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The Nature of the Foreign Listing Premium: A Cross-Country Examination*

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Abstract

An expanding literature asserts that non-U.S. firms achieve a valuation premium for listing on U.S. equity markets. In this paper we examine the foreign listing premium across a global sample of exchange-listed foreign listings with particular emphasis on the top ten home markets and top ten host markets for foreign listings. We highlight that the documented valuation premium for listing on U.S. exchanges is not unique but common to many home and host markets including U.S. firms that list abroad. The cross-sectional variation in the valuation premium appears to have little association with any unique institutional features of the market; rather the premium is related to variation in pre-listing valuation ratios.

JEL classification: G15; G32

Keywords: Cross listings; Firm valuation; Rule of law; Stock exchanges; Tobin's Q

1. Introduction

A large literature documents a substantive and sustained valuation premium for non-U.S. firms that list their equity on U.S. exchanges over peer firms that do not.¹ A prevailing explanation for the U.S. foreign listing premium is that investors pay more for firms that commit to improvements in investor protection and information dissemination by adopting the more stringent legal, monitoring, and accounting standards, associated with U.S. financial markets (see Coffee, 1999, 2002; Stulz, 1999; Doidge, Karolyi, and Stulz, 2004, 2009; Doidge, 2004; Reese and Weisbach, 2004; Benos and Weisbach, 2004; Dyck and Zingales, 2004; Doidge, et al., 2009; Hail and Leuz, 2009).² This explanation, known as the bonding theory, predicts that because of the superior institutional features of the U.S. market, listings in the United States should be associated with the largest valuation effects. As characterized by Licht, Li, and Siegel (2011), “...it is a truth universally acknowledged that a foreign firm in possession of a good fortune must be in want of a U.S. listing.”

In this paper, we examine the foreign listing premium across a wide cross-section of home and host markets. Our sample of foreign listings consists of 2,838 listings from 69 home markets that list their shares on 32 foreign stock exchanges over a period of 22 years from 1985 to 2006.³ We particularly focus on comparing the foreign listing premium of firms from the top ten home markets in as well as to the top ten host markets in our sample. The ten largest suppliers

¹ See Sundaram and Logue (1996), Doidge, Karolyi, and Stulz (2004, 2009), Lang, Lins, and Miller (2003), Doidge (2004), King and Mittoo (2007), Doidge, et al. (2009), Litvak (2007, 2008), and Duarte, et al. (2009).

² Other motives for listings in the United States include better access to customers and suppliers (Saudagaran, 1988; Mittoo, 1992; Pagano, Roell, and Zechner; 2002), risk sharing across segmented markets (Black, 1974; Solnik, 1974; Stulz, 1981; Errunza and Losq, 1985; Alexander, Eun, and Janakiramanan, 1988; Foerster and Karolyi, 1998, 1999), committing insiders to better information disclosure (Cantale, 1996; Fuerst, 1998; Moel, 1999; Huddart, Hughes, and Brunnermeier, 1999; Goto, Watanabe, and Xu, 2009), promoting product visibility and reputation (Bancel and Mittoo, 2001; Pagano, Roell, and Zechner, 2002), improving security marketability to pools of investors (Foerster and Karolyi, 1999; Baker, Nofsinger, and Weaver, 2002; Bailey, Karolyi, and Salva, 2005, Fernandes and Ferreira, 2008), reducing trading costs of foreign shareholders (Sarkissian and Schill, 2004), achieving better liquidity (Tinic and West, 1974; Domowitz, Glen, and Madhavan, 1998; Werner and Kleidon, 1996; Foerster and Karolyi, 1998), and facilitating opportunistic financing and cross-border acquisitions (Gangon and Karolyi, 2009). Except for the better access to customers and suppliers explanation, none of these motives predict a sustained value premium.

³ We use the words “foreign listing,” “overseas listing,” “cross listing,” and “cross-border listing” interchangeably, although, technically speaking, a foreign listing may not necessarily constitute a cross-listing if it is traded only in the foreign market.

(home markets) of listings in our sample are Canada (483 listings), the United States (288), the United Kingdom (239), Australia (163), India (162), Japan (142), Israel (137), Netherlands (120), France (97), and Germany (93). For receiving foreign listings, the top ten host markets are the United States (1198 listings), the United Kingdom (315), Luxembourg (251), Germany (183), France (104), New Zealand (91), Canada (89), Switzerland (87), and Netherlands (71).

Across this broad sample, we observe a foreign listing premium in Tobin's Q ratio for many subsamples, not just those on U.S. exchanges. Although we find, as other researchers do, that foreign listing on U.S. exchanges is associated with a substantial premium (a point estimate of Q premium of 0.25), we find that an average foreign listing premium is common to other exchanges, including listings in France, Japan, and Switzerland. The magnitude of this premium across the three mentioned markets is again similar to that in the United States, ranging between 0.20 and 0.30. Our global comparison indicates that the value premium associated with a U.S. listing is hardly a unique phenomenon.

We are also interested in the premium experienced by U.S. firms that list abroad.⁴ Because of the unique features attributed to listing on U.S. exchanges, we are struck by our empirical observation that U.S. firms that list on non-U.S. exchanges experience a statistically equivalent foreign listing premium as do non-U.S. firms that list on U.S. exchanges. Further investigation of the foreign listing premium for U.S. firms reveals that it is remarkably persistent across time periods and host markets, and that the premium achieved by U.S. firms abroad is in fact larger than the foreign listing premium of Japanese, Indian, and Israeli firms traded abroad. We observe that firms from several other countries all show positive and significant foreign listing premiums, including British, Canadian, German, and Japanese firms, with Canadian and German firms exhibiting premium estimates identical to that of U.S. firms listed abroad (Q premium around 0.40).

⁴ Previous studies of U.S. firms that list abroad focused primarily on announcement effects (see, Howe and Kelm, 1987; Lee, 1987; Torabzadeh, Bertin, and Zivney, 1992). Lau, Diltz, and Apilado (1994) observe that U.S. firms listing on the Tokyo and Basle exchanges are associated with poor long-run returns.

We investigate whether the legal environment of home and host markets explains the cross-sectional variation in foreign listing valuation effects and find that the foreign listing premium appears to have little positive correlation with standard measures of country-level investor protection rules. Our tests suggest that foreign firms cross-listed in countries with better legal standards achieve similar or slightly lower valuation gains than those that list in countries with weaker rule of law. These results hold irrespective of the legal protection proxy.

To explain the valuation premium we note, however, that foreign listings are conducted by firms that already maintain high valuation ratios several years prior to the listing event. In tests that control for the level of pre-listing valuations, we find that the pre-listing Q largely explains the cross-sectional variation in post-listing valuation premium. To account for this observation, we augment all our earlier tests with an additional firm-level control – the firm’s Q ratio two years prior to the foreign listing event. This addition drastically changes most of our earlier findings. Accounting for the pre-listing valuation, we find that U.S. firms that are listed abroad no longer command a positive valuation premium over the whole sample or sub-periods relative to those that are listed only on U.S. domestic exchanges. Across other markets the changes are also substantive with the observed foreign listing premium disappearing for almost all markets.⁵ For example, foreign listings from Japan and the United Kingdom that showed great post-listing benefits in earlier tests now are associated with a significant foreign listing discount relative to domestic-only listed companies. The list of host markets with a significant foreign listing discount includes non-U.S. firms listed on U.S. exchanges. As discussed by Gozzi, Levine, and Schmukler (2008), although some of the foreign listing premium should dissipate as constrained growth opportunities are realized, a portion of the premium must be sustained as long as the institutional benefits espoused by the bonding explanation are affecting foreign-listed firms.

⁵ In all our tests, the only sample sub-group that sustains a foreign listing premium is Australian firms listing in New Zealand.

This paper contributes to the literature on foreign listings by further examining the valuation effects of a global sample of firms that choose to list on an equity exchange that is not located in their home country. Our results provide an interesting twist on the question posed by Doidge Karolyi, and Stulz (hereafter DKS, 2004) in the title of their paper “Why are foreign firms listed in the U.S. worth more?” Our observation that a foreign listing premium is not unique to U.S. listings motivates a broader explanation than that provided by the bonding theory. This may be due to a systematic tendency for firms with large growth opportunities to choose to list abroad. Alternatively such effects could be motivated by managers acquiring opportunistic financing or managerial perquisites. Moreover, our finding that the pre-listing valuations explain variations in the foreign listing premium builds on work by Mittoo (2003), Gozzi, Levine, and Schmukler (2008), Sarkissian and Schill (2009), and King and Segal (2009) that documents the transitory nature of the foreign listing premium.

The rest of the paper is organized as follows. Section 2 presents that data sample. It describes the sample of U.S. and non non-U.S. firms with listings in foreign markets as well reports the summary statistics of firm level data. In Section 3, we perform the tests on valuation effects of U.S. firms listed abroad and compare the results with those for listings from other countries in a variety of host markets. In these estimations, we use a widely accepted modeling framework with no firm valuation control before the listing event. Section 4 repeats the earlier tests from Section 3 but controls for firm valuation prior to the listing. In this section, we also conduct a detailed estimation of the valuation premium around the listing event across various markets. Section 5 concludes.

2. The Data Sample

2.1. The sample of foreign listings

Our sample of foreign listings is comprised of 2,838 listings on foreign stock exchanges between 1985 and 2006. We select formal exchange listings only as this listing venue has been

shown previously to maintain the largest valuation effect for foreign listings. The sample period is constrained back in time by the availability of market and accounting data on *Worldscope*. This restriction is motivated by the fact that we perform many tests, for comparison purposes, using foreign listing data of firms outside the U.S. despite that the U.S. firm data comes from *Compustat* which maintains a much larger historical panel of data.

The sample of foreign listings is constructed based on three surveys of world stock exchanges completed by the authors at the end of 1998, 2003, and 2006. Surveys were completed of all country exchanges indicated as having foreign listings by the World Federation of Exchanges except for corporate tax haven markets, such as the Cayman Islands, Bermuda, Jersey, and exchanges outside main boards of country stock exchanges. In each survey we asked the exchange research department for a summary of all foreign companies, excluding investment funds and trusts, listed on their exchange. In the 2003 and 2006 surveys we also asked for a history of all previous foreign companies that had since delisted their shares. For some exchanges (e.g., Tokyo) the requested data was available through the exchange website. Listings of foreign shares were received for all exchanges, although there was variation in the quality of the lists of delisted shares. In some cases full delisted share histories were received in other cases the lists were only partial (e.g., delists over the past 10 years) or unavailable.⁶ For the U.S. firms, approximately one-third of the sample listings had subsequently been delisted prior to 2006. Of those listings of the U.S. sample, where we could obtain explanations for the delisting, roughly half delisted because of a merger and half delisted as a voluntary delisting. Few of the firms were forced off by failing to meet the exchange listing requirements. These proportions are roughly in line with those reported by DKS (2009). It is worth noting that if survivorship bias influences the inference of our tests, the appropriate explanation for the valuation effect must have more to do with the events associated with delisting (such as merger gains) than with such explanations as legal bonding.

⁶ For outside the U.S., the incomplete delisted history was complemented with ADR delist codes from CRSP following the procedure of Chaplinsky and Ramchand (2008). The CRSP sample added a total of 202 listings to the final sample.

In Table 1, we provide the distribution of foreign listing between all pairs of home and host markets. The table also reports the total number of listings from each home country and in each host market. The ten largest suppliers of listings are Canada (483 listings), the U.S. (288), the U.K. (239), Australia (163), India (162), Japan (142), Israel (137), Netherlands (120), France (97), and Germany (93). We note that almost 90% of Canadian listings are placed on U.S. exchanges and about 75% of Indian listings are placed in Luxembourg. The U.S. and U.K. are the most active host markets, with 1198 and 315 listings, respectively. They are followed by Luxembourg (251 listings), Germany (183), France (104), New Zealand (91), Canada (89), Switzerland (87), and Netherlands (71). The data is consistent with strong bilateral home-host market pairs, such as that of Canada to the US (434 cross lists), India to Luxembourg (121), and Australia to New Zealand (87).

Table 2 provides the distribution of 288 foreign listings of U.S. firms across the 17 host markets that occurred in the 1985 to 2006 period. The most common markets are Japan (68 listings), Canada (56), Germany (43), and United Kingdom (33). The table also reports the number of listings for each of four time periods: 1985-1990 (134), 1991-1995 (42), 1996-2000 (60), and 2001-2006 (52). There is some evidence of waves in foreign listing as in Schill and Sarkissian (2008) and Fernandes and Giannetti (2008) with Japan dominating the early sample period, Germany dominating the middle period, and Canada dominating the later period. The final column of the table shows the actual number of listings based on firm data availability. When we impose the availability of valuation data the overall number of foreign listings drops to 244, but the relative importance of the top listing markets remains almost unchanged from the raw data in the preceding column (only Germany climbs to the second place replacing Canada).

2.2. Firm characteristics of U.S. and non-U.S. firms

The firm valuation ratios and characteristic controls are from *Compustat* and *Worldscope*. To construct our valuation measure, Tobin's Q, for each firm, we follow the established practice in the literature. Specifically, we define Q as follows:

$$Q = \frac{\text{Total Asset Value} - \text{Book Value of Equity} + \text{Market Value of Equity}}{\text{Total Asset Value}}. \quad (1)$$

The advantage of using Tobin's Q is that it captures the value of firms' intangible assets, and it is a forward looking risk-adjusted measure. The last point is particularly useful in international markets, since risk adjustment of stock returns in a global setting may rely on various asset pricing models.

We construct control variables following DKS (2009). The first is a firm-specific sales growth measure, Sales Growth, defined as the inflation-adjusted two-year geometric average net sales growth. For each country, inflation is computed from local CPI changes using the International Monetary Fund estimates. To reduce the impact of outliers on our test results we winsorize the sales growth at the 1% level on both tails. The second control variable is a firm size variable, Log(Sales), defined as the natural logarithm of a firm's net sales. The third variable, Industry Q, is the median global industry Q to capture the expected growth opportunities of each industry across all countries in our sample.

Table 3 shows firm-level summary statistics for the sample of U.S. (Panel A) and non-U.S. firms (Panel B) that list abroad and those that do not for both the whole sample period and two equal eleven year sub-periods of 1985 to 1995 and 1996 to 2006. The sample of U.S. firms has 86,786 firm-year observations, out of which 2,789 belong to foreign listing occurrences. We observe that the median Tobin's Q of listed U.S. firms is higher than non-listed ones (1.50 for the foreign-listed firms versus 1.33 for the non-foreign listed firms). This difference may be masked by the differences in size (foreign listings are larger) and growth rate (foreign listings are slower growing) for the two samples such that it will be important to control for these characteristics in a regression framework.

The sample of non-U.S. firms has 141,178 firm-year observations, out of which 13,168 belong to firms with overseas listings. Again, we observe that the Tobin's Q of listed firms is

higher than non-listed, and that listed firms have higher sales volume. However, the Q ratio of both foreign listed and non-listed non-U.S. firms is substantially smaller than that of U.S. firms in Panel A. The observed relations generally hold in both sub-samples with overall valuation levels as well as the difference in valuation ratios between foreign-listed and non-foreign-listed firms rising in the second sub-period.

3. The Valuation Effects of Foreign Listing

3.1. The Valuation Effect of Foreign-Listed U.S. firms

We begin with a baseline analysis of the valuation benefits of foreign listing for the U.S. sample of firms using the Tobin's Q measure as suggested in earlier studies (e.g., DKS, 2004, 2009). The base regression model is specified as follows:

$$Q_{j,t} = \alpha_i + \delta FLIST_j + \gamma_1 Sales\ Growth_{j,t} + \gamma_2 Log(Sales)_{j,t} + \gamma_3 Industry\ Q_i + \gamma_4 Year\ Effects_t + \varepsilon_{j,t}, \quad (2)$$

where $Q_{j,t}$ is the Tobin's Q of firm j in industry i in year t of the listing firm, and $FLIST_j$ denotes an indicator variable that is equal to 1 if the year is greater than or equal to the foreign listing year of the firm. If a firm is listed on multiple foreign markets, the FLIST variable maintains a value of 1 following the first foreign listing. Since some U.S. firms established foreign listings prior to the beginning of the sample period, the FLIST value for these firms is equal to 1 throughout the sample period. In all regression specifications, we also account for calendar year effects, and cluster errors by firm.

To examine the effects on U.S. firms from listing in different calendar periods, we also consider a specification where FLIST is replaced with interaction variables standing for specific time periods namely:

$$Q_{j,t} = \alpha_i + \delta_Y FLIST_j \times D(LY = Y) + \gamma_1 Sales\ Growth_{j,t} + \gamma_2 Log(Sales)_{j,t} + \gamma_3 Industry\ Q_i + \gamma_4 Year\ Effects_t + \varepsilon_{j,t}, \quad (3)$$

where $D(LY = Y)$ is a dummy that takes the value of one for specific listing years, and we consider four sub-periods: 1985-1990, 1991-1995, 1996-2000, and 2001-2006. In a similar vein, to examine the effects on U.S. firms from listing on individual host markets, we also consider a specification where $FLIST$ is replaced with interaction variables standing for particular markets, namely:

$$Q_{j,t} = \alpha_i + \delta_X FLIST_j \times D(Host = X) + \gamma_1 Sales\ Growth_{j,t} + \gamma_2 Log(Sales)_{j,t} + \gamma_3 Industry\ Q_i + \gamma_4 Year\ Effects_t + \varepsilon_{j,t}, \quad (4)$$

where $D(Host = X)$ is a dummy that takes the value of one for a specific host market, and we consider the top three U.S. host markets: Japan, Canada, Germany, and all other host markets combined.

Table 4 reports the results of our pooled panel regression. We report the coefficient estimates, the t-statistics of the coefficients, the regression R-squares, and the total number of firm-year observations. Regression 1 reports the base result using equation (2). The coefficient on $FLIST$ is positive (0.367) and highly significant (t-stat = 5.44) suggesting that U.S. firms that choose to list in foreign markets are associated with relatively high valuations. The magnitude of the foreign listing premium associated with U.S. firms is impressive given the nature of the common assumption in the literature that U.S. exchanges already provide superior trading and valuation attributes. One wonders on what basis investors bid up the value of equity for U.S. firms that also list in Germany or Japan.

In the next two columns of the table, we find that foreign listing valuation premium for U.S. firms is a rather consistent phenomenon. For example, in Regression 2, we split our 22-year sample period into four sub-periods and observe that listing premium is positive and significant

in every sub-period. Similarly, in Regression 3, which examines the benefits of various foreign markets for U.S. firms, we find that foreign listing gains do not concentrate in one market only but occur in Japan, Germany, and the rest of host markets excluding Canada. Moreover, in the last two columns of the table we estimate host market estimation premium over the first and second eleven-year periods of our sample, but again arrive generally to the same conclusion. Germany, Japan, and other markets outside Canada all provide positive and economically and/or statistically significant listing premium for U.S. firms in both time periods. Across all tests, it is not surprising to see positive and significant coefficients on sales growth and global industry valuation controls. Negative loading on log sales volume is also observed in DKS (2009).

3.2. The Valuation Effect across the Top Ten Home and Host Markets

Having observed substantial premium for U.S. firms listed abroad, which is comparable to that of foreign firms listed in the U.S. known from previous studies, we now examine if this pattern is shared by foreign listings originated from and placed in other countries. First, we compare the performance of firms with presence on overseas exchanges from the top ten home markets identified in Section 2.1. In this setting, we add an interactive variable to equation (2) for each the top ten home markets, namely:

$$Q_{j,t} = \alpha_i + \delta FLIST_j + \delta_X FLIST_j \times D(Home = X) + \gamma_1 Sales\ Growth_{j,t} + \gamma_2 Log(Sales)_{j,t} + \gamma_3 Industry\ Q_i + \gamma_4 Year\ Effects_t + \varepsilon_{j,t} \quad (5)$$

Table 5 shows the foreign listing premium test results for the top ten home markets. As before, it reports the coefficient estimates, their t-statistics, the regression R-squares, and the total number of firm-year observations. Panel A shows the valuation premium for each individual home market based on equation (2). The test results in column 2 for U.S. firms listed abroad are the same as in column 1 of Table 4, but we report them here for the ease of comparison with other markets. Note that besides cross-listed U.S. firms, firms from such countries as Canada, the

United Kingdom, Japan, and Germany all show positive and significant foreign listing premium relative to their counterparts listed only in corresponding domestic exchanges. Remarkably, the magnitude of the foreign listing premium is similar across U.S., Canadian, and German firms (close to 0.40). It appears that Indian firms that list abroad are associated with systematically lower valuation ratios than those that do not.

Panel B of Table 5 shows test results for the whole data panel using equation (5). Therefore, we add country fixed effects in all regressions. Regression (1) reports the average post-listing premium across all markets. It is highly significant with an annual magnitude of 0.17. Regression (2) adds the U.S. home market dummy. We observe that foreign-listed U.S. firms experience valuation premium significantly larger than those from other markets. The valuation premium for non-U.S. firms is 0.14. However, when we consider all top ten home markets in Regression (3), we again find that positive and significant valuation premium associated with U.S. firms listed abroad is not unique: Listings from Canada and the United Kingdom also achieve positive and significant post-listing valuations. In Regression (4), we slightly change the design of our experiment by dropping the U.S. home coefficient such that we can directly compare listing gains across all home markets with those of the United States. Note now that gains from overseas listing from the majority of home markets are statistically indistinguishable from those from the United States. Only firms from India, Japan, Israel, and some smaller markets outside the top ten reach significantly negative valuation ratios after the overseas placement relative to U.S. firms that list abroad. Table 5 establishes that the valuation behavior of U.S. firms listed abroad is shared among firms from many markets.

Next, we compare the performance of firms with foreign listings across the top ten host markets as identified in Section 2.1. Table 6 shows the foreign listing premium test results for the above ten host markets. Again, it provides the coefficient estimates with their t-statistics, the regression R-square values, and the total number of firm-year observations. Panel A reports the valuation premium for each individual host market based on equation (2). Similar to other researchers, we observe a positive and significant premium associated with foreign listing on

U.S. exchanges. The magnitude of this premium is 0.25, and it is comparable to that reported in other studies. We also observe positive and significant listing premium in such diverse countries in terms of their economic and institutional environment as Japan, France, and Switzerland, with magnitude being very close or even exceeding (as in the case of Switzerland) the value premium in the United States. The only host market associated with negative valuation effects to foreign firms is Luxembourg.⁷

Panel B of Table 6 shows test results for the whole data panel. To explore this setting, we add an interactive variable to equation (2) for each of the top ten host markets, as well as country fixed effects, namely:

$$Q_{j,t} = \alpha_i + \delta FLIST_j + \delta_X FLIST_j \times D(Host = X) + \gamma_1 Sales Growth_{j,t} + \gamma_2 Log(Sales)_{j,t} + \gamma_3 Industry Q_i + \gamma_4 Year Effects_t + \gamma_5 Country Effects_t + \varepsilon_{j,t} \quad (6)$$

Regression (1) is the same as Regression (1) of Table 5 reporting the average post-listing premium across all markets. Regression (2) adds the U.S. host market dummy. As one could expect, we find that firms with foreign listings in the United States experience significantly larger valuation premium than those in other host markets. However, when we consider all top ten host markets in Regression (3), the value premium associated with listing on U.S. exchanges is no longer significantly different from that on exchanges outside the top ten host country group. Curiously, listings in Luxembourg show a significantly worse valuation than firms placed outside the top ten host markets. Therefore, we conclude that a positive and significant valuation premium associated with foreign firms listed in the United States is not unique. This conclusion is more directly supported using the format of Regression (4), where value premiums across various host markets are computed in their relation to that in the United States. In this setting, the

⁷ This result is consistent with India being the only home market with significantly negative foreign listing valuation since the majority of Indian firms are placed in Luxembourg (see Table 2).

only countries with significantly worse valuation impact on foreign firms than the United States are the United Kingdom, Luxembourg, and New Zealand (marginally).⁸

Lastly, we want to compare directly the value premium associated with U.S. firms listed abroad to that of non-U.S. firms that list in the United States. To perform this direct test, we put home market and host market indicators together and estimate the following specification

$$\begin{aligned}
Q_{j,t} = & \alpha_i + \delta FLIST_j + \delta_{US} FLIST_j \times D(Host = US) + \delta_N FLIST_j \times D(Home, Host \neq US) + \\
& + \gamma_1 Sales Growth_{j,t} + \gamma_2 Log(Sales)_{j,t} + \hspace{10em} , \quad (7) \\
& + \gamma_3 Industry Q_i + \gamma_4 Year Effects_t + \gamma_5 Country Effects_t + \varepsilon_{j,t}
\end{aligned}$$

where $D(Home, Host \neq US)$ is a dummy variable that indicates those foreign-listed firms that are neither U.S. firms nor listed on U.S. exchanges.

Table 7 shows the test results with the usual information provided. Over the whole sample period in Regression (1) we find that the estimate for the FLIST variable is significant with a value of 0.31 per annum. Although the coefficient on the non-U.S. variable is negative and significant the value on the U.S. host variable is small (0.05) and insignificantly different from zero. This result implies that our test is not able to reject that the value premium associates with U.S. firms that list abroad is no different from the listing premium experienced by non-U.S. firms that list in the United States. This finding, which is consistently observed also in the sub-periods estimations in Regressions (2) and (3), provides a fundamental result for this paper that warrants further inquiry.

3.3. The Valuation Impact of the “Rule of Law”

⁸ We may not preclude an observation of a careful reader that while the value premium of foreign listing in many markets is insignificantly different from that in the United States, it is negative and its statistical non-significance arises only because of relatively smaller size of listing data in those markets. While the sample size plays a role in this outcome, note that the economic magnitude of listings in Japan, France, and Switzerland is still comparable to that in the United States.

Many studies advocate the importance of good legal investor protection and overall financial market development for firm valuation.⁹ To test this claim on our data we use two investor protection proxies (the anti-self dealing index and an alternative anti-director index) from Djankov, et al. (2007). We focus on the impact on foreign listing valuation of the two “Rule of Law” variables in Table 8. It reports the regression test results (number of observations, point estimates, corresponding t-statistics, and R-square values) of valuation changes around foreign listings for the sub-samples of listings that are placed in better and worse “Rule of Law” countries. The first three columns show the results with anti-self-dealing index, while the last three – with anti-director index. A host country has a better “Rule of Law” with a dummy variable that takes the value of one if its anti-self-dealing index or anti-director index is higher than that of the home country. The estimation results are shown for three data splits: U.S. firms listed abroad, foreign firms listed in the U.S., and foreign firms listed outside the U.S. (denoted as N/US). As in previous tables, we control for country effects when we deal with multiple home markets.

We observe in column 1 of Table 8 that U.S. firms do not benefit from being listed in countries with better investor protection. Surprisingly, the largest valuation premium is associated with U.S. firms listed in countries with weaker shareholder protection rules. This outcome is generally supported in column 4 by the alternative “Rule of Law” proxy - director index. When we look at listings of foreign firms in the United States (columns 2 and 5), we find similar results – on average firms achieve no valuation benefits from being listed in countries with better investment and financial environment. Finally, consistent with the findings of Gozzi et al. (2008) and Sarkissian and Schill (2009), there is no premium associated with non-U.S. listings placed outside the United States in better or worse “Rule of Law” countries. Thus, Table

⁹ For instance, see Rajan and Zingales (1998), Levine and Zervos (1998), Benos and Weisbach (2004), Coffee (1999, 2002), La Porta, et al. (1997, 1998), Reese and Weisbach (2002), Lang, Lins, and Miller (2003), Doidge (2004), Lins, Strickland, and Zenner (2005), Doidge, Karolyi, and Stulz (2004, 2007, 2008) for legal protection and financial market development arguments. There are some studies, however, that question the effectiveness of cross-listing on investor protection. For instance, Siegel (2004) and Gozzi, Levine, and Schmukler (2007) find that this impact is quite limited.

7 provides no evidence to suggest that listing in countries with better investment climate enhances the valuation gains of foreign listed firms.

4. Revisiting the Valuation Effects of Foreign Listing

4.1. A Detailed Event Window Examination

We begin this section by performing a detailed valuation event study around the foreign listing event. To do this, we alter the foreign listing dummy variable to estimate the incremental Tobin's Q ratio across a large multiyear window around the listing year. We split the listing dummy to eleven cross-listing indicators that correspond to the years before and years after the listing. The resulting regression model is as follows:

$$\begin{aligned}
 Q_{j,t} = & \alpha_i + \delta_\tau \sum_{\tau=-5}^{+5} FLIST(\tau)_j + \\
 & + \gamma_1 Sales\ Growth_{j,t} + \gamma_2 Log(Sales)_{j,t} + \gamma_3 Industry\ Q_k + , \\
 & + \gamma_4 Year\ Effects_t + \gamma_5 Country\ Effects_t + \varepsilon_{j,t}
 \end{aligned} \tag{8}$$

where the variables $FLIST(\tau)$ denote (i) each year between four years before and four years after the listing, $FLIST(-/+n)$, where n is from -4 to $+4$, (ii) the listing year, $FLIST(0)$, and (iii) two long-term periods of five or more years before and after the listing, $FLIST(\leq -5)$ and $FLIST(\geq +5)$, respectively.

The results of regressions that add the detailed listing indicators are reported in Table 9. As in Table 8, we show the estimation results for U.S. firms listed abroad, foreign firms listed in the United States, and foreign firms listed outside the U.S. (again denoted as N/US). As in previous tables, we control for country effects when we deal with multiple home markets. In column 1, we indeed see that U.S. firms cross-listed in other markets have positive and significant valuation premium even before the listing with magnitudes ranging between 0.54 and 1.12. Very similar pattern is observed in column 2 among foreign firms listed in the United

States. Again, prior to the listing on U.S. exchanges, the would-be listed firms demonstrate significant overvaluation relative to firms that will not be listed overseas. The average premium of foreign firms with eventual listing in the United States in the five year period prior to the listing does not drop below an economically important 0.15 per year difference with non-listing firms. Even non-U.S. firms listed outside the United States (column 3) reach their highest overvaluation relative to only domestically listed firms around two years prior to the listing (FLIST(-2)), similar to U.S. firms listed abroad. Note that foreign listing premium after the listing does not decrease, retaining positive and significant values for cross-listed U.S. firms and foreign firms listed abroad (columns 1 and 2), but it decreases to zero for foreign firms placed outside the United States.

To control for the pre-listing valuation measures we arbitrarily select the valuation ratio at Year -2 to use as a firm valuation control. We select Year -2 to best satisfy a desire to be as close as possible to the listing date but to predate the public announcement of the listing. The last three columns of Table 9 show the estimations with pre-listing firm valuation control. The resulting pattern is completely different from that in the first half of the table for all listing markets. The long-run (at or after year five from the listing event) valuation ratio of U.S. firms listed overseas as well as foreign firms listed in the United States or elsewhere is no different from that of firms that are listed solely on their corresponding domestic markets. Across all these three cases, the coefficient on FLIST($\geq +5$) is close to zero in both economic and statistical terms.¹⁰ In fact, there is not a single time dummy coefficient in the year of or following the listing that is significantly positive once the pre-listing Q control is included.

We use this understanding of the pre-listing valuation effects to turn back to understanding the cross-sectional variation in listing premium. We construct a new variable: D(HfQ) which indicates whether the firm Q ratio prior to the listing exceeds the annual median

¹⁰ Gozzi, Levine, and Schmukler (2008) also find that the valuation advantage for their “internationalized” firms disappear soon after the internationalization event, including events such as foreign exchange listing.

value across all firms from the same home country. We use this variable in a pooled panel regression using the following specification.

$$Q_{j,t} = \alpha_i + \delta FLIST_j + \delta_0 FLIST_j \times D(HfQ) + \gamma_1 Sales\ Growth_{j,t} + \gamma_2 Log(Sales)_{j,t} + \gamma_3 Industry\ Q_i + \gamma_4 Year\ Effects_t + \gamma_5 Country\ Effects_t + \varepsilon_{j,t} \quad (9)$$

The results from this estimation are reported in Table 10. We use two definitions of D(HfQ). The first is based on the Tobin's Q value two years prior to the listing, as in Table 9. The second is based on the median Q value over all years prior to the listing year. Our tests are for the three subsamples used previously: U.S. firms listed abroad, foreign firms listed on U.S. exchanges, and foreign firms listed outside the United States. In all six specifications, the coefficient on the D(HfQ) interaction variable is positive and highly significant and the coefficient on FLIST in isolation is insignificant. Our measure of the relative magnitude of the pre-listing valuation ratio appears to subsume any post-listing premium. The value premium of foreign listing appears to be largely driven by the pre-listing valuation ratio of firms that choose to list abroad.

4.2. The Valuation Effect of Foreign-Listed U.S. firms

The results in Table 4 show that U.S. firms consistently benefit from foreign listings to no lesser extent than foreign firms listed on U.S. exchanges documented in Tables 6 and 7 and in many earlier studies. To alleviate the aforementioned potential bias in pre-listing period valuations, we repeat our estimations of regression models from Table 4 but now also control for each firm Q two years prior to the listing event. The test results are in Table 11 following the format of Table 4. Regression (1) shows that the inclusion of the firm level Q ratio drastically decreased the magnitude of the coefficient on FLIST from a positive and significant level of 0.37 to negative 0.05. This implies that U.S. firms listed abroad on average achieve no extended valuation gains over those that do not list abroad. This result is the same across time since a similar firm-level adjustment in Regression (2) leads to insignificant coefficients across all four

sub-periods of our sample. Our tests of U.S. valuation gains across various host markets reveal that Germany is the only market that retains positive and significant premium over the full sample period for U.S. firms, although its magnitude is cut by 50% in comparison to the corresponding result in Table 4. In addition, the addition of the firm Q control into the estimation greatly increases the fit of the regression.¹¹ Thus, the evidence from Table 11 illustrates that after controlling for the pre-listing valuation levels, U.S. firms listed abroad do not appear to be associated with a consistent and sustainable valuation gains from listing.

4.3. The Valuation Effect across the Top Ten Home and Host Markets with Firm Q Control

The next logical step is to compare the impact of firm Q control on U.S. firms listed abroad with that on listings from other home and in other host markets. We conduct these adjusted tests across home markets in Table 12. The format of this table is similar to Table 5, Panel A. As before, we repeat the outcome for U.S. firms listed abroad to simplify the comparison of results across all top ten home markets. We find that after controlling for firm pre-listing Q, the only market that shows significant post listing valuation is Australia. However, the list of countries with negative and significant post-listing valuation ratios expands from only one market (India) in Table 5 to four that includes now, besides India, the United Kingdom, Japan, and Israel.

We now turn to the impact of the pre-listing firm-level valuation control on the average foreign listing gains in each of the top ten host markets. We conduct this estimation in Table 13 following the same format as Table 6, Panel A. Most importantly, we find that the significance disappears for the U.S. hosted FLIST variable. The result implies that there is no evidence that non-U.S. firms listed on U.S. exchanges maintain any valuation premium over firms that are not. In fact, the negative and significant coefficient on FLIST suggests that U.S.-listed firms trade at a discount once the pre-listing Q has been considered. Note that with firm Q control, foreign firms

¹¹ We have also experimented with an alternative proxy for the pre-listing firm valuation control – the median firm Q prior to the listing. The results of these tests are qualitatively similar to those presented in Table 9 and subsequent tables.

gain, or, speaking more correctly, lose, about the same value after being listed in the United States and the United Kingdom. The point estimates in both markets are remarkably similar to each other equaling negative 0.163 to 0.168. The only three host markets that shows positive, yet largely insignificant premium for cross-listed firms are Germany, Japan, New Zealand, and Canada.

To better visualize the valuation patterns around the listing across all top ten home and host markets, we plot the listing valuation premium in Figure 1 (home markets) and Figure 2 (host markets). For these plots, we estimate regression model (8) both without and with firm pre-listing valuation control (pre-listing Q two years prior to the listing). In both figures, the diamond thick curve denotes listing premium without firm valuation control, while the circled thin curve denotes listing premium with firm valuation control. These figures clearly show the markets where controlling for the firm pre-listing Q ratio makes a profound difference in estimation results and implications. Importantly, the effect of this adjustment on many home markets (e.g., the United States, the United Kingdom, and Japan) and many host markets (e.g., again the United States, the United Kingdom, and Japan, as well as France, Switzerland, and the Netherlands) is very similar: it greatly reduces the observed valuation premium around the listing. We observe that the four host markets with significant foreign listing premium in Table 6 share a common profile in the time series: each of these host markets (France, Japan, Switzerland, and the U.S.) experience high valuations prior to the listing year

4.4. Market Valuation Effects in Foreign Listing

The market governance metric tests in Table 8 provided little ability to explain cross-sectional variation in foreign listing premium by market. To explore this variation further with respect to valuation ratios, we propose a test that includes a variable that measures the relative valuation levels across markets. In the context of home markets, the variable $D(HmQ)$ is set to one if the median Q ratio of all firms in the home market in a given year exceeds the relative median Q ratio for all countries in that year. In effect, this variable tests whether the variation in

foreign listing premium we observe across markets is related to the overall variation of the valuation of the home market. We perform a similar exercise for the host markets. In the panel regression, we interact this variable with FLIST and include the lagged firm Q ratio.

In Table 14, we report the results by home market and host market for our three subsamples: foreign listings of U.S. firms, foreign listings on U.S. exchanges, and foreign listings of non-U.S. firms on non-U.S. exchanges. The coefficient on the interaction term $FLIST * D(HmQ)$ is significant in four out of six regressions. The findings suggest that the foreign listing premium is higher for U.S. firms listing abroad when the U.S. market Q ratio is relatively high. The foreign listing premium is higher for foreign listings to U.S. exchanges when the home market and the U.S. market Q ratios are relatively high. Lastly, the evidence for foreign listings of non-U.S. firms on non-U.S. exchanges suggests a reversal effect in that high host market Q ratios are associated with a lower sustained foreign listing premium. The evidence suggests again that valuation ratios, even at the market level provide more cross-sectional explanatory power than do measures of the rule of law.

5. Conclusions

An expanding literature asserts that non-U.S. firms achieve unique value benefits from listing on U.S. equity markets. In this paper we examine the foreign listing premium across a broad set of home and host markets, including U.S. firms that list on non-U.S. stock exchanges. We find that the value premium of U.S. firms that list abroad is similar to that of non-U.S. firms that list in the United States, and that many other home and host markets show a foreign listing premium. We do not find that investors reward managers for bonding to more stringent legal or disclosure requirements.

We observe that listings on foreign exchanges are conducted by firms that already have relatively high valuations several years prior to the listing. Moreover, there is evidence that firms

that achieve large foreign listing effects originate from or list on exchanges with high valuations. We demonstrate that the foreign listing premium disappears once we control for the firm's pre-listing valuation ratio. Our evidence calls into question the linkage between the value implications of foreign listings and the unique institutional features of the U.S. market that is prevalent in many existing explanations of the foreign listing decision. Instead, the evidence is consistent with such as explanations as a systematic tendency for firms with growth opportunities (as measured by Tobin's Q) to list abroad, opportunistic foreign market financing, or acquisition of managerial perquisites from listing abroad when valuations are high. Regardless, there is strong empirical evidence that foreign listings are attractive to managers of firms with recent histories of abnormally high valuation.

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Table 1
Distribution of overseas listings across all home and host markets in 1985-2006

Home	Argentina	Australia	Austria	Belgium	Brazil	Canada	Denmark	Finland	France	Germany	Hong Kong	Ireland	Israel	Italy	Japan	Luxembourg	Mexico	Netherlands	New Zealand	Norway	Peru	Poland	Portugal	Singapore	South Africa	Spain	Sweden	Switzerland	Taiwan	UAE	UK	US	Total
Argentina					1											4																	28
Australia						13			1	2					6	1		87						5	3		2			9	34	163	
Austria				1					2	6												1											12
Belgium									2	2						5		6		1													19
Brazil																4														1	33	38	
Canada		7		6					5	3	1				6				1	3				1	5		5		6	434	483		
Chile																															1	25	26
China																								2						6	29	37	
Columbia						1										3															1	5	
Croatia																															1	1	
Cyprus																															1	1	
Czech Republic																						1								4	5	5	
Denmark																				1						1	1			1	5	9	
Egypt																															7	7	
Estonia																															1	1	
Finland									1	2				1				1								4			2	5	16		
France				10		1				10				9	4	2		12									3	3		6	37	97	
Germany			9	1					5					8	9	1		7						1		2	2	16		5	27	93	
Ghana						1																									1	2	
Greece		1					1									1		1		1				1						9	10	25	
Guyana						1																										1	1
Hong Kong		8													1					1				9						1	16	36	
Hungary			3														5					1								4	1	14	
Iceland																										1						1	2
India																121													2	24	15	162	
Indonesia		1														2														2	4	9	
Ireland																			1											41	18	60	
Israel				4					2	3										1							3		12	112	137		
Italy				2					5	5								4								1	2				17	36	
Japan				1					24	46								13						5			6		27	20	142		
Jordan																														1	1	1	
Kazakhstan																														2	2	2	
Korea (South)															1	22														17	16	56	
Lebanon																	2															2	2
Liechtenstein																											1					1	1
Lithuania																														1		1	1

Table 1 (continued)

Home	Argentina	Australia	Austria	Belgium	Brazil	Canada	Denmark	Finland	France	Germany	Hong Kong	Ireland	Israel	Italy	Japan	Luxembourg	Mexico	Netherlands	New Zealand	Norway	Peru	Poland	Portugal	Singapore	South Africa	Spain	Sweden	Switzerland	Taiwan	UAE	UK	US	Total
Luxembourg				4					5	2														2	1	4				4	8	30	
Malaysia		1													1								1										3
Malta																																	1
Mexico																																	38
Morocco									1																						1		2
Netherlands			1	6					11	24				3	2	4						2	1		1	1	15		11	38		120	
New Zealand		26																														7	33
Nigeria																									1								1
Norway							1			1								1						1		2			4	11		21	
Oman																													1				1
Panama																																	2
Peru																																	3
Philippines																5								2								1	8
Poland												1																	11				12
Portugal										1								1												1	4		7
Qatar																																	1
Romania																																	1
Russia																															10	6	16
Singapore		3														3												2				6	14
Slovakia																2															1		3
South Africa				6		4			1	6						5											1		7	11		41	
Spain	1				1				2	3				2	4								2					5	11			37	
Sri Lanka																1																	1
Sweden				1		1	7	2		4					3				1	5				2			4		2	13		45	
Switzerland			2	1		2			4	10					4												3			5	15	47	
Taiwan																47								1						11	9		68
Thailand																2								2				1					5
Tunisia																															1		1
Turkey																2														9	1		12
United Kingdom		4	5		8	1			15	10	1	17	1		16	3		7	2	3				7	7		2	2				127	239
United States		8	2	5	1	56			18	43			4		68	2	1	12		5	1						8	21		33		288	
Venezuela						1										1																3	5
Zimbabwe																									1								2
Total	1	59	17	53	3	89	10	2	104	183	2	17	5	23	125	251	1	71	91	21	1	5	2	41	19	5	31	87	3	3	315	1198	2838

This table provides the country-to-country frequency distribution of the sample of overseas listings between 1985 and 2006. The total sample is comprised of 2,838 overseas listings from 69 home markets placed in 32 host markets. Listings from or in pure tax haven countries and outside main exchanges are omitted.

Table 2
Distribution of foreign listings of U.S. firms in 1985-2006

Host markets	1986-90	1991-95	1996-00	2001-06	Total	Sample
Japan	68	0	0	0	68	64
Canada	5	9	8	34	56	32
Germany	4	18	20	1	43	41
United Kingdom	19	5	5	4	33	28
Switzerland	16	1	3	1	21	20
France	13	1	4	0	18	16
Netherlands	4	1	6	1	12	11
Australia	1	3	3	1	8	8
Sweden	1	1	4	2	8	7
Belgium	3	1	1	0	5	5
Norway	0	0	4	1	5	2
Israel	0	0	0	4	4	4
Austria	0	1	0	1	2	2
Luxembourg	0	1	0	1	2	1
Brazil	0	0	1	0	1	1
Mexico	0	0	0	1	1	1
Peru	0	0	1	0	1	1
Total	134	42	60	52	288	244

This table provides the frequency distribution of the sample of overseas listings of U.S. firms between 1985 and 2006. Listings in pure tax haven countries and outside main exchanges are omitted. The last column shows the number of listings based on firm sample data availability.

Table 3
Summary statistics firm-level information of U.S. and non-U.S. firms

Panel A: U.S. firms

	Whole sample period			1985-1995			1996-2006		
	Mean	Median	St. Dev.	Mean	Median	St. Dev.	Mean	Median	St. Dev.
<i>Foreign-listed firms</i>									
Obs:	2,789			1,382			1,407		
Firm Q	1.934	1.495	1.497	1.738	1.371	1.342	2.125	1.603	1.612
Sales (\$mln)	16,336	8,898	23,627	14,164	8,260	19,738	18,469	10,100	26,742
Sales Growth	0.162	0.085	0.261	0.158	0.086	0.227	0.165	0.084	0.291
<i>Non-foreign-listed firms</i>									
Obs:	83,997			36,440			47,557		
Firm Q	1.932	1.333	1.821	1.767	1.279	1.540	2.059	1.385	2.001
Sales (\$mln)	1,614	118	7,702	1,535	110	7,421	1,674	125	7,910
Sales Growth	0.301	0.155	0.472	0.291	0.156	0.447	0.309	0.154	0.489

Panel B: Non-U.S. firms

	Whole sample period			1985-1995			1996-2006		
	Mean	Median	St. Dev.	Mean	Median	St. Dev.	Mean	Median	St. Dev.
<i>Foreign-listed firms</i>									
Obs:	13,168			4,489			8,679		
Firm Q	1.618	1.233	1.307	1.442	1.181	0.827	1.709	1.282	1.488
Sales (\$mln)	9,977	2,109	20,296	9,149	2,993	17,601	9,847	1,338	21,449
Sales Growth	0.251	0.151	0.346	0.297	0.187	0.344	0.231	0.144	0.340
<i>Non-foreign-listed firms</i>									
Obs:	128,106			32,780			95,326		
Firm Q	1.562	1.181	1.393	1.462	1.230	0.901	1.597	1.159	1.524
Sales (\$mln)	1,406	133	6,768	2,100	359	7,145	1,167	93	6,617
Sales Growth	0.256	0.146	0.385	0.238	0.146	0.318	0.262	0.146	0.406

This table reports the summary statistics of three firm characteristics for a panel of U.S. and non-U.S. firms. Firm's Tobin's Q is defined as the ratio, where the numerator is Total Asset Value minus Book Value of Equity plus Market Value of Equity, while the denominator is the Total Asset Value. Sales is a firm's net sales. Sales Growth is defined as the inflation-adjusted two-year geometric average net sales growth. For each country, inflation is computed from local CPI changes using the International Monetary Fund data. Sales Growth is winsorized at the 1% level on both tails.

Table 4
Foreign listing premium for U.S. firms

	(1)	(2)	(3)
Observations	86,786	86,786	86,786
Intercept	-0.374 ^{***} (-4.93)	-0.374 ^{***} (-4.93)	-0.372 ^{***} (-4.92)
FLIST	0.367 ^{***} (5.44)		
FLIST × D(LY = 1985-1990)		0.312 ^{***} (3.85)	
FLIST × D(LY = 1991-1995)		0.225 ^{***} (3.15)	
FLIST × D(LY = 1996-2000)		0.597 ^{***} (5.95)	
FLIST × D(LY = 2001-2006)		0.288 ^{***} (3.30)	
FLIST × D(Host = Japan)			0.388 ^{***} (4.43)
FLIST × D(Host = Canada)			0.008 (0.04)
FLIST × D(Host = Germany)			0.603 ^{***} (3.00)
FLIST × D(Host = Other)			0.329 ^{***} (3.83)
Sales Growth	0.524 ^{***} (20.76)	0.524 ^{***} (20.79)	0.524 ^{***} (20.80)
Log (Sales)	-0.083 ^{***} (-13.22)	-0.083 ^{***} (-13.21)	-0.083 ^{***} (-13.29)
Industry Q	1.710 ^{***} (35.42)	1.710 ^{***} (35.45)	1.710 ^{***} (35.44)
Year effects	Yes	Yes	Yes
R ²	0.161	0.161	0.161

This table reports the regression test results for a panel of U.S. firms across different host markets, time periods, and industry and firm characteristics. The dependent variable is firm's Tobin's Q. Firm's Q is defined as the ratio, where the numerator is Total Asset Value minus Book Value of Equity plus Market Value of Equity, while the denominator is the Total Asset Value. Sales Growth is defined as the inflation-adjusted two-year geometric average net sales growth. For each country, inflation is computed from local CPI changes using the International Monetary Fund data. Sales Growth is winsorized at the 1% level on both tails. Log(Sales) is the natural logarithm of firm's net sales. Industry Q is the median global industry Q per year. The listing indicator FLIST is equal to 1 for years after the foreign listing. FLIST × D(LY = "time period") denotes listing in specific listing years. FLIST × D(Host = "country name") denotes listing in a specific host market. Each regression sample includes all firms except home firms from the given host market. The table also shows the R-squares and, in parentheses, the t-statistics. The year fixed effects are included in each regression but the coefficients are not shown. Standard errors are clustered by the firm. Notations *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Table 5
Foreign listing premium for the top ten home markets

Panel A: Individual home market tests

	Canada	US	UK	Australia	India
Observations	7,129	86,786	15,865	4,552	2,640
Intercept	0.678*** (3.32)	-0.374*** (-4.93)	-0.435** (-2.50)	-0.330 (-1.13)	0.523 (0.14)
FLIST	0.396*** (4.00)	0.367*** (5.44)	0.220* (1.95)	0.110 (1.08)	-0.383** (-2.53)
Sales Growth	0.189*** (3.75)	0.524*** (20.76)	0.288*** (6.76)	0.046 (0.82)	0.509*** (2.73)
Log (Sales)	-0.139*** (-7.83)	-0.082*** (-13.22)	-0.052*** (-4.74)	-0.086*** (-4.82)	0.123*** (3.07)
Industry Q	1.183*** (8.08)	1.710*** (35.42)	1.589*** (15.20)	1.129*** (5.73)	1.736*** (6.72)
Year effects	Yes	Yes	Yes	Yes	Yes
R ²	0.162	0.161	0.141	0.108	0.160

Panel A (continued)

	Japan	Israel	Netherlands	France	Germany
Observations	30,733	550	2,501	7,386	8,496
Intercept	0.209* (1.79)	-0.009 (-0.02)	-1.255*** (-2.80)	-0.098 (-0.28)	1.122*** (4.42)
FLIST	0.185*** (3.42)	0.150 (1.12)	0.093 (0.50)	0.232 (1.49)	0.392*** (2.36)
Sales Growth	1.663*** (12.69)	0.160 (0.86)	0.887*** (3.92)	0.495*** (4.92)	0.334*** (4.95)
Log (Sales)	-0.088*** (-11.04)	-0.004 (-0.14)	-0.047* (-1.86)	-0.073*** (-2.72)	-0.122*** (-7.95)
Industry Q	0.865*** (14.61)	0.916*** (3.92)	1.851*** (5.05)	1.306*** (10.51)	0.839*** (6.24)
Year effects	Yes	Yes	Yes	Yes	Yes
R ²	0.186	0.213	0.276	0.196	0.163

Table 5 (continued)

Panel B: Panel tests

	(1)	(2)	(3)	(4)
Observations	228,060	228,060	228,060	228,060
Intercept	-0.823 ^{***} (-12.02)	-0.813 ^{***} (-11.83)	-0.799 ^{***} (-11.30)	-0.799 ^{***} (-11.30)
FLIST	0.168 ^{***} (5.92)	0.135 ^{***} (4.33)	0.082 (1.58)	0.308 ^{***} (4.54)
FLIST × D(Home = Canada)			0.223 ^{**} (2.08)	-0.002 (-0.02)
FLIST × D(Home = US)		0.172 ^{**} (2.29)	0.226 ^{**} (2.61)	
FLIST × D(Home = UK)			0.216 [*] (1.76)	-0.009 (-0.08)
FLIST × D(Home = Australia)			0.020 (0.16)	-0.205 (-1.52)
FLIST × D(Home = India)			-0.213 (-1.34)	-0.439 ^{***} (-2.66)
FLIST × D(Home = Japan)			0.005 (0.07)	-0.220 ^{**} (-2.52)
FLIST × D(Home = Israel)			-0.090 [*] (-1.68)	-0.317 ^{**} (-2.26)
FLIST × D(Home = Netherlands)			0.112 (0.65)	-0.113 (-0.64)
FLIST × D(Home = France)			0.146 (1.03)	-0.079 (-0.53)
FLIST × D(Home = Germany)			0.109 (0.69)	-0.116 (-0.71)
FLIST × D(Home = Other)				-0.226 ^{***} (-2.61)
Sales Growth	0.472 ^{***} (30.63)	0.472 ^{***} (30.65)	0.472 ^{***} (30.65)	0.472 ^{***} (30.65)
Log (Sales)	-0.070 ^{***} (-18.63)	-0.070 ^{***} (-18.67)	-0.070 ^{***} (-18.63)	-0.070 ^{***} (-18.63)
Industry Q	1.412 ^{***} (45.47)	1.412 ^{***} (45.47)	1.412 ^{***} (45.47)	1.412 ^{***} (45.47)
Country effects	Yes	Yes	Yes	Yes
Year effect	Yes	Yes	Yes	Yes
R ²	0.149	0.149	0.149	0.149

This table reports the valuation premium from foreign listing in the top ten home markets. These markets include Canada, the United States, the United Kingdom, Australia, India, Japan, Israel, the Netherlands, France, and Germany. Panel A reports results for individual countries, while Panel B – for the entire data panel. The dependent variable is firm’s Tobin’s Q. FLIST × D(Home = “country name”) denotes listing from a specific home market. Firm’s Q and all other variables are defines as in Table 4. The table also shows the adjusted R-squares and, in parentheses, the t-statistics. Standard errors are clustered by the firm. The year and country (when necessary) fixed effects are included in each regression but the coefficients are not shown. Notations *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Table 6
Foreign listing premium for the top ten host markets

Panel A: Individual host market tests

	US	UK	Luxembourg	Germany	Japan
Observations	228,060	228,060	228,060	228,060	228,060
Intercept	-0.848 ^{***} (-12.28)	-0.812 ^{***} (-11.83)	-0.812 ^{***} (-11.85)	-0.809 ^{***} (-12.82)	-0.808 ^{***} (-11.75)
FLIST	0.246 ^{***} (4.82)	0.027 (0.61)	-0.100 [*] (-1.65)	0.105 (1.31)	0.198 ^{***} (3.48)
Sales Growth	0.472 ^{***} (30.66)	0.472 ^{***} (30.67)	0.472 ^{***} (30.67)	0.472 ^{***} (30.66)	0.473 ^{***} (30.68)
Log (Sales)	-0.067 ^{***} (-17.75)	-0.066 ^{***} (-17.48)	-0.066 ^{***} (-17.40)	-0.066 ^{***} (-17.72)	-0.067 ^{***} (-17.67)
Industry Q	1.412 ^{***} (45.31)	1.417 ^{***} (45.39)	1.417 ^{***} (45.38)	1.417 ^{***} (45.39)	1.417 ^{***} (45.37)
Country effects	Yes	Yes	Yes	Yes	Yes
Year effects	Yes	Yes	Yes	Yes	Yes
R ²	0.149	0.149	0.149	0.149	0.149

Panel A (continued)

	France	New Zealand	Canada	Switzerland	Netherlands
Observations	228,060	228,060	228,060	228,060	228,060
Intercept	-0.810 ^{***} (-11.82)	-0.811 ^{***} (-11.83)	-0.812 ^{***} (-11.84)	-0.809 ^{***} (-11.79)	-0.811 ^{***} (-11.84)
FLIST	0.197 ^{***} (2.82)	0.070 (0.86)	0.003 (0.02)	0.300 ^{**} (2.32)	0.110 (1.05)
Sales Growth	0.473 ^{***} (30.66)	0.473 ^{***} (30.67)	0.473 ^{***} (30.68)	0.473 ^{***} (30.67)	0.473 ^{***} (30.67)
Log (Sales)	-0.066 ^{***} (-17.61)	-0.066 ^{***} (-17.47)	-0.066 ^{***} (-17.45)	-0.066 ^{***} (-17.58)	-0.066 ^{***} (-17.54)
Industry Q	1.417 ^{***} (45.41)	1.417 ^{***} (45.38)	1.417 ^{***} (45.38)	1.417 ^{***} (45.39)	1.417 ^{***} (45.42)
Country effects	Yes	Yes	Yes	Yes	Yes
Year effects	Yes	Yes	Yes	Yes	Yes
R ²	0.149	0.149	0.149	0.149	0.149

Table 6 (continued)

Panel B: Panel tests

	(1)	(2)	(3)	(4)
Observations	228,060	228,060	228,060	228,060
Intercept	-0.823 ^{***} (-12.02)	-0.823 ^{***} (-12.15)	-0.835 (-12.16)	-0.835 ^{***} (-12.16)
FLIST	0.168 ^{***} (5.92)	0.133 ^{***} (4.34)	0.180 ^{**} (2.51)	0.259 ^{***} (5.04)
FLIST × D(Host = US)		0.125 ^{**} (2.28)	0.079 (0.93)	
FLIST × D(Host = UK)			-0.129 (-1.56)	-0.209 ^{***} (-3.32)
FLIST × D(Host = Luxembourg)			-0.264 ^{***} (-2.89)	-0.343 ^{***} (-4.25)
FLIST × D(Host = Germany)			-0.050 (-0.50)	-0.129 (-1.38)
FLIST × D(Host = Japan)			0.041 (0.45)	-0.038 (-0.52)
FLIST × D(Host = France)			0.041 (0.41)	-0.038 (-0.49)
FLIST × D(Host = New Zealand)			-0.082 (-0.76)	-0.161 [*] (-1.74)
FLIST × D(Host = Canada)			-0.159 (-0.86)	-0.238 (-1.34)
FLIST × D(Host = Switzerland)			0.146 (1.00)	0.066 (0.48)
FLIST × D(Host = Netherlands)			-0.045 (-0.35)	-0.124 (-1.08)
FLIST × D(Host = Other)				-0.079 (-0.93)
Sales Growth	0.472 ^{***} (30.63)	0.472 ^{***} (30.63)	0.473 ^{***} (30.66)	0.473 ^{***} (30.66)
Log (Sales)	-0.070 ^{***} (-18.43)	-0.070 ^{***} (-18.43)	-0.070 ^{***} (-18.55)	-0.070 ^{***} (-18.55)
Industry Q	1.412 ^{***} (45.34)	1.412 ^{***} (45.34)	1.410 ^{***} (45.36)	1.410 ^{***} (45.40)
Country effects	Yes	Yes	Yes	Yes
Year effects	Yes	Yes	Yes	Yes
R ²	0.149	0.149	0.149	0.149

This table reports the valuation premium from foreign listing in the top eight host markets. These markets include the United States, the United Kingdom, Luxembourg, Germany, Japan, France, New Zealand, Canada, Switzerland, and the Netherlands. The entire panel of data is used in both Panel A and B, while Panel A reports individual host market effects while Panel B reports joint effects. The dependent variable is firm's Tobin's Q. FLIST × D(Host = "country name") denotes listing in a specific host market. Firm's Q and all other variables are defined as in Table 4. The table also shows the adjusted R-squares and, in parentheses, the t-statistics. Standard errors are clustered by the firm. The year and country (when necessary) fixed effects are included in each regression but the coefficients are not shown. Notations *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Table 7
Tests of post-listing valuation of U.S. firms listed abroad and foreign firms listed on U.S. exchanges

	All	1985-1995	1996-2006
Observations	228,060	75,091	152,969
Intercept	-0.833 ^{***} (-12.05)	-0.472 ^{***} (-3.58)	-0.548 ^{***} (-7.80)
FLIST	0.306 ^{***} (4.51)	0.218 ^{***} (3.63)	0.368 ^{***} (4.33)
FLIST × D(Host = US)	-0.050 (-0.59)	0.084 (0.89)	0.128 (-1.26)
FLIST × D(Home, Host ≠ US)	-0.233 ^{***} (-3.05)	-0.105 (-1.44)	-0.317 ^{**} (-3.38)
Sales Growth	0.472 ^{***} (30.66)	0.532 ^{***} (19.20)	0.441 ^{***} (24.19)
Log (Sales)	-0.070 ^{***} (-18.59)	-0.072 ^{***} (-15.23)	-0.072 ^{***} (-15.34)
Industry Q	1.410 ^{***} (45.38)	1.329 ^{***} (25.70)	1.422 ^{***} (42.27)
Country effects	Yes	Yes	Yes
Year effects	Yes	Yes	Yes
R ²	0.149	0.141	0.157

This table reports the valuation changes around foreign listings for U.S. firms listed abroad and foreign firms listed in the United States for the whole sample period as well as two eleven-year sub-periods. The dependent variable is firm's Tobin's Q. D(Home, Host ≠ US) is a dummy that takes the value of one for listing of a non-U.S. firms on a non-U.S. foreign exchange. FLIST in this table is equivalent to a dummy that takes the value of one for U.S listings abroad. All other variables are defines as in Table 4. The table also shows the adjusted R-squares and, in parentheses, the t-statistics. Standard errors are clustered by the firm. The year and country (when necessary) fixed effects are included in each regression but the coefficients are not shown. Notations *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Table 8
Impact of the “Rule of Law” on valuation of U.S. and non-U.S. firms listed abroad

	Anti-Self-Dealing Index			Anti-Director Index		
	US firms	US listings	N/US listings	US firms	US listings	N/US listings
Observations	86,786	141,178	141,178	86,786	141,178	141,178
Intercept	-0.373 ^{***} (-4.92)	-0.612 ^{***} (-5.62)	-0.600 ^{***} (-5.61)	-0.374 ^{***} (-4.92)	-0.580 ^{***} (-5.37)	-0.601 ^{***} (-5.62)
FLIST	0.400 ^{***} (5.56)	0.219 ^{***} (3.07)	0.012 (0.29)	0.400 ^{***} (4.26)	0.269 ^{***} (5.21)	0.020 (0.54)
FLIST × D(Law)	-0.220 [*] (-1.78)	0.042 (0.48)	0.039 (0.86)	-0.220 (-1.43)	-0.184 [*] (-1.70)	0.029 (0.67)
Sales Growth	0.524 ^{***} (20.76)	0.423 ^{***} (23.05)	0.424 ^{***} (23.08)	0.524 ^{***} (20.76)	0.423 ^{***} (23.06)	0.424 ^{***} (23.08)
Log (Sales)	-0.083 ^{***} (-13.24)	-0.056 ^{***} (-12.84)	-0.055 ^{***} (-12.50)	-0.083 ^{***} (-13.25)	-0.056 ^{***} (-12.84)	-0.055 ^{***} (-12.50)
Industry Q	1.709 ^{***} (35.43)	1.534 ^{***} (32.53)	1.546 ^{***} (32.68)	1.709 ^{***} (35.43)	1.534 ^{***} (32.54)	1.546 ^{***} (32.68)
Country effects		Yes	Yes		Yes	Yes
Year effects	Yes	Yes	Yes	Yes	Yes	Yes
R ²	0.161	0.136	0.136	0.161	0.136	0.136

This table reports the regression test results of valuation changes around foreign listings for the sub-samples of listings that are placed in better and worse “Rule of Law” countries. First three columns show the results with anti-self dealing index, the last three – with anti-director index. Both indexes are from Djankov, et al. (2008). A host country has a better “Rule of Law” with a dummy variable D(Law) which takes the value of one if its anti-self-dealing index or anti-director index is higher than that of the home country. The estimation results are shown three data splits: U.S. firms listed abroad, foreign firms listed in the U.S., and foreign firms listed outside the U.S. (N/US). The dependent variable is firm’s Tobin’s Q. Firm’s Q and all other variables are defines as in Table 4. The table also shows the adjusted R-squares and, in parentheses, the t-statistics. Standard errors are clustered by the firm. The year and country (when necessary) fixed effects are included in each regression but the coefficients are not shown. Notations ^{*}, ^{**}, and ^{***} denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Table 9
The time series of the value premium around foreign listing

	No firm valuation control			With firm valuation control		
	US firms	US listings	N/US listings	US firms	US listings	N/US listings
Observations	86,786	141,178	141,178	86,114	137,529	137,529
Intercept	-0.373 ^{***} (-4.92)	-0.611 ^{***} (-5.65)	-0.602 ^{***} (-5.64)	-0.428 ^{***} (-9.48)	-0.347 ^{***} (-4.13)	-0.365 ^{***} (-4.55)
FLIST(≤ -5)	0.543 ^{**} (2.35)	0.234 ^{**} (2.46)	0.038 (0.83)	-0.0421 ^{**} (-2.10)	-0.006 (-0.05)	-0.129 ^{***} (-2.69)
FLIST(-4)	0.747 ^{***} (2.88)	0.197 ^{**} (2.26)	0.121 [*] (1.95)	-0.076 (-0.49)	0.019 (0.30)	-0.131 ^{**} (-2.29)
FLIST(-3)	0.754 ^{***} (3.09)	0.149 (1.58)	0.066 (1.40)	-0.002 (-0.01)	-0.196 ^{**} (-2.41)	-0.207 ^{***} (-5.07)
FLIST(-2)	1.115 ^{***} (3.77)	0.309 ^{**} (2.48)	0.187 ^{***} (2.92)	0.030 (0.58)	-0.159 ^{***} (-4.02)	-0.065 ^{**} (-2.39)
FLIST(-1)	0.709 ^{***} (4.00)	0.390 ^{***} (3.53)	0.112 ^{**} (1.97)	0.032 (0.33)	0.006 (0.07)	-0.099 ^{**} (-2.17)
FLIST(0)	0.431 ^{***} (3.45)	0.472 ^{***} (4.15)	0.143 ^{***} (2.87)	-0.238 [*] (-1.87)	0.020 (0.20)	-0.102 ^{**} (-2.46)
FLIST(+1)	0.332 ^{***} (3.84)	0.270 ^{***} (3.13)	0.103 ^{**} (2.15)	-0.366 ^{**} (-2.01)	-0.198 ^{**} (-1.96)	-0.202 ^{***} (-3.72)
FLIST(+2)	0.328 ^{***} (3.61)	0.300 ^{***} (3.39)	0.040 (0.81)	-0.078 (-0.61)	-0.433 ^{***} (-2.64)	-0.254 ^{***} (-4.41)
FLIST(+3)	0.250 ^{**} (2.40)	0.330 ^{***} (3.90)	0.008 (0.16)	-0.589 ^{***} (-2.59)	-0.449 ^{***} (-2.99)	-0.269 ^{***} (-4.53)
FLIST(+4)	0.332 ^{***} (3.11)	0.217 ^{***} (3.02)	-0.023 (-0.58)	-0.237 (-1.06)	-0.385 ^{***} (-2.83)	-0.210 ^{***} (-4.07)
FLIST($\geq +5$)	0.411 ^{***} (5.40)	0.198 ^{***} (3.78)	0.018 (0.46)	0.087 (0.68)	-0.002 (-0.03)	-0.041 (-0.80)
Sales Growth	0.524 ^{***} (20.76)	0.421 ^{***} (22.94)	0.423 ^{***} (22.99)	0.198 ^{***} (9.59)	0.139 ^{***} (9.59)	0.140 ^{***} (10.89)
Log (Sales)	-0.083 ^{***} (-13.24)	-0.057 ^{***} (-12.97)	-0.056 ^{***} (-12.67)	-0.034 ^{***} (-9.82)	-0.031 ^{***} (-9.82)	-0.028 ^{***} (-10.64)
Industry Q	1.709 ^{***} (35.43)	1.532 ^{***} (32.45)	1.546 ^{***} (32.64)	0.601 ^{***} (15.91)	0.616 ^{***} (15.91)	0.614 ^{***} (16.25)
Firm Q (-2)				0.919 ^{***} (38.54)	0.951 ^{***} (38.54)	0.951 ^{***} (59.48)
Country effects		Yes	Yes		Yes	Yes
Year effects	Yes	Yes	Yes	Yes	Yes	Yes
R ²	0.161	0.136	0.136	0.481	0.530	0.530

Table 9 (continued)

This table reports the regression test results of valuation changes around foreign listing for three data splits: U.S. firms listed abroad, foreign firms listed in the U.S., and foreign firms listed outside the U.S. (N/US). The first (last) three columns report estimation results without (with) the firm pre-listing valuation control. The listing indicator FLIST is split to eleven cross-listing indicators that correspond to the years before and years after the listing. These variables denote (i) each year between four years before and four years after the listing, FLIST(-/+ τ), where τ is from -4 to +4, (ii) the listing year, FLIST(0), and (iii) two long-term periods of five or more years before and after the listing, FLIST(\leq -5) and FLIST(\geq +5) respectively. The dependent variable is firm's Tobin's Q. Firm Q (-2) is the firm's Q two years prior to the listing. Firm's Tobin's Q and all other variables are defined as in Table 4. The table also shows the adjusted R-squares and, in parentheses, the t-statistics. Standard errors are clustered by the firm. The year and country (when necessary) fixed effects are included in each regression but the coefficients are not shown. Notations *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Table 10
Post-listing valuation of high and low valued firms

	Firm Q (-2)			Firm Q (pre-listing median)		
	US firms	US listings	N/US listings	US firms	US listings	N/US listings
Observations	86,786	141,178	141,178	86,786	141,178	141,178
Intercept	-0.372 ^{***} (-4.91)	-0.617 ^{***} (-5.66)	-0.601 ^{***} (-5.62)	-0.365 ^{***} (-4.83)	-0.605 ^{***} (-5.61)	-0.603 ^{***} (-5.65)
FLIST	0.016 (0.23)	0.023 (0.40)	-0.068 ^{**} (-2.54)	0.021 (0.35)	-0.023 (-0.91)	-0.125 ^{**} (-4.07)
FLIST × D(HfQ)	0.557 ^{***} (4.81)	0.273 ^{***} (3.39)	0.146 ^{***} (2.81)	0.621 ^{***} (5.16)	0.365 ^{***} (5.16)	0.249 ^{***} (4.57)
Sales Growth	0.524 ^{***} (20.78)	0.423 ^{***} (23.06)	0.424 ^{***} (23.07)	0.525 ^{***} (20.79)	0.423 ^{***} (23.05)	0.424 ^{***} (23.07)
Log (Sales)	-0.083 ^{***} (-13.14)	-0.056 ^{***} (-12.75)	-0.055 ^{***} (-12.36)	-0.083 ^{***} (-13.19)	-0.056 ^{***} (-12.74)	-0.055 ^{***} (-12.31)
Industry Q	1.706 ^{***} (35.44)	1.531 ^{***} (32.52)	1.542 ^{***} (32.91)	1.702 ^{***} (35.28)	1.529 ^{***} (32.55)	1.542 ^{***} (32.93)
Country effects		Yes	Yes		Yes	Yes
Year effects	Yes	Yes	Yes	Yes	Yes	Yes
R ²	0.161	0.136	0.136	0.161	0.136	0.136

This table reports the regression test results of valuation changes around foreign listings for firms with different valuation prior to the listing. D(HfQ) is a dummy that equals one if the Q ratio of the foreign listed firm prior to the listing exceeds the annual median across all firms from the same country. The first three columns show the results when firm pre-listing valuation is recorded two years prior to the listing, Firm Q (-2). The last three columns – when the pre-listing valuation is computed as the median firm Q before the listing, Firm Q (pre-listing median). The estimation results are shown three data splits: U.S. firms listed abroad, foreign firms listed in the U.S., and foreign firms listed outside the U.S. (N/US). The dependent variable is firm's Tobin's Q. Firm's Q and all other variables are defined as in Table 4. The table also shows the adjusted R-squares and, in parentheses, the t-statistics. Standard errors are clustered by the firm. The year and country (when necessary) fixed effects are included in each regression but the coefficients are not shown. Notations *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Table 11
Foreign listing premium for U.S. firms

	Whole sample period			1985-1995	1996-2006
	(1)	(2)	(3)	(4)	(5)
Observations	86,114	86,114	86,114	37,488	48,626
Intercept	-0.428*** (-9.45)	-0.429*** (-9.46)	-0.447*** (-10.23)	-0.308*** (-5.16)	-0.518*** (-7.30)
FLIST	-0.046 (-0.38)				
FLIST × D(LY = 1985-1990)		-0.036 (-0.40)			
FLIST × D(LY = 1991-1995)		-0.226 (-0.94)			
FLIST × D(LY = 1996-2000)		0.171 (1.20)			
FLIST × D(LY = 2001-2006)		-0.132 (-0.77)			
FLIST × D(Host = Japan)			0.125 (1.11)	-0.030 (-0.31)	0.281** (2.07)
FLIST × D(Host = Canada)			0.075 (0.53)	-0.122 (-1.59)	0.097 (0.59)
FLIST × D(Host = Germany)			0.307** (1.99)	0.158 (1.24)	0.321* (1.79)
FLIST × D(Host = Other)			-0.298 (-1.30)	-0.277 (-0.81)	-0.322 (-1.37)
Sales Growth	0.189*** (9.57)	0.200*** (9.59)	0.199*** (9.60)	0.324*** (11.16)	0.117*** (4.30)
Log (Sales)	-0.030*** (-9.64)	-0.034*** (-9.58)	-0.035*** (-9.70)	-0.037*** (-9.21)	-0.032*** (-5.69)
Industry Q	0.561*** (15.74)	0.601*** (15.77)	0.600*** (15.95)	0.500*** (9.25)	0.645*** (14.56)
Firm Q (-2)	0.955*** (36.82)	0.916*** (36.89)	0.917*** (37.58)	0.896*** (28.26)	0.931*** (37.10)
Year effects	Yes	Yes	Yes	Yes	Yes
R ²	0.480	0.480	0.480	0.519	0.481

Table 11 (continued)

This table reports the regression test results for a panel of U.S. firms across different host markets, time periods, and industry and firm characteristics. The dependent variable is firm's Tobin's Q. Firm Q (-2) is the firm's Q two years prior to the listing. Firm's Q and all other variables are defined as in Table 4. The table also shows the R-squares and, in parentheses, the t-statistics. Standard errors are clustered by the firm. The year fixed effects are included in each regression but the coefficients are not shown. Notations *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Table 12
Foreign listing premium for the top ten home markets with firm valuation control

	Canada	US	UK	Australia	India
Observations	6,677	86,114	15,481	4,373	2,378
Intercept	0.269 [*] (1.82)	-0.428 ^{***} (-9.45)	-0.439 ^{***} (-3.24)	0.044 (0.27)	0.044 (0.20)
FLIST	0.183 (1.54)	-0.046 (-0.38)	-0.284 ^{**} (-2.07)	0.218 ^{**} (2.45)	-0.923 ^{***} (-4.55)
Sales Growth	-0.003 (-0.11)	0.199 ^{***} (9.57)	0.124 ^{***} (3.50)	-0.042 (-1.41)	0.155 (1.15)
Log (Sales)	-0.050 ^{***} (-3.58)	-0.034 ^{***} (-9.64)	-0.024 ^{***} (-3.46)	-0.044 ^{***} (-3.91)	0.024 (1.39)
Industry Q	0.305 ^{***} (3.48)	0.601 ^{***} (15.74)	0.611 ^{***} (7.26)	0.152 (1.48)	0.728 ^{***} (3.65)
Firm Q (-2)	0.855 ^{***} (21.69)	0.916 ^{***} (36.82)	0.841 ^{***} (17.67)	1.051 ^{***} (32.91)	0.867 ^{***} (11.48)
Year effects	Yes	Yes	Yes	Yes	Yes
R ²	0.572	0.480	0.432	0.603	0.569

	Japan	Israel	Netherlands	France	Germany
Observations	30,639	356	2,309	7,286	8,420
Intercept	0.120 (1.56)	-0.784 ^{***} (-2.88)	-0.811 ^{***} (-3.38)	-0.669 ^{***} (-3.70)	0.433 ^{**} (-2.36)
FLIST	-0.213 ^{***} (-2.97)	-0.380 ^{**} (-2.12)	0.046 (-0.70)	-0.114 (-0.98)	0.067 (0.66)
Sales Growth	0.463 ^{***} (5.20)	-0.104 (-1.49)	0.417 ^{**} (2.54)	0.274 ^{***} (3.78)	0.221 ^{***} (4.11)
Log (Sales)	-0.048 ^{***} (-7.64)	-0.008 (-0.55)	-0.025 ^{**} (-2.34)	-0.018 ^{***} (-2.78)	-0.040 ^{***} (-4.96)
Industry Q	0.285 ^{***} (8.73)	0.483 ^{***} (2.74)	0.677 ^{***} (3.24)	0.547 ^{***} (6.08)	0.660 ^{***} (6.63)
Firm Q (-2)	0.916 ^{***} (19.23)	1.082 ^{***} (6.78)	0.853 (15.33)	1.034 (19.43)	0.930 (12.77)
Year effects	Yes	Yes	Yes	Yes	Yes
R ²	0.609	0.627	0.535	0.484	0.463

This table reports the valuation premium from foreign listing in the top ten home markets. These markets include Canada, the United States, the United Kingdom, Australia, India, Japan, Israel, the Netherlands, France, and Germany. The dependent variable is firm's Tobin's Q. The dependent variable is firm's Tobin's Q. Firm Q (-2) is the firm's Q two years prior to the listing. Firm's Q and all other variables are defines as in Table 4. The table also shows the adjusted R-squares and, in parentheses, the t-statistics. Standard errors are clustered by the firm. The year and country (when necessary) fixed effects are included in each regression but the coefficients are not shown. Notations ^{*}, ^{**}, and ^{***} denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Table 13
Foreign listing premium for the top ten host markets with firm valuation control

	US	UK	Luxembourg	Germany	Japan
Observations	223,731	223,731	223,731	223,731	223,731
Intercept	-0.451 ^{***} (-9.74)	-0.460 ^{***} (-10.26)	-0.461 ^{***} (-10.23)	-0.456 ^{***} (-10.16)	-0.457 ^{***} (-10.14)
FLIST	-0.163 ^{**} (-2.04)	-0.168 ^{**} (-2.53)	-0.547 ^{***} (-4.68)	0.080 (1.48)	0.056 (0.82)
Sales Growth	0.164 ^{***} (13.63)	0.164 ^{***} (13.64)	0.164 ^{***} (13.65)	0.164 ^{***} (13.64)	0.164 ^{***} (13.64)
Log (Sales)	-0.032 ^{***} (-13.67)	-0.033 ^{***} (-13.71)	-0.032 ^{***} (-13.48)	-0.033 ^{***} (-13.95)	-0.033 ^{***} (-13.73)
Industry Q	0.501 ^{***} (21.98)	0.500 ^{***} (21.89)	0.500 ^{***} (21.91)	0.500 ^{***} (21.90)	0.501 ^{***} (21.88)
Firm Q (-2)	0.943 ^{***} (62.74)	0.943 ^{***} (62.55)	0.943 ^{***} (62.51)	0.943 ^{***} (62.49)	0.943 ^{***} (62.49)
Country effects	Yes	Yes	Yes	Yes	Yes
Year effects	Yes	Yes	Yes	Yes	Yes
R ²	0.508	0.508	0.508	0.508	0.508

	France	New Zealand	Canada	Switzerland	Netherlands
Observations	223,731	223,731	223,731	223,731	223,731
Intercept	-0.458 ^{***} (-10.19)	-0.458 ^{***} (-10.16)	-0.458 ^{***} (-10.16)	-0.458 ^{***} (-10.16)	-0.462 ^{***} (-10.29)
FLIST	-0.023 (-0.23)	0.121 [*] (1.95)	0.126 (1.07)	-0.020 (-0.11)	-0.425 (-1.61)
Sales Growth	0.164 ^{***} (13.64)				
Log (Sales)	-0.033 ^{***} (-13.81)	-0.032 ^{***} (-13.72)	-0.032 ^{***} (-13.69)	-0.033 ^{***} (-13.74)	-0.032 ^{***} (-13.69)
Industry Q	0.500 ^{***} (21.86)	0.500 ^{***} (21.89)	0.500 ^{***} (21.89)	0.500 ^{***} (21.92)	0.500 ^{***} (21.89)
Firm Q (-2)	0.943 ^{***} (62.49)	0.943 ^{***} (62.49)	0.943 ^{***} (62.49)	0.943 ^{***} (62.65)	0.943 ^{***} (62.49)
Country effects	Yes	Yes	Yes	Yes	Yes
Year effects	Yes	Yes	Yes	Yes	Yes
R ²	0.508	0.508	0.508	0.508	0.508

This table reports the valuation premium from foreign listing in the top eight host markets. These markets include the United States, the United Kingdom, Luxembourg, Germany, Japan, France, New Zealand, Canada, Switzerland, and the Netherlands. The dependent variable is firm's Tobin's Q. The dependent variable is firm's Tobin's Q. Firm Q (-2) is the firm's Q two years prior to the listing. Firm's Q and all other variables are defined as in Table 4. The table also shows the adjusted R-squares and, in parentheses, the t-statistics. Standard errors are clustered by the firm. The year and country (when necessary) fixed effects are included in each regression but the coefficients are not shown. Notations *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

Table 14
Impact of home and host market valuations on valuation of U.S. and non-U.S. firms listed abroad

	High Home Q			High Host Q		
	US firms	US listings	N/US listings	US firms	US listings	N/US listings
Observations	86,114	137,529	137,529	86,114	137,529	137,529
Intercept	-0.428 ^{***} (-9.43)	-0.365 ^{***} (-4.54)	-0.345 ^{***} (-4.13)	-0.428 ^{***} (-9.45)	-0.366 ^{***} (-4.55)	-0.346 ^{***} (-4.12)
FLIST	-0.230 [*] (-1.86)	-0.262 ^{***} (-3.98)	-0.173 (-1.81)	-0.072 (-0.93)	-0.190 ^{***} (-4.75)	0.040 (0.46)
FLIST×D(HmQ)	0.199 [*] (1.94)	0.293 ^{***} (4.88)	0.031 (0.23)	0.037 (0.34)	0.140 ^{***} (2.80)	-0.230 ^{**} (-2.26)
Sales Growth	0.199 ^{***} (9.57)	0.139 ^{***} (10.81)	0.139 ^{***} (10.75)	0.199 ^{***} (9.58)	0.139 ^{***} (10.78)	0.139 ^{***} (10.75)
Log (Sales)	-0.034 ^{***} (-9.64)	-0.030 ^{***} (-10.96)	-0.031 ^{***} (-10.62)	-0.034 ^{***} (-9.64)	-0.029 ^{***} (-10.88)	-0.031 ^{***} (-10.61)
Industry Q	0.601 ^{***} (15.74)	0.615 ^{***} (16.31)	0.616 ^{***} (16.39)	0.602 ^{***} (15.76)	0.613 ^{***} (16.32)	0.616 ^{***} (16.39)
Firm Q(-2)	0.916 ^{***} (36.86)	0.950 ^{***} (59.42)	0.950 ^{***} (60.02)	0.916 ^{***} (36.83)	0.950 ^{***} (59.15)	0.950 ^{***} (59.98)
Country effects		Yes	Yes		Yes	Yes
Year effects	Yes	Yes	Yes	Yes	Yes	Yes
R ²	0.480	0.530	0.530	0.480	0.530	0.530

This table reports the regression test results of valuation changes around foreign listings for the sub-samples of listings that are placed in highly valued home (first three columns) and host markets (last three columns). A home (host) country is highly valued, denoted through a dummy variable D(HmQ), if its aggregate Tobin's Q exceeds the median home (host) market Q in a given year. The estimation results are shown three data splits: U.S. firms listed abroad, foreign firms listed in the U.S., and foreign firms listed outside the U.S. (N/US). The dependent variable is firm's Tobin's Q. Firm's Q and all other variables are defines as in Table 4. The table also shows the adjusted R-squares and, in parentheses, the t-statistics. Standard errors are clustered by the firm. The year and country (when necessary) fixed effects are included in each regression but the coefficients are not shown. Notations *, **, and *** denote statistical significance at the 10%, 5%, and 1% levels, respectively.

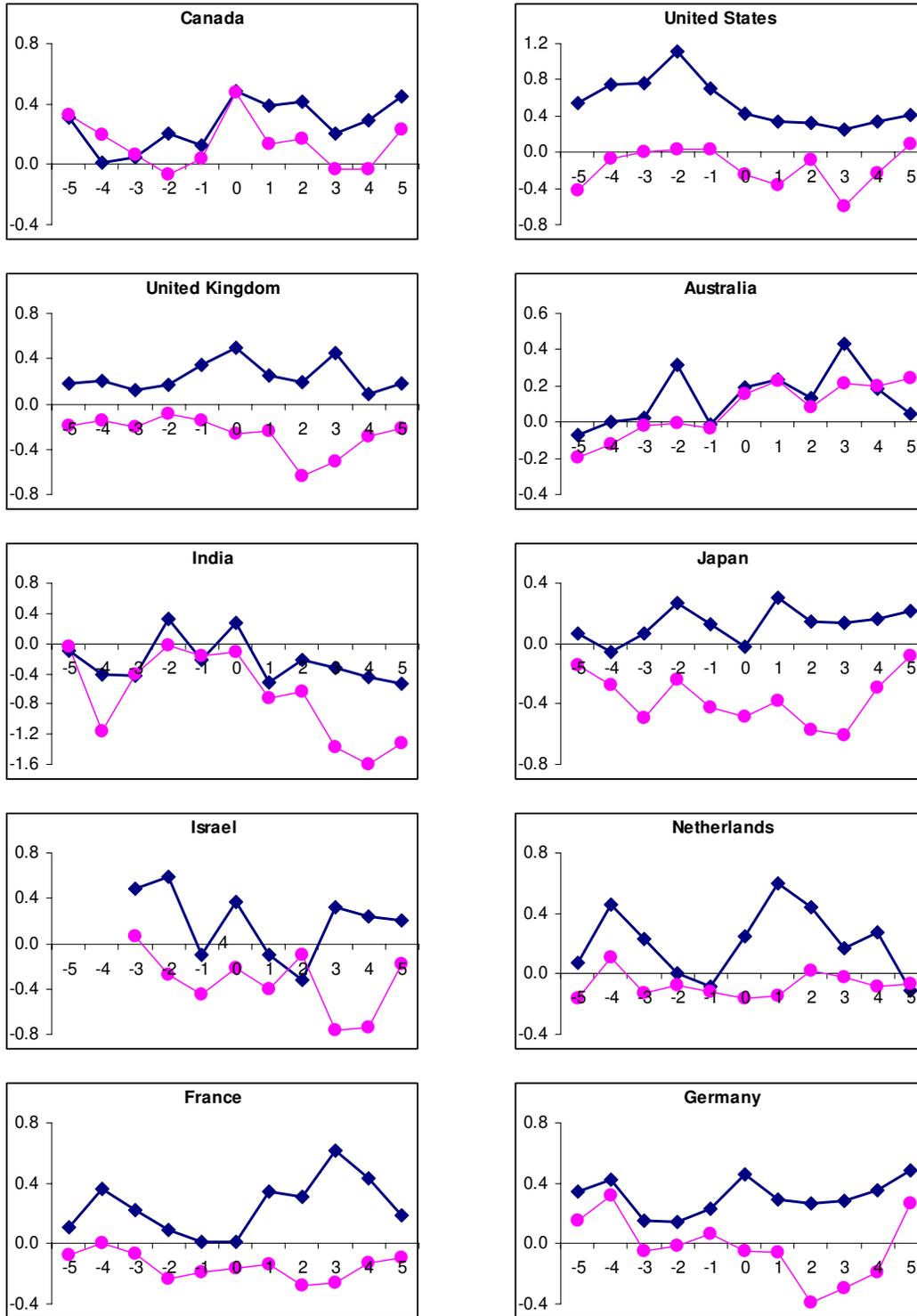


Figure 1. Changes in firm valuation around the listing for the top ten home markets. The figure presents the Tobin's Q valuation premium for firms from the top ten home markets. Diamond thick curve denotes listing premium without firm valuation control. Circled thin curve denotes listing premium with firm valuation control. The plot covers the period from five or more years before the listing to five or more years after the listing. Year -5 denotes a period prior to five years before the listing, while year 5 denotes five or more years after the listing.

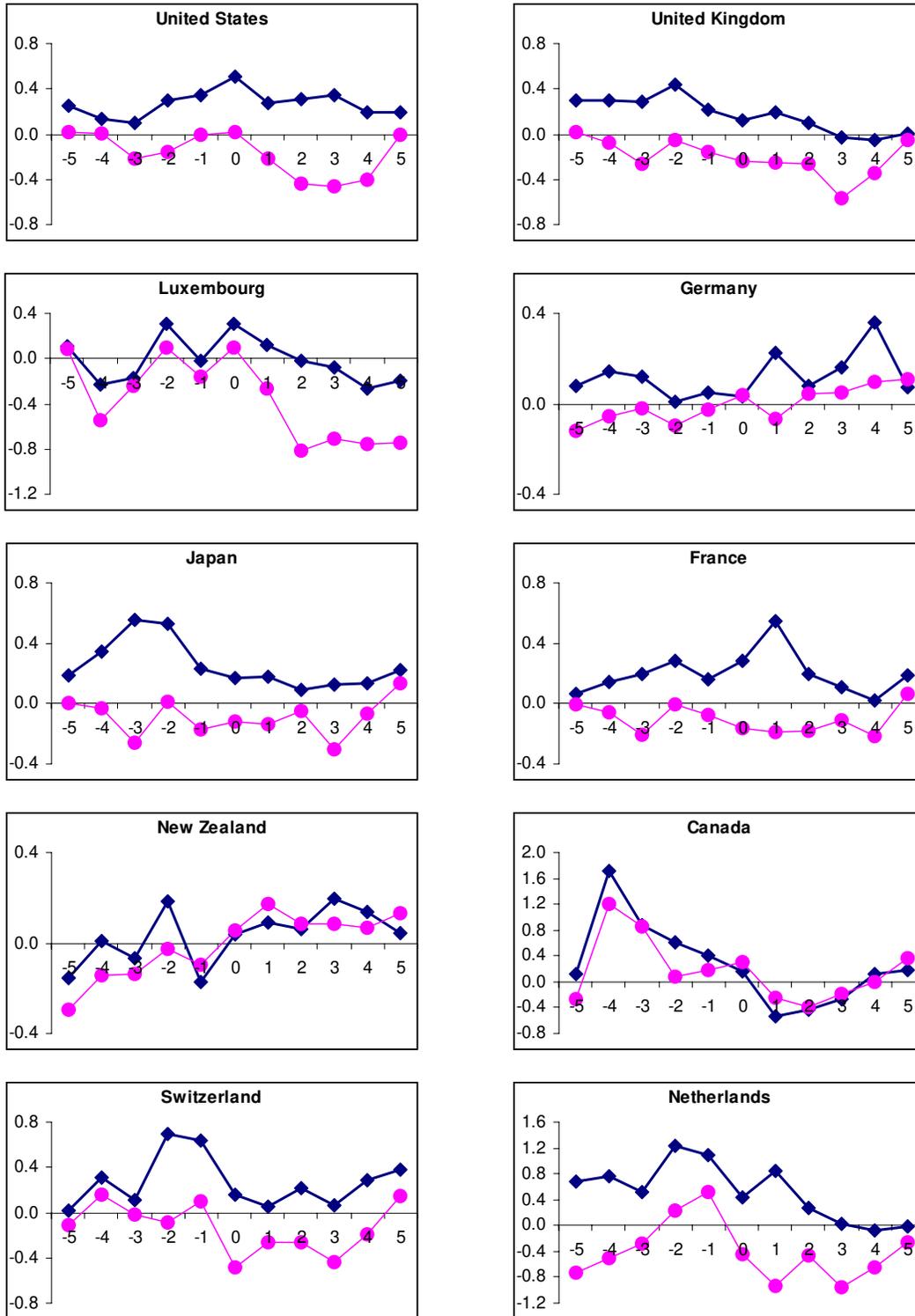


Figure 2. Changes in firm valuation around the listing for the top ten host markets. The figure presents the Tobin's Q valuation premium for firms from the top ten host markets. Diamond thick curve denotes listing premium without firm valuation control. Circled thin curve denotes listing premium with firm valuation control. The plot covers the period from five or more years before the listing to five or more years after the listing. Year -5 denotes a period prior to five years before the listing, while year 5 denotes five or more years after the listing.