	17.46279
2004	18.53362	19.05465	17.57344
Diff.	.0775402	.2058523	-.1106495
t	0.50	1.12	-0.44
2004	18.53362	19.05465	17.57344
2003	18.347275	18.86241	17.33057
Diff.	.1863457	.1922407	.2428751
t	1.19	1.02	0.96
2003	18.347275	18.86241	17.33057
2002	18.017042	18.41305	17.24303
Diff.	.3302331	.4493581	.0875391
t	2.01**	2.26**	0.33
2002	18.017042	18.41305	17.24303
2001	18.123474	18.42169	17.46625
Diff.	-.1064327	-.0086443	-.22322
t	-0.63	-0.04	-0.84

Table 9
Determinants of international equity holdings of EU institutional investors

This table presents the regression results on the determinants of international equity holdings of institutional investors. An OLS regression with dummies for origin countries, destination countries and years of investment is used. The dependent variable is holdings. For a detailed description of dependent and independent variables please see table 4. White's robust standard estimation is used. The coefficients, the respective statistical significance and t-stat are displayed. The F-test and the respective statistical significance for the dummy variables used are also displayed. The last four lines present the number of observations, R square, adjusted R square, and root mean squared error (rmse). Statistical significance: * p<0.05, **p<0.01, *** p<0.01.

		(1)		(2)		(3)		(4)		(5)	
		Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat
_cons		23.94***	21.04	22.28***	13.49	23.15***	14.28	25.22***	10.72	19.13***	5.13
Investor Size	kit	1.016***	33.57	1.016***	33.70	1.020***	34.50	1.030***	31.52	1.029***	31.72
Market Size	it	0.00607	1.08	0.00581	1.01	0.00658	1.21	0.00468	0.68	0.00378	0.55
Market Size	jt	0.00884*	2.25	-0.00885	-1.82	-0.00896	-1.91	0.00163	0.28	0.00134	0.23
Correlation	ijt			1.679***	3.54	1.884***	3.93	0.437	0.56	0.238	0.31
Return	it			-6.791	-0.56	-10.30	-0.83	-16.18	-0.98	-12.27	-0.73
Return	jt			36.62***	4.02	34.93***	3.74	16.30	1.28	13.06	1.01
Risk	it			-0.144*	-2.50	-0.116	-1.83	-0.187*	-2.54	-0.198**	-2.69
Risk	jt			-0.149**	-2.90	-0.136*	-2.53	-0.0558	-0.84	-0.118	-1.72
MCapWorld	jt			48.74**	3.04	57.29***	3.67	32.35	1.59	36.30	1.78
EMU	ij					1.834***	12.76	1.386***	4.96	1.339***	4.84
Control	it					-0.0716	-1.19	-0.0760	-0.92	-0.0511	-0.62
Control	jt					-0.0197	-0.36	-0.120	-1.82	-0.0427	-0.60
Trade	ijt							3.956***	3.86	4.119***	3.96
FDI	ijt							1.318**	2.90	1.306**	2.82
Migration	ijt							0.882	1.06	0.903	1.13
Geodist	ij							-0.0745	-0.58	-0.0812	-0.63
Cultdist	ij							0.0112*	2.29	0.0117*	2.41
Contingency	ij							-0.270	-1.54	-0.294	-1.69
Language	ij							0.927***	3.71	0.903***	3.61
Religion	ij							0.638***	6.13	0.660***	6.34
Corruption	it									0.0302	0.12
Corruption	jt									0.613**	2.77
Year	t	24.39***		7.47***		5.90***		1.36		1.22	
Origin	i	267.65***		94.85***		97.00***		39.76***		39.35***	
Destination	j	147.66***		63.48***		45.04***		15.09***		14.56***	
N		2221		2221		2221		968		968	
R-sq		0.761		0.767		0.783		0.853		0.854	
adj. R-sq		0.758		0.763		0.779		0.845		0.846	
rmse		1.310		1.295		1.250		0.996		0.993	

Table 10
Determinants of international equity holdings of EU noninstitutional investors

This table presents the regression results on the determinants of international equity holdings of noninstitutional investors. An OLS regression with dummies for origin countries, destination countries and years of investment is used. The dependent variable is holdings. For a detailed description of dependent and independent variables please see table 4. White's robust standard estimation is used. The coefficients, the respective statistical significance and t-stat are displayed. The F-test and the respective statistical significance for the dummy variables used are also displayed. The last four lines present the number of observations, R square, adjusted R square, and root mean squared error (rmse). Statistical significance: * p<0.05, **p<0.01, *** p<0.01.

		(1)		(2)		(3)		(4)		(5)	
		Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat
_cons		20.19***	17.08	15.41***	5.85	14.59***	5.73	27.01***	7.52	20.14***	3.45
Investor Size	kit	0.820***	23.39	0.826***	23.88	0.825***	25.39	0.781***	23.75	0.781***	23.69
Market Size	it	0.00865	1.04	0.00958	1.16	0.0120	1.57	0.0115	1.29	0.0108	1.21
Market Size	jt	0.00653	0.98	-0.000748	-0.09	-0.00251	-0.32	-0.00214	-0.27	-0.00264	-0.33
Correlation	ijt			4.974***	5.94	5.140***	5.90	-0.370	-0.31	-0.575	-0.47
Return	it			-27.58	-1.13	-36.61	-1.38	-20.38	-0.81	-18.71	-0.74
Return	jt			9.717	0.71	7.166	0.51	9.211	0.50	6.562	0.35
Risk	it			0.0730	0.61	0.107	0.82	-0.199	-1.62	-0.211	-1.73
Risk	jt			0.0349	0.42	0.0727	0.85	-0.0227	-0.22	-0.0759	-0.69
MCapWorld	jt			18.56	0.80	37.55	1.55	-20.48	-0.67	-18.63	-0.62
EMU	ij					2.858***	11.51	1.223**	2.62	1.179*	2.54
Control	it					-0.163	-1.77	-0.0562	-0.49	-0.0318	-0.27
Control	jt					-0.0896	-1.07	0.0469	0.49	0.126	1.18
Trade	ijt							2.059	0.99	2.320	1.11
FDI	ijt							2.928***	4.30	2.915***	4.24
Migration	ijt							1.217	0.68	1.123	0.63
Geodist	ij							-0.581*	-2.05	-0.576*	-2.02
Cultdist	ij							-0.00189	-0.19	-0.00187	-0.18
Contingency	ij							-0.0580	-0.18	-0.0938	-0.30
Language	ij							0.921	1.89	0.962	1.95
Religion	ij							0.803***	4.26	0.825***	4.40
Corruption	it									0.185	0.44
Corruption	jt									0.551	1.76
Year	t	2.55**		1.04		1.90*		0.88		0.96	
Origin	i	88.71***		25.48***		36.80***		8.10***		7.56	
Destination	j	95.16***		31.58***		22.74***		9.02***		9.16	
N		1165		1165		1165		487		487	
R-sq		0.623		0.637		0.676		0.813		0.814	
adj. R-sq		0.614		0.626		0.665		0.794		0.794	
rmse		1.567		1.542		1.460		1.036		1.035	

Table 11
Differences on the determinants of international equity holdings between EU institutional and noninstitutional investors

This table presents the results of the differences on the determinants of international equity holdings between EU institutional and noninstitutional investors. An OLS regression with dummies for origin countries, destination countries and years of investment, as well as differential independent variables (i.e. the product of each independent variable by a dummy variable that equals one if investor k is an institutional investor and zero if investor k is a noninstitutional investor), is used. The dependent variable is holdings. For a detailed description of dependent and independent variables please see table 4. White's robust standard estimation is used. The coefficients, the respective statistical significance and t-stat are displayed. The F-test and the respective statistical significance for the dummy variables, as well as for all differential variables and for a specific group of differential variables are also displayed. The last four lines present the number of observations, R square, adjusted R square, and root mean squared error (rmse). Statistical significance: * p<0.05, **p<0.01, *** p<0.01.

		(1)				(2)				(3)				(4)				(5)			
		Noninstit.		Diff.		Noninstit.		Diff.		Noninstit.		Diff.		Noninstit.		Diff.		Noninstit.		Diff.	
		Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat
_cons		23.06***	23.66	0.766***	3.44	20.15***	13.03	1.473*	2.12	19.96***	12.43	3.391**	3.29	26.83***	10.98	0.311	0.17	19.89***	5.69	0.0322	0.02
Investor Size	kit	0.856***	24.30	0.159***	3.47	0.853***	24.34	0.159***	3.46	0.856***	25.70	0.160***	3.63	0.815***	23.49	0.211***	4.45	0.814***	23.56	0.212***	4.48
Market Size	it	0.00147	0.30	0.00699**	2.94	0.00112	0.22	0.00726*	2.55	0.00339	0.69	0.00638*	2.25	0.00361	0.58	0.00321	0.81	0.00397	0.60	0.00198	0.37
Market Size	jt	0.0106**	2.87	-0.00393*	-2.42	-0.00379	-0.79	-0.00341	-1.68	-0.00436	-0.96	-0.00313	-1.49	0.00582	1.13	-0.00811*	-2.53	0.00447	0.84	-0.00680	-1.76
Correlation	ijt					2.682***	4.87	-0.223	-0.47	3.103***	5.41	-0.486	-0.97	-1.175	-1.39	1.747*	2.29	-1.479	-1.72	1.838*	2.37
Return	it					15.12	0.84	-34.83*	-2.07	10.74	0.57	-37.39*	-2.11	7.144	0.36	-34.23	-1.76	9.361	0.46	-33.46	-1.68
Return	jt					13.60	1.31	21.67*	2.13	17.82	1.62	12.08	1.11	-5.601	-0.42	29.99*	2.39	-7.960	-0.58	29.45*	2.27
Risk	it					-0.0816	-1.08	-0.0305	-0.50	-0.0425	-0.51	-0.0325	-0.48	-0.246**	-2.79	0.0513	0.65	-0.265**	-3.01	0.0594	0.73
Risk	jt					-0.0453	-0.90	-0.0490	-1.62	-0.0108	-0.20	-0.0731*	-2.19	-0.0347	-0.52	-0.0285	-0.66	-0.101	-1.45	-0.0243	-0.53
MCapWorld	jt					38.00**	2.76	0.463	0.13	48.83***	3.61	2.185	0.64	6.254	0.35	11.12*	2.12	10.19	0.57	10.19	1.81
EMU_	ij									2.208***	14.15	-0.0712	-0.58	1.320***	4.75	0.0453	0.24	1.285***	4.34	0.0287	0.12
Control	it									-0.0781	-1.13	-0.0365	-0.54	-0.0838	-0.99	0.0330	0.43	-0.0511	-0.58	0.0194	0.23
Control	jt									0.0663	1.07	-0.159**	-2.73	0.0427	0.59	-0.151*	-2.34	0.114	1.49	-0.136*	-2.00
Trade	ijt													5.112***	4.08	-2.330*	-2.08	5.152***	3.99	-2.226	-1.93
FDI	ijt													1.911**	3.21	-0.0406	-0.06	1.948**	3.23	-0.0727	-0.11
Migration	ijt													1.464	0.98	-1.223	-0.74	1.255	0.82	-0.906	-0.53
Geodist	ij													-0.346	-1.80	0.174	0.90	-0.386*	-1.97	0.208	1.07
Cultdist	ij													0.0148	1.73	-0.00919	-1.01	0.0147	1.71	-0.00855	-0.93
Contingency	ij													0.0692	0.28	-0.399	-1.47	0.0270	0.11	-0.382	-1.42
Language	ij													1.224*	2.57	-0.377	-0.70	1.250**	2.60	-0.452	-0.83
Religion	ij													0.888***	5.82	-0.264	-1.53	0.897***	5.78	-0.240	-1.36
Corruption	it																	0.156	0.71	0.0218	0.34
Corruption	jt																	0.639**	3.24	-0.0418	-0.51

Table 11 (continued)

	(1)	(2)	(3)	(4)	(5)
Year	24.46***	5.78***	5.21***	1.76	1.76
Origin	297.50***	98.94***	108.42***	41.41***	40.92***
Destination	220.91***	88.86***	63.02***	18.90***	18.69***
Overall Diff	26.39***	13.21***	11.35***	8.50***	8.01***
Size Diff	26.39***	6.61***	6.67***	8.36***	7.27***
Finance Diff		1.72	2.32**	4.93***	3.73***
Barriers Diff			3.37**	1.93	1.50
Information + Familiarity Diff				8.85***	7.87***
Corruption Diff					0.22
N	3386	3386	3386	1455	1455
R-sq	0.730	0.737	0.759	0.842	0.843
adj. R-sq	0.727	0.733	0.755	0.834	0.835
rmse	1.415	1.399	1.340	1.025	1.022

Table 12

International portfolio weights and foreign bias for institutional and noninstitutional investors

This table presents the tests of the mean differences in portfolio weights, foreign bias, and absolute foreign bias between institutional and noninstitutional investors. For each one of the alternative dependent variable (portfolio weights, foreign bias, and absolute foreign bias), the mean for institutional investors, the mean for noninstitutional investors, the mean difference between institutional and noninstitutional investors, as well as the respective t-test and its statistical significance are presented. These values are presented for the overall sample containing all years (third column) and for each year of investment (fourth to ninth columns). International portfolio weights is the ratio of the value of international equity investment holdings of investor k of origin country i invested in equities of destination country j in year t to the total value of international equity investment holdings of investor k of origin country i in year t (in natural logarithmic form). Foreign bias is the ratio of international portfolio weights, as defined previously, by optimal portfolio weights, the latter being measured by the ratio of market capitalization of destination country j in year t to the difference between world market capitalization and origin country market capitalization in year t . Absolute foreign bias is the absolute of foreign bias, as defined previously. Statistical significance: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.01$

Measure	Mean	Overall	2001	2002	2003	2004	2005	2006
Weights (ln)	Institutional	-4.443103	-4.547536	-4.551925	-4.54949	-4.335718	-4.355141	-4.344128
	Noninstitut.	-5.018147	-4.85501	-5.116623	-5.058597	-4.959677	-5.10155	-4.994342
	Diff.	.5750433	.3074741	.5646983	.5091071	.6239597	.7464092	.6502149
	t	7.27***	1.49	2.66***	2.48**	3.43***	3.96***	3.74***
Foreign Bias (ln)	Institutional	.1982109	.1555268	.1641074	.1357994	.254139	.2751658	.1952747
	Noninstitut.l	-.351418	-.1274173	-.3491105	-.3954811	-.3297099	-.4283406	-.4215369
	Diff.	.5496289	.2829441	.5132178	.5312805	.5838489	.7035064	.6168115
	t	8.45***	1.82*	3.01***	3.10***	3.89***	4.40***	4.1931***
Absolute Foreign Bias (ln)	Institutional	1.184437	1.207379	1.257023	1.221323	1.214391	1.136807	1.080725
	Noninstitut.	1.493727	1.29001	1.468316	1.587635	1.42792	1.636261	1.501348
	Diff.	-.3092902	-.0826309	-.2112939	-.3663114	-.2135288	-.4994536	-.4206233
	t	-7.29***	-0.8509	-1.87*	-3.23***	-2.17**	4.82***	-4.42***

Table 13
International portfolio weights and foreign bias by years of investment

This table presents the tests of the mean differences in international portfolio weights, foreign bias, and absolute foreign bias between consecutive years of investment. In line, the mean for each year, the mean difference between consecutive years, as well as the respective t-test and its statistical significance are presented. For each one of the alternative dependent variable (portfolio weights, foreign bias, and absolute foreign bias), those values are presented for all investors (overall), institutional investors and noninstitutional investors. International portfolio weights is the ratio of the value of international equity investment holdings of investor k of origin country i invested in equities of destination country j in year t to the total value of international equity investment holdings of investor k of origin country i in year t (in natural logarithmic form). Foreign bias is the ratio of international portfolio weights, as defined previously, by optimal portfolio weights. Optimal portfolio weights are measured by the ratio of market capitalization of destination country j in year t to the difference between world market capitalization and origin country market capitalization in year t . Absolute foreign bias is the absolute value of foreign bias, as defined previously. Statistical significance * $p < 0.05$, ** $p < 0.01$, *** $p < 0.01$

Measure	Portfolio Weights (ln)			Foreign Bias (ln)			Absolute Foreign Bias (ln)		
	Overall	Institut.	Noninstitut.	Overall	Institut.	Noninstitut.	Overall	Institut.	Noninstitut.
2006	-4.57704	-4.344128	-4.994342	-.0256727	.1952747	-.4215369	1.231396	1.080725	1.501348
2005	-4.624747	-4.355141	-5.10155	.0210565	.2751658	-.4283406	1.317212	1.136807	1.636261
Diff.	.0477066	.0110134	.1072077	-.0467292	-.0798912	.0068037	-.085816	-.0560824	-.1349126
t	0.41	0.09	0.48	-0.48	-0.75	0.04	-1.33	-0.78	-1.11
2005	-4.624747	-4.355141	-5.10155	.0210565	.2751658	-.4283406	1.317212	1.136807	1.636261
2004	-4.555201	-4.335718	-4.959677	.048765	.254139	-.3297099	1.289501	1.214391	1.42792
Diff.	-.0695459	-.0194232	-.1418727	-.0277085	.0210268	-.0986307	.0277102	-.0775838	.208341
t	-0.58	-0.14	-0.63	-0.28	0.19	-0.52	0.42	-1.06	1.70*
2004	-4.555201	-4.335718	-4.959677	.048765	.254139	-.3297099	1.289501	1.214391	1.42792
2003	-4.720694	-4.54949	-5.058597	-.0428613	.1357994	-.3954811	1.344507	1.221323	1.587635
Diff.	.1654934	.2137726	.09892	.0916263	.1183396	.0657713	-.0550061	-.0069323	-.159715
t	1.33	1.49	0.42	0.89	1.01	0.34	-0.81	-0.09	-1.24
2003	-4.720694	-4.54949	-5.058597	-.0428613	.1357994	-.3954811	1.344507	1.221323	1.587635
2002	-4.743053	-4.551925	-5.116623	-.0095971	.1641074	-.3491105	1.328537	1.257023	1.468316
Diff.	.022359	.0024345	.0580257	-.0332642	-.028308	-.0463707	.0159701	-.0356994	.1193181
t	0.17	0.02	0.23	-0.31	-0.23	-0.22	0.22	-0.45	0.86
2002	-4.743053	-4.551925	-5.116623	-.0095971	.1641074	-.3491105	1.328537	1.257023	1.468316
2001	-4.643507	-4.547536	-4.85501	.0672122	.1555268	-.1274173	1.23317	1.207379	1.29001
Diff.	-.0995466	-.004389	-.2616132	-.0768094	.0085806	-.2216932	.0953672	.0496437	.1783068
t	-0.73	-0.03	-1.05	-0.74	0.07	-1.13	1.42	0.64	1.40

Table 14

Determinants of international portfolio weights of EU institutional and noninstitutional investors

This table presents: in model (1), the determinants of international portfolio weights of EU institutional investors; in model (2), the determinants of international portfolio weights of EU noninstitutional investors; in model (3) the differences on the determinants of international equity holdings between EU institutional and noninstitutional investors. OLS regression with dummies for origin countries, destination countries and years of investment is used. In model (3) differential independent variables (i.e. the product of each independent variable by a dummy variable that equals one if investor k is an institutional investor and zero if investor k is a noninstitutional investor), are also included. The dependent variable is international portfolio weights, measured by the ratio of the value of international equity investment holdings of investor k of origin country i invested in equities of destination country j in year t to the total value of international equity investment holdings of investor k of origin country i in year t (in natural logarithmic form). For a detailed description of independent variables please see table 4. White's robust standard estimation is used. The coefficients, the respective statistical significance and t-stat are displayed. The F-test and the respective statistical significance for the dummy variables, as well as for all differential variables and for a specific group of differential variables are also displayed. The last four lines present the number of observations, R square, adjusted R square, and root mean squared error (rmse). Statistical significance: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

		(1)		(2)		(3)			
		Instit		Noninstit		Noninstit		Diff	
		Coef.	t-stat	Coef.	t-stat	Coef.	t-stat	Coef.	t-stat
_cons		-6.953	-1.90	-2.956	-0.51	-5.820	-1.68	-0.278	-0.14
Investor Size	kit	0.0343	1.06	-0.219***	-6.63	-0.187***	-5.41	0.219***	4.63
Market Size	it	0.00596	0.87	0.00983	1.10	0.00571	0.86	0.00136	0.26
Market Size	jt	0.00164	0.28	-0.00389	-0.49	0.00374	0.70	-0.00604	-1.57
Correlation	ijt	0.315	0.40	-0.636	-0.52	-1.420	-1.65	1.819*	2.34
Return	it	-11.90	-0.71	-18.49	-0.73	4.427	0.22	-26.26	-1.33
Return	jt	12.24	0.95	8.301	0.44	-6.048	-0.44	26.53*	2.06
Risk	it	-0.0435	-0.61	-0.163	-1.33	-0.165	-1.89	0.0928	1.16
Risk	jt	-0.123	-1.77	-0.0789	-0.71	-0.101	-1.44	-0.0283	-0.61
MCapWorld	jt	37.08	1.82	-17.67	-0.57	11.84	0.66	9.427	1.66
EMU_	ij	1.332***	4.84	1.174*	2.50	1.270***	4.29	0.0365	0.16
Control	it	-0.0442	-0.54	0.0118	0.10	-0.0433	-0.49	0.0367	0.43
Control	jt	-0.0569	-0.81	0.128	1.20	0.1000	1.32	-0.130	-1.92
Trade	ijt	4.072***	3.99	2.224	1.05	4.962***	3.80	-2.068	-1.78
FDI	ijt	1.306**	2.89	2.988***	4.33	2.073***	3.48	-0.214	-0.33
Migration	ijt	1.078	1.38	1.096	0.61	1.274	0.83	-0.764	-0.45
Geodist	ij	-0.0776	-0.61	-0.586*	-2.04	-0.387*	-1.97	0.209	1.07
Cultdist	ij	0.0115*	2.39	-0.00220	-0.22	0.0134	1.56	-0.00711	-0.78
Contingency	ij	-0.277	-1.61	-0.0922	-0.29	0.0285	0.12	-0.360	-1.34
Language	ij	0.869***	3.54	0.943	1.91	1.210*	2.53	-0.454	-0.84
Religion	ij	0.672***	6.54	0.824***	4.35	0.897***	5.76	-0.226	-1.28
Corruption	it	-0.266	-1.09	-0.0777	-0.19	-0.135	-0.62	0.0151	0.23
Corruption	jt	0.575**	2.65	0.551	1.76	0.615**	3.17	-0.0490	-0.59
Year	t		1.46		1.28		2.18*		
Origin	i		5.98***		9.39***		8.66***		
Destination	j		14.30***		9.22***		18.23***		
Overall Diff							8.27***		
Size Diff							7.59***		
Finance Diff							3.39***		
Barriers Diff							1.34		
Information + Familiarity Diff							7.73***		
Transparency Diff							0.23		
N		968		487		1455			
R-sq		0.685		0.779		0.717			
adj. R-sq		0.668		0.756		0.702			
rmse		0.986		1.037		1.017			

Table 15
Determinants of international foreign bias of EU institutional and noninstitutional investors

This table presents: in model (1), the determinants of foreign bias of EU institutional investors; in model (2), the determinants of foreign bias of EU noninstitutional investors; in model (3) the differences on the determinants of foreign bias between EU institutional and noninstitutional investors. OLS regression with dummies for origin countries, destination countries and years of investment is used. In model (3) differential independent variables (i.e. the product of each independent variable by a dummy variable that equals one if investor k is an institutional investor and zero if investor k is a noninstitutional investor), are also included. The dependent variable is foreign bias, measured by the ratio of international portfolio weights by optimal portfolio weights (in natural logarithmic form). International portfolio weights is the ratio of the value of international equity investment holdings of investor k of origin country i invested in equities of destination country j in year t to the total value of international equity investment holdings of investor k of origin country i in year t . Optimal portfolio weights is the ratio of market capitalization of destination country j in year t to the difference between world market capitalization and origin country market capitalization in year t . For a detailed description of independent variables please see table 4. White's robust standard estimation is used. The coefficients, the respective statistical significance and t-stat are displayed. The F-test and the respective statistical significance for the dummy variables, as well as for all differential variables and for a specific group of differential variables are also displayed. The last four lines present the number of observations, R square, adjusted R square, and root mean squared error (rmse). Statistical significance: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

		(1)		(2)		(3)			
		Instit		Noninstit		Noninstit		Diff	
		Coef.	t-stat	Coef.	t-stat	Coef.	t-stat	Coef.	t-stat
_cons		-1.337	-0.36	2.464	0.42	-0.264	-0.08	-0.297	-0.15
Investor Size	kit	0.0350	1.08	-0.219***	-6.66	-0.188***	-5.44	0.220***	4.66
Market Size	it	0.00577	0.84	0.00981	1.10	0.00558	0.84	0.00137	0.26
Market Size	jt	-0.00352	-0.61	-0.00857	-1.09	-0.00122	-0.23	-0.00610	-1.59
Correlation	ijt	0.244	0.31	-0.747	-0.62	-1.520	-1.77	1.847*	2.38
Return	it	-11.43	-0.68	-18.41	-0.73	4.709	0.24	-26.21	-1.33
Return	jt	5.617	0.44	1.206	0.06	-13.07	-0.96	26.88*	2.09
Risk	it	-0.0474	-0.67	-0.167	-1.37	-0.169	-1.94	0.0936	1.17
Risk	jt	-0.117	-1.70	-0.0765	-0.70	-0.0969	-1.39	-0.0281	-0.61
MCapWorld	jt	11.18	0.55	-44.74	-1.45	-14.54	-0.82	9.617	1.70
EMU_	ij	1.320***	4.81	1.158*	2.47	1.260***	4.26	0.0335	0.14
Control	it	-0.0368	-0.45	0.0125	0.11	-0.0396	-0.45	0.0389	0.46
Control	jt	-0.0698	-1.00	0.117	1.10	0.0883	1.17	-0.131	-1.94
Trade	ijt	4.059***	3.99	2.235	1.05	4.960***	3.79	-2.076	-1.79
FDI	ijt	1.371**	3.03	3.063***	4.47	2.150***	3.65	-0.229	-0.36
Migration	ijt	1.103	1.43	1.263	0.71	1.413	0.93	-0.876	-0.52
Geodist	ij	-0.0717	-0.57	-0.579*	-2.02	-0.380	-1.94	0.208	1.07
Cultdist	ij	0.0111*	2.32	-0.00244	-0.24	0.0132	1.54	-0.00734	-0.81
Contingency	ij	-0.282	-1.65	-0.0965	-0.31	0.0280	0.12	-0.367	-1.37
Language	ij	0.865***	3.53	0.908	1.84	1.176*	2.47	-0.423	-0.78
Religion	ij	0.675***	6.60	0.819***	4.33	0.893***	5.74	-0.218	-1.24
Corruption	it	-0.254	-1.05	-0.0485	-0.12	-0.117	-0.54	0.0140	0.22
Corruption	jt	0.538*	2.48	0.528	1.69	0.582**	3.00	-0.0478	-0.58
Year	t		1.48		1.42				2.31**
Origin	i		6.03***		9.48***				8.72***
Destination	j		16.45***		13.79***				24.58***
Overall Diff									8.34***
Size Diff									7.70***
Finance Diff									3.48***
Barriers Diff									1.37
Information + Familiarity Diff									7.80***
Transparency Diff									0.22
N		968		487		1455			
R-sq		0.528		0.724		0.612			
adj. R-sq		0.502		0.695		0.591			
rmse		0.984		1.034		1.015			

Table 16
Determinants of international equity holdings of EU institutional and noninstitutional investors, using alternative independent variables

This table presents: in model (1), the determinants of international equity holdings of EU institutional investors; in model (2), the determinants of international equity holdings of EU noninstitutional investors; in model (3) the differences on the determinants of international equity holdings between EU institutional and noninstitutional investors. OLS regression with dummies for origin countries, destination countries and years of investment is used. In model (3) differential independent variables (i.e. the product of each independent variable by a dummy variable that equals one if investor k is an institutional investor and zero if investor k is a noninstitutional investor), are also included. The dependent variable is holdings. For a detailed description of dependent and independent variables please see table 4. White's robust standard estimation is used. The coefficients, the respective statistical significance and t-stat are displayed. The F-test and the respective statistical significance for the dummy variables, as well as for all differential variables and for a specific group of differential variables are also displayed. The last four lines present the number of observations, R square, adjusted R square, and root mean squared error (rmse). Statistical significance: * p<0.05, **p<0.01, *** p<0.01.

		(1)		(2)		(3)			
		Instit		Noninstit		Noninstit		Diff	
		Coef.	t-stat	Coef.	t-stat	Coef.	t-stat	Coef.	t-stat
_cons		21.06***	5.71	23.35***	4.11	22.10***	5.93	1.956	0.84
Investor Size	kit	1.028***	31.69	0.782***	23.68	0.814***	23.39	0.212***	4.44
Market Size	it	0.00442	0.59	0.00832	0.84	0.00114	0.16	0.00531	1.01
Market Size	jt	0.000503	0.09	-0.00310	-0.40	0.00256	0.49	-0.00445	-1.22
Correlation	ijt	0.388	0.50	-0.343	-0.29	-1.251	-1.45	1.750*	2.22
Return	it	-14.92	-0.91	-20.45	-0.81	11.14	0.55	-37.54	-1.85
Return	jt	21.59	1.64	13.05	0.71	4.752	0.34	21.04	1.56
Risk	it	-0.193**	-2.61	-0.191	-1.55	-0.258**	-2.92	0.0593	0.74
Risk	jt	-0.0513	-0.77	-0.0279	-0.27	-0.0415	-0.61	-0.0177	-0.39
MCapWorld	jt	40.42	1.93	-19.10	-0.61	16.52	0.90	5.201	0.87
EMU_	ij	1.384***	4.94	1.219**	2.60	1.456***	4.89	-0.142	-0.61
Control	it	-0.0607	-0.72	-0.0773	-0.65	-0.0880	-0.97	0.0477	0.55
Control	jt	-0.114	-1.73	0.0501	0.52	0.0194	0.26	-0.108	-1.49
Trade	ijt	4.104***	4.01	1.911	0.90	4.640***	3.58	-1.649	-1.39
FDI	ijt	1.281**	2.80	2.985***	4.35	1.949**	3.29	-0.126	-0.20
Migration	ijt	0.875	1.07	1.309	0.73	1.354	0.88	-1.017	-0.60
Geodist	ij	-0.0729	-0.57	-0.590*	-2.06	-0.398*	-2.05	0.216	1.11
Cultdist	ij	0.0115*	2.36	-0.00230	-0.23	0.0149	1.74	-0.00871	-0.96
Contingency	ij	-0.273	-1.56	-0.0487	-0.15	0.0626	0.25	-0.406	-1.49
Language	ij	0.927***	3.71	0.870	1.77	1.267**	2.66	-0.449	-0.83
Religion	ij	0.637***	6.12	0.801***	4.24	0.812***	5.15	-0.155	-0.86
Governance	it	-0.00331	-0.14	0.0327	0.86	0.0120	0.53	-0.00984	-0.78
Governance	jt	0.0432	1.64	0.0119	0.31	0.0487	1.95	-0.0222	-1.46
Year	t		1.70		0.93		2.15*		
Origin	i		40.49***		7.95***		41.83***		
Destination	j		14.97***		8.97***		19.09***		
Overall Diff							7.99***		
Size Diff							6.83***		
Finance Diff							2.95***		
Barriers Diff							1.30		
Information + Familiarity Diff							6.59***		
Governance Diff							1.18		
N			968		487		1455		
R-sq			0.853		0.813		0.843		
adj. R-sq			0.845		0.794		0.835		
rmse			0.995		1.037		1.024		

Table 17

Determinants of international equity holdings of EMU institutional and noninstitutional investors

This table presents: in model (1), the determinants of international equity holdings of EMU institutional investors; in model (2), the determinants of international equity holdings of EMU noninstitutional investors; in model (3) the differences on the determinants of international equity holdings between EMU institutional and noninstitutional investors. OLS regression with dummies for origin countries, destination countries and years of investment is used. In model (3) differential independent variables (i.e. the product of each independent variable by a dummy variable that equals one if investor k is an institutional investor and zero if investor k is a noninstitutional investor), are also included. The dependent variable is holdings. For a detailed description of dependent and independent variables please see table 4. White's robust standard estimation is used. The coefficients, the respective statistical significance and t-stat are displayed. The F-test and the respective statistical significance for the dummy variables, as well as for all differential variables and for a specific group of differential variables are also displayed. The last four lines present the number of observations, R square, adjusted R square, and root mean squared error (rmse). Statistical significance: * p<0.05, **p<0.01, *** p<0.01.

		(1)		(2)		(3)			
		Instit		Noninstit		Noninstit		Diff	
		Coef.	t-stat	Coef.	t-stat	Coef.	t-stat	Coef.	t-stat
_cons		17.54***	4.27	15.65**	3.12	12.65**	2.77	3.311	1.06
Investor Size	kit	1.111***	30.27	0.854***	23.70	0.874***	24.07	0.235***	4.61
Market Size	it	0.0343	1.94	-0.00515	-0.21	0.0237	1.58	-0.00263	-0.32
Market Size	jt	0.000340	0.03	-0.00176	-0.14	-0.00842	-0.89	0.0126*	1.98
Correlation	ijt	1.732	1.30	1.200	0.61	0.909	0.62	0.532	0.37
Return	it	-31.22	-1.50	-21.43	-0.85	-17.42	-0.82	-11.67	-0.48
Return	jt	7.512	0.33	7.744	0.26	15.63	0.66	-11.24	-0.50
Risk	it	-0.0965	-0.85	-0.176	-1.20	-0.168	-1.53	0.0691	0.64
Risk	jt	-0.108	-1.10	-0.00928	-0.07	-0.0768	-0.88	0.0127	0.17
MCapWorld	jt	-7.448	-0.20	-77.16	-1.79	-50.08	-1.63	28.66	1.90
Control	it	0.0527	0.49	-0.0360	-0.27	-0.0350	-0.32	0.121	1.11
Control	jt	0.00404	0.04	0.276	1.91	0.317**	3.13	-0.329***	-3.44
Trade	ijt	5.490***	3.88	4.101	1.91	6.537***	4.15	-1.825	-1.18
FDI	ijt	-2.229*	-2.13	-1.475	-0.80	-2.178	-1.66	0.202	0.17
Migration	ijt	2.537	1.59	-0.768	-0.34	-1.092	-0.56	3.680	1.76
Geodist	ij	-0.0952	-0.45	-0.0867	-0.23	0.0733	0.23	-0.241	-0.72
Cultdist	ij	0.0242	1.81	0.00857	0.56	0.0269*	2.10	-0.00850	-0.66
Contingency	ij	0.387	1.72	1.324**	2.63	1.483***	4.41	-1.170***	-3.56
Language	ij	0.461	1.13	1.831**	2.85	1.914**	3.22	-1.424*	-2.13
Religion	ij	0.458	1.24	0.381	1.01	0.421	1.23	0.0271	0.07
Corruption	it	0.163	0.44	-0.0364	-0.06	-0.00459	-0.01	0.183	1.43
Corruption	jt	-0.0987	-0.32	0.122	0.32	0.118	0.47	-0.219	-1.75
Year	t	0.53		0.61		0.85			
Origin	i	32.54***		12.23***		37.59***			
Destination	j	9.29***		12.23***		14.79***			
Overall Diff								8.66***	
Size Diff								8.61***	
Finance Diff								2.13**	
Barriers Diff								6.03***	
Information + Familiarity Diff								4.41***	
Transparency Diff								3.56**	
N		422		239		661			
R-sq		0.880		0.860		0.872			
adj. R-sq		0.866		0.831		0.858			
rmse		0.924		0.896		0.912			