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ABSTRACT

Nonlinearities arise in international investment because of a pecking order in barriers. Some severe barriers render all others meaningless, and only when alleviated do other barriers become important. Quantile regressions, designed to model relations at more points than just the conditional mean, allow us to test various investment theories at different points in the distribution of bilateral cross-border equity holdings. Support is broadest for roles for information and familiarity but more limited for transaction costs. Our results can also help reconcile a number of findings in the literature by highlighting that datasets which focus on different points of the barriers (investment) distribution can naturally lead to different results. Going forward, as the literature focuses on specialized datasets and granularity / asset demand systems, analysis should incorporate nonlinearities inherent in cross-border barriers and investment.

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1. Introduction

There is growing recognition of nonlinearities in factors that drive cross-border investment. For example, nonlinearities naturally arise in models of information acquisition (van Nieuwerburgh and Veldkamp, 2009; De Marco, Macchiavelli and Valchev, 2021). These nonlinearities suggest that in the quest to understand what drives international investment, some theories that hold for very low level of investment – which makes up a material portion of the distribution of investment – should not hold when investment is already very high. But even as the importance of nonlinearities is becoming more apparent, much of the existing empirical work on international portfolio investment is through a decidedly linear lens. For example, many studies show that investors exhibit *on average* substantial home bias in their tendency to invest abroad (see, among many others, French and Poterba, 1991; Lewis, 1999; Karolyi and Stulz, 2003; Ahearne, Griever, and Warnock, 2004; Chan, Covrig, and Ng, 2005; Bekaert and Wang, 2009), and that *on average* different factors can help us understand this. Moreover, the literature's new focus on asset demand systems (Koijen and Yogo 2020) is also through a linear lens.

The wide variation we observe in investment levels across countries, however, means that in reality most portfolio investment weights are very different from the average. Figure 1 shows the distribution of investment weights – the weight of the destination market in the investor country's portfolio relative to the destination's weight in the world portfolio.[1] Most countries invest very little – in fact, the most frequent investment is zero (the tall red bar). But some countries (the short green bars) invest a lot – way more than the international CAPM benchmark of 1, the point at which the proportion of investor country holdings in the investment destination country equals the destination country weight in the world market portfolio. The mean relative weight (just

[1] More details on the relative weight measure are in section 3.1.

0.82% of the destination's weight in the world portfolio) doesn't really describe most of the distribution. Essentially, Figure 1 shows a distribution made up almost entirely of "outliers" when existing empirical research has spent all its efforts trying to explain average investor behavior. Focusing on the average of such a distribution delivers an incomplete view of the determinants of cross-border investment. This paper is the first to estimate how these non-linearities matter in the context of international investment.

A focus on linear estimates fails to take into account nonlinearities that arise from a pecking order of barriers. We reveal a pecking order in the barriers that limit cross-border investment and shed light on where different investment theories hold across the distribution. Barriers are not easily measured and, in empirical work, many reasonable measures of barriers—some direct, others proxies—have been shown to impact cross-border investment.[2] These barriers range from legal restrictions that bar foreign investment, such as capital controls, to indirect barriers such as lack of information and familiarity. And between direct and indirect barriers, perhaps along a continuum, are a host of other barriers such as transaction costs, governance issues/expropriation risk, and exchange rate risk. The pecking order view recognizes that direct barriers can render all other barriers immaterial. For example, if no investment is allowed between two countries, alleviating information costs should not impact investment levels. As direct barriers are reduced, barriers such as information costs and governance issues might come into play. And nonlinearities arise as the returns to mitigating barriers evolve across the distribution. Standard OLS regressions, however, yield marginal effects only at average investment, making it impossible to reveal any

[2] Studies referred to in the next two sentences include Bekaert and Harvey (1995), Edison and Warnock (2004), Kang and Stulz (1997), Ahearne, Griever and Warnock (2004), Van Nieuwerburgh and Veldkamp (2009), Andrade and Chhaochharia (2010), Karolyi, Ng, and Prasad (2020), Chan, Covrig, and Ng (2005), Bekaert and Wang (2009), Glassman and Riddick (2001), Dahlquist, et al. (2003), Giannetti and Siminov (2006), Kho, Stulz and Warnock (2009), Ammer et al. (2012), Fidora, Fratzscher, and Thimann (2006), and Cooper, Sercu and Vanpee (2012).

pecking order.

To test various investment theories while taking into account a pecking order of barriers, we use quantile regressions (QRs) to examine relationships across the entire distribution of cross-border investment. QRs characterize the marginal effects across the distribution of investment, allowing us to describe the relationship of covariates and investment at different points of the distribution rather than just focusing on the conditional mean (Koenker and Basset, 1978). Focusing on the effects at various quantiles rather than just the average effects, we explore the determinants of bilateral investment pairs in regressions that include proxies for information, familiarity, diversification motives, transaction costs, and governance. Rather than reduce the effect of outliers on coefficient estimates of various factors on average investment, QR reveals nonlinearities of international investment factors.

To identify nonlinearities in cross-border investment, we construct a broad global dataset of bilateral equity investment from 47 source countries into 46 destination countries across 17 years from 2001 to 2017. Three empirical facts are immediate from our dataset. First, the most common investment level for country investor-destination pairs in our sample is zero investment.[3] For example, the 2010 cross-border equity investment from Mexico to the Netherlands is zero. Second, most country-pair observations have investment levels far below an international CAPM benchmark. For example, the 2010 cross-border equity investment from Canada, Japan, and the U.S. to all destination countries was below the benchmark. Third, some county-pairs reflect levels of international investment that are extremely high. For example, the 2010 cross-border equity investment from New Zealand to Australia was thirteen times higher than the share implied by the

[3] That there are many zeros in datasets of international investment has been noted by many, including Ferreira and Matos (2008) and Leuz et al. (2009). De Marco, Macchiavelli, and Valchev (2021) examine this 'scarceness' in international portfolios both theoretically and empirically.

international CAPM. The heterogeneity in investment levels revealed by these facts suggests that regressions of average effects are ill-suited for the analysis of international portfolios when the unobservable pecking order of barriers to international investment creates nonlinear effects. Indeed, we find that some investment determinants that are significant in OLS regressions do not affect investment at very high or very low levels of investment. But some variables that are not significant in OLS regressions – that research focused only on average linear effects might too easily dismiss – do have significant effects at other points of the investment distribution.

Our analysis can be used to test various theories of drivers of international investment. At a high level, our results can be interpreted as providing ample support for information and familiarity roles, less for hedging motives/costs and governance, and near zero for transaction costs. But there are nuances. For example, information proxies are important on average and throughout much of the distribution, but not at extremely high levels of investment. This suggests that information is important, but where there are no barriers a little bit more information is not associated with more investment. Hedging costs, as measured by RER volatility, matter only for moderate investments levels; at high investment levels, barriers are so low that ample hedging products exists and variation in RER volatility does not impact investment. And rule of law matters most where barriers are extreme; at very low levels of investment, stronger rule of law is associated with more investment, but elsewhere variation in rule of law does not matter.[4]

Our QR results, coupled with the heterogeneity inherent in specific portfolio datasets, can help shed light on differences in past findings. On the roles of information and familiarity, Bekaert and Wang (2009) conclude that their results are "more subtle" than Chan et al. (2005) because

[4] We also present results using probit (of zero versus positive investment) and ordered probit (zero, low, medium and high) regressions. As discussed in Section 5.1, those results are qualitatively similar to but less nuanced than our QR results.

they do not find consistent effects for variables associated with bilateral trade, which is insignificant in the preferred specification of Bekaert and Wang (2009) but positive and significant in Chan et al. (2005). The Bekaert and Wang (2009) dataset is broad like ours—many zeros, some very high investment levels, most observations indicating substantial underweighting vis-à-vis the international CAPM benchmark—whereas the Chan et al. (2005) dataset, with few zeros and likely twice as many observations in the 90-100 percentile, corresponds more closely to the right side of the distribution. Our results show that bilateral trade does not matter on average and so is insignificant in a dataset like Bekaert and Wang's, but does matter for higher levels of investment, i.e., for the portion of the distribution most represented in the Chan et al. (2005) sample. From a pecking order perspective, while the returns to information decline, familiarity remains important in the absence of more basic direct barriers (i.e., at the right side of the distribution).

As a second example on the role of governance, Dahlquist et al. (2003) conclude that, "for a given supply of shares, U.S. investors do not invest less in a country because minority shareholders are less well protected or because laws are not enforced" (p. 104). In contrast, in a firm-level study of Swedish firms, Giannetti and Simonov (2006) find that foreign investors are less likely to invest in a Swedish firm if its controlling shareholders have greater incentives to expropriate outside investors. We find that the effects of investor protections against self-dealing in destination markets are near zero or even negative at low investment (high barriers) levels but tend to increase at higher investment levels; governance matters more at the right side of the distribution. The contrasting results in the existing literature can be explained as follows. The Dahlquist et al. (2003) dataset is of U.S. investors in 50 foreign countries that include some (Zimbabwe, Venezuela, and others) with substantial direct barriers, whereas the Giannetti and Simonov (2006) sample includes firms (Swedish) for which there are no investment barriers. In a

dataset of no investment barriers (Giannetti and Simonov, 2006), information and governance issues can drive differences in investment levels, while in one in which direct barriers to investment vary substantially (Dahlquist et al., 2003) information and governance issues might be trumped by variation in direct barriers.

Our analysis should influence future work. The focus of van Nieuwerburgh and Veldkamp (2009), De Marco, Macchiavelli and Valchev (2021) and Valchev (2017) on a nonlinearity in one particular factor – information acquisition – should be broadened. We take a step in that direction, focusing on nonlinearities inherent in a world with heterogeneous investors and a pecking order of barriers. The next wave of progress on understanding international portfolio allocation should focus on nonlinearities more generally. Our analysis should also help inform future researchers to interpret results derived from a particular portion of the investment distribution. As the empirical literature progresses, emphasis has been on datasets that feature micro datasets (e.g., Bekaert, Hoyem, Hu, and Ravina, 2015; Coppola, Maggiori, Neiman, and Schreger, 2021) that necessarily use a particular slice of the investment distribution; a recognition that results supporting various theories depend on the particular slice of the distribution should help link micro and macro evidence. Reliance on specific dataset might mask the effect of important nonlinearities in factors that drive international investment. Finally, while the focus on international investment research has shifted to the granular approach of Koijen and Yogo (2020), such analysis is very much of averages. While that approach is useful for understanding effects across asset classes globally, future progress should incorporate the nonlinearities inherent in international investment, nonlinearities that likely arise because we cannot model the direct and indirect bilateral barriers to international investment.[5]

[5] Our finding that some variables matter on average and others are significant suggests that one should be cautious when eliminating variables based on the statistical significance of average effects. There are good reasons to eliminate

The paper proceeds as follows. Section 2 motivates the pecking order of barriers. Section 3 presents our investment data. Section 4 presents our framework, including explanatory variables. Section 5 assesses the determinants of global equity investment on average and across the distribution. Section 6 concludes.

2. The Pecking Order of Cross-border Investment Barriers

A standard international CAPM-based model of international portfolio allocation with country-specific proportional investment costs, such as Cooper and Kaplanis (1986), can illustrate the practical complexities of a pecking order in barriers to international investment.[6] Under usual international CAPM assumptions, the i^{th} investor's optimization problem is to choose x_i, the allocation of her wealth among risky securities in n countries, to maximize expected returns net of costs, or:

$$\max (x_i' R - x_i' c_i) \tag{1}$$

subject to

$$x_i' V x_i = v \text{ and } x_i' I = 1 \tag{2}$$

where

x_i is a column vector, the n^{th} element of which, x_{in}, is the proportion of individual i's wealth invested in securities in country n

R is a column vector of pre-cost expected returns

c_i is a column vector, the n^{th} element of which, c_{in}, is the cost to investor i of holding securities in country n

variables – as the literature has grown so has the number of variables readers expect to see – but we caution that variables insignificant on average may well be quite important at other points in the distribution.

[6] The seminal articles are Black (1974) and Stulz (1981).

v is a constant

V is the variance/covariance matrix of the gross (pre-cost) returns of the securities

I is a unity column vector

For simplicity, assume that the covariance matrix, V, is diagonal with all variances equal to s^2. Impose the world capital market clearing condition, $\sum W_i x_i = M$, where W_i is the proportion of world wealth owned by country i and M is a column vector, the i^{th} element of which, M_i, is the proportion of world market capitalization in country i's market. Then the solution to this problem simplifies to

$$hs^2(x_{in} - M_n) = -c_{in} + b_n + a_i - d, \quad (3)$$

where:

$a_i = z'c_i$ (weighted average marginal cost for investor i)

$b_n = \sum M_j c_{jn}$ (world weighted average cost in country n)

$d = z' \sum M_i c_i$ (world weighted average cost)

and h is the Lagrange multiplier on the constraint $x_i' V x_i = v$.

In the case with no costs to investing, c_i is a zero vector and the right-hand side of (3) is zero. Hence $x_{in} = M_n$; that is, investor i allocates her wealth across countries according to market capitalizations.

In the more general case with non-zero and non-uniform costs, a logic similar to that of multilateral resistance in the gravity theory holds: if the actual cost to investor i of investing in country n (c_{in}) is high relative to investor i's average cost to investing (a_i) or relative to all investors' costs to investing in country n (b_n), then the right-hand side of (3) is likely negative and investor i will underweight country n in her portfolio. The higher are costs in a particular foreign

market, the more severely underweighted that country will be in the investor's portfolios. Moreover, since investors do not face such costs in their home market, equation (3) predicts an overweighting of domestic stocks—the equity home bias—when costs exist in other countries.

We highlight two important and related issues subsumed by these costs. The first issue is that c_{in} represents costs that are both explicit, which may or may not be measurable, and implicit (and unmeasurable). Moreover, c_{in} is country-pair specific. For the empiricist, there is no available measure of cross-border barriers that is country-pair specific and adequately captures indirect barriers. The second issue is that more generally the country-specific costs allow for significant heterogeneity in barriers, so that some costs dominate other costs for certain country-pairs, reflecting that, in practice there is a pecking order in costs (and benefits) of cross-border investment.[7] Direct barriers can render all other barriers immaterial. For example, if no investment is allowed between two countries, alleviating information costs should have no impact on investment levels. As direct barriers are reduced, barriers such as information costs and governance issues come into play. And when all of those types of barriers are low, then factors like diversification benefits might matter. In general, barriers range from legal restrictions that bar foreign investment, such as capital controls, to indirect barriers such as lack of information and familiarity. And between direct and indirect barriers, perhaps along a continuum, are a host of other barriers such as transaction costs, governance issues/expropriation risk, and exchange rate risk. As the returns to mitigating these barriers evolve across the distribution, nonlinearities in the effects on international investment arise, lending support for different theories of investment holding at different points in the distribution. Our endeavor in this paper is to test for

[7] Mondrian and Wu (2010) for example model the interaction between the implicit barrier of information acquisition and the explicit barrier of financial liberalization.

the existence of a pecking order of barriers that can inform our understanding of determinants of cross-border investment through the entire distribution of holdings.

3. International Investment through the Distribution

In this section we present relative weight, our preferred measure of cross-border investment.

3.1 The Relative Weight Measure

To operationalize the model, our dependent variable is the ratio of a country's equities weight in country *i*'s portfolio to its equities' weight in the world float portfolio, which we call relative weight and denote by $RWF_{i,j}$ (where the *F* is for float-based).[8] Specifically, the relative weight of destination country *j* in investor country *i*'s float-adjusted equity portfolio is:

$$RWF_{i,j} = \frac{H_{j,i}/H_{j,world}}{F_i/F_{world}}, \tag{4}$$

where F_i is the float (market capitalization less insider ownership) in country *i*, F_{world} is world float, $H_{j,i}$ is investor country *j*'s holdings of *i*'s equities, and $H_{j,world}$ is investor country *j*'s float-adjusted holdings of all equities. When *i* holds no *j* equities, $RWF_{i,j}$ is zero. If the weight of *j* in *i*'s portfolio is identical to *j*'s weight in the world float portfolio, $RWF_{i,j}$ equals one. When $RWF_{i,j}$ is greater than one, *j* is overweight in *i*'s portfolio; that is, *i*'s holdings of *j* equities exceed the global benchmark weight.

[8] In the language of Chan et al. (2005) and Cooper et al. (2012), our relative weight measure is one of foreign bias.

To form *RWF* requires a dataset of bilateral holdings. We use the broadest available, the IMF's Coordinated Portfolio Investment Survey (CPIS) dataset. We obtain the dollar amount of foreign equity investment from the CPIS for the years 2001 to 2017. In the CPIS, there are more than 60 source (i.e. investor) countries; we add source countries to our sample as they become available in the CPIS dataset.[9] Like most international investment datasets, the CPIS has a financial center bias that at the very least renders data vis-à-vis financial centers meaningless for the purpose of analyzing international investment.[10] Thus, as is often done in the literature, we omit Ireland and Luxembourg due to the financial center bias for these countries.

3.2 What the Data Show

International investment varies substantially across investor country and investment destination pairs. Table 2 shows the time-series average relative investment weight in percent for a broad sample of 27,428 home and host market pairs from 2001 to 2017 across 46 investor and 47 destination countries. Figure 2 shows for the full sample the cumulative frequency of RWF, which ranges from 0 to 7.53 (the winsorized 99th percentile). More than ninety percent of the observations fall below – many fall far below – the international CAPM benchmark of 1, the point at which the proportion of investor country holdings in the investment destination country equals the destination country weight in the world market portfolio. For the full sample, the median

[9] The bilateral CPIS data have been used in Bekaert and Wang (2009) and Lane and Milesi-Ferretti (2008), among many others, while ROW aggregates have been used in Koijen and Yogo (2020), also among many others.

[10] CPIS data are subject to a geographical bias because, especially in the first decade of the CPIS, most countries did not follow best practices and conduct security-level surveys to report data to the CPIS. Without knowing the exact security the investor holds, it can be very difficult to assign it to a particular country. We do not use the 1997 CPIS data, which had 27 source countries, of which only five followed best practices for data collection. Note that even when countries follow best practices, if their citizens' holdings are with foreign custodians (e.g., an Italian purchasing a US bond fund through a Luxembourg-based mutual fund) the CPIS – and most other datasets – will have noise; on this, see Coppola et al. (2021). Note that applying the Coppola et al. (2021) adjustment would greatly reduce our sample, as it requires collapsing the euro area into one unit, and would limit our analysis of the broader distribution of investment.

relative investment weight is only 2.75%, meaning that the weight of *j* in *i*'s portfolio is less than 2.75% of the benchmark weight, implying that most international investments are quite low. In contrast, some country investment pairs have substantial amounts of investment. The mean relative investment weight is 0.82. The large difference in mean and median relative weight in Figure 1 suggests the distribution of international investment is essentially a distribution of "outliers."

By far the most common outcome for investor country/investment destination pairs in our full sample is zero investment (8,444 observations), as seen by the first 30 percent of all observations in Figure 1 (red circle). The group of zero-investment pairs include, for example, Mexico-to-Netherlands [2010], New Zealand-to-Israel [2002], and Philippines-to-Japan [2009]. Another 5,269 observations have relative weight between 0 and 0.0275, shown by the dotted red line. These include such country-pairs as Italy-to-Argentina [2013] and Singapore-to-South Africa [2001]. The solid blue line shows that about 60% of the sample displays moderate amounts of investment with relative weight above 0.0275 but below 1, and includes country pairs like Italy-to-Canada [2003] and United States-to-Greece [2014]. Even this moderate investment subsample, with mean relative weight of 0.283 and median 0.201, shows wide variation similar to the entire sample. Finally, although most country pairs show very low to moderate investment, the remaining 8% of the sample, shown in the dashed green line, has relative weight greater than 1. The cumulative frequency increases quickly, illustrating investment well above the threshold of 1 to levels that are three, four, five times the destination weight in the market portfolio, levels that can be characterized as overinvestment relative to an international CAPM benchmark. These include country pairs such as Germany-France [2016], Australia-New Zealand [2016], and Austria-Germany [2013]. Rather than clustering just above 1, the frequency at which relative weight exceeds 1 increases steadily. The dark green square shows the relative weight of 7.53 at the 99th

percentile for illustrative purposes only. The relative weight continues to increase beyond this point, with a mean value of 8.73 for this subsample.[11]

The shape of the distribution illustrates that there is broad variation across country-pair investment level. With such wide variation in cross-border investment across country pairs, few country pairs can be considered "average." The inference obtained from applying the standard empirical approach of identifying average effects then may not satisfactorily explain what drives investment across most of the sample pairs and may not adequately account for important nonlinearities in factors associated with a pecking order of barriers. Thus, when testing theories of international investment, it is critical to decide whether to minimize the effects of the outliers or to try to explain them. We argue that for this distribution it is economically important to explain the outliers. The sample pairs on the far right tail are likely to have economically meaningful effects on asset pricing and capital-raising. The pairs on the far left can have an economically meaningful effect on access (or barriers) to global financial markets.

As a first step, we delve deeper into what country-destination pairs drive this distribution. Some country pairs exhibit the extremes seen in the distribution in Figure 2 and Table 2. As investor (i.e., source) countries, Argentina, Mexico, Pakistan, Philippines, Thailand, and Turkey are examples of source countries that have close to zero investments on average. For destination (i.e., host) countries, over one-third of the investor countries, including other neighboring South American countries, have zero investment in Colombia, and an additional three countries have

[11] For the regression analysis, we limit the sample to country pairs with sufficient data on determinants of international investment. The limited sample has 20,396 observations, with a mean and standard deviation of relative weight of 0.327 and 1.26. There are 5,560 observations with relative weight equal to 0, and 4,665 observations with relative weight between 0 and less than the median 0.040; combined these two very low investment levels have 10,225 observations with mean and standard deviation of 0.005 and 0.010. The moderate investment subsample with relative weight between 0.040 and 1 has 8,686 observations with mean and standard deviation of 0.305 and 0.239. The very high investment subsample with relative weight greater than 1 has 1,485 observations with mean and standard deviation of 2.67 and 3.90.

relative weight ratios of below 0.05. In contrast, almost all investor countries have positive relative weight in Australia, Germany, the Netherlands, Switzerland, the U.K., and the U.S. At the other end of the distribution, 170 of the 2100 country pairs shown in Table 2 are on average over 100% of the benchmark weight, such as New Zealand's investment in Australia and Finland's investment in Sweden. The most common investment destination countries with above-benchmark average investment weights are Austria, Finland, and the Netherlands, and the most common investor (source) countries with above-benchmark average relative weights are Belgium, Denmark, the Netherlands, and Norway. Very high investment, however, is not limited to European investor or destination countries. In fact, most countries in our sample have at least one destination country pair that they overweight on average. The only investor countries that don't have at least one destination country that maintains holdings above 100% of the benchmark weight are Canada, Egypt, Indonesia, India, Israel, Japan, Korea, Mexico, Pakistan, the Philippines, Turkey, and the U.S. In a similar vein, most destination countries are overweighted on average with at least one investor country—the exceptions are Canada, Israel, Japan, Pakistan, South Africa, and the U.S.

3.3 Features of the Relative Weight Measure

Researchers have many options when choosing an investment measure. We note that our relative weight measure has three desirable features. First, it is consistent with the theory of optimal investment weights discussed in Section 2. Second, it is based on float, not market capitalization. Dahlquist et al. (2003) argue that shares held by insiders, which are not available to dispersed portfolio shareholders, should be omitted from portfolio analysis. While no exact measure of shares held by controlling shareholders is available both across a range of countries and through time, we follow Kho et al. (2009) and many others and create a country-level measure of insider

ownership built from the firm-level closely-held field in Worldscope.[12] Subtracting the measure of insider ownership (*IO*) from market capitalization (*MC*) provides a measure of the float (*F*). Table 1, which shows summary statistics on market capitalization and float for our 2001 to 2017 sample period, highlights the importance of the float-adjustment. Argentina, for example, constitutes 0.1% of the world market portfolio but only 0.055% of the world float portfolio (implying that the international CAPM allocation to Argentina should be 0.055%).

A third desirable feature of the relative weight measure is that it is free of issues that can confound empirical analysis. For example, consider another standard investment measure consistent with theory: the simple difference of investment share and market (float) share, $H_{j,i}$ / $H_{j,world} - F_i$ / F_{world}, which we will refer to as a linear raw deviation (LRD) measure. Figure 3 shows the distribution of this LRD, with any observation that has zero RWF having a large black circle, any that has very low RWF (between 0 and 0.0275) having a small red circle, any with moderate RWF (between 0.0275 and 1) having a blue dot, and high RWF (greater than 1) being the green line. One issue is that for very similar RWFs – that is, observations for which the investor country has the same 'bias' vis-à-vis the recipient country – the LRD can vary greatly. Another issue, pointed out by Bekaert and Wang (2009) and Ammer et al. (2012), is that the LRD can be biased by size in a way that can bias inference on explanatory variables of interest. In our sample this size bias appears in two ways. In Figure 3, note that the LRD for any bilateral investment pair with

[12] Note that we are not claiming that the Worldscope closely-held field is perfect since it is a measure based on numerical cutoffs that cannot truly discern who has controlling interest and who does not. Moreover, reporting requirements and their enforcement varies across the world, and the coverage of Worldscope has changed over time. That said, the Worldscope closely held variable is available over time and for a large number of countries, and potentially includes insiders who are not controlling shareholders but might be part of the controlling coalition. Some studies painstakingly gather information on the holdings by controlling shareholders (e.g., Claessens, Djankov, and Lang 2000; Faccio and Lang 2002; and Lins 2003), which should provide a truer measures of insider holdings. Unfortunately, such datasets are typically as of a point in time. To mitigate the effect of outliers in the more readily available Worldscope data, we use a smoothed measure of closely held shares; if the change in the market value weighted aggregate country-level closely held measure is greater than 1.5 standard deviations, then country-level closely held is set to the average of the previous year, the current year, and the next year.

zero holdings is zero minus size, so there is a direct connection between size and a LRD for a large portion of the sample. We can also see the influence of recipient-country size on the LRD in Figure 3. Country size has a strong negative correlation with LRD (Panel A) but not with relative weight (Panel B). In practice, this means that when using a LRD, or any size-biased measure, explanatory variables that are related to size might erroneously show statistical significance. Relative weight, which is not related to size, does not have this feature.

4. Assessing Global Portfolios: The Framework and Explanatory Variables

Like many studies, our empirical framework can be used to test various hypotheses on the drivers of international investment. But we first need an estimation strategy that reveals whether there exists a pecking order of barriers that yields nonlinearities and can shed light on where the distribution various investment theories hold. And, moreover, we need an estimation strategy that is appropriate for a dependent variable like RWF that is non-normal. In this section we discuss our empirical framework and explanatory variables.

4.1 The Quantile Regression Framework

A standard way to assess the variation in cross-border equity investment is to use an OLS estimator and regress bilateral relative weight on bilateral and unilateral variables:

$$RWF_{i,j,t} = \gamma_1 X_{i,j,t} + \gamma_2 X_{i,t} + \gamma_3 X_{j,t} + \theta_t + \varepsilon_{i,j,t}, \quad (5)$$

where $RWF_{i,j,t}$ is the relative weight of destination country *j* in investor country *i*'s float-adjusted equity portfolio as in Eq. (4), $X_{i,j,t}$ is a matrix of bilateral investment determinants, $X_{i,t}$ is a matrix

of investor country i characteristics, $X_{j,t}$ is a matrix of destination country j characteristics, θ_t are year fixed effects, and $\varepsilon_{i,j,t}$ is an error term.

However, the heterogeneity in unobserved bilateral investment barriers means that estimators such as OLS that are designed to capture average effects might be misleading and fail to capture nonlinearities. We focus instead on Quantile Regression (QR) estimators, which are generalizations of Least Absolute Deviations (LAD) and as such are designed to estimate unobserved heterogeneity and are more robust to outliers than least squares estimates, meaning they are preferred whenever fat tails are a concern (Koenker and Basset, 1978; Koenker, 2005).[13] QRs yield a family of slopes across the conditional distribution of a dependent variable, which in the present context can be used to assess the extent of heterogeneity in the investment response to various barriers to international investment. That is, rather than estimating the conditional mean as with OLS, QR estimates the conditional percentile or quantile relation at any specified percentile level. For example, when estimating the 50th percentile, one estimates the conditional median by finding the coefficient that minimizes the sum of absolute values of the deviations from the median. Following this same logic, we can estimate the quantile coefficient at any percentile level. The quantile coefficient estimates the expected marginal change at a specified quantile of the dependent variable produced by a change in an independent variable using the entire distribution rather than just a sub-sample. We use QRs to characterize the relations across the distribution of investment,

[13] QR is not the only way to characterize determinants when the distribution has outliers. One could winsorize, but the distribution in Figure 1 suggests the observations in the tails are not necessarily "problematic." We could also take logs, but taking logs of relative weight (our theory implied measure) is still right skewed with fat tails. QR allows us to describe affects across the distribution where some barriers might be more important than others, driving nonlinearities in factors.

allowing us to describe the relation of covariates and investment at different points of the distribution rather than just focusing on the conditional mean.[14]

4.2 Explanatory Variables

We organize our set of explanatory variables around a broad range of theories implied by the literature in which international investment depends on information barriers, familiarity barriers, hedging motives, transactions costs, and governance. The literature suggests, for example, that lower barriers to information (Ahearne, Griever, and Warnock (2004), Bekaert and Wang (2009), Valchev (2017)) and lower barriers to familiarity (Chan, Covrig, and Ng (2005), Bekaert and Wang (2009)) increase relative investment. As proxies for information barriers, we use the proportion of destination country market capitalization available in the investor country market through cross-listing, internet users in a country, and a dummy variable that equals 1 when two countries share an official language. Previous evidence (Froot, Scharfstein, and Stein, 1992; Bohn and Tesar, 1996; Brennan and Cao, 1997) suggests market returns reflect information and affect investor behavior. Similar to Chan et al. (2005) and Bekaert and Wang (2009), we include measures of past returns. To proxy for familiarity with the investment opportunity set, we use bilateral and unilateral trade, log of distance between major cities, and dummy variables that equal 1 when two countries have ever had a colonial link or have contiguous borders. With respect to hedging motives, we note that real exchange rate volatility leads to less investment due to hedging difficulty (Fidora et al., 2006; Bekaert and Wang (2009)) and greater diversification benefits leads to increase international investment. For hedging and diversification proxies we use real exchange

[14] QRs are increasingly being used in a variety of settings. See Misra and Surico (2014) for an application in a micro/macro setting, while QRs form the basis of the Adrian, Boyarchenko and Giannone (2019) growth at risk framework.

rate volatility and stock return correlations as a measure of diversification opportunities (Bekaert and Wang, 2009; Coeurdacier and Gruibaud, 2011). Third, lower trading costs leads to increases in international investment. To proxy for transaction costs, we include a dummy variable that equals 1 when two countries use the same currency, the ratio of market capitalization to GDP, and equity capital controls from Fernandez et al. (2016). We also include two governance variables as determinants consistent with Chan et al. (2005) and Bekaert and Wang (2009): shareholder protections as proxied by the Djankov et al. (2008) anti-self-dealing index and institutional quality as proxied by the La Porta et al. (1998) rule of law index. Because we are investigating bilateral investment between many countries, we follow Bekaert and Wang (2009) and include a set of destination- and investor-country unilateral variables. Finally, the extent to which investors favor own-country investment may impact global allocations, so we include a measure of domestic bias similar to Chan et al. (2005). [15]

After incorporating data for independent variables, our final working sample includes 39 source (investor) countries and 39 destination (recipient) countries, with as much as 17 annual observations per country pair for a total of 20,396 country-pair-year observations. Table 3 shows variable definitions and summary statistics for the explanatory variables organized around the main theories. Familiarity dominates other barriers because the returns to more precise information or reducing trading costs are low when investors have limited knowledge about the investment opportunity set. Mitigating information barriers will dominate reducing trading costs in the pecking order if estimating transaction costs is challenging in an opaque environment. On the other

[15] In unreported results including country fixed effects, results are largely similar, suggesting that the exhaustive list of proposed investment determinants drawn from the existing literature capture important country level characteristics that affect global investment.

hand, with high trading costs, learning more about return distributions is less valuable and lowers the returns to information.

4.3 The Global Matrix of Cross-listings

We follow the literature (for example, Chan et al., 2005; Lane and Milesi-Feretti, 2008; and Bekaert and Wang, 2009) in our choice of proxies for cross-border barriers. A potentially important determinant missing from these studies is the proportion of destination country market capitalization available in the investor country market through cross-listing. In the U.S. setting, much work has noted that U.S. investment in foreign stocks tends to be higher in stocks that cross-list on a U.S. exchange, suggesting cross-listing is an important determinant (Ahearne, Griever, and Warnock 2004; Bradshaw, Bushee, and Miller 2004; Edison and Warnock 2004; Aggarwal, Klapper, and Wysocki 2005; Kho, Stulz, and Warnock 2009). Moreover, while the theoretical literature has proposed an important role for information in international investment, measuring information with internet users (Bekaert and Wang, 2009; Cotter, Gabriel, and Roll, 2019; and Valchev, 2017) might not completely capture the type of information important to investors and cannot capture bilateral variation. Cross-listing might play a more sophisticated role by enabling foreign investors to correctly interpret publicly available information, as in the differences of opinion model in Dumas, Lewis, and Osambela (2017).

The most substantial obstacle to addressing the appropriate role of cross-listing in a global study is that it requires a global panel dataset of cross-listing. For this we updated the Sarkissian and Schill (2012, 2016) annual dataset of 2,838 listings on foreign stock exchanges (i.e., not OTC listings). Data is available from 1985 (the start date of Worldscope market and accounting data) to 2017, based on surveys of world stock exchanges as of the end of 1998, 2003, 2006, 2012, and

2018. Surveys were completed for all country exchanges indicated as having foreign listings by the World Federation of Exchanges, except for corporate tax havens (such as the Cayman Islands, Bermuda, and Jersey) and exchanges outside main boards of country stock exchanges. Exchange research departments or exchange websites were consulted for a summary of all foreign companies, excluding investment funds and trusts, listed on their exchange. In all but the initial (1998) survey, the history of all foreign companies that were once listed but had since delisted their shares was also requested.[16] Listings of foreign shares were received for all exchanges. Delistings data are less complete. In some cases, listing and delisting histories in each survey year were only partial or unavailable.[17] See Sarkissian and Schill (2016) for more details. For stocks listed in the United States, we supplement data from CRSP and Compustat following Ammer et al. (2012).

Using the survey data, we construct the proportion of home country market capitalization listed in investor country host markets using market value data from Datastream. Table 4 shows the average proportion of equity listed in foreign markets for all pairs of home (listed down the first column) and host (listed across the top row) markets. The United States and United Kingdom are the largest hosts of foreign equities. More than 40 percent of the home market capitalization of Argentina, Canada, Finland, Israel, Netherlands, Spain, and the United Kingdom is cross-listed in the United States; more than 30 percent of the home market capitalization of Egypt, Finland, Greece, Netherlands, and South Korea is cross-listed in the United Kingdom. Germany, Switzerland, and Netherlands also host many foreign firms, and some country pairs are noticeable,

[16] For some, but not many, exchanges, foreign listing and delisting data are posted on the exchange website.
[17] For the U.S., incomplete delisted history was complemented with ADR delist codes from CRSP, following the procedure of Chaplinsky and Ramchand (2012).

with substantial cross-listings of Austrian equities in Germany, of Australian equities in New Zealand and New Zealand equity listed in Australia, and of Netherlands equity in Switzerland.[18]

5. The Results: Using QRs to Test Investment Theories

5.1 Main Results: Investment Drivers across the Quantiles

For OLS, the standard and familiar presentation of results is in a table with coefficient estimates and standard errors, p-values or t-stats. In contrast, we know of no established way to present QR results and so implement two. One, tabular (Table 5), is less informative because for readability we include results for only for OLS and a few select quantiles: 21st (corresponding to the shift from zero holdings to epsilon), 50th, 70th, 92nd (corresponding to a relative weight of one) and 95th quantiles. While less informative, the tabular form and its asterisks are more familiar to readers. The other, through graphs (Fig. 5), is more informative as it shows coefficient estimates with 95 percent confidence bounds from many quantile regressions. Specifically, Figure 5 illustrates coefficient point estimates and 95 percent confidence bounds for points of the distribution above the relative weight of 0 (i.e., starting at the 21st quantile). The solid horizontal line is the coefficient estimate from the OLS regression, and the dashed horizontal lines are the associated 95 percent confidence bounds (with standard errors calculated clustering at the destination-country pair). In Figure 4, Panels A and B plot coefficient estimates for the proxy variables for information and familiarity barriers. Panel C plots coefficient estimates for the variables for hedging motives. Panels D and E plot coefficient estimates for the transaction costs and governance variables, respectively.

[18] Indonesia is the only country in our sample that hosts no foreign firms.

We first note that the plots of QR coefficients across the distribution of investment in Figure 5 show a nonlinear pattern of coefficient estimates as relative investment increases from very low levels of investment (eg, quantiles 20 to 40) to moderate levels of investment (quantiles 60 to 80) to very high levels of investment (quantiles 80 to 100).[19] These nonlinearities suggest a pecking order of barriers driving investment, in which some barriers matter more than others at different points along the distribution. Moreover, more than a third of coefficients are insignificant in the OLS regression in column (1) of Table 5. A naïve assessment might dismiss these variables as meaningless just because they cannot explain average investment, weakening support for certain theories. But looking across the QR estimates in the remaining columns, eleven variables with statistically insignificant OLS coefficients have statistically significant marginal effects for select points across the distribution. These nonlinear effects suggest different theories of investment hold at different points in the distribution.

There are only two variables that have the expected sign and are statistically significant on average (i.e., in the OLS regression) and through the entire distribution: investor internet and distance. Thus, there is evidence supportive of a pervasive role for at least one proxy for information and one for familiarity.

For everything else, significance varies across the distribution. For example, for information, overall there is ample evidence that information matters for international investment along many parts of the distribution, but less so at the far right tail and on average (OLS). That is, across the distribution proxies for information matter, except when barriers are so low that a

[19] The increasing magnitude of QR coefficients for investor country internet users (Fig.4, Panel A), for example, suggests the marginal effect of increasing investor internet is higher at higher levels of relative weight. In other words, those country pairs with a lot of investment have even more investment with a greater number of investor country internet users.

marginal increase in information does not impact investment. Focusing on the OLS results, on average the only information proxies that matter are internet and a common language.

Some of the information variables are not actionable at the firm or country level; for example, countries generally would not choose a language to attract more investors, but for moderate barriers a common language is associated with more bilateral investment. Others are actionable; more cross-listing is associated with more investment at all parts of the distribution except the far right, where countries are already so similar (e.g., Germany Austria, New Zealand Australia) that additional cross-listing becomes less relevant. Among the information variables, only one is significant in OLS and across the entire distribution: investor internet.

For familiarity, the evidence indicates that geographic proximity matters. Distance and a common border impact investment on average and across much of the distribution. An exception is at the far left of the distribution: When barriers are high, a common border is not associated with higher investment.

For hedging motives, the correlation puzzle is apparent along the entire distribution. On average, correlation is negatively related to investment but with a near-zero t-stat. In contrast, at every point in the distribution a higher correlation is associated with more investment, counter to a hedging motive. One proxy for hedging motives does matter, as the coefficient on RER volatility is negative on average and at low investment levels. That is, where barriers are high, hedging costs (as proxied by RER volatility) can deter investment, but where barriers are absent they do not (perhaps because hedging is already inexpensive for those country pairs).

Supportive of a role for transaction costs is that a common currency is associated with more investment. But other proxies for transaction costs are either insignificant or have the wrong sign

(for example, destination capital controls). Overall, other than common currency, evidence of a role for transaction costs is thin.

For governance, evidence is also sporadic at first glance. For example, in OLS only investor-country investor protection is significant and only moderately so (and then it changes sign or becomes insignificant along the distribution). But a closer look and with the pecking order in mind, we note that destination rule of law matters only at the far left: For countries with substantial barriers, stronger rule of law is associated with more investment.

Without QR results, we could not establish empirically the existence of a pecking order of barriers. QR estimates marginal effects of investment determinants conditional on relative weight at the 30th quantile, for example, where barriers to investment are likely quite high.[20] In contrast to exploring the intensive margin of investment, Table 6 depicts nonlinearities in results slightly differently by showing the extensive margin of investment. Column (1) shows results from a probit regression in which the dependent variable is zero for relative weight of zero and one for any positive relative weight. Column (2) is similar but an ordered probit in which positive relative weight is split into low, medium and high. Basically, these tests show the probability of landing at a certain place in the distribution, but not the marginal effect of these variables at that point in the distribution. Qualitatively, results are similar to those in the Table 5 and Figure 5 OLS and QR regressions. There is still ample evidence of roles for information and familiarity, with the slight change that for familiarity contiguity loses significance and colonial ties become significant. For hedging motives, the correlation puzzle is prominent, as is evidence that RER volatility matters. There is still little evidence that transaction costs matter, and now turnover is negative and significant (suggesting that countries with higher turnover and hence lower trading costs have less

[20] Estimating OLS regressions for subsamples of relative investment weight based on investment tiers introduces selection bias (Heckman 1979) and cannot yield appropriate evidence of a pecking order.

investment). Finally, for governance better rule of law helps distinguish between no investment and positive levels of investment (and, within that, low, medium and high). Compared to column (2) of Table 5, which shows marginal effects at the 21st quantile (approximately where investment turns positive), there are many more statistically significant variables in the probit specification, suggesting that while these variables do affect the propensity to invest overall, they are not actually significant drivers on the margin at very low levels of investment. Overall, the results from probit and ordered probit regressions are qualitatively similar to our OLS and QR results and are suggestive of nonlinearities, but the ordered probit cannot capture the changing marginal effects of the determinants as the relative investment weight increases.

5.2 Results that Shed Light on Nonlinearities

Cross-listing on a U.S. exchange can mitigate information asymmetries and increase U.S. investment in foreign stocks (Ahearne, Griever, and Warnock 2004; Bradshaw, Bushee, and Miller 2004; Edison and Warnock 2004; Aggarwal, Klapper, and Wysocki 2005; Kho, Stulz, and Warnock 2009). In our global dataset of investment, we find cross-listing (Figure 5, Panel A) has a marginally insignificant effect on investment for the average country-destination pair. The least squares estimate, however, masks differences across the distribution. In the QRs, cross-listing in the investor country market has a positive and statistically significant effect for all but the 95th percentile, and the effect increases at higher investment levels. The results suggest that cross-listing is effective at mitigating barriers, especially those that are more meaningful for moderate to high investment.[21]

[21] Cross-listing is a variable for which causality plausibly goes both ways, as it can influence and be influenced by cross-border investment. In unreported tests we instrument for cross-listing using the method proposed by Lee (2007) or, because quantile IV estimation is influenced by zeros, the censored quantile instrumental variables technique of

Source-country internet has been a proxy for information in several studies (e.g, Bekaert and Wang (2009)). Figure 5 Panel A shows that (i) it is indeed positive and significant in OLS regressions and (ii) consistent with the Valchev (2017) model of non-linearity its effect is near zero at low levels of investment (high barriers), increases substantially along intermediate levels and then declines (when, as in Valchev (2017), decreasing returns to information might kick in). Sharing a similar language facilitates information sharing. Like source-country internet, the coefficient on the common language indicator is positive and significant on average, with an increasing effect at moderate levels of investments, but like cross-listing has no statistically significant effect at the highest investment levels. A similar pattern holds in past returns (another proxy for information following the model of Brennan and Cao (1997)). Overall, the QR results in Figure 4 Panel A provide nuance to the long-standing information story, nuance that is consistent with recent theory.

5.3 Results that Shed Light on Conflicting Findings

The effects of some variables across quantiles coupled with noting the likely nature of various datasets helps resolve some conflicting results in the existing literature. As a starting point, the findings of Bekaert and Wang (2009) conflict with those of Chan et al. (2005) with respect to the effect of information and familiarity barriers. Bilateral trade, for example, is insignificant in the preferred specification of Bekaert and Wang (2009) but positive and significant in Chan et al. (2005). Bekaert and Wang (2009) conclude that their results are "more subtle" than Chan et al. (2005). The Bekaert and Wang (2009) dataset uses a broader sample (similar to ours) with wide variation in cross-border holdings--many pairs with zeros, some pairs with very high investment

Chernozhukov, Fernandez-Val, and Kowalski (2015). Our results are robust to instrumental variables estimation, suggesting cross-listing influences investment.

levels, and most pairs indicating substantial underweighting vis-à-vis the international CAPM benchmark. Whereas the Chan et al. (2005) dataset has country pairs that are much more concentrated in the 90-100 percentile and correspond more closely to the right side of the distribution in our Figure 1. To examine this discrepancy, we show that for bilateral trade (Figure 5 Panel B), the traditional regression coefficient is insignificant with a broad data set like ours or Bekaert and Wang's, but is significant for country pairs with higher levels of investment, i.e., for the portion of the distribution most represented in the Chan et al. (2005) sample. Knowledge of the effects through the distribution and the likely nature of the datasets help reconcile these existing contradictory findings.[22]

Another example concerns a proxy for real risks investors might want to hedge: real exchange rate (RER) volatility. In the model of Fidora et al. (2007), RER volatility is the main source of discrepancies between home and foreign portfolios; the greater the volatility of RERs, the lower should be the weight on foreign securities. Coeurdacier and Guibaud (2011), in a different setup, have a similar prediction. The notion that RER volatility affects portfolio choice can also work through the Cooper and Kaplanis model as it would affect the variance of returns. Empirically, Fidora et al. find ample evidence of a negative effect of RER volatility on foreign holdings, although Cooper et al. (2012) note that the evidence is not robust to different measures of foreign bias. Our analysis sheds light on this: We find the RER volatility matters on average (i.e., in OLS regressions) but is only significant mostly in the middle, with near zero effect at the far right of the distribution of investment pairs, where such barriers might be lower.

[22] We note that bilateral trade might be better proxy for familiarity about the return distribution (Heath and Tversky 1991, Merton 1987), and so the effect shows up at the right side of the distribution. Distance and language might be proxies for familiarity about the investment opportunity set, and hence affect investment (nearly) across the distribution.

A third example addresses governance variables. Dahlquist et al. (2003) conclude that, "for a given supply of shares, U.S. investors do not invest less in a country because minority shareholders are less well protected or because laws are not enforced" (p. 104). In contrast, in a firm-level study of Swedish firms, Giannetti and Simonov (2006) find that foreign investors are less likely to invest in a Swedish firm if its controlling shareholders have greater incentives to expropriate outside investors. The Dahlquist et al. (2003) dataset is of U.S. investors in 50 foreign countries that include some (Zimbabwe, Venezuela, and others) with substantial direct barriers, whereas the Giannetti and Simonov (2006) sample includes firms (Swedish) for which there are no investment barriers. In a dataset of no investment barriers (Giannetti and Simonov, 2006), one might expect information and governance issues to drive differences in investment levels, while in one in which direct barriers to investment vary substantially (Dahlquist et al., 2003) information and governance issues might be trumped by variation in direct barriers. Figure 5 Panel F shows evidence somewhat consistent with this view. While coefficients are mostly insignificant, the effects of investor protections against self-dealing in destination markets are near zero or even negative at low investment (high barriers) levels but tend to increase at higher investment levels.

6. Conclusion

In this paper, we contribute to the literature on cross-border investment by highlighting two important characteristics of cross-border investment: the distribution of bilateral equity investment varies more than OLS estimators would suggest and barriers to cross-border investment are difficult to precisely measure. We show that these two characteristics have important implications for empirical tests in this literature, as the theories that find support depend highly on a particular dataset. While almost half of cross-border positions are moderate investment positions consistent

with moderate but surmountable investment barriers, the distribution of relative investment weight is quite broad. At the extremes investment ranges from a large group of country pairs with effectively no investment to amounts that far exceed expected investment benchmarks. This broad distribution suggests the average investor country destination market pair is not a good basis for testing theories of cross-border investment. Using quantile regressions, we find that the effect of investment drivers varies considerably across investment quantiles; many variables change significance or even signs across quantiles. We suggest that a pecking order of barriers can give rise to nonlinearities in factors that drive international investment.

Our analysis has important implications for research on international investment. On the empirical side, datasets used in this field are almost by necessity specialized, focusing on a particular slice of the investment distribution and subsequently masking important nonlinearities. Our results highlight that some theories are more likely to find empirical support at certain parts of the distribution, so in a sense the choice of a dataset will drive many results. For theorists, our evidence might expand models exploring the nonlinearities of effects that vary through the investment distribution.

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Table 1. Weight in World Market Portfolio

This table shows in percent the average market capitalization (cap) in country *i* (MC_i) scaled by the world market cap (MC_{world}) as well as float-adjusted market cap in country *i* (F_i) scaled by the float-adjusted world market cap (F_{world}) for all sample countries, which is the denominator of float-adjusted relative weight. Observations in bold type are in the final sample that is limited by data available to construct investment determinants.

	World Market Portfolio	Float-Adjusted World Market Portfolio
ARGENTINA	**0.103**	**0.055**
AUSTRALIA	**2.155**	**2.152**
AUSTRIA	**0.222**	**0.143**
BELGIUM	**0.610**	**0.548**
BRAZIL	**1.584**	**1.175**
CANADA	**3.411**	**3.898**
CHILE	**0.394**	**0.176**
CHINA	6.755	7.355
COLOMBIA	**0.260**	**0.146**
CYPRUS	0.013	0.010
CZECHREPUBLIC	0.081	0.036
DENMARK	**0.412**	**0.340**
EGYPT	**0.141**	**0.126**
FINLAND	**0.465**	**0.521**
FRANCE	**3.998**	**3.496**
GERMANY	**3.082**	**2.783**
GREECE	**0.220**	**0.153**
HONGKONG	**4.112**	**2.654**
HUNGARY	0.053	0.046
INDIA	**2.198**	**1.426**
INDONESIA	**0.456**	**0.322**
ISRAEL	**0.319**	**0.255**
ITALY	**1.572**	**1.433**
JAPAN	**8.297**	**7.994**
KOREA	**1.742**	**1.659**
MALAYSIA	**0.623**	**0.392**
MEXICO	**0.672**	**0.495**
NETHERLANDS	**1.414**	**1.451**
NEWZEALAND	**0.099**	**0.084**
NORWAY	**0.422**	**0.286**
PAKISTAN	**0.087**	**0.091**
PERU	**0.112**	**0.106**
PHILIPPINES	**0.241**	**0.119**
POLAND	0.256	0.155
PORTUGAL	**0.158**	**0.111**
RUSSIA	1.245	0.653
SINGAPORE	**0.922**	**0.671**
SLOVAKIA	0.009	0.004
SOUTHAFRICA	**1.376**	**1.186**
SPAIN	**2.135**	**1.900**
SWEDEN	**0.985**	**1.051**
SWITZERLAND	**2.360**	**2.699**
THAILAND	**0.455**	**0.312**
TURKEY	**0.357**	**0.172**
UNITEDKINGDOM	**6.973**	**7.537**
UNITEDSTATES	**40.269**	**45.872**
VENEZUELA	0.019	0.019

Table 2. Relative Weight by Country

This table shows the average float-adjusted relative weight in percent by investment destination markets for all pairs of investor/home markets(columns) and destination/host markets (rows). In this table, 100 means that the weights of the destination market in the investor-country portfolio and in the world float portfolio are identical. Asterisks (*) denote investor-destination pairs with insufficient data. Relative weight is constructed using data from IMF CPIS, World Bank, and ThomsonReuters Worldscope. Observations in bold type are in the final sample that is limited by data available to construct investment determinants.

Table 2 (continued)

Destination \ Investor	ARGENTINA	AUSTRALIA	AUSTRIA	BELGIUM	BRAZIL	CANADA	CHILE	CHINA	COLOMBIA	CYPRUS	CZECH REP.	DENMARK	EGYPT	FINLAND	FRANCE	GERMANY	GREECE	HONGKONG	HUNGARY	INDIA	INDONESIA	ISRAEL	ITALY
ARGENTINA		**1.0**	**8.4**	**8.6**	**245**	**6.4**	**225**	.42	**0**	0	.54	**221**	**0**	**.10**	**15**	**4.5**	**0**	**0**	.84	**0**	**0**	**0**	**36**
AUSTRALIA	**2.0**		**18**	**5.5**	**.10**	**27**	**2.6**	2.3	**0**	19	3.4	**24**	**0**	**9.8**	**8.4**	**13**	**.49**	**9.5**	2.3	**.31**	**1.3**	**.96**	**10**
AUSTRIA	**.52**	**15**		**86**	**.71**	**30**	**3.7**	1.3	**0**	2520	6280	**157**	**0**	**100**	**101**	**431**	**5.1**	**1.1**	2674	**0**	**0**	**43**	**194**
BELGIUM	**.05**	**16**	**82**		**21**	**23**	**6.3**	3.2	**.03**	.10	1572	**53**	**4.2**	**44**	**256**	**89**	**20**	**1.7**	379	**.07**	**.36**	**3.7**	**27**
BRAZIL	**184**	**13**	**16**	**12**		**34**	**130**	1.3	**12**	1.3	2.8	**79**	**0**	**7.3**	**26**	**19**	**.92**	**.14**	3.5	**.09**	**<.01**	**.89**	**23**
CANADA	**.77**	**14**	**17**	**7.7**	**.62**		**4.7**	1.3	**4.7**	35	3.6	**14**	**0**	**2.9**	**8.1**	**11**	**5.4**	**4.3**	3.3	**.03**	**<.01**	**2.0**	**3.8**
CHILE	**29**	**8.5**	**4.0**	**4.2**	**20**	**18**		1.2	**101**	0	.01	**21**	**0**	**0**	**8.5**	**3.0**	**.02**	**.12**	1.2	**.16**	**0**	**.17**	**6.1**
CHINA	2.0	2.5	8.1	2.4	.06	6.5	.53		.01	.46	7.3	27	.06	4.4	12	4.9	1.01	261	2.9	.15	9.3	1.4	4.1
COLOMBIA	**.14**	**3.9**	**1.7**	**2.3**	**6.0**	**7.0**	**100**	.37		0	.03	**6.9**	**0**	**0**	**6.2**	**1.4**	**0**	**0**	.49	**0**	**0**	**0**	**.67**
CYPRUS	<.01	1.1	199	467	.70	66	1.3	160	0		5235	235	36	715	127	74	2523	2.4	447	9.0	0	12	26
CZECH REP.	6.4	16	701	94	.53	17	13	*	0	0		241	0	32	42	74	32	.18	3518	0	0	0	40
DENMARK	**.01**	**20**	**45**	**29**	**.71**	**32**	**.71**	*	**0**	7.8	3.2		**0**	**243**	**38**	**50**	**3.2**	**1.3**	4.0	**.25**	**0**	**2.1**	**12**
EGYPT	**0**	**2.1**	**3.7**	**2.5**	**.03**	**7.9**	**1.7**	2.1	**0**	247	.88	**31**		**0**	**30**	**4.2**	**371**	**.02**	9.6	**.05**	**0**	**0**	**2.9**
FINLAND	**15**	**18**	**121**	**132**	**.48**	**31**	**.65**	*	**.001**	28	20	**216**	**0**		**144**	**194**	**9.4**	**2.3**	8.8	**0**	**.01**	**3.2**	**53**
FRANCE	**2.5**	**21**	**130**	**342**	**2.6**	**36**	**5.6**	1.9	**.28**	33	71	**77**	**5.3**	**93**		**176**	**24**	**2.9**	28	**.03**	**.01**	**43**	**168**
GERMANY	**2.2**	**26**	**660**	**134**	**2.0**	**34**	**22**	2.4	**.43**	42	110	**125**	**2.5**	**91**	**236**		**20**	**4.2**	138	**.03**	**.05**	**38**	**78**
GREECE	**.18**	**11**	**75**	**73**	**.03**	**22**	**1.4**	.98	**0**	2496	33	**54**	**0**	**92**	**82**	**60**		**.93**	33	**0**	**0**	**13**	**36**
HONG KONG	**<.01**	**21**	**13**	**5.4**	**.06**	**16**	**3.8**	35	**.13**	1.9	1.6	**33**	**.17**	**14**	**14**	**8.4**	**.58**		1.8	**.45**	**30**	**5.4**	**5.8**
HUNGARY	0	15	736	31	5.1	25	14	2.0	0	0	1366	200	0	36	140	112	29	.03		0	0	2.0	16
INDIA	**.75**	**20**	**23**	**5.2**	**.02**	**17**	**5.1**	.44	**0**	27	.91	**54**	**.02**	**27**	**22**	**5.7**	**.21**	**6.2**	.26		**74**	**0**	**4.9**
INDONESIA	**<.01**	**15**	**42**	**10**	**.001**	**26**	**141**	1.8	**0**	0	.51	**76**	**0**	**11**	**26**	**19**	**0**	**26**	30	**2.0**		**0**	**43**
ISRAEL	**.01**	**9.0**	**21**	**14**	**4.9**	**33**	**2.3**	1.2	**0**	.39	6.5	**78**	**0**	**10**	**13**	**16**	**2.0**	**.23**	56	**.01**	**0**		**13**
ITALY	**2.8**	**15**	**82**	**73**	**1.6**	**26**	**.87**	*	**0**	24	13	**65**	**13**	**44**	**199**	**125**	**8.3**	**3.0**	9.9	**0**	**<.01**	**7.1**	
JAPAN	**2.0**	**24**	**19**	**8.6**	**.06**	**27**	**1.3**	1.6	**.13**	1.8	.89	**46**	**.56**	**13**	**29**	**17**	**.47**	**7.1**	1.5	**.03**	**.45**	**3.0**	**13**
KOREA	**.32**	**21**	**17**	**6.7**	**.01**	**30**	**8.3**	1.4	**0**	1.1	1.2	**57**	**.05**	**15**	**23**	**15**	**.50**	**17**	2.8	**.44**	**.13**	**.07**	**12**
MALAYSIA	**0**	**14**	**17**	**5.3**	**.02**	**14**	**5.5**	.53	**0**	0	.04	**43**	**3.5**	**16**	**11**	**6.3**	**0**	**28**	.27	**.19**	**.88**	**.03**	**7.3**
MEXICO	**69**	**11**	**12**	**5.3**	**1.8**	**50**	**53**	1.4	**3.0**	2.2	1.3	**104**	**0**	**3.3**	**18**	**11**	**.38**	**.03**	1.4	**.16**	**0**	**1.7**	**12**
NETHERLANDS	**5.8**	**62**	**164**	**221**	**5.8**	**46**	**11**	2.1	**.03**	1007	186	**109**	**.92**	**116**	**251**	**193**	**18**	**2.6**	36	**.08**	**2.2**	**16**	**91**
NEWZEALAND	**0**	**467**	**12**	**3.4**	**.01**	**41**	**42**	3.0	**0**	0	.09	**28**	**0**	**.05**	**10**	**12**	**0**	**6.0**	3.9	**.41**	**<.01**	**.58**	**23**
NORWAY	**.14**	**18**	**77**	**54**	**.93**	**38**	**7.6**	1.6	**0**	68	4.0	**293**	**0**	**316**	**46**	**85**	**17**	**1.6**	18	**.12**	**0**	**12**	**15**
PAKISTAN	**0**	**1.2**	**.93**	**.02**	**0**	**2.2**	**.05**	.14	**0**	0	0	**14**	**0**	**0**	**.52**	**.28**	**0**	**1.6**	0	**0**	**0**	**0**	**.06**
PERU	**5.6**	**2.8**	**4.3**	**.92**	**5.0**	**7.6**	**256**	.21	**81**	0	2.5	**10**	**0**	**1.2**	**2.4**	**2.0**	**0**	**0**	.46	**0**	**0**	**0**	**4.2**
PHILIPPINES	**0**	**11**	**29**	**5.6**	**.01**	**22**	**13**	1.5	**0**	0	.002	**90**	**0**	**5.7**	**21**	**13**	**0**	**28**	.04	**.22**	**.79**	**4.0**	**7.9**
POLAND	0	7.2	286	25	.07	9.7	6.6	1.5	0	11	459	112	5.4	72	72	119	16	.08	1506	.12	0	.53	16
PORTUGAL	**.52**	**16**	**43**	**80**	**120**	**31**	**.76**	2.0	**0**	0	5.3	**48**	**0**	**43**	**172**	**78**	**21**	**1.6**	2.1	**0**	**0**	**1.1**	**67**
RUSSIA	.83	16	175	13	.04	20	1.3	4.6	0	2977	163	63	0	267	72	44	27	.02	183	0	<.01	.38	8.7
SINGAPORE	**.01**	**39**	**30**	**7.9**	**.24**	**36**	**16**	2.1	**0**	6.5	1.2	**43**	**2.6**	**42**	**15**	**20**	**.25**	**82**	1.5	**.83**	**44**	**1.6**	**13**
SLOVAKIA	0	0	188	105	1.2	3.2	0	*	0	0	5118	50	0	0	4.0	4.9	0	0	93	0	0	0	118
SOUTHAFRICA	**<.01**	**10**	**9.2**	**6.3**	**.34**	**11**	**1.7**	.37	**0**	7.2	.52	**23**	**0**	**6.0**	**8.8**	**7.6**	**12**	**.07**	35	**.23**	**<.01**	**.37**	**4.9**
SPAIN	**82**	**12**	**41**	**59**	**21**	**19**	**7.4**	1.3	**3.9**	15	5.9	**48**	**0**	**31**	**133**	**90**	**4.5**	**.97**	4.0	**.003**	**<.01**	**2.2**	**32**
SWEDEN	**1.5**	**16**	**41**	**23**	**.39**	**22**	**8.4**	*	**.74**	1355	4.5	**402**	**0**	**928**	**30**	**44**	**4.0**	**1.1**	6.9	**.03**	**0**	**1.5**	**15**
SWITZERLAND	**1.3**	**19**	**135**	**47**	**7.3**	**36**	**6.1**	2.1	**.10**	35	14	**114**	**4.4**	**61**	**79**	**116**	**14**	**2.2**	13	**.31**	**.02**	**9.0**	**42**
THAILAND	**0**	**19**	**36**	**15**	**.05**	**24**	**11**	1.4	**0**	94	1.4	**81**	**.59**	**38**	**11**	**24**	**.84**	**77**	14	**1.8**	**16**	**1.1**	**16**
TURKEY	**0**	**17**	**179**	**17**	**.01**	**22**	**7.0**	1.9	**.01**	2.4	111	**83**	**2.6**	**.07**	**27**	**33**	**118**	**.09**	122	**.70**	**0**	**4.1**	**28**
U.K.	**4.1**	**38**	**71**	**39**	**1.1**	**42**	**17**	*	**.14**	44	17	**100**	**2.3**	**92**	**72**	**63**	**40**	**67**	8.2	**.13**	**.03**	**17**	**28**
U.S.A.	**82**	**32**	**23**	**12**	**3.6**	**44**	**40**	2.6	**29**	21	10	**38**	**.21**	**19**	**14**	**17**	**8.5**	**3.5**	17	**.18**	**.74**	**50**	**9.0**
VENEZUELA	.74	0	0	1.3	8.1	9.2	241	*	.001	0	0	.15	0	0	.91	.38	0	0	.66	0	0	0	1.1

Table 2 (continued)

Destination \ Investor	JAPAN	KOREA	MALAYSIA	MEXICO	NETHRLNDS	N. ZEALAND	NORWAY	PAKISTAN	PERU	PHILIPPINES	POLAND	PORTUGAL	RUSSIA	SINGAPORE	S. AFRICA	SPAIN	SWEDEN	SWITZRLND	THAILAND	TURKEY	U.K.	U. S.	VENEZUELA
ARGENTINA	**.96**	**1.8**	**.08**	**.06**	**8.2**	**.24**	**17**	**0**	**2.3**	**0**	0	**0**	.83	**6.1**	**1.3**	**18**	**11**	**6.66**	**.001**	**.02**	**43**	**21**	650
AUSTRALIA	**28**	**10**	**15**	**.04**	**70**	**833**	**69**	**0**	**1.1**	**.16**	.06	**9.6**	5.4	**90**	**3.1**	**.17**	**27**	**19**	**38**	**.04**	**70**	**28**	0
AUSTRIA	**17**	**7.0**	**.19**	**.22**	**131**	**3.6**	**199**	**.91**	**0**	**0**	668	**71**	.52	**38**	**1.5**	**58**	**60**	**191**	**.04**	**.14**	**94**	**37**	0
BELGIUM	**14**	**6.4**	**.13**	**.45**	**131**	**2.1**	**140**	**0**	**2.0**	**.14**	1.2	**109**	1.1	**13**	**5.5**	**43**	**22**	**43**	**.45**	**.45**	**47**	**33**	.06
BRAZIL	**12**	**25**	**.36**	**3.6**	**78**	**1.5**	**71**	**0**	**2.3**	**.19**	.03	**782**	.25	**6.7**	**1.2**	**26**	**19**	**16**	**.04**	**.02**	**60**	**56**	0
CANADA	**14**	**4.3**	**.49**	**.20**	**27**	**18**	**42**	**0**	**4.2**	**.01**	.91	**14**	.24	**20**	**2.1**	**1.1**	**15**	**18**	**.31**	**.18**	**4.0**	**42**	0
CHILE	**3.2**	**4.9**	**.03**	**.19**	**44**	**.23**	**36**	**0**	**609**	**0**	.01	**0**	.02	**2.3**	**.08**	**19**	**7.7**	**7.6**	**.29**	**0**	**22**	**22**	0
CHINA	10	22	3.3	.14	15	.31	15	.01	0	.02	.03	3.8	.02	167	.26	4.4	6.4	3.4	1.8	.03	27	9.8	0
COLOMBIA	**2.9**	**3.8**	**.001**	**0**	**19**	**0**	**19**	**0**	**166**	**0**	0	**0**	1.7	**.50**	**0**	**1.1**	**8.0**	**4.5**	**.03**	**0**	**7.8**	**15**	0
CYPRUS	11	42	89	0	335	1.6	1073	0	0	0	454	0	6344	51	2.3	.84	202	800	.16	0	137	97	0
CZECH REP.	7.3	11	.42	0	65	.27	87	0	*	0	393	0	6.2	26	0	5.7	94	27	0	0	68	47	0
DENMARK	**18**	**11**	**4.7**	**0**	**92**	**8.2**	**455**	**0**	*	**0**	6.3	**71**	0	**19**	**3.8**	**1.8**	**162**	**26**	**<.01**	**.02**	**72**	**38**	0
EGYPT	**2.4**	**3.9**	**1.4**	**0**	**18**	**0**	**55**	**0**	**0**	**0**	0	**9.8**	1.2	**.38**	**22**	**.01**	**4.2**	**3.5**	**1.1**	**0**	**28**	**18**	0
FINLAND	**22**	**2.4**	**.40**	**.11**	**121**	**5.6**	**310**	**0**	*	**0**	.53	**91**	.07	**21**	**1.1**	**36**	**726**	**52**	**.01**	**.11**	**129**	**51**	0
FRANCE	**24**	**7.3**	**.55**	**.66**	**116**	**13**	**145**	**.15**	**11**	**.06**	9.6	**210**	.27	**23**	**2.7**	**103**	**59**	**69**	**2.4**	**.15**	**78**	**40**	0
GERMANY	**23**	**7.9**	**.84**	**.90**	**120**	**23**	**166**	**.05**	**15**	**4.2**	14	**280**	.53	**29**	**7.3**	**64**	**65**	**133**	**.99**	**4.5**	**100**	**41**	0
GREECE	**15**	**2.3**	**2.1**	**.15**	**97**	**.58**	**152**	**0**	**0**	**.44**	9.2	**14**	1.8	**13**	**4.4**	**4.8**	**50**	**26**	**.90**	**7.9**	**99**	**37**	0
H. KONG	**17**	**27**	**37**	**.02**	**54**	**8.1**	**31**	**.04**	**1.4**	**1.4**	0	**4.8**	.02	**168**	**.49**	**3.0**	**17**	**9.1**	**9.8**	**.26**	**53**	**18**	0
HUNGARY	**7.6**	**16**	**.14**	**0**	**123**	**2.3**	**164**	**0**	**0**	**0**	1502	**79**	0	**15**	**6.8**	**3.0**	**85**	**33**	**0**	**1.5**	**95**	**47**	0
INDIA	**10**	**23**	**2.5**	**.02**	**34**	**1.4**	**32**	**0**	**0**	**.34**	.002	**3.9**	.01	**219**	**.88**	**30**	**8.4**	**5.5**	**1.7**	**.04**	**39**	**27**	0
INDONESIA	**20**	**18**	**135**	**0**	**80**	**2.2**	**33**	**0**	**.24**	**.05**	0	**5.5**	0	**1361**	**.23**	**5.0**	**19**	**19**	**178**	**0**	**108**	**44**	0
ISRAEL	**7.8**	**4.7**	**.10**	**.14**	**48**	**1.3**	**51**	**0**	**0**	**0**	1.2	**1.7**	.04	**16**	**.73**	**.52**	**8.5**	**29**	**3.5**	**.16**	**35**	**79**	0
ITALY	**17**	**4.7**	**.34**	**.18**	**89**	**3.5**	**124**	**0**		**0**	8.0	**214**	.09	**25**	**1.4**	**56**	**37**	**36**	**4.1**	**.03**	**73**	**26**	0
JAPAN		**9.0**	**1.6**	**.29**	**48**	**38**	**72**	**0**	**1.6**	**.11**	.01	**21**	.01	**58**	**1.3**	**4.2**	**29**	**19**	**.99**	**.01**	**57**	**32**	.03
KOREA	**10**		**12**	**.06**	**55**	**3.4**	**76**	**0**	**.16**	**.11**	.14	**3.2**	.06	**204**	**.41**	**1.3**	**20**	**15**	**.52**	**0**	**77**	**35**	.01
MALAYSIA	**9.7**	**12**		**.32**	**41**	**3.7**	**38**	**0**	**.53**	**.08**	0	**.72**	.04	**899**	**.31**	**0**	**9.7**	**9.7**	**19**	**.08**	**52**	**19**	0
MEXICO	**5.0**	**8.7**	**.10**		**64**	**1.1**	**60**	**0**	**27**	**.07**	.004	**1.1**	.03	**19**	**1.0**	**27**	**20**	**26**	**.02**	**<.01**	**86**	**78**	0
NETHER.	**23**	**8.7**	**.46**	**5.0**		**12**	**141**	**0**	**11**	**3.8**	51	**237**	34	**18**	**1.8**	**55**	**59**	**85**	**.53**	**1.5**	**132**	**62**	0
NEW ZEALAND	**18**	**7.2**	**1.9**	**0**	**32**		**70**	**0**	**3.7**	**.09**	0	**0**	.33	**71**	**1.8**	**.11**	**28**	**11**	**.06**	**.05**	**51**	**31**	0
NORWAY	**17**	**7.9**	**.38**	**0**	**118**	**9.3**		**0**	**0**	**0**	3.9	**26**	.65	**18**	**1.3**	**10**	**426**	**37**	**<.01**	**.05**	**118**	**44**	0
PAKISTAN	**.10**	**1.3**	**0**	**0**	**8.4**	**0**	**.66**		**0**	**0**	0	**0**	0	**2.4**	**0**	**0**	**2.2**	**.26**	**0**	**.79**	**9.8**	**6.8**	0
PERU	**1.3**	**2.4**	**0**	**.43**	**8.9**	**0**	**8.8**	**0**		**0**	.23	**0**	.65	**.61**	**.37**	**2.3**	**8.0**	**3.6**	**0**	**0**	**21**	**10**	0
PHILIPPINES	**18**	**11**	**57**	**0**	**56**	**0**	**36**	**0**	**0**		0	**1.2**	0	**584**	**.16**	**3.1**	**13**	**13**	**16**	**0**	**79**	**46**	0
POLAND	4.8	12	.03	0	55	0	165	0	0	0		68	.84	8.2	.30	3.0	77	15	.01	0	51	23	0
PORTUGAL	**15**	**3.0**	**.08**	**1.0**	**120**	**.92**	**184**	**0**	**0**	**0**	23		3.9	**32**	**.75**	**409**	**31**	**22**	**<.01**	**.19**	**98**	**33**	0
RUSSIA	7.3	33	91	2.5	103	1.5	105	0	0	.59	13	5.4		6.2	1.8	0	122	37	.01	.32	69	43	0
SINGAPORE	**29**	**16**	**500**	**.01**	**98**	**18**	**72**	**0**	**1.5**	**12**	.01	**1.7**	.03		**4.7**	**.30**	**37**	**20**	**56**	**.01**	**110**	**47**	0
SLOVAKIA	0	23	0	0	0	0	1.7	0	*	0	1934	0	0	0		0	162	0	0	0	3.4	.19	0
S. AFRICA	**3.1**	**3.9**	**1.3**	**0**	**32**	**.53**	**30**	**0**	**.24**	**.02**	.34	**78**	.05	**5.7**		**.66**	**6.6**	**10**	**.01**	**.01**	**26**	**21**	.01
SPAIN	**13**	**4.9**	**.25**	**4.4**	**79**	**4.4**	**90**	**0**	**8.5**	**.03**	3.0	**1328**	.02	**23**	**.86**		**27**	**24**	**.07**	**.04**	**49**	**23**	<.01
SWEDEN	**17**	**2.4**	**.26**	**.05**	**92**	**9.3**	**348**	**.11**	*	**0**	.89	**31**	0	**33**	**1.9**	**6.3**		**29**	**0**	**.05**	**65**	**25**	0
SWITZERLAND	**23**	**7.8**	**.46**	**.65**	**100**	**13**	**151**	**.15**	**12**	**.93**	2.7	**46**	.16	**20**	**3.3**	**20**	**99**		**.46**	**.47**	**75**	**55**	0
THAILAND	**15**	**12**	**47**	**0**	**73**	**4.7**	**40**	**0**	**.46**	**7.8**	0	**.47**	0	**802**	**.45**	**.12**	**12**	**14**		**.003**	**92**	**29**	0
TURKEY	**9.0**	**15**	**.02**	**0**	**74**	**.58**	**128**	**0**	**0**	**.73**	283	**5.6**	11	**8.9**	**1.3**	**11**	**74**	**26**	**<.01**		**102**	**49**	0
U.K.	**27**	**9.3**	**8.1**	**1.3**	**134**	**72**	**161**	**.47**	*	**1.4**	2.0	**208**	.85	**73**	**164**	**23**	**81**	**39**	**.61**	**.30**		**46**	0
U.S.A.	**22**	**11**	**10**	**6.2**	**69**	**44**	**55**	**.02**	**51**	**2.9**	1.6	**37**	.77	**38**	**6.4**	**4.3**	**30**	**20**	**3.2**	**.75**	**28**		4.0
VENEZUELA	0	0	.63	0	320	0	.37	0	*	0	0	1060	0	0	1.2	3.9	<.01	1.8	0	0	17	11	

Table 3. Summary Statistics and Data Description

This table reports the mean and standard deviation for variables on the foreign investment weight and investment determinants used in the foreign investment regressions. The sample size is roughly 39 source countries by 39 destination countries for 17 annual points in time (2001-2017).

				Investment Level		
			Full Sample (N=20,396)	Very Low (N=10,352)	Moderate (N=8,559)	Very High (N = 1,485)
	Variable	Definition and Source	Mean S.D.	Mean S.D.	Mean S.D.	Mean S.D.
Information	Cross-list	Proportion of market capitalization of the destination country listed in the home country Source: Author survey	0.017 0.076	0.000 0.008	0.029 0.094	0.068 0.151
	Internet	Number of internet users per 100 people Source: World Bank	54.529 26.969	41.336 25.846	68.212 20.449	67.642 21.412
	Language	Dummy variable that equals 1 when two countries share a similar official language Source: CIA World Factbook	0.109 0.312	0.085 0.279	0.115 0.319	0.247 0.431
	Annual Returns	Past year and current year market returns Source: MSCI	0.032 0.130	0.041 0.147	0.025 0.107	0.021 0.122
Familiarity	Bilateral Trade	Ratio of total bilateral trade (Imports + Exports) between the holder country and destination country relative to the holder country's total imports and exports Source: Direction of Trade Statistics (DOT) from IMF	0.019 0.042	0.011 0.026	0.022 0.047	0.060 0.067
	Distance	Distance in kilometers between most populated cities of two countries Source: Mayer and Zignago (2011)	8.723 0.943	9.054 0.623	8.595 0.938	7.147 1.048
	Contiguity	Dummy variable that equals 1 when two countries are contiguous Source: Mayer and Zignago (2011)	0.043 0.202	0.012 0.107	0.032 0.177	0.319 0.466
	Colonial	Dummy variable that equals 1 when two countries have ever had a colonial link Source: Mayer and Zignago (2011)	0.036 0.186	0.023 0.149	0.049 0.216	0.052 0.222
	Unilateral Trade	Ratio of sum of import and export to GDP Source: World Bank	0.876 0.775	0.837 0.796	0.894 0.730	1.042 0.854

Table 3 (continued)

Hedging motives	Correlation	Correlation of past year daily market returns of holder country and destination country Source: Datastream market indices	0.379 0.240	0.296 0.201	0.436 0.236	0.635 0.240
	RER Volatility	Standard deviation of monthly real exchange rate changes during the past 12 months Source: IMF	1.933 11.865	2.064 11.272	1.890 13.173	1.267 6.871
Transaction costs	Currency	Dummy variable that equals 1 when two countries use a common currency Source: de Sousa (2012)	0.065 0.247	0.007 0.084	0.082 0.275	0.372 0.483
	Stock Market Size	Ratio of market capitalization to GDP Source: World Bank	1.018 1.509	1.025 1.779	1.042 1.234	0.828 0.613
	Equity Controls	Index for average equity restrictions Source: Fernandez et al. (2016)	0.320 0.362	0.489 0.387	0.147 0.227	0.139 0.231
	Turnover	Ratio of annual total traded volume to market capitalization Source: Datastream	0.346 3.328	0.594 4.635	0.098 0.798	0.098 0.216
Governance	Investor Protection	Index based on the number of obstacles a controlling shareholder must overcome to complete a (hypothetical) self-dealing transaction successfully Source: Djankov et al. (2008)	0.532 0.239	0.556 0.243	0.509 0.230	0.491 0.244
	Rule of Law	Rule of law index Source: La Porta et al. (1998)	7.394 2.449	5.930 2.232	8.874 1.641	9.073 1.326
Domestic bias	Domestic bias	Weight of home market in investor country portfolio relative to weight of home country in world portfolio Source: IMF CPIS	268.637 657.156	455.800 746.611	92.355 352.546	-20.060 907.324

Table 4. Summary Statistics for Cross-Listings

This table reports the average percent of equity listed in foreign markets for all pairs of home (listed down the first column) and host (listed across the first row) markets. The sample size is roughly 39 source countries by 39 destination countries for 17 annual points in time (2001-2017). Asterisks (*) denote investor/destination pairs with insufficient data.

Destination	ARGENTINA	AUSTRALIA	AUSTRIA	BELGIUM	BRAZIL	CANADA	CHILE	COLOMBIA	DENMARK	EGYPT	FINLAND	FRANCE	GERMANY	GREECE	HONGKONG	INDIA	INDONESIA	ISRAEL	ITALY
ARGENTINA		0	0	0	34	0	0.33	0	0	0	0	0	0	0	0	0	0	0	0
AUSTRALIA	0		0	0	0	1.3	0	0	0	0	0	0.74	9.1	0	0	0	0	0	0
AUSTRIA	0	0		0	0	0	0	0	0	0	0	3.5	20	0	0	0	0	0	0
BELGIUM	0	0	0		0	0	0	0	0	0	0	3.7	8.0	0	0	0	0	0	2.4
BRAZIL	5.7	0	0	0		0	0	0	0	0	0	3.2	0	0	2.3	0	0	0	0
CANADA	0	0.13	0	2.9	0.05		0.13	0.0001	0	0	0	0.82	0.03	0	2.2	0	0	0.01	0.12
CHILE	0	0	0	0	1.0	0		*	0	0	0	0	0	0	0	0	0	0	0
COLOMBIA	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0
DENMARK	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0
EGYPT	0	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0
FINLAND	0	0	0	0	0	0	0	0	0	0		19	36	0	0	0	0	0	16
FRANCE	0	0	0	12	0	0.001	0	0	0	0	0		5.7	0	0	0	0	0	25
GERMANY	0	0	6.7	0.10	0	0	0	0	0	0	0	4.7		0	0.003	0	0	0	36
GREECE	0	2.6	0	0	0	0	0	0	9.2	0	0	0	0		0	0	0	0	0
HONG KONG	0	0.01	0	0	0	0.001	0	0	0	0	0	0	0	0		0	0	0	0
INDIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0	0
INDONESIA	0	0.75	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0	0
ISRAEL	0	0	0	0.04	0	0	0	0	0	0	0	0	0.06	0	0	0	0		0
ITALY	0	0	0	2.3	0	0	0	0	0	0	0	1.4	8.0	0	0.71	0	0	0	
JAPAN	0	0	0.40	0.12	0	0.72	0	0	0	0	0	1.8	9.0	0	0.21	0	0	0	0
KOREA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MALAYSIA	0	0.0004	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
MEXICO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NETHERLANDS	0	44	4.5	12	0	0	0	0	0	0	0	10	55	0	0	0	0	0.10	19
NEW ZEALAND	0	*	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
NORWAY	0	0	0	0	0	0	0	0	0.46	0	0	0	5.3	0	0	0	0	0	0
PAKISTAN	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	0
PERU	0	0	0	0	0	0	2.2	0	0	0	0	0	0	0	0	0	0	0	0
PHILIPPINES	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PORTUGAL	0	0	0	0	0	0	0	0	0	0	0	0	6.8	0	0	0	0	0	0
SINGAPORE	0	6.2	0	0	0	0.0002	0	0	0	0	0	0	0.003	0	0.16	0	0	0	0
SOUTHAFRICA	0	0.40	0	5.1	0	*	0	0	0	0	0	0.50	1.6	0	0	0	0	0	0
SPAIN	18	0	0	0	6.6	0	0	8.1	0	0	0	6.5	20	0	0	0	0	0	9.5
SWEDEN	0	0	0	2.3	0	0.58	0	0	7.4	0	4.5	0.68	9.6	0	0	0	0	0	0
SWITZERLAND	0	0	0.49	9.1	0.08	0.01	0	0	0	0	0	7.5	20	0	0	0	0	0	0.15
THAILAND	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
TURKEY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
U.K.	0	0.33	0.01	0.05	0	7.6	0	0	0.17	0	0	9.5	10	0	0.36	0.69	0	0.001	0
U.S.A.	0	0.32	0.32	4.1	2E-05	2.6	9.9	0	0	0	0.002	6.4	12	0	0.03	0	0	0.02	0

Table 4 (continued)

Destination	JAPAN	KOREA	MALAYSIA	MEXICO	NETHERL.	N.ZEALAND	NORWAY	PAKISTAN	PERU	PHILIPPINES	PORTUGAL	SINGAPORE	SOUTHAFRICA	SPAIN	SWEDEN	SWITZER.	THAILAND	TURKEY	U.K.	U.S.A
ARGENTINA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.57	0	0	0.98	59
AUSTRALIA	4.7	0	0	0	0	30	0	0	0	0	0	0.15	0.97	0	0	9.0	0	0	20	26
AUSTRIA	0	0	0	0	0.03	0	0	0	0	0	0	0	0	0	0	0.03	0	0.26	0	5.2
BELGIUM	0	0	0	0	7.7	0	0.01	0	0	0	0	0	0	0	*	1.5	0	0	0	14
BRAZIL	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.4	35
CANADA	4.0	0	0	0	2.9	0.02	0.01	0	0	0	0	0.0004	0.03	0	0.03	8.4	0	0	20	50
CHILE	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.9	22
COLOMBIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3.9
DENMARK	0	0	0	0	0	0	0.09	0	*	0	0	0	0	0	0.12	4.8	0	0	17	19
EGYPT	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	48	0
FINLAND	0	0	0	0	33	0	0	0	*	0	0	0	0	0	18	0	0	0	34	42
FRANCE	3.5	0	0	0	18	0	0	0	0	0	0	0	0	0.80	1.7	4.7	0	0	12	25
GERMANY	7.7	0	0	0	23	0	0	0	0	0	0	1.6	0	6.1	0.73	38	0	0	24	28
GREECE	0	0	0	0	0	0	0.71	0	0	0	0	0	0	0	0	0	0	0	64	25
HONG KONG	0.48	0	0	0	0	0	0.01	0	0	0	0	6.6	0	0	0	0	0	0	0.59	9.6
INDIA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4.7	4.6
INDONESIA	0	0	0	0	0	0	0	0	0	0	0	0.22	0	0	0	0	0	0	9.5	8.3
ISRAEL	0	0	0	0	0	0	0	*	0	0	0	0	0	0	0	0.15	0	0	6.7	43
ITALY	0	0	0	0	17	0	0	0	*	0	0	0	0	0.48	0	0.03	0	0	0	31
JAPAN		7E-05	0	0	3.1	0	0	0	0	0	0	0.79	0	0	0	2.3	0	0	18	15
KOREA	2.6		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	35	17
MALAYSIA	1.4	0		0	0	0	0	0	0	0	0	4.4	0	0	0	0	0	0	3.4	0
MEXICO	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	15
NETHERLANDS	2.8	0	0	0		0	0	0	0	0	0	9.6	0	1.8	0.61	59	0	0	58	59
NEW ZEALAND	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0	0	12
NORWAY	0	0	0	0	4.4	0		0	0	0	0	0.06	0	0	4.8	8.7	0	0	3.8	34
PAKISTAN	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	0	0
PERU	0	0	0	0	0	0	0	0		0	0	0	0	0	0	0	0	0	0	20
PHILIPPINES	0	0	0	0	0	0	0	0	0		0	0.07	0	0	0	0	0	0	0	0.002
PORTUGAL	0	0	0	0	7.1	0	0	0	0	0		0	0	0	0	0	0	0	9.6	27
SINGAPORE	0	0	0	0	0	0	0.01	0	0	0	0		0	0	0	0	0	0	0.02	0.89
SOUTHAFRICA	0	0	0	0	0	0	0	0	0	0	0	0		0	0	1.6	0	0	20	11
SPAIN	6.5	0	0	0	13	0	0	0	0	0	1.3	0	0		0	16	0	0	23	65
SWEDEN	1.7	0	0	0	0.004	0	0.41	0	*	0	0	6.8	0	0		7.3	0	0	9.6	19
SWITZERLAND	6.7	0	0	0	3.0	0	0	0	0	0	0	0.22	0	0	4.6		0	0	20	32
THAILAND	0	0	0	0	0	0	0	0	0	0	0	1.5	0	0	0	0		0	0	0
TURKEY	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		20	7.7
U.K.	9.2	0	0	0.27	0.94	0.88	0.06	0	*	0	0	5.7	1.4	0	2.3	6.0	0	0		44
U.S.A.	7.1	0	0	0.20	11	0.0003	0.05	0	0	0	0	0	0.002	0	0.03	12	0	0	19	

Table 5. Determinants across the Foreign Investment Distribution

This table presents the results from OLS and quantile regressions of relative weight. OLS results are in column (1); Quantile regression results are in columns (2-6). The sample size is roughly 39 source countries by 39 destination countries for 17 annual points in time (2001-2017). Variable definitions are reported in Table 3. Standard errors clustered at the country-destination level are shown in parentheses. *, **, and *** denote significance at the 10%, 5%, and 1% level, respectively.

			Quantile Regressions				
		OLS	21	50	70	92	95
Information	Cross-list	0.738	0.624***	0.755***	0.969***	1.236**	2.651
		(0.484)	(0.088)	(0.161)	(0.215)	(0.597)	(2.918)
	Investor Internet	0.003**	0.000***	0.002***	0.003***	0.003***	0.004***
		(0.001)	(0.000)	(0.000)	(0.000)	(0.001)	(0.001)
	Destination Internet	0.002*	0.000**	0.000	0.000	0.000	-0.000
		(0.001)	(0.000)	(0.000)	(0.000)	(0.001)	(0.001)
	Language	0.301***	0.007	0.043***	0.071***	0.175**	0.269
		(0.107)	(0.005)	(0.010)	(0.018)	(0.078)	(0.278)
	Investor Returns	-0.078	0.018***	0.048***	0.087***	0.107	0.065
		(0.154)	(0.004)	(0.008)	(0.017)	(0.067)	(0.065)
	Investor Returns Lag 1 Year	-0.208	0.018***	0.055***	0.078***	0.062	0.030
		(0.136)	(0.005)	(0.008)	(0.016)	(0.057)	(0.071)
	Destination Returns	0.009	0.017***	0.037***	0.052***	0.120	0.136
		(0.121)	(0.006)	(0.013)	(0.015)	(0.084)	(0.110)
	Destination Returns Lag 1 Year	-0.017	0.011**	0.033***	0.049***	0.077	-0.044
		(0.130)	(0.005)	(0.011)	(0.018)	(0.063)	(0.070)
Familiarity	Bilateral Trade	2.948	0.190*	0.488	1.347***	6.162***	7.758**
		(2.015)	(0.104)	(0.352)	(0.516)	(1.686)	(3.255)
	Distance	-0.200***	-0.017***	-0.058***	-0.107***	-0.277***	-0.375***
		(0.039)	(0.004)	(0.007)	(0.013)	(0.039)	(0.055)
	Contiguity	0.702***	0.119	0.461***	0.974*	2.615***	3.215***
		(0.241)	(0.147)	(0.163)	(0.504)	(0.553)	(0.696)
	Colonial	0.183	-0.003	0.006	0.106	0.434	0.554
		(0.180)	(0.007)	(0.041)	(0.070)	(0.297)	(0.609)
	Investor Unilateral Trade	0.206***	0.000	-0.013*	0.023*	0.219***	0.309**
		(0.073)	(0.002)	(0.006)	(0.012)	(0.081)	(0.131)
	Destination Unilateral Trade	0.071***	0.001	0.010**	0.023***	0.067**	0.049
		(0.027)	(0.002)	(0.005)	(0.009)	(0.033)	(0.036)
Hedging motives	Correlation	-0.060	0.017**	0.044***	0.062***	0.129**	0.169**
		(0.102)	(0.007)	(0.014)	(0.020)	(0.055)	(0.082)
	RER volatility	-0.001**	-0.000***	-0.000***	-0.000***	-0.000	-0.000
		(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)

Table 5 (continued)

Transaction costs	Currency	0.448***	0.232***	0.437***	0.507***	0.573***	0.661
		(0.156)	(0.049)	(0.067)	(0.107)	(0.153)	(0.432)
	Investor Stock Market Size	-0.114***	-0.000	-0.005**	-0.025***	-0.099***	-0.130***
		(0.028)	(0.001)	(0.002)	(0.004)	(0.025)	(0.039)
	Destination Stock Market Size	-0.043***	0.000	-0.005**	-0.010***	-0.026**	-0.022
		(0.011)	(0.001)	(0.002)	(0.004)	(0.012)	(0.014)
	Investor Equity Controls	0.072	0.004	-0.002	-0.019	-0.007	0.031
		(0.048)	(0.003)	(0.008)	(0.012)	(0.040)	(0.045)
	Destination Equity Controls	0.183**	0.010***	0.015*	0.035**	0.106***	0.151***
		(0.078)	(0.004)	(0.008)	(0.015)	(0.038)	(0.056)
	Investor Turnover	-0.002	-0.001***	-0.002	-0.002***	-0.004***	-0.005***
		(0.002)	(0.000)	(0.001)	(0.000)	(0.001)	(0.002)
	Destination Turnover	-0.002	-0.000	-0.000	-0.000	-0.002**	-0.004**
		(0.002)	(0.000)	(0.000)	(0.001)	(0.001)	(0.002)
Governance	Investor Protection	0.155*	-0.022***	0.006	0.032	0.131	0.187
		(0.093)	(0.006)	(0.014)	(0.023)	(0.101)	(0.143)
	Destination Investor Protection	0.059	0.002	-0.015	-0.011	0.039	0.108
		(0.113)	(0.005)	(0.010)	(0.018)	(0.055)	(0.073)
	Investor Rule of Law	0.001	0.006***	0.014***	0.013***	0.016***	0.015
		(0.010)	(0.001)	(0.002)	(0.003)	(0.005)	(0.009)
	Destination Rule of Law	-0.002	0.002***	0.004***	0.003	-0.009	-0.011
		(0.011)	(0.001)	(0.001)	(0.003)	(0.008)	(0.007)
Domestic bias	Domestic Bias	-0.000**	0.000	0.000***	0.000	-0.000***	-0.000***
		(0.000)	(0.000)	(0.000)	(0.000)	(0.000)	(0.000)
	Observations	20,396	20,396	20,396	20,396	20,396	20,396
	R-squared	0.192	0.122	0.143	0.156	0.160	0.161

Table 6. The Extensive Margin of Foreign Investment Determinants

This table presents the results from probit and ordered probit regressions of relative weight. In column (1), the dependent variable is 0 for a relative weight equal to zero and 1 for a relative weight above 0. In column (2), the dependent variable is 0 for a relative investment weight equal to 0, 1 for a "low" positive relative investment weight, 2 for a "moderate" relative investment weight, and 3 for "very high" relative investment weight.

		(1) Probit	(2) Ordered Probit
		Any Investment	Investment Tiers
Information	Cross-list	4.525**	0.990***
		(1.946)	(0.375)
	Investor Internet	0.020***	0.017***
		(0.002)	(0.001)
	Destination Internet	0.002	0.003
		(0.002)	(0.002)
	Language	0.062	0.331***
		(0.116)	(0.105)
	Investor Returns	0.454***	0.350**
		(0.157)	(0.136)
	Investor Returns Lag 1 Year	-0.244	0.032
		(0.154)	(0.126)
	Destination Returns	0.342**	0.457***
		(0.138)	(0.118)
	Destination Returns Lag 1 Year	0.187	0.257**
		(0.149)	(0.124)
Familiarity	Bilateral Trade	23.846***	3.774**
		(4.346)	(1.820)
	Distance	-0.315***	-0.436***
		(0.057)	(0.039)
	Contiguity	-0.124	0.227
		(0.245)	(0.197)
	Colonial	0.289*	0.482***
		(0.168)	(0.157)
	Investor Unilateral Trade	-0.181***	-0.019
		(0.050)	(0.055)
	Destination Unilateral Trade	-0.089	0.041
		(0.056)	(0.041)
Hedging motives	Correlation	0.751***	0.485***
		(0.152)	(0.116)
	RER volatility	-0.003***	-0.002***
		(0.001)	(0.001)

Table 6 (continued)

Transaction costs	Currency	-0.238	0.441***
		(0.217)	(0.121)
	Investor Stock Market Size	0.196***	-0.014
		(0.047)	(0.020)
	Destination Stock Market Size	0.116***	0.022
		(0.033)	(0.018)
	Investor Equity Controls	0.338***	0.046
		(0.100)	(0.079)
	Destination Equity Controls	0.042	0.281***
		(0.108)	(0.087)
	Investor Turnover	-0.014***	-0.019***
		(0.005)	(0.004)
	Destination Turnover	-0.014***	-0.011**
		(0.005)	(0.005)
Governance	Investor Protection	-0.869***	-0.302**
		(0.170)	(0.128)
	Destination Investor Protection	-0.067	0.012
		(0.148)	(0.116)
	Investor Rule of Law	0.135***	0.173***
		(0.018)	(0.016)
	Destination Rule of Law	0.109***	0.086***
		(0.020)	(0.018)
Domestic bias	Domestic Bias	-0.000***	-0.000***
		(0.000)	(0.000)
	Observations	20,396	20,396

Figure 1. The Distribution of Cross Border Investment

The figure shows the distribution of investment weights (the percentage of equity wealth from home country *i* invested in destination country *j* scaled by the float-adjusted percentage of destination country *j* market capitalization in the world market portfolio) for each of the 27,428 country pairs (46 home countries and 47 host countries across sample years 2001 to 2018). For the full sample, mean and standard deviation of relative investment weight are 0.82 and 17.49, respectively, and the skewness and kurtosis are 68 and 5369, respectively. The red bar shows the sample for relative weight equal to 0 (31% of observations), while the purple bar shows the sample for relative weight between 0 and less than the median 0.0275 (19 % of observations). The blue bars show the sample for relative weight between 0.03 and 1; this moderate investment group comprises 42% of observations. The green bars show the distribution for relative weight greater than 1; these very high investment levels make up 8% of observations. For illustrative purposes only, the figure shows the distribution with float-adjusted relative weight only up to 4. The tall green bar shows 2% of country pair observations exceed a relative investment weight of 4.

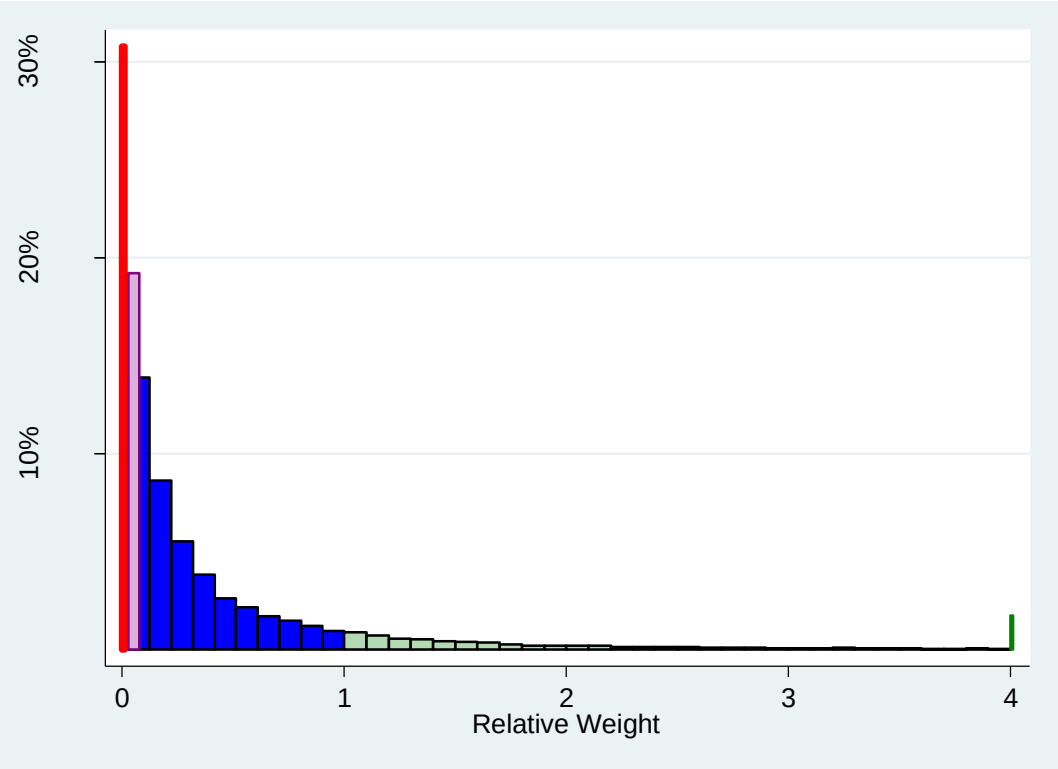


Figure 2. The Frequency of Relative Weight

The figure shows the cumulative frequency of float-adjusted relative weight using the full 46-by-47 matrix of holdings. For the full sample of 27,428 observations, mean and standard deviation of relative weight are 0.82 and 17.49. The red circle shows the sample for relative weight equal to 0 (8,444 observations), while the dotted red line shows the sample for relative weight between 0 and less than the median 0.0275 (5,269 observations); combined these two very low investment levels have 13,713 observations with mean and standard deviation of 0.003 and 0.006. The solid blue line shows the sample for relative weight between 0.03 and 1; this moderate investment group has 11,504 observations with mean and standard deviation of 0.283 and 0.240. The dashed green line shows the frequency for relative weight greater than 1; for these very high investment levels there are 2,211 observations with mean and standard deviation of 8.73 and 61.06. The figure shows the cumulative frequency with float-adjusted relative weight winsorized at the 99th percentile value of 7.53.

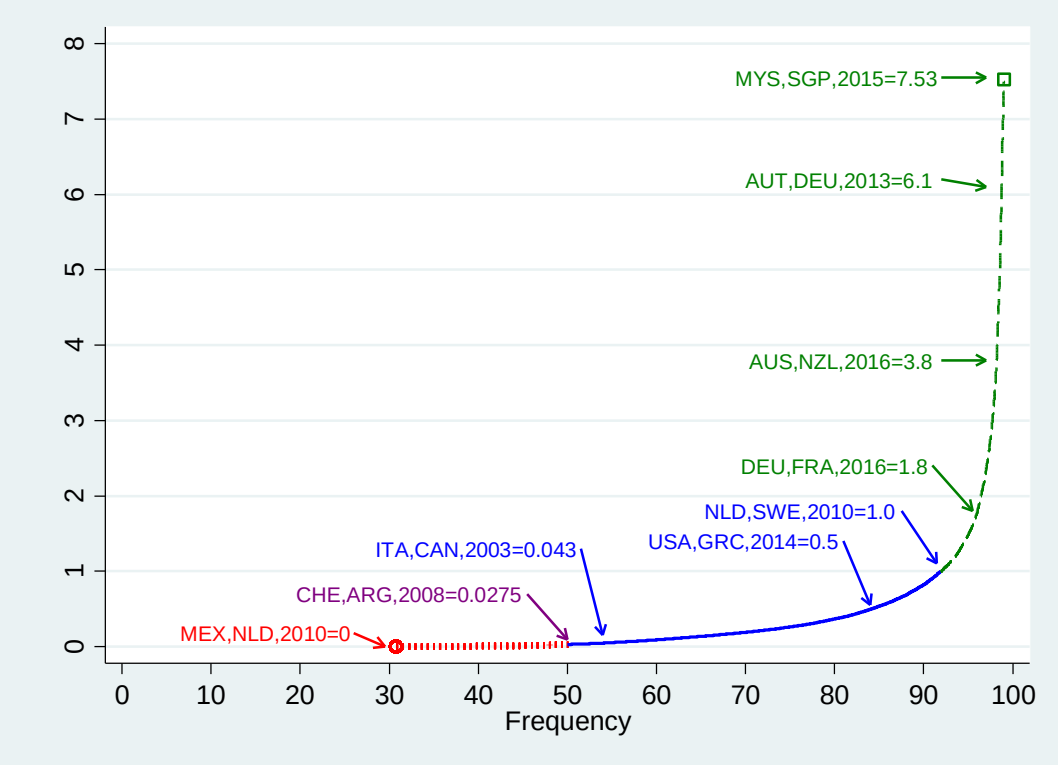


Figure 3. The Frequency of Linear Raw Deviation

The figure shows the cumulative frequency of float-adjusted linear raw deviation using the full 46-by-47 matrix of holdings. For the full sample of 27,428 observations, mean and standard deviation of linear raw deviation are - 0.017 and 0.064. The figure shows the cumulative frequency with float-adjusted raw linear deviation winsorized at 1st percentile value of -0.3979 and the 99th percentile value of 0.02975. The large black circles show corresponding relative weight of zero. The small red circles show corresponding "very low" relative investment weight between 0 and 0.0275. The small blue dots show corresponding "moderate" relative investment weight between 0.0275 and 1. The green line shows the frequency for very high relative weight greater than 1.

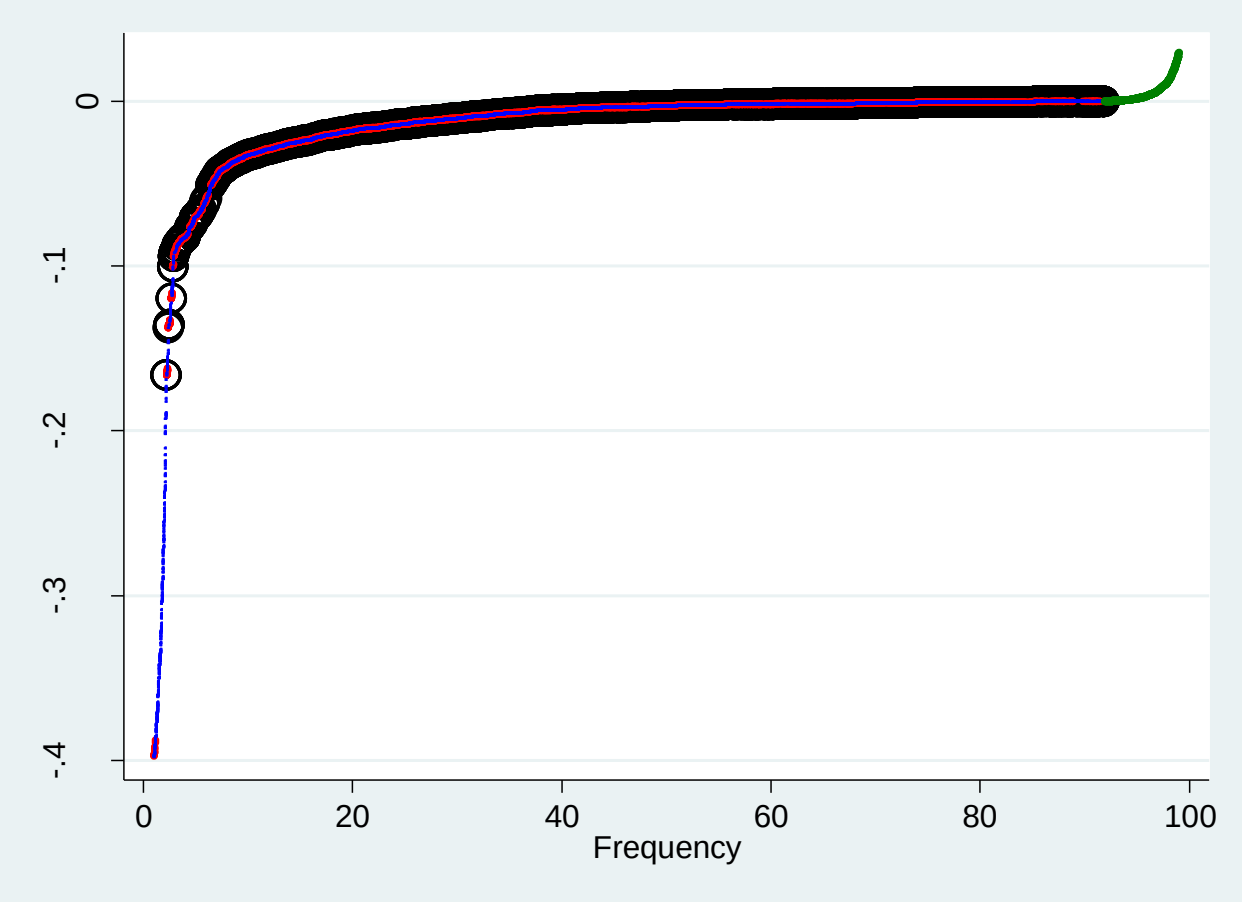
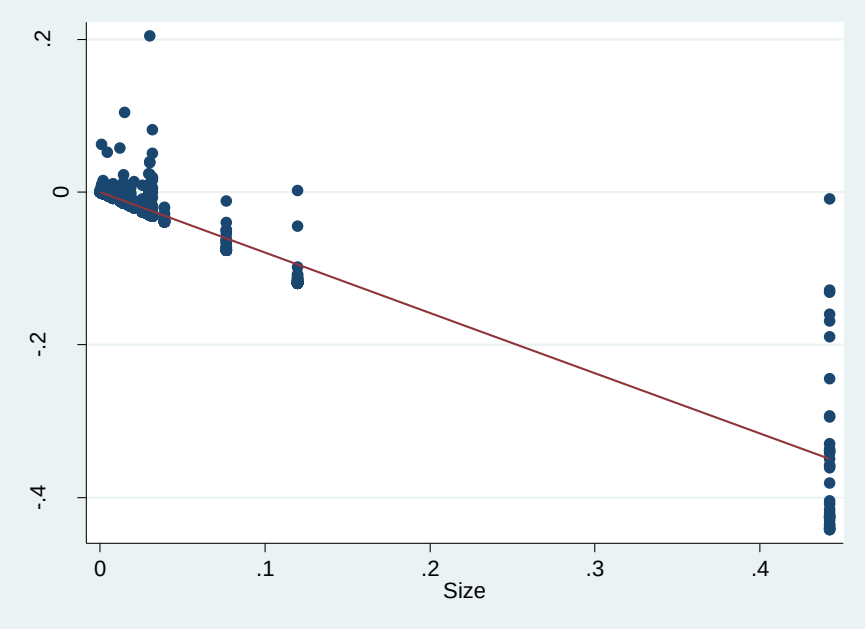


Figure 4. Country Size and Measures of Global Equity Investment

The figures show the relationship between float-adjusted country size (measured as share of the world float portfolio) and two measures of global equity investment in 2012. The first two graphs use size-biased measures of international investment. Panel A shows a float-adjusted linear raw *difference* measure of home bias. The graph in Panel B is the non-size-biased float-adjusted *ratio* relative investment weight.

Panel A. Linear Raw Deviation



Panel B. Relative Weight

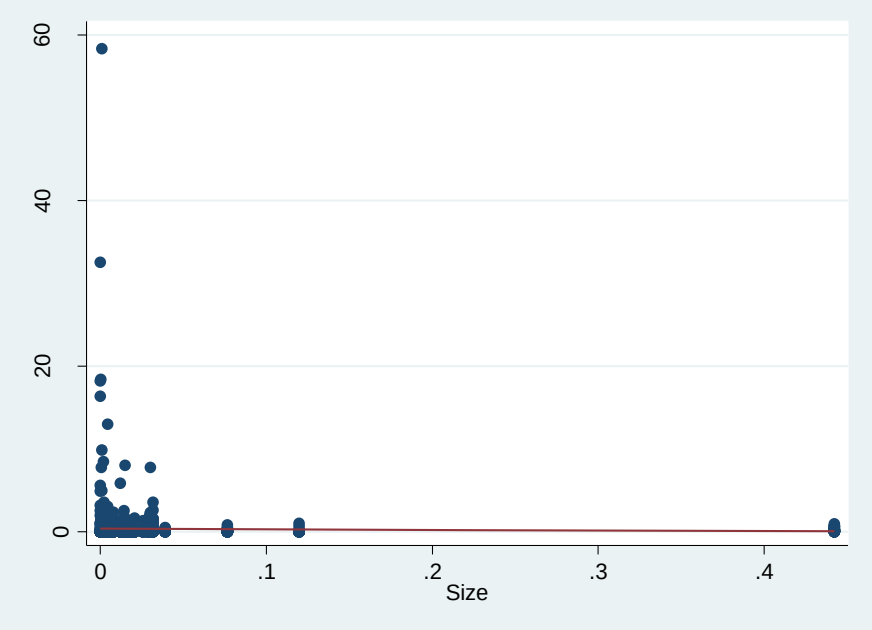


Figure 5. Determinants of Relative Investment Weight

The figure shows results from a regression of float-adjusted relative investment weight on proposed determinants. Each subplot shows coefficient estimates from a quantile regression and 95% confidence bounds for the 25, 30, 35, 40, 45, 50, 55, 60, 65, 70, 75, 80, 85, 90, 92, 95, and 98 quantiles. Confidence bounds with arrows extend beyond the figure range but are truncated for readability. Quantile coefficient estimates at the 50 and 92 quantile are shown in dark green. The solid horizontal line in each subplot shows the coefficient estimate from a full sample OLS regression, and the dashed line shows the associated 95% confidence bound. All standard errors are clustered at the investor-destination country pair. Panel A shows results for variables for information barriers. Panel B shows results for the proxy variables for familiarity barriers. Panel C shows results for hedging motives. Panel D shows results for transaction cost variables. Panel E shows results for governance determinants.

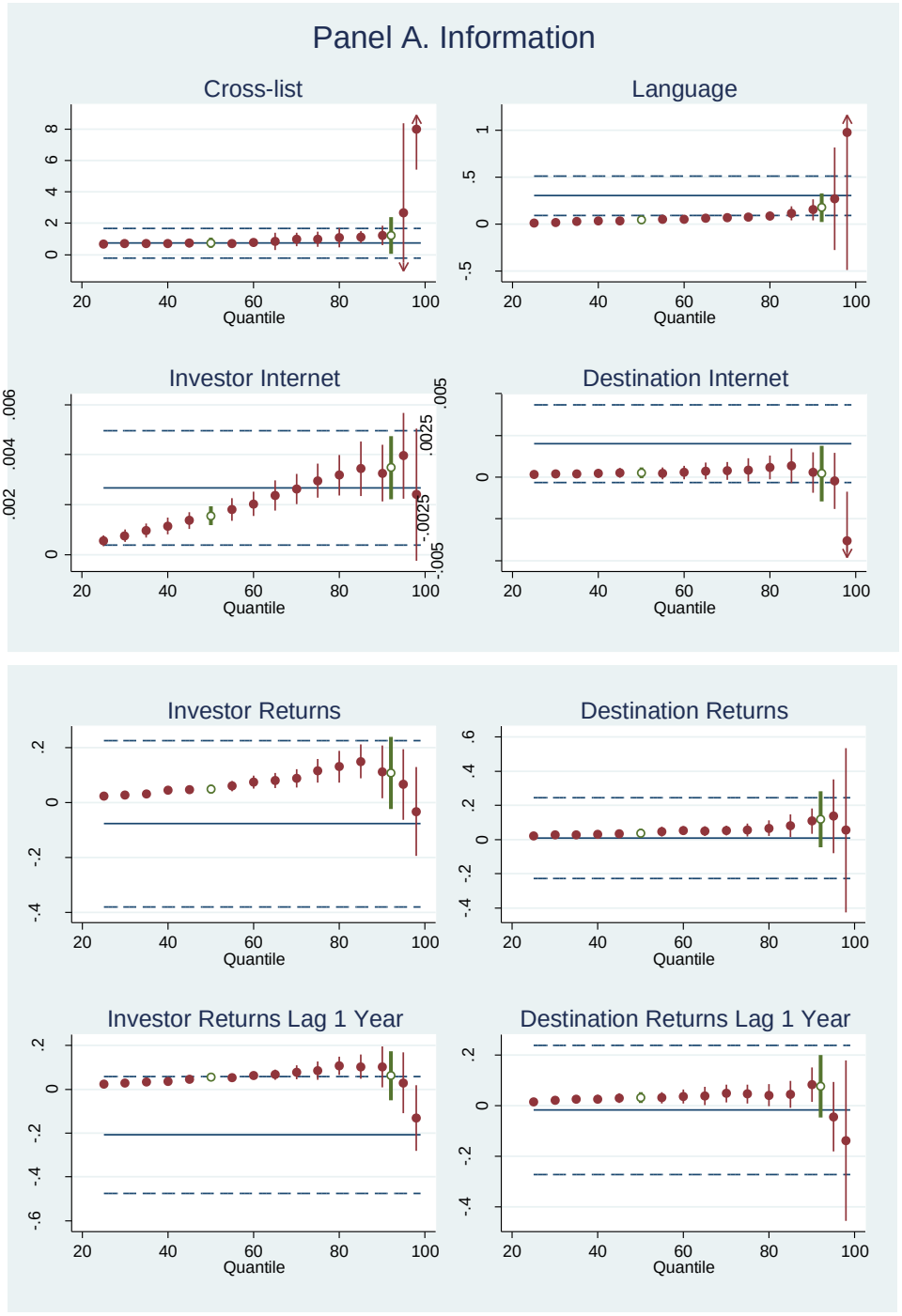


Figure 5 (continued)

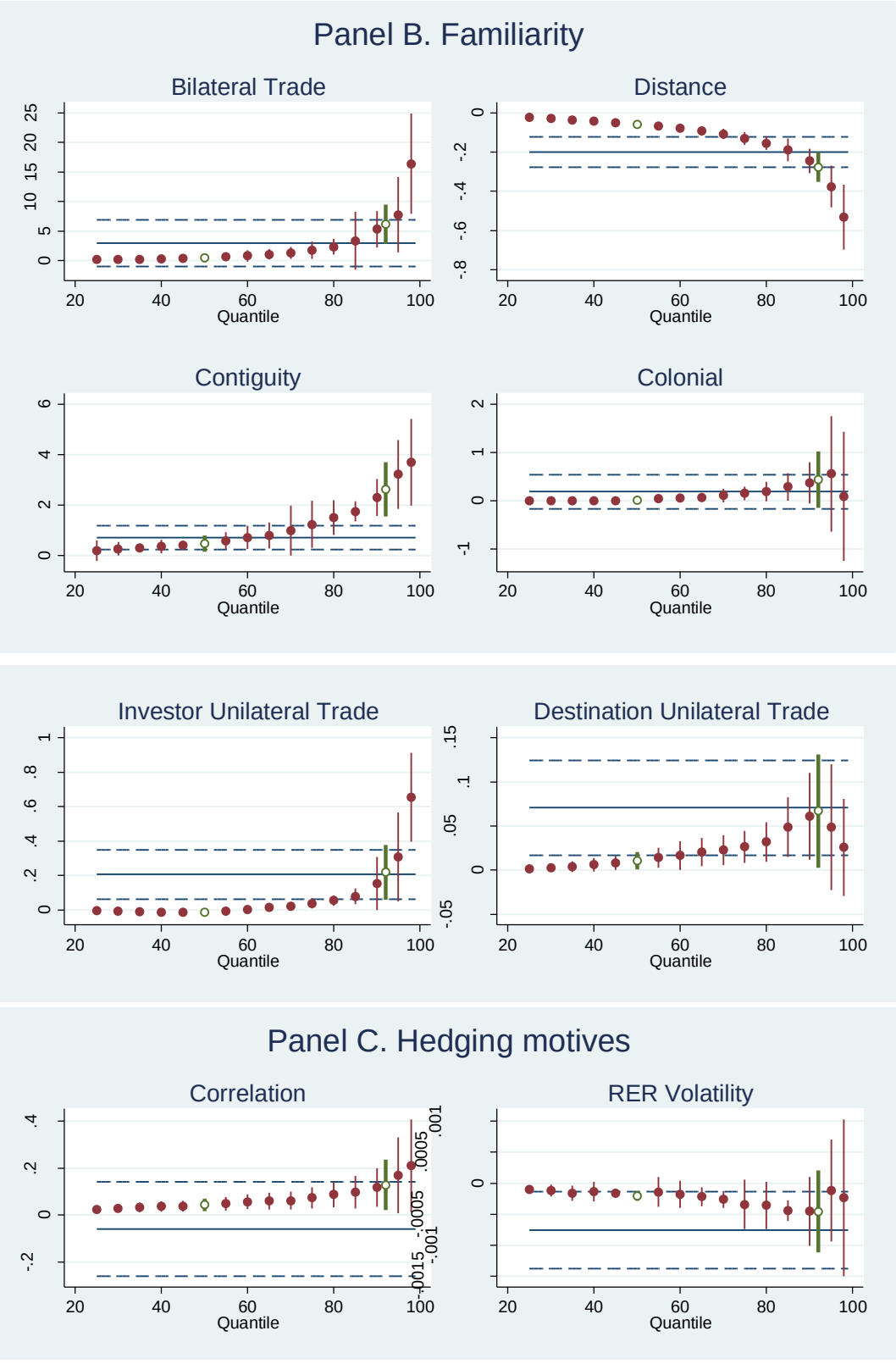


Figure 5 (continued)

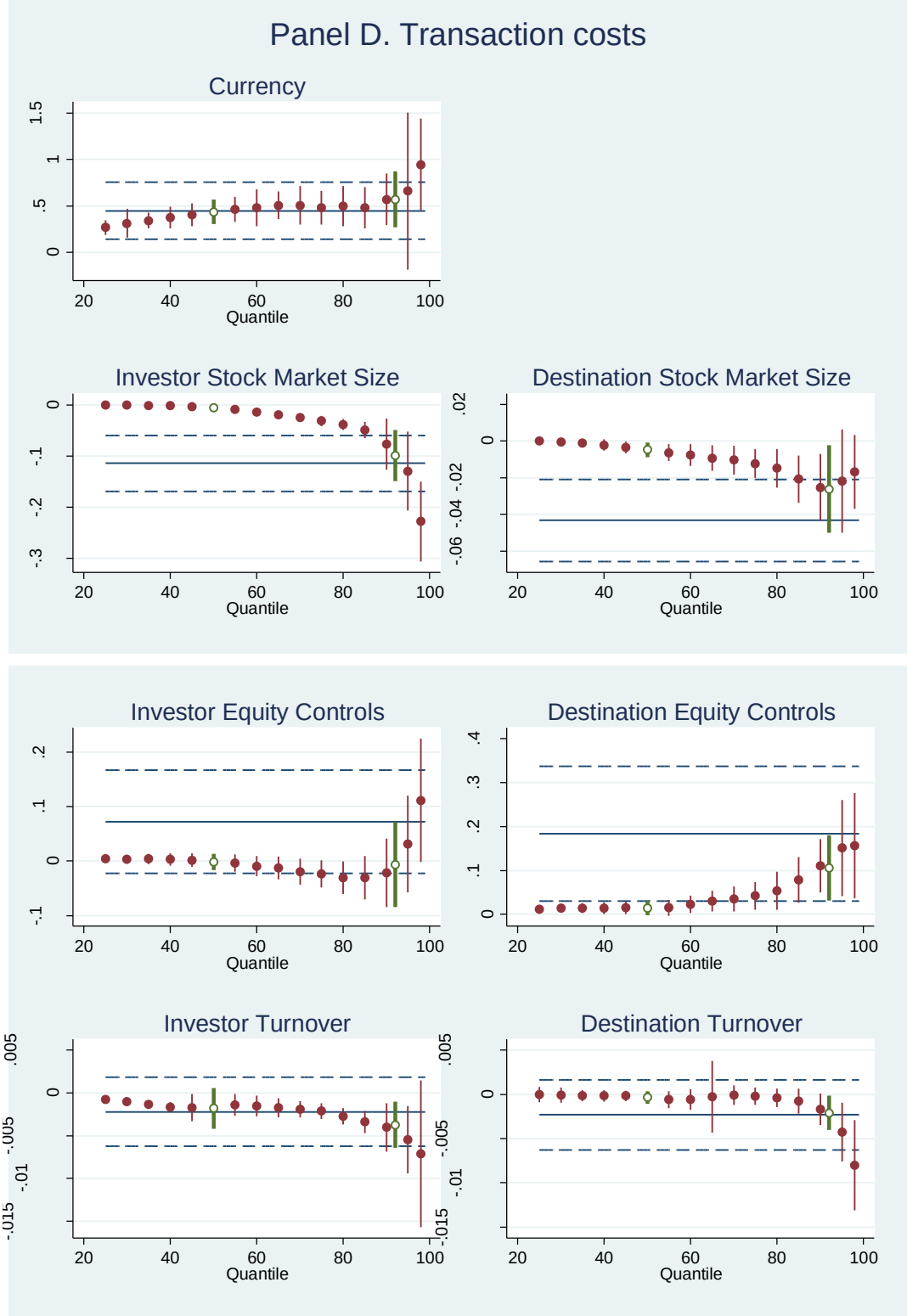


Figure 5 (continued)