DERA
Working Paper Series

Going Public Abroad

Cecilia Caglio

Kathleen Weiss Hanley

Jennifer Marietta-Westberg

Going Public Abroad

Current version: November 2013

ABSTRACT

This paper examines the decision to go public abroad using a sample of 17,808 IPOs. Although only 6% of initial public offerings are offered abroad, these represent approximately 25% of total IPO proceeds. We find that alleviating informational frictions in order to obtain greater offering proceeds is an important determinant of the decision to go public abroad. Foreign and global IPOs originate from countries with significantly fewer recent IPOs in the same industry, less developed capital markets, and lower disclosure standards. Contrary to assumptions in prior research, we also show that the determinants of whether to go public abroad or to go public at home and cross-list later are not similar. In addition, we find that the preferences for going public in certain foreign markets have changed over time and the factors that impact the choice of listing market are not consistent across all countries.

Issuing firms are increasingly turning to global markets to raise funds.[1] Indeed, initial public offerings (IPOs) that go public abroad are an important source of new capital for firms. From 1995 to 2007, 6% of IPOs in our sample go public outside their country of origin and this activity accounts for almost half a trillion dollars or a quarter of all IPO proceeds worldwide.

Despite their economic importance, most cross-listing studies make no distinction between foreign IPOs and seasoned firm cross-listings. [2] Pagano, Roell, and Zechner (2002), in their review of the reasons for listing abroad state "the decision to list on a foreign exchange is related to the more general issue of why firms go public."

By employing a database that covers 17,808 issuing firms from 90 countries over 13 years (from 1995 to 2007), we can examine which countries and firms benefit most from going public abroad and how a robust IPO market affects the trend toward greater globalization of capital. To differentiate the effects, we consider five different types of offers or listings: 1) domestic IPOs (issued only in the home country), 2) foreign IPOs (issued in a foreign country but not their home country), 3) global IPOs (issued simultaneously in the home and foreign countries), 4) cross-listings (any non-IPO in Datastream that lists outside its home country during the sample period) and 5)subsequent cross-listings (domestic IPOs in our sample that go public first at home and then later in a foreign country).

Our analysis points to important differences between IPOs that go public abroad and seasoned firm cross-listings. For example, IPOs that go public abroad are substantially smaller in size, more likely to be high tech and have greater growth opportunities than seasoned firms that cross-list. We also find that the time series of foreign IPOs and cross-listings is not highly correlated across the sample period indicating

[1]Kim and Weisbach (2008) find that although most capital raising occurs predominantly in domestic markets, an increasing number of companies turn to global markets as a source of funds. Henderson, Jegadeesh, and Weisbach (2006) estimate that about 12.2% of new capital raised through public equity offerings during the 1990 to 2001 period was conducted cross-border. Gozzi, Levine, and Schmukler (2010) estimates that 39% of firms in their sample raise equity outside their home countries in 2005.

[2]Zingales (2007) defines "an IPO as global if a company goes public in a market other than its domestic market, regardless of whether the company was already public in the home market or not." Gagnon and Karolyi (2010) note that a "cross-listing also referred to as 'dual-listing, ''international listing' or 'interlisting' is usually a strategic choice made by a firm to secondarily list its shares trading in a home market exchange on a new overseas market. It may or may not include an *initial* or a secondary capital-raising." (italics added) See Karoyli (1998) for a review of the literature.

that the timing of the listing decision of these two types of firms may not be affected by the same factors.

For example, the two network graphs, Figure 1 and Figure 2, highlight the changes in the global market for cross-listings and IPOs going public abroad over two time periods: a) 1995 to 2001 and b) 2002 to 2007. In both figures, the size of the node represents the number of listings in each country. Figure 1 shows that the US and the UK attract roughly the same number of cross-listings in the first sub-period but the UK gains substantial market share in the second sub-period.[3] The number of countries either originating or listing cross-listings has declined over time as nest of network relationships is less complex in the latter sub-period. Figure 2 presents a similar preference for the UK over the US in the latter sub-period for IPOs going public abroad. In contrast to the cross-listings network graph, the complexity of the relationships between originating and listing countries for foreign/global IPOs has become more rather than less complex over time indicating greater globalization.

The complexity of listing relationships coupled with the change in the time series of offerings may point to a substitution effect between cross-listings and going abroad at the time of the IPO. Factors such as the increased globalization of investment banking services (Ljungqvist, Jenkinson, and Wilhelm (2003)), the rise of bookbuilding methods around the world (Jagannathan, Jirnyi, and Sherman (2000)) and an increased ability to raise capital on more advantageous terms outside an IPO's home country may have accelerated the benefits of listing abroad at the time of the IPO rather than waiting to cross-list after going public at home.

There are two primary differences between IPOs and cross-listings. First, firms going public do not have any prior trading history and second, all firms going public are raising capital at the time of the offering. The type of firm that chooses to list abroad is likely to be motivated by the potential for greater proceeds either because investor demand is limited in the home country or foreign markets provide a higher valuation for the firm. Theory suggests that firms may choose to do an IPO in a foreign market where potential investors have a comparative information advantage

[3]Luxembourg also attracts a large number of cross-listings and has preferential tax treatment for corporate income.

that will increase offering proceeds.[4]

Chemmanur and Fulghieri (2006) present a model where a firm's listing choice is driven by the presence (or absence) of skilled analysts and investors in various markets, and the extent to which information about the firm is available to these investors. Similarly, Subrahmanyam and Titman (1999) suggest that markets with more public firms can create positive externalities in informational efficiency that may attract foreign listings. Our findings support both of these conjectures as an issuing firm is more likely to choose to do an IPO in a foreign country when it originates from a market that has an informational disadvantage as indicated by fewer peer firm IPOs and lower market quality.

In addition, going public in a market with more stringent securities laws can also maximize proceeds by enabling the issuing firm to credibly commit to greater ongoing disclosure (Stulz (2009)). This commitment reduces the ability of the entrepreneur to extract private benefits (Shleifer and Wolfenzon (2002)) and increase offering proceeds. Stulz (2009) models the decision of an entrepreneur to go public outside of her home country. In the model, the entrepreneur has an incentive to overinvest in order to consume private benefits and investors incorporate this incentive by discounting the price they are willing to pay for the shares of the firm. In order to increase proceeds, he suggests that "there is a demand from entrepreneurs for mechanisms that allow them to commit to credible disclosure because disclosure helps reduce agency costs."

These mechanisms include stronger mandatory disclosure rules that have good public enforcement. If such mechanisms are not available in the issuer's home country, the entrepreneur may choose to list in a country with stronger securities laws. We find that issuing firms choose to list abroad when their ability to commit to strong disclosure in their home market is compromised. Foreign and global IPOs originate from countries that have significantly worse disclosure standards. Our results support the conjecture of Stulz (2009) that "firms in countries with weak securities laws can benefit from choosing to subject themselves to stronger securities laws."

[4]A number of papers examine the role of information generation in the IPO process. See Rock (1986), Sherman and Titman (2002), Pastor and Veronesi (2005), Lowry (2003), Hanley and Hoberg (2009) and Lowry, Officer, and Schwert (2010) to name a few.

The willingness and ability to commit to a stronger disclosure regime is also affected by firm characteristics. A comparison between domestic IPOs and foreign/global IPOs indicates that firms listing abroad are significantly larger in terms of total assets and have lower growth (ROA) opportunities. They also have a greater proportion of foreign sales consistent with Pagano, Roell, and Zechner (2002) who argue that companies with large foreign sales go public abroad to capitalize on investor familiarity with the firm through its product market. Thus, the benefits of listing abroad appear to be limited to mature firms with an existing international presence.

We analyze whether firms that wait to cross-list later (Subsequent Cross-Listings) face a different set of constraints than those who list abroad at the time of the IPO that may affect the timing of the decision. We find that subsequent cross-listings wait, on average, three years to cross-list. These firms go public at a time of lower global market returns and in markets with a larger number of IPO industry peers. Neither the market quality nor the type of disclosure laws in the home country are significant determinants at the time of the IPO. Thus, the benefit of listing in a foreign country, at the time of an IPO, for better information generation appears to be lower for subsequent cross-listings.

We next examine the decision of where an issuing firm may choose to list abroad. Preferred listing countries of foreign or global IPOs are limited to a few well-developed markets such as the US, UK and Singapore, consistent with Claessens and Schmukler (2007).[5] More importantly, we find that the factors that affect issuance in the US appear to be quite different then the factors affecting the listing in any other country.

The probability of listing in the US is increasing in the size of the proceeds raised, the number of comparable recently-issued industry IPOs, the percentage of foreign IPOs that list from the same home country and the magnitude of the difference in disclosure requirements between the home and listing countries. US markets, therefore, may be attractive to foreign and global IPOs that would benefit most from more stringent securities laws and a greater number of industry and home market peers. In

[5]Note that Hong Kong is not one of the preferred listing markets. Hong Kong's recent growth is primarily due to the listing of Chinese companies. We classify Chinese companies listing in Hong Kong after 1997 as domestic, not foreign IPOs. Outside of these Chinese companies, Hong Kong has few foreign listings.

contrast, issuing firms that originate from countries with better, not worse, disclosure are more likely to list in other markets.

Finally, we examine whether the amount of proceeds raised is related to better information generation and differences in disclosure laws. We show that, holding constant the decision to list abroad, firms that issue in markets with higher returns in the year preceding the IPO, with better private bond (but not stock) market development and with a greater number of IPO industry peers have greater proceeds. Consistent with Stulz (2009), we find that proceeds for firms that have a larger discrepancy between the disclosure laws in the home country and the listing country are higher, all else constant. While not causal, this relationship suggests that firms from countries with worse disclosure laws may receive a greater benefit from going public abroad.

This study contributes to the literature on international capital raising by examining the impact of both microeconomic and macroeconomic variables on the decision to go public abroad. Others have focused either on specific countries or regions. For example, Bruner, Chaplinksky, and Ramchand (2004) examine 245 international firms from 43 countries that conduct an IPO in the US from 1991-1999 and conclude that the primary driver for listing in the US appears to be a common border and language. Blass and Yafeh (2001) examine differences in Israeli IPOs that list at home and abroad and surmise that Israel, because it is a bank dominated financial system, is not as conducive for funding innovative firms as a stock market-based financial system like the US.

A related paper by (Doidge, Karolyi, and Stulz (2012)) finds that domestic US IPO world-market share has declined over time and there is an increasing preference for international tranches in IPO offerings. Our study differs from theirs in two ways. First, their analysis is on country-level, rather than firm-specific level of IPO activity. Second, the focus of this paper is on the listing decision of IPO firms and not in which country proceeds are raised. Offerings may have an international tranche in which underwriters sell shares to investors outside the IPO's home country. The issuing firm, however, may or may not list their shares in that country.[6] Because a listing

[6]For example, some US IPOs have a Canadian tranche in which the US IPO prospectus is

commits the firm to abide by the listing country's securities laws while selling shares may not, we suggest that benefits to a foreign listing should be strongest for firms that list shares in a foreign country.

The remainder of the paper is organized as follows: The data and sample are presented in Section I. Listing countries and countries of origin are documented in Section II. Section III explores the determinants of going public abroad. Whether to go public abroad now or cross-list later is presented in Section IV. The choice of listing market is examined in Section V. The relationship between listing market and proceeds is analyzed in VI. The paper concludes in Section VII.

I Data

We identify the initial sample of 21,887 IPOs that went public between 1995 and 2007 from Bloomberg. Bloomberg also provides information on offering characteristics such as proceeds and offer price. We exclude ETFs, closed-end funds, offers with warrants, investment trusts and REITs. In order to ensure no misclassification of an offering as an IPO, we delete any firm that was traded in any market prior to the offer date on Datastream. Our final sample consists of 17,808 IPOs and 3,341 cross-listings from 90 countries.

We define a number of different IPO categories:

Domestic IPOs are IPOs (N=16,738) that go public in their home country but not in any foreign country.[7]

Foreign IPOs (N=892) are IPOs that go public in at least one foreign country but not in their home country.

"wrapped" with Canadian province-specific disclosure and sold in a private placement to institutional investors. The shares, however, usually trade only in the US. Thus, if an IPO has an international tranche but its shares are not listed outside its home country, we would classify this IPO as a domestic IPO.

[7] IPOs that originate in Guernsey, Jersey, British Virgin Islands or the Isle of Man but list in the UK are considered domestic UK IPOs. IPOs that originate in China but list in Hong Kong in 1997 or later are considered domestic Hong Kong IPOs. (There are no Hong Kong IPO listings in China.) IPOs that originate in Puerto Rico and list in the US are considered domestic US IPOs. IPOs that originate in Dubai but list in the UAE are considered domestic UAE IPOs. The domestic leg of global IPOs is not included in the count of domestic IPOs.

Global IPOs (N=178) are IPOs that simultaneously (within 75 days) go public in both their home country and at least one foreign country.[8][9]

Cross-listings (N=3,341) 4) are any non-IPO in Datastream that lists outside its home country during the sample period. The potential sample of cross-listings includes any firm in Thomson Financial's Datastream that lists in a country that is not their country of origin.[10]

Subsequent Cross-Listings (N=275) are domestic IPOs in our sample that go public first at home and then later in a foreign country. The average time between the IPO and cross-listing is three years. At the time of the IPO, these firms are classified as domestic IPOs.

We merge this sample with Thomson Financial's Worldscope and Datastream databases to obtain firm characteristics. (The Appendix contains information on the variables used in this study.) For each firm we compile accounting information variables related to size and growth from Thomson Financial's Worldscope database. These variables include *Total Assets, Net Income, Sales, Foreign Sales/Sales* and *ROA*. We measure firm characteristics at the time of the IPO when available, otherwise financial variables are from the year of the IPO.[11] All accounting and offering variables are in US dollars converted using end-of-the-year (issuing year) values from Datastream and are winsorized at the 1% level.

To determine if capital market development influences the decision to go public outside the home country, we collect country-level information related to country-specific stock and bonds (*Private Bond, Listed Cos/Capita and Stock Mkt Turn*) from the World Bank's Financial Structure Dataset as defined in Beck, Demirguc-Kunt,

[8]Our results are robust to shortening the period allowed between listings. The median time period is 1 day and the mean is 9 days. The foreign leg of most global IPOs occurs within 20 days.

[9]The vast majority of Global IPOs list in the foreign country within 20 days. The mean time to the foreign listing is nine days with a median of one day.

[10]Cross-listings in Germany are excluded because our methodology identifies over 20,000 companies. This large number of cross-listings is due to the fact that many firms can be listed on the Regulated Unofficial Market without an application or even the firm's consent. For foreign or global IPOs listing in Germany, we hand check their listing status. If the IPO is listed on the regulated but not the regulated unofficial market these IPOs are included in the analysis.

[11]Our results are robust to using only firm characteristics from the year prior to the IPO but the sample size is reduced.

and Levine (2000). We use an index of financial liberalization (*Financial Reform*), between zero (repressed) and one (liberal), from Abiad, Detragiache, and Tressel (2008). The index is composed along seven different dimensions: credit controls and reserve requirements, interest rate controls, entry barriers, state ownership, policies on securities markets, banking regulations, and restrictions on the capital account.

A disclosure requirements index (*Disclose*)is from La Porta, Lopez-de Silanes, Shleifer, and Vishny (1998) and is an average of (1) Prospect, (2) Compensation, (3) Shareholders, (4) Inside ownership, (5) Contracts Irregular, and (6) Transactions. The index is intended to capture the strength of public information requirements. Our results, however, are robust to using other LLSV variables such as Public Enforcement (enforcement index), Anti-director Rights (shareholder voting index) and Burden of Proof (liability standards index). We also include the originating country's proximity to the home country (*Proximity*) from Sarkissian and Schill (2004) when available. Otherwise, we fill in any missing country pairs.

We compile industry information on both IPOs and cross-listings using Datastream's sector information to examine whether industry concentration in a listing or home market affects the decision to list abroad. When sector information is not available, we use the firm's two-digit SIC to ascertain the appropriate industry sector. From this information, we define a high tech dummy variable *High Tech* equal to 1 if the firm is in one of the industry sectors listed in the Appendix. Market returns in both the home and listing countries may also be an important component of the listing abroad choice. From Datastream, we calculate the buy-and-hold return (*Mkt Return*) in both the IPO's home and listing market in the year prior to the IPO. In order to capture the return in potential listing markets outside the home country, we construct an equally weighted index (*Listing Mkts Return*) of buy-and-hold returns over the year prior to the listing for the seven most popular listing markets, ranked by the number of foreign and global IPOs: US, UK, Singapore, Germany, Canada, France and Australia.

In addition, we construct *% Industry IPOs* which is the percentage of all IPOs in the same industry that went public in the home or listing country in the prior three years. This variable captures the relative proportion of peer group IPOs in

a particular market. Finally, we measure the *% Foreign IPOs* as the percentage of foreign IPOs from the IPO's home country that went public in the IPO's listing country over the past three years. This variable captures potential foreign investor familiarity with recently public home country companies. (Throughout the paper, a subscript h denotes that the variable is based on the home country and subscript l if it based on the listing country.)

Table I presents the number of firms in each category of IPO or cross-listing by year. Compared to domestic IPOs, the total number of foreign and global IPOs is small representing approximately 6% of all IPOs. The time-series of issuance indicates an increasing number of firms are going public outside their home country after 2002. Indeed, the largest percentage of IPOs listing outside their home country (over 9%) is in the last year of the sample period. The pattern of foreign and global IPOs appears correlated with domestic market issuance.

When examining the number of IPOs and cross-listings in each year, Panel A of Table I provides some indication that the issuance patterns for these two categories of listings are not identical. For example, in 2001 and 2002, there are a substantial number of cross-listings, the largest during the sample period, but relatively few foreign and global IPOs. From 2003 to 2007, there is a sharp drop-off in the number of cross-listings but a consistent increase in the number of foreign IPOs. In fact, 2007, the last year of our sample period, is the largest year of issuance for foreign and global IPOs but one of the smallest for cross-listings. The time series pattern of issues provides one indication that the factors that influence the decision to list outside a firm's home country may not be the same for IPOs and cross-listings. Indeed, a time-series correlation of issuance between IPOs and cross-listings is significantly different at the 10% significance level.

Panel B of Table I presents the time-series of total proceeds raised (in $US millions) by each category of IPO by year.[12] The largest amount raised by foreign and global IPOs is during the high tech year of 2000. Although foreign and global IPOs represent only 6% of the total number of IPOs, they comprise a substantial proportion of all

[12]Note that since many cross-listings do not usually raise proceeds, they are not included in this analysis.

IPO proceeds. On average, almost 25% of the total proceeds raised for all IPOs come from foreign and global IPOs but this number is as high as 60% in 2000.

The distribution of industry sectors is shown in Table II. Not surprisingly, many of the IPOs in the sample are in high tech industries such as Software & Computer Services and Technology Hardware & Equipment. Almost a quarter of the IPOs in the sample are classified as high tech using the definition in the Appendix.

II Home and Listing Countries

In this section, we examine the composition of home and listing countries. Our sample of IPOs and cross-listings originate in 90 different countries. For the purposes of this study, we classify countries as those "with active" and those "without active" listing markets. The 32 countries with active listing markets have a substantial number of listed companies in the World Federation of Exchanges. For these countries, we collect information on domestic IPOs in addition to foreign IPOs, global IPOs and cross-listings.

We classify the remaining 58 countries as "without active" listing markets. These countries, however, originate at least one listing classified as a foreign IPO, a global IPO or a cross-listing. This classification is important since IPOs from countries without active listing markets are more likely to go public abroad because they do not have a strong home country alternative. Since these countries do not have very active securities markets, we do not collect information on domestic IPOs. However, we are able to obtain some home country market characteristics for countries without active listing markets for many of our databases.

Because we do not examine domestic IPOs for countries without active markets, by default, all IPOs listing outside their country of origin will generally be classified as foreign IPOs (defined as IPOs that go public in at least one foreign country but not in their home country). However, if Datastream covers trading in a "without active market" country, and we find that the IPO is simultaneously traded in their home market, we re-classify them as a global IPO.

The number of foreign IPOs, global IPOs, domestic IPOs and cross-listings that list in or originate from an active market country is shown in Table III. The first five columns of Table III and all of Table IV, are by listing rather than by IPO, while the last three columns of Table III are by IPO. Listings are greater than the number of IPOs. Indeed, approximately 24 foreign and 16 global IPOs issue simultaneously in more than one country with the majority in a total of two markets.[13]

As an example, in Table III, if a Brazilian IPO goes public in both the US and in Singapore, it would be counted twice in the column "Foreign IPOs Listing in Country", once each for the US and Singapore. It would be counted only once, however, in the column "Foreign IPOs Originating in Country" for Brazil.

As can be seen in the table, the US (3,300), Japan (1,934), China/Hong Kong (1,865), the UK (1,676), Canada (1,599), Australia (1,339), and South Korea (923) have the most active domestic IPO markets while Argentina (8), Ireland (5) and Luxembourg (3) have the least active of those countries classified as having active markets.

Having an active domestic IPO market does not necessarily mean that the country also attracts a substantial number of foreign listings. Japan, China/Hong Kong, Australia, South Korea and Canada have few foreign IPOs or cross-listings listed in their country despite their very active domestic IPO markets. Of all the countries listed, only the US and the UK attract a substantial number of cross-listings and only the US, the UK and Singapore are able to attract a large number of IPOs issuing abroad.[14] Thus, the destination of foreign or global IPOs appears to be generally limited to a few well-developed markets consistent with Claessens and Schmukler (2007).

Table IV lists countries which originate foreign or global IPOs and/or cross-listings

[13]The domestic offering of a global IPO is deleted from all categories and is not counted in the number of markets for a global IPO. For example, if a French firm goes public both in France and the UK, only the UK but not the French listing will be noted in the table.

[14]Although many media articles often point to the rise of Hong Kong as an important venue for foreign listings, it's importance in the global capital market is primarily due to an increase in the number of listings of large Chinese companies and banks. Because we classify any Chinese IPO that goes public in Hong Kong from 1997 onward as a domestic Hong Kong IPO, we do not show that Hong Kong attracts many non-Chinese IPOs for listings.

in our sample but do not have an active market. The only countries with these markets that originate a significant number of foreign listings are Bermuda (47) and the Cayman Islands (17), both of which are considered off-shore financial centers. In total, 145 foreign IPO listings are attributed to countries with non-active markets. Non-active markets also originate cross-listings with the largest number from Sweden (75), South Africa (51) and Belgium (48).

In summary, this section documents the potential market segmentation in originating and listing foreign and global IPOs. Only a few well-developed capital markets, such as the US and the UK, both originate and list a substantial number of foreign and global IPOs. Otherwise, the remaining countries originate, but do not list, foreign and global IPOs. This segmentation is consistent with the literature which has shown that the decision to cross-list is often motivated by market differences. In the next section, we explore the decision to go public abroad more extensively.

III Determinants of Going Public Abroad

A Summary Statistics on Firm and Market Characteristics

In this section, we examine a number of factors that may influence the decision to go public abroad. Both Chemmanur and Fulghieri (2006) and Subrahmanyam and Titman (1999) suggest that firms go public in markets where investors have a comparative information generation advantage. This advantage is likely to be related to the number of peer firms trading in the home or listing country. Thus, the greater (lower) the number of recent IPOs in the same industry that went public in the home country, the lower (greater) should be the probability that a firm goes public abroad.

Conducting an IPO outside the home country may be influenced by market characteristics (Pagano, Randl, Roell, and Zechner (2001)). Better developed capital markets in the home country alleviate information generation frictions and should reduce the need to raise capital abroad. For example, Brown, Martinsson, and Petersen (2012) find that strong shareholder protections and better access to stock market financing is conducive for investment in R&D. Transactions costs may play an important role in the decision to cross list (see for example, Foerster and Karolyi

(1998)). Larger, more developed capital markets are likely to have better liquidity and lower transactions costs and lessen the need for an IPO to issue in a foreign country. Better stock market performance in the year preceding the IPO in potential listing markets as compared to performance in the home country may also increase the odds of an IPO choosing a foreign listing. We hypothesize, therefore, that characteristics related to better capital development and higher stock market performance in the issuing firm's home country should be negatively related to the decision to list abroad.

Firms may also choose to go public abroad in order to bond to greater legal and disclosure standards (Stulz (1999)). Issuing in countries with better legal standards can lower the cost of capital as well as reduce the information asymmetry between the issuing firm and potential investors. Stulz (2009) presents a model in which an entrepreneur has an incentive to over-invest to consume private benefits. If the issuing firm resides in a country with poor disclosure laws, investors will incorporate the expected loss in value due to the consumption of private benefits and will pay less for the IPO's proceeds. In order to maximize proceeds and credibly commit to reducing private benefits, the entrepreneur can choose to list in a country with strong disclosure laws and public enforcement. Reese and Weisbach (2002) suggest that "when firms have a large demand for equity capital, they have incentives to cross-list in the US as a way to bond themselves to protect shareholders' interests all over the world." Thus, we predict that IPOs from countries with worse disclosure requirements are more likely to list abroad.

The ability of a firm to access foreign markets may be a function of specific firm characteristics. Firm size has been a critical determinant of the decision to cross-list [Saudagaran (1988)]. Larger firms have the necessary resources to hire investment bankers and lawyers to help navigate an international listing. Since IPOs raise capital, it could be the case that firms choosing a foreign or global IPO need greater proceeds than the home market can provide. Therefore, we predict that IPOs that go public abroad will be larger in terms of size (proceeds, sales, total assets) than their domestic counterparts.[15]

[15]It is difficult to ascertain a causal effect on proceeds because of endogeneity. It is not evident

Profitability and growth may also influence the decision to list shares outside the home country. Firms that have a higher return on assets (ROA) may need access to larger amounts of capital not only at the time of the IPO but also in the future to finance growth (Pagano, Randl, Roell, and Zechner (2001), Blass and Yafeh (2001)). We hypothesize that the decision to go public abroad should be positively related to ROA.

A firm's product market presence in the country where it is going to raise capital may make a foreign market more receptive to an IPO. Pagano, Roell, and Zechner (2002) find that greater foreign sales increase the probability that a firm will list outside its home country. IPOs do not have current trading values that foreign investors can use to assess the price of the shares. Foreign sales, as a proxy for investor familiarity with the company through the product market, is, therefore, likely to be an important variable in the decision to go public abroad because it may reduce informational frictions.

Summary statistics on firm, offering and country characteristics are presented in Table V. In Panel A, we present summary statistics on firm and offering variables. In terms of rank order, domestic IPOs are generally smaller than foreign IPOs which are smaller than global IPOs. Domestic IPOs raise, on average, \$69 million in proceeds, followed by foreign IPOs with average proceeds of \$114 million, and global IPOs with average proceeds of \$428 million.

A similar pattern is shown using accounting variables. Foreign IPOs have net income twice that of their domestic counterparts while global IPOs have average net income of almost 15 times that of domestic IPOs. Total assets are similar for domestic and foreign IPOs (\$685 million and \$638 million, respectively) but global IPOs are very large with total assets of \$7,166 million. Sales are also highest for global IPOs (\$2,821 million) and lowest for domestic IPOs (\$241 million). These comparisons suggest that the type of issuing firm choosing a global IPO may differ substantially from one that chooses either a domestic or foreign-only IPO.

The relative ranking of the percentage of foreign sales for all categories is consistent

whether larger proceeds are driven by listing abroad or whether listing abroad is driven by the need for larger proceeds.

with the prediction that a large foreign presence is a strong determinant of listing abroad. The largest percentage of foreign sales is for foreign IPOs (47%). Cross-listings and global IPOs have approximately 40% foreign sales while domestic IPOs have the lowest percentage at 18%.

Foreign and global IPOs also seem to differ in their proximity to the listing country (Sarkissian and Schill (2004)). Global IPOs, on average, are located 4,749 kilometers away from the listing country while foreign IPOs are further away, 5,463 kilometers, from their listing countries. Thus, the issue of proximity, which has been found to be a significant determinant of the decision to cross-list (Sarkissian and Schill (2004)), may not be as important for foreign IPOs.

B Comparison of Foreign and Global IPOs and Cross-Listings

As mentioned previously, the literature on cross-listing rarely makes a distinction between seasoned firms and IPOs. Thus, it is difficult to ascertain whether the documented determinants of cross-listing driven by whether the firm is an IPO or a seasoned firm. In this section, we examine univariate differences between cross-listings and IPOs in Table VI and show substantial univariate differences along most dimensions.

Not surprising, in Panel A, foreign and global IPOs are much smaller than cross-listings in terms of size whether measured by net income, total assets or sales. Foreign IPO firms differ from cross-listings in having greater foreign sales, ROA and a higher proportion of firms classified as high tech. The firm characteristics of global IPOs, which are larger in size than foreign IPOs, do not significantly differ from cross-listings in terms of foreign sales, ROA or being classified as high tech.

As much of the literature is focused on the role of country characteristics in the decision to cross list, Panel B examines whether foreign and global IPOs originate from countries with similar capital market development. With the exception of *Listed Cos/Capita*, foreign and global IPOs originate from countries with worse capital market development, weaker financial reform (foreign IPO only) and worse disclosure requirements than do cross-listings.

In terms of market returns in the year prior to the listing, foreign and global IPOs go public in periods of higher market returns both in the home and listing countries than do cross-listings. Foreign and global IPOs also originate from countries with a lower industry concentration and list in countries that have a higher percentage of IPOs in the same industry. Finally, foreign IPOs are located significantly further from their listing countries than cross-listings indicating that proximity may not be as large a factor in the decision to go public abroad as to cross-list.

These findings indicate that foreign and global IPOs are not similar in characteristics to seasoned cross-listings. Examining IPOs alone is likely to provide a more focused examination of the factors that drive an issuing firm to list outside their home country early in their public company lifecycle. In the next section, we examine this in more detail.

C Comparison of Foreign and Global IPOs and Domestic IPOs

Table VII presents a multinomial logit analysis on the determinants of going public abroad. The dependent variable represents the type of IPO: Domestic IPO, Foreign IPO or Global IPO. Excluded from the analysis are cross-listings.

We provide a number of different specifications for the following reasons: First, there is a high degree of multicollinearity between the index of disclosure and capital market variables. Better capital markets, as measured by *Private Bond, Listed Cos/Capita* and *Financial Reform* tend to be positively correlated with *Disclose*. Second, many of the international variables are missing for a subset of countries or years. For example, there are no *Private Bond* values for Israel and no index of disclosure (or any other LLSV variable) for China. The index of financial reform is only available until 2005 and thus, excludes the last two years of our sample. Finally, not all of the accounting variables are uniformly populated. A balanced panel approach, therefore, omits a number of important countries or years in the analysis.

The effect of firm and offering characteristics on the probability of listing abroad is consistent across all three models. The marginal effect on the amount of proceeds

raised and whether the firm is high tech is positive and significant for foreign or global IPOs but negative and significant for domestic IPOs. Greater proceeds for foreign and global IPOs is consistent with Chaplinsky and Ramchand (2000) who show that foreign IPOs listing in the US raise significantly greater proceeds than their domestic counterparts. This finding, however, is endogenous to the type of firm. It is not clear whether foreign/global IPOs are able to raise more capital by going public abroad or desire to raise more capital and thus, go public abroad to reach a larger investor base.

In at least one specification, Model 3b, the greater the ROA, the greater the probability that the firm will do a domestic IPO and the lower the probability the firm will do a foreign or global IPO, a finding consistent with Pagano, Roell, and Zechner (2002). This result is counter to the prediction that higher growth firms need greater access to capital abroad to fund operations and is likely due to the predominance of high tech firms and global IPOs which often have negative ROAs.[16] Being a high tech company increases (decreases) the probability of being a foreign IPO (domestic IPO) but has no effect on the probability of being a global IPO.

Generally, the level of the issuing firm's sales does not have a significant effect on the probability that the firm will go public abroad. In contrast, the percentage of sales that are foreign does have a significant effect. The higher the percentage of foreign sales, the more likely the IPO will go public abroad, a finding consistent with the literature on cross-listings. This result is also consistent with information costs being an important driver in the decision to list outside the home country. Investor familiarity through interactions in the product market may be particularly important as it reduces the informational frictions between foreign investors and the issuing firm.

The primary focus of the cross-listing literature has been on the benefits of accessing more equity capital markets than exist in the home country. In terms of our direct measure of equity markets, we find only weak evidence in support of this hypothesis in Model 1 of Table VII. *Listed Cos/Capita* is never statistically significant and *Stock Mkt Turn* are weakly indicative of better equity markets for domestic IPOs as compared to foreign and global IPOs. The return on the seven most popular listing

[16]High tech firms have a mean (median) ROA of 4.9% (-6.5%) compared to non-high tech firms with a mean (median) ROA of 2.4% (6.0%).

markets, *Listing Markets Return*, also does not appear to be a driver. Although not shown, this result is being driven by the fact that IPOs tend to go public during periods of high market returns both at home and abroad.

The greatest predictor, in Model 1, of whether a firm will choose to go public outside its home country is the percentage of recent IPOs in the same industry that list in the home market (% Industry IPOs_{h}). The greater (lower) is the proportion of same industry IPOs that went public in the home market, the more likely the IPO will go public domestically (abroad). This result is predicted by theories of information production such as Chemmanur and Fulghieri (2006) and Subrahmanyam and Titman (1999) and is consistent with factors that drive IPO volume (Lowry (2003)). Markets with larger industry concentrations are likely to provide a higher valuation at the time of the IPO because investors can more efficiently produce the necessary information for pricing. If the home market has many peer IPO firms, there is a reduced need to access a foreign market for information cost reasons.

In Model 2, the effect of bond market development (*Public Bond*) and financial reform (*Financial Reform*) on the decision to go public abroad is examined. The lower the bond market development in the home country, the more likely a firm will choose to issue outside its home country. The same relation holds in terms of financial reform. If the home country has weaker financial reform, the issuing firm is significantly more likely to choose a global or foreign IPO. Overall, the combined evidence of Models 1 and 2 indicates that foreign and global IPOs originate in countries with worse home market capital development.

In Model 3, we examine the effect of disclosure requirements. As support for Stulz (2009), a firm is more likely to choose a foreign or global IPO if it comes from a country with worse disclosure standards. Our results are consistent with an entrepreneur deciding to list abroad in order to credibly commit to a strong disclosure regime that limits her ability to overinvest thereby potentially increasing the amount of proceeds raised. [17]

[17] Our findings are robust to using anti-director rights and investor protection variables from La Porta, Lopez-de Silanes, Shleifer, and Vishny (1998). Many of the LLSV variables are highly correlated within country.

Stulz (2009) argues that "the disclosures required by securities laws will contain information about the NPV of a project, but may do so with some imprecision." The magnitude of the imprecision depends also upon the enforcement mechanisms available to shareholders. Countries with better enforcement, in this analysis, are assumed to also have lower costs of enforcement which in turn, may lower the cost of equity. Thus, firms are more likely to go public abroad if either one or both disclosure requirements and enforcement are low. We examine the interaction of enforcement and disclosure by creating four dummy variables indicating combinations of high/low disclosure and high/low enforcement. The categorization of a country into high and low is based upon the median LLSV score of each of the disclosure and enforcement indices.

We include three combinations of the disclosure/enforcement dummy variables: low disclosure/low enforcement, low disclosure/high enforcement and high disclosure/low enforcement and exclude high disclosure/high enforcement. The majority of all IPOs originate from countries with high disclosure/high enforcement (12,935), followed by high disclosure/low enforcement (3,479), low disclosure/low enforcement (1,063) and finally low disclosure/high enforcement (331). We find, in the bottom rows of Model 3, that low disclosure, not the level of the enforcement, is the primary driver of going public abroad. Low (high) disclosure, regardless of the level of enforcement, increases (decreases) the probability a firm will list abroad at the time of the IPO.

Our findings on the direction of disclosure requirements may reconcile the findings of Reese and Weisbach (2002). They show that firms that cross-list in the US originate from countries with greater accounting requirements and anti-director rights. Once an IPO dummy is included in their Table 3, both of these variables become insignificant. Our results, in combination with theirs, point to the differential effect of home country securities laws on the decision to cross-list for seasoned firms and IPOs.

IV Go Public Abroad Now or Cross-List Later?

If a firm wishes to have an international listing, it faces a number of strategic decisions with regard to the timing of an international listing. There are three possible choices a firm can make at the time of the IPO: 1) go public in a foreign country but not in the home country (foreign IPOs), 2) go public simultaneously in both the home country and a foreign country (global IPO) and 3) go public at home first and then subsequently cross-list (subsequent cross-listing). (There is actually a fourth option. Go public abroad and then list at home later. However, we do not have any foreign IPOs that chose this option in our sample.)

Table VIII presents summary statistics on our sample of 275 domestic IPOs that subsequently cross-list after first going public at home. Most of the subsequent cross-listings originate from the US (47), UK (19), Taiwan (21), Germany (35), Canada (34), and Australia (42) and choose to list in the US (49) or the UK (157). On average, these subsequent cross-listings wait three years after their domestic IPO to list in a foreign country (not shown).

A difference in means in firm characteristics at the time of the IPO and at the time of cross-listing indicates a significant increase in size, total assets and sales, between going public and cross-listing. The percentage of foreign sales also increases from 23% at the time of the IPO to 27% at the time of the cross-listing. A comparison of our sample of subsequent cross-lists to all other cross-lists shows that subsequent cross-lists are small in comparison. This difference is likely due to the substantial amount of variation in the seasoning of our sample of cross-listings. By contrast, the sample of subsequent IPOs includes those that have recently gone public. Thus, subsequent cross-lists are likely to be younger, in terms of public market experience, than our sample of other cross-lists.

Table IX presents a multinomial logit analysis with the dependent variables representing the timing alternatives: foreign IPO, global IPO or subsequent cross-listing. As shown in Model 1, unlike foreign and global IPOs, the magnitude of the issuing firm's proceeds not a significant for subsequent cross-listings. Similarly, the decision to wait to list abroad does not appear to be motivated by metrics related to the

quality of the home country's bond and stock market development.

In Model 2 of Table IX, firms are more likely to have a subsequent cross-listing if returns in the most active listing markets are low at the time of the IPO. A larger number of recent IPOs in the home market in the same industry sector as the issuing firm increases the probability that the firm will go public at home first. Firms are more likely to go public abroad at the time of the IPO if financial reform is low in the home country but financial reform is not a factor in the decision to cross-list. Proximity does not appear to play any role in either the decision to go public abroad or to wait and cross-list later. Finally, it is more likely that a firm will choose a foreign IPO if they originate from a home country with poor disclosure laws. The quality of the home country disclosure regime, however, has no impact on whether a firm chooses a subsequent cross-listing.

In summary, the timing of the decision to issue abroad, at the time of the IPO or after the IPO, is primarily driven by differences in the returns in alternative listing markets and the number of industry peers in the home market. Unlike the findings of the cross-listing literature, the decision to wait and cross-list later does not appear to be motivated by poor disclosure laws in the home country.

V Listing Market Choice

A Listing Activity

The preceding section indicates that an issuing firm is more likely to go public abroad if it originates from a country with worse capital market development, fewer industry peers and lower disclosure requirements. This section examines if the *choice* of a particular listing market is also motivated by the same factors. Doidge, Karolyi, and Stulz (2012) examine aggregate IPO activity around the world and find that countries that have better institutions have more domestic IPO activity. We predict, therefore, that foreign and global IPOs will be attracted to countries with better developed capital markets.

A number of papers (Zingales (2007), Piotroski and Srinivasan (2008), Doidge,

Karolyi, and Stulz (2009) and Doidge, Karolyi, and Stulz (2012)) have noted that the choice of listing market for foreign companies, mainly the US, has changed over time. Since much of the focus in the academic literature on the choice of listing market has focused on cross-listings rather than foreign IPOs, we contribute to this debate by examining the factors that drive the listing preferences for foreign and global IPOs and focus on the seven most active listing markets for foreign and global IPOs: US, UK, Singapore, Germany, Canada, France and Australia. The remaining countries are classified as Other.

Panel A of Table X presents summary statistics on listing patterns over two different time periods: a) 1995-2001 to encompass the tech bubble and the pre-SOX period and b) 2002-2007 as the post-SOX time period. Note that Hong Kong is not one of the listing markets we consider. Since we do not classify Chinese IPOs listing in Hong Kong as a foreign IPO, the number of foreign listings in HK is relatively small: only 10 foreign/global IPOs prior to 2002 and 7 thereafter. The number of Chinese companies, however, that went public in HK rose from 47 in the first sub-period to 186 in the second sub-period indicating that much of Hong Kong's reputation as a "global" market is due to the listing of Chinese companies.

As shown in Panel A of the table, domestic IPO issuance, in terms of numbers of issues, decreases in the US, Germany and France but increases in the UK, Canada and Australia. The number of IPOs going public in Singapore in the two time periods remains relatively constant. Although there has been a decline in the total number of domestic IPOs worldwide, the US has experienced an even greater decline in the number of IPOs going public at home; from 27% of all domestic IPOs prior to 2002 to only 12% of all domestic IPOs after 2002.

When comparing the number of foreign IPOs, the US has fewer foreign and global IPOs after 2001. In the first period, the US attracted 239 foreign/global IPOs but only 137 in the later period. In contrast, the UK had a threefold increase in foreign/global IPO activity from 72 to 246. Most notably, Singapore went from 33 to 129 over the two time periods mainly due to the influx of Chinese companies.[18]

[18]The increase in the number of Chinese companies going public in Singapore is not due to an overall increase in the number of Chinese companies going public since each time period had roughly

The last column in Table X presents the change in cross-listings over the two time periods. The UK has more cross-listings than the US in both the first and second time periods. However, the number of overall cross-listings from 2002 to 2007 declined in all seven listing markets but the largest decline was in the US.

The preceding analysis and much of the debate on where companies list has focused on the number of listings. The remaining panels of Table X present statistics on the amount of proceeds raised by IPOs over the two sub-periods. The size of the flow of capital may be a better indication of the economic importance of a market than the number of foreign and global IPOs. This type of analysis is not possible with cross-listings since they often do not raise capital.

In terms of total dollar proceeds in Panel B, the US domestic market has, by a wide margin, the largest proceeds of any of the markets. Even more surprising is that while the number of domestic US IPOs fell by more than two-thirds in the second period, the dollar decline in gross proceeds was only 35%. The average domestic IPO proceeds, in Panel B, is also substantially larger in both time periods than all but Germany.

Interesting patterns emerge when examining foreign and global IPOs. Although the number of foreign and global IPOs in the US fell below the UK, total proceeds raised in the US are 13% higher than the total dollar proceeds raised in the UK. Both of these markets raise substantially more proceeds from foreign and global IPOs than any other listing market. In terms of average dollar proceeds, the US has seen a significant increase over time in the average amount raised by foreign and global IPOs. In contrast, the UK has seen a decline in average proceeds for both foreign and global IPOs over the two time periods. The smaller average size of foreign IPOs in the UK from 2002 to 2007 is consistent with Doidge, Karolyi, and Stulz (2009)'s conclusion that the rise in numbers of cross-listings may be due to listing on the AIM market which has lower listing standards.[19] They state that these "small firms would have been unlikely candidates to cross-list on US exchanges, either before or after SOX."

the same number (781 vs. 770) of Chinese IPOs.

[19]Our data does not allow us to distinguish between the LSE and AIM markets.

In the US, recent evidence points to the increasing popularity of private market capital raising, particularly for smaller public companies and foreign issuers. Ivanov and Bauguess (2012) show that private market Reg D offerings surpass both public debt and equity offerings in 2010 and 25% of the capital raised in the Reg D offering market are by foreign issuers. Gao, Ritter, and Zhu (2011) argue that a structural shift in the lack of profitability of small companies has reduced the number of US IPOs because investor demand may be lower. Further, there are fewer smaller investment banking firms and smaller firms are being acquired rather than going public. Thus, the decline in the number of public companies, in general, and attracting foreign issuers, in particular, in the US appears to be a small company phenomena.[20]

B Choice of Listing Country

This section examines the determinants of the choice of listing country for foreign and global IPOs. Table XI presents the multinomial probit analysis exploring the choice of listing market where the dependent variable indicates the listing country: the US, the UK, Singapore, Germany, Canada, France and Australia. The remaining countries are classified as Other and are not shown to conserve space. We include many of the same variables as previously but now they are based on the listing country or measured in terms of differences between the home and listing country. An additional variable, *% Foreign IPOs*$_l$, is included and is defined as the percentage of foreign IPOs from the home country that went public in the prior three years in the listing country. We expect that the greater the number of home country IPOs listing in the listing country, the greater will be investor familiarity with firms from the home country. This, in turn, should increase the efficiency of information production and lead to a greater probability that IPO from the same country will list there as well. Therefore, comparative information generation advantages in the listing market (Chemmanur and Fulghieri (2006), Subrahmanyam and Titman (1999)) are proxied by both *% of Industry IPOs* and *% of Foreign IPOs*.

As an examination of Stulz (2009), the greater the difference between the disclo-

[20]Few US firms leave the US to go public abroad. Only 85 companies over the 13 year time period list in a foreign country and most of these listing are in the UK (37).

sure requirements in the listing country and the disclosure requirements in the home country, the higher should be the probability of a listing in that country. The larger the discrepancy, the more valuable should be the commitment to disclosure. From Sarkissian and Schill (2004), the closer the proximity of the home country to the potential listing country, the higher will be the probability of listing. Finally, we control for changes in listing patterns over time by a dummy variable that takes the value of one if the IPO goes public from 2002 onward.

The general pattern of probabilities in Table XI indicates that foreign and global IPOs choose the US for different reasons than other markets. Having greater proceeds increases the probability of a listing in the US while smaller proceeds increases the probability of listing in Canada. Being a high tech company appears to have little effect on the listing choice. Differences in home and listing market returns have no predictive power on the choice of listing except for the UK where a smaller difference leads to a greater probability of choosing that country. Both the larger percentage of recent comparable industry IPOs and the higher percentage of IPOs from the home country issuing in the listing market are a strong predictor of a listing in the US but not, generally, in any other market. Proximity also does not appear to have a large effect on the listing market decision in contrast to the findings of Sarkissian and Schill (2004).

More importantly, greater differences between the disclosure requirements in the listing and home market is a significant predictor of a listing in the US but not in any other country. In fact, the smaller the difference in disclosure requirements, the more likely a firm will choose the UK or Canada. Thus, the US markets appear to be attractive to issuing firms that may benefit the most from a more stringent disclosure regime.

In summary, the listing choice of foreign and global IPOs does not appear to be consistent across listing markets. The probability of listing in the US is increasing in investor familiarity with the IPO's industry sector and other IPOs from the same country. More importantly, the strong regulatory environment in the US is attractive to issuers from countries with weak disclosure requirements that may allow them to maximize proceeds. The same is may not be true of the UK which appears to appeal

to companies going abroad for exactly the opposite reason.

VI Proceeds

This section examines the factors that may be related to the size of the issuing proceeds. Because the decision to list abroad at the time of the IPO is endogenous, we restrict our sample only to global and foreign IPOs. To control for firm characteristics, we include total assets as an independent variable. Because this variable is not well-populated in the data, our sample is reduced to 748 global and foreign IPOs.

We include many of the same independent variables as previously in order to capture those effects related to information production at the listing country level. The findings in the previous sections suggest that proceeds should be greater for foreign and global IPOs that list in countries with better capital market development, more industry or country IPO peers and better disclosure. We predict that proxies for comparative information advantages, such as *% Foreign IPOs* and *% Industry IPOs*, should be associated with higher proceeds. In addition, the benefits of committing to ongoing information generation through the host country's disclosure laws should be increasing in the difference in the quality of disclosure laws in the home and listing countries.

Table XII presents the OLS regression, controlling for year fixed effects, with the log of proceeds as the dependent variable. In Model 1, a global IPO dummy is included and its significance confirms the observation that global IPOs are larger than foreign IPOs. There is a positive relationship between total assets and proceeds.[21] Surprisingly, variables related to the listing market development have either the opposite predicted sign (the number of listed companies per capita) or are insignificant (stock market turnover).

The larger the stock market return in the listing country the year preceding the offer, the greater is the proceeds. However, during our sample period, all market returns are highly correlated and a regression with the difference in returns between home and listing countries yields an insignificant coefficient. The more comparable

[21]Model 1 is robust to including any other measure of firm size such as net income or sales.

industry IPOs in the listing country, the higher are the proceeds but a greater number of IPOs from the home country does not affect the level of proceeds.

In Model 2, the more developed the private bond market the greater are the proceeds. Financial reform in the listing country has no effect on the size of the proceeds. Depending on the model, being a high tech firm either has no effect on offering proceeds or is negatively related.

Model 3 presents the effect of disclosure laws and proximity on proceeds. The level of disclosure in the listing country has no effect on the size of the proceeds. However, theory suggests that the greater the differential between the home and listing country disclosure laws, the greater should be the benefit of a foreign listing. The model supports this hypothesis as the greater the difference between disclosure laws, the larger are the proceeds. Proximity has no effect on the amount of capital raised.

Overall, this section presents evidence consistent with a relationship between variables that proxy for better information and disclosure laws and the level of proceeds. However, these findings are interpreted with caution due to the fact that the choice of listing market is endogenous.

VII Conclusion

This paper examines the decision to list abroad at the time of the IPO. Foreign IPOs are an important economic event with almost a quarter of all IPO proceeds being issued by companies going public abroad. Although the cross-listing literature generally makes no distinction between foreign and global IPOs and cross-listings, we show that IPOs are not necessarily comparable to seasoned cross-listings either in their firm characteristics or the overall timing of their issuance activity.

An examination of who originates and who lists foreign and global IPOs indicates that most countries outside the US and the UK tend to be either originators or listers but not both. The majority of foreign and global IPOs list in only a few markets and not all countries with well-established domestic IPO markets, such as Japan, attract

foreign listings.

Foreign and global IPOs are more likely to go public abroad to reduce informational frictions at the time of the offering. These IPOs originate in countries with poor capital market development, few recent industry peers and lower disclosure requirements than their domestic IPO counterparts. The decision to go public now or wait and cross-list later is not motivated by the same factors. We show that firms that go public at home and then subsequently cross-list originate in markets that are have greater IPO industry peers but are not significantly better developed, or have stronger securities laws than foreign and global IPOs.

We show that the choice of listing country by foreign and global IPOs differs between the US and the rest of the primary listing markets. IPOs are more likely to list in the US if they raise greater proceeds, and if there is greater US investor familiarity with their industry and other companies from their home country. Stronger disclosure requirements appear to be a strong factor in the decision to list in the US. In contrast, IPOs are more likely to list in the UK if they are geographically closer and originate from countries with *stronger*, not weaker disclosure requirements.

Finally, we show that greater proceeds for global and foreign IPOs are associated with greater market returns, better bond market development and greater industry IPO peers in the listing market. The benefits of listing abroad in the form of higher proceeds is more pronounced when there is a greater discrepancy between the home and listing markets disclosure laws, a finding consistent with Stulz (2009).

References

Abiad, Abdul, Enrica Detragiache, and Thierry Tressel, 2008, A new database of financial reforms, IMF working paper.

Beck, Thorsten, Asli Demirguc-Kunt, and Ross Levine, 2000, A new database on financial development and structure, *World Bank Economic Review* 14, 597–605.

Blass, Asher, and Yishay Yafeh, 2001, Vagabond shoes longing to stray: Why foreign firms list in the United States, *Journal of Banking and Finance* 25, 555–572.

Brown, James R., Gustav Martinsson, and Bruce C. Petersen, 2012, Law, stock markets, and innovation, *Journal of Finance* forthcoming.

Bruner, Robert, Susan Chaplinksky, and Latha Ramchand, 2004, U.S.-bound IPOs: Issue costs and market selectivity, *Financial Management* 33, 39–60.

Chaplinsky, Susan, and Latha Ramchand, 2000, The impact of global equity offerings, *The Journal of Finance* 55, 2767–2789.

Chemmanur, Thomas J., and Paolo Fulghieri, 2006, Competition and cooperation among exchanges: A theory of cross-listing and endogenous listing standards, *Journal of Financial Economics* 82, 455–489.

Claessens, Stijn, and Sergio Schmukler, 2007, International financial integration through equity markets: Which firms from which countries go global?, *Journal of International Money and Finance* 26, 788–813.

Doidge, Craig, G. Andrew Karolyi, and Rene Stulz, 2009, Has New York become less competitive than London in global markets? Evaluating foreign listing choices over time, *Journal of Financial Economics* 91, 253–277.

Doidge, Craig, G. Andrew Karolyi, and Rene Stulz, 2012, Financial globalization and the rise of IPOs outside the U.S., Fisher College of Business working paper.

Foerster, Stephen R., and G. Andrew Karolyi, 1998, Multimarket trading and liquidity: A transactions data analysis of Canada-US interlistings, *Journal of International Financial Markets, Institutions and Money* 8, 393–412.

Gagnon, Louis, and G. Andrew Karolyi, 2010, Do international cross-listings still matter?, *Queen's University working paper.*

Gao, Xiaohui, Jay R. Ritter, and Zhongyan Zhu, 2011, Where have all the IPOs gone?, working paper, University of Hong Kong and University of Florida.

Gozzi, Juan Carlos, Ross Levine, and Sergio Schmukler, 2010, Patterns of international capital raising, *Journal of International Economics* 80, 45–57.

Hanley, Kathleen Weiss, and Gerard Hoberg, 2009, The information content of IPO prospectuses, *Review of Financial Studies* pp. 2821–2864.

Henderson, Brian J., Narasimhan Jegadeesh, and Michael Weisbach, 2006, World markets for raising new capital, *Journal of Financial Economics* 82, 63–101.

Ivanov, Vlad, and Scott Bauguess, 2012, Capital raising in the U.S.: The significance of unregistered offerings using the Regulation D exemption, *SEC White Paper.*

Jagannathan, Ravi, Andrei Jirnyi, and Ann E. Sherman, 2000, Why don't issuers choose IPO auctions? The complexity of indirect methods, Northwestern University working paper.

Karoyli, G. Andrew, 1998, Why do companies list their shares abroad? (A survey of the evidence and its managerial implications), *New York University Salomon Center Monograph Series Financial Markets, Institutions and Instruments.*

Kim, Woojin, and Michael Weisbach, 2008, Motivations for public equity offers: An international perspective, *Journal of Financial Economics* 87, 281–307.

La Porta, Rafael, Florencio Lopez-de Silanes, Andrei Shleifer, and Robert W. Vishny, 1998, Law and finance, *Journal of Political Economy* 106, 1113–55.

Ljungqvist, Alexander, Tim Jenkinson, and William Wilhelm, 2003, Global integration in primary equity markets: The role of U.S. banks and U.S. investors, *Review of Financial Studies* 16, 63–99.

Lowry, Michelle, 2003, Why does IPO volume fluctuate so much?, *Journal of Financial Economics* 67, 3–40.

Lowry, Michelle, Micah S. Officer, and William Schwert, 2010, The variability of ipo returns, *The Journal of Finance* 65, 425–465.

Pagano, Marco, Otto Randl, Ailsa A. Roell, and Josef Zechner, 2001, What makes stock exchanges succeed? evidence from cross-listing decisions, *European Economic Review* 45, 770–782.

Pagano, Marco, Ailsa A. Roell, and Josef Zechner, 2002, The geography of equity listing: Why do companies list abroad?, *The Journal of Finance* 57, 2651–2694.

Pastor, Lubos, and Pietro Veronesi, 2005, Technological revolutions and stock prices, CRSP Working Paper No. 606.

Piotroski, Joseph, and Suraj Srinivasan, 2008, Regulation and bonding: The Sarbanes-Oxley Act and the flow of international listings, *Journal of Accounting Research* 46, 383–425.

Reese, William A., and Michael S. Weisbach, 2002, Protection of minority shareholder interests, cross-listings in the United States, and subsequent equity offerings, *Journal of Financial Economics* 65, 65–104.

Rock, Kevin, 1986, Why new issues are underpriced, *Journal of Financial Economics* 15, 187–212.

Sarkissian, Segei, and Michael J. Schill, 2004, The overseas listing decision: New evidence of proximity preference, *Review of Financial Studies* 17, 769–810.

Saudagaran, Shahrokh M., 1988, An empirical study of selected factors influencing the decision to list on foreign stock exchanges, *Journal of International Business Studies* 19, 101–127.

Sherman, Ann, and Sheridan Titman, 2002, Building the IPO order book: Underpricing and participation limits with costly information, *Journal of Financial Economics* 65, 3–29.

Shleifer, Andrei, and Daniel Wolfenzon, 2002, Investor protection and equity markets, *Journal of Financial Economics* 66, 3–27.

Stulz, Rene, 1999, Globalization, corporate finance and the cost of capital, *Journal of Applied Corporate Finance* 12, 8–25.

Stulz, Rene, 2009, Securities laws, disclosure, and national capital markets in the age of financial globalization, *Journal of Accounting Research* 47, 349–390.

Subrahmanyam, Avanidhar, and Sheridan Titman, 1999, The going-public decision and the development of financial markets, *The Journal of Finance* 54, 1045–1082.

Zingales, Luigi, 2007, Is the U.S. capital market losing its competitive edge?, University of Chicago working paper.

Appendix
Firm and Offer Variables

Variable	**Source**
IPO Date	Bloomberg
IPO Price	Bloomberg
IPO Proceeds	Bloomberg
Return on Assets (ROA)	Bloomberg
Total Assets	Worldscope
Net Income	Worldscope
Sales	Worldscope
Foreign Sales % Total Sales	Worldscope
Industry Sector	Worldscope
High Tech - Dummy variable equal to 1 if industry sector is Software and Computer Services, Technology Hardware and Equipment, Alternative Energy, Pharmaceuticals and Biotechnology, or Mobile Telecommunications	Worldscope

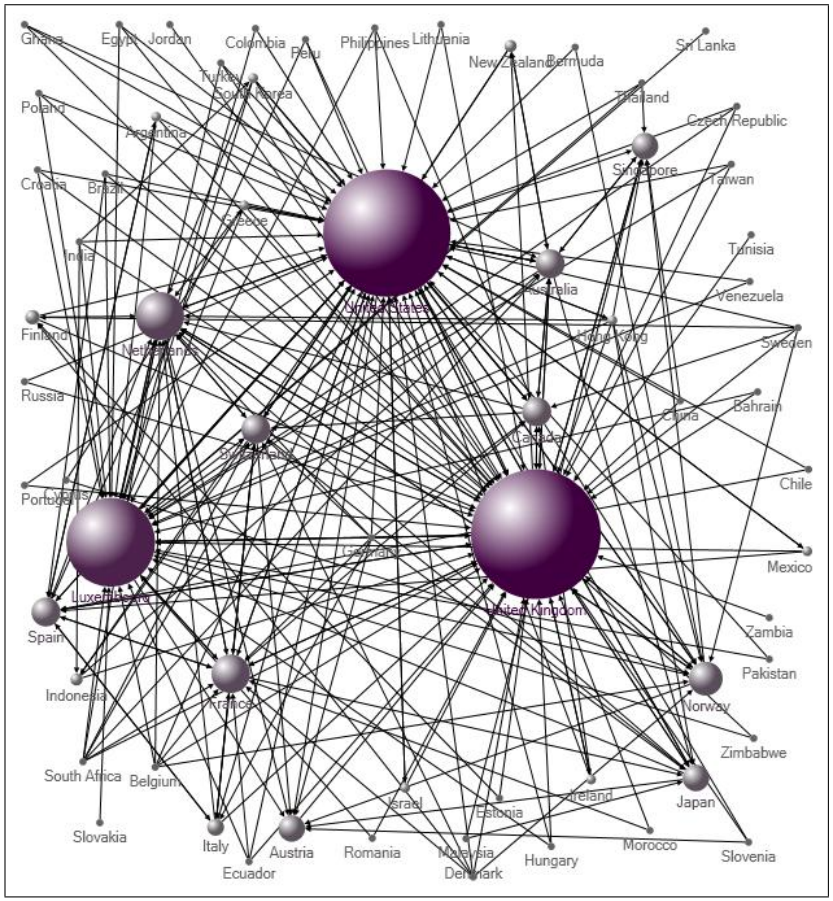
Country Variables

Variable	**Description**	**Source**
Private Bond	Private domestic debt securities issued by institutions and corporations as a share of GDP	WB's Financial Structure Dataset
Listed Cos/Capita	Number of publicly listed companies per capita	WB's Financial Structure Dataset
Stock Mkt Turn	Ratio of the value of total shares traded to market capitalization	WB's Financial Structure Dataset
Financial Reform	Index of liberalization	Abiad, Detragiache, and Tressel (2008)
Disclose	Index of disclosure equals the arithmetic mean of: (1) Prospect, (2) Compensation, (3) Shareholders, (4) Inside ownership, (5) Contracts Irregular, and (6) Transactions	La Porta, Lopez-de Silanes, Shleifer, and Vishny (1998)
Enforce	Index of public enforcement equals the arithmetic mean of: (1) Supervisor characteristics, (2) Rule-making power, (3) Investigative powers index, (4) Orders index, and (5) Criminal index	La Porta, Lopez-de Silanes, Shleifer, and Vishny (1998)
Listing Mkts Return	An equally weighted average over the year prior to the listing for the seven most popular foreign/global IPO listing markets: US, UK, Singapore, Germany, Canada, France and Australia	Datastream
Mkt Return	Buy-and-hold return over the year prior to the listing in the home (h) or listing (l) country	Datastream
% Industry IPOs	Percentage of all IPOs in the same industry that went public in the home (h) or listing (l) country in the prior three years	Bloomberg
% Foreign IPOs	The percentage of foreign IPOs from the home country that listed in the listing country in the past three years	Bloomberg
Proximity	Distance between originating and listing country in kilometers	Sarkissian and Schill (2004)

Figure 1: Countries Listing Cross-Listings (In-Degree)

Network graph of all listing and originating countries with the size of the node being determined by the number of cross-listings listing in the country. *Cross-Listings* are all cross-listings post-IPO (from 1995 onward) of a firm in any foreign country. The graphs represent two different sub-periods: a) 1995 to 2001 and b) 2002 to 2007.

(a) 1995 to 2001



(b) 2002 to 2007

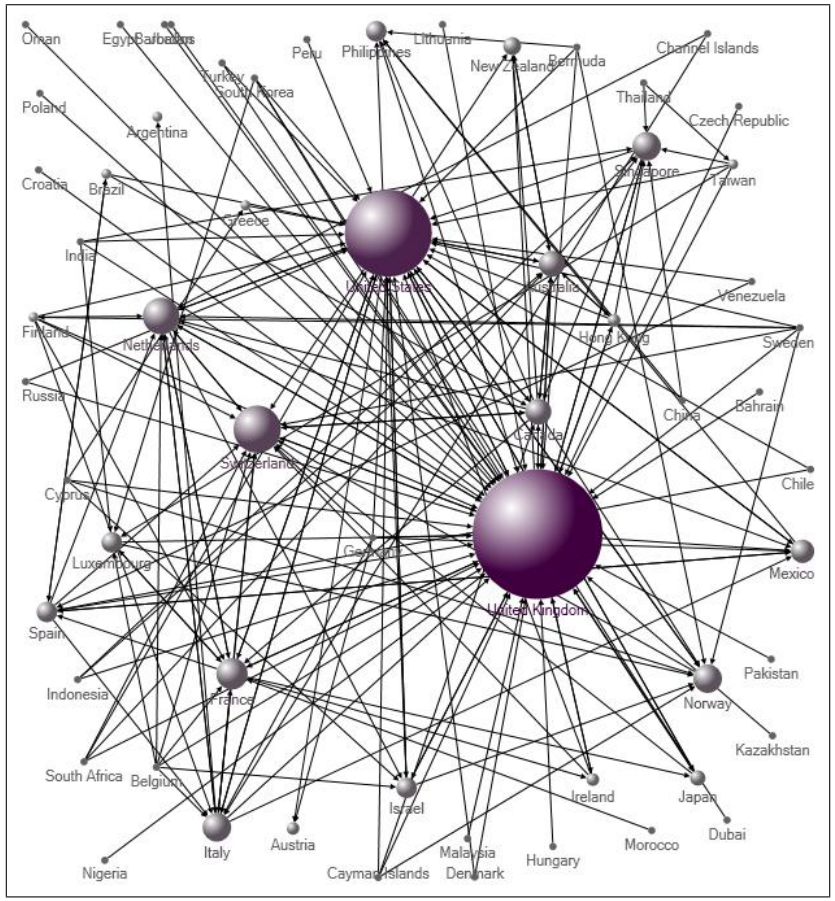
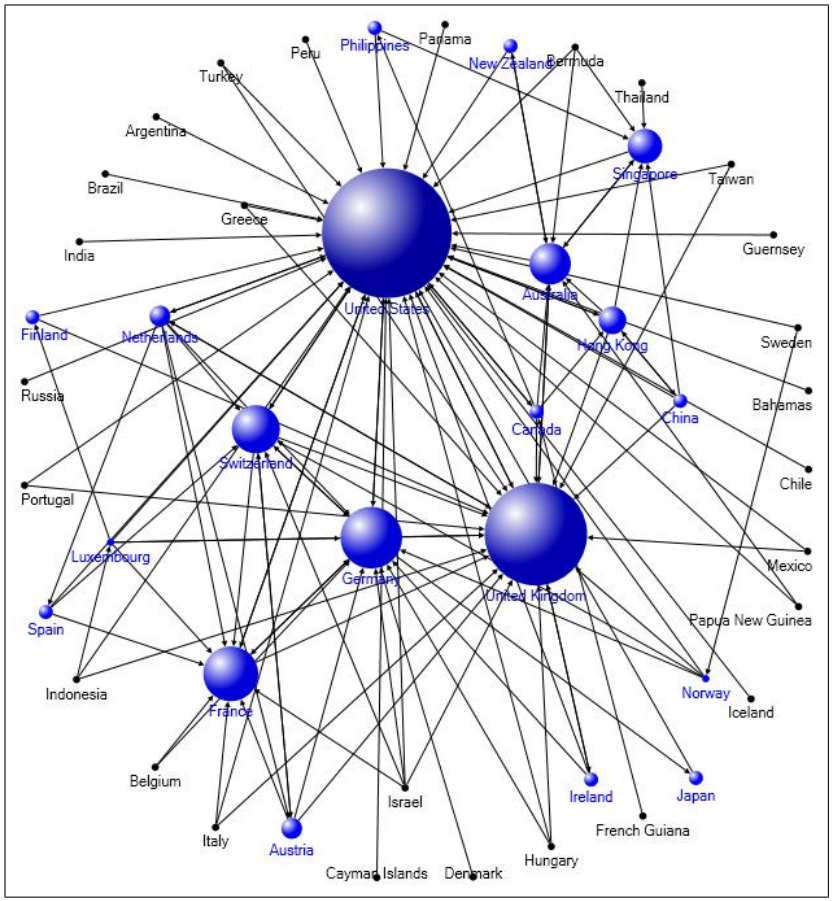


Figure 2: Countries Listing Foreign and Global IPOs (In-Degree)

Network graph of all listing and originating countries with the size of the node being determined by the number of listings of foreign and global IPOs. *Foreign IPOs* are IPOs that go public in at least one foreign country but not in their home country. *Global IPOs* are IPOs that go public simultaneously (within 75 days) in both their home country and at least one foreign country. The graphs represent two different sub-periods: a) 1995 to 2001 and b) 2002 to 2007.

(a) 1995 to 2001



(b) 2002 to 2007

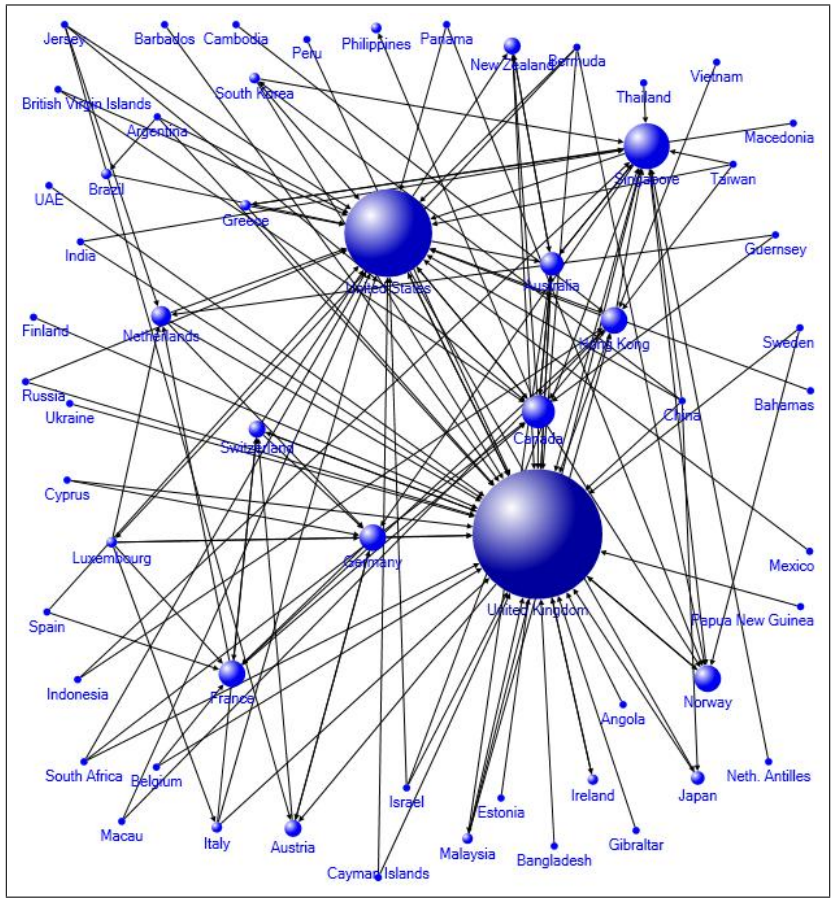


Table I: Time Series of IPOs and Cross-Listings

Number of IPOs and cross-listings in the sample from 1995 through 2007 by category and year. *Foreign IPOs* are IPOs that go public in at least one foreign country but not in their home country. *Global IPOs* are IPOs that go public simultaneously (within 75 days) in both their home country and at least one foreign country. *Domestic IPOs* are IPOs that go public in their home country but not in any foreign country. *Cross-listings* are post-IPO cross-listings (from 1995 onward) of a firm in any foreign country. *Proceeds* are from Bloomberg and are in $US millions.

Year	Foreign IPOs	Global IPOs	Domestic IPOs	Cross-Listings	Total
Panel A: Number of IPOs and Cross-Listings					
1995	32	20	1,015	263	1,330
1996	59	9	1,555	247	1,870
1997	66	22	1,408	366	1,862
1998	22	11	960	274	1,267
1999	50	22	1,293	330	1,695
2000	81	21	1,837	221	2,160
2001	22	11	1,039	392	1,464
2002	20	1	965	373	1,359
2003	29	7	782	179	997
2004	80	19	1,334	160	1,593
2005	136	8	1,383	219	1,746
2006	137	13	1,513	163	1,826
2007	158	14	1,654	154	1,980
Total	892	178	16,738	3,341	21,149
Panel B: Total Proceeds (IPOs only)					
1995	$4,994	$12,525	$52,031		$69,551
1996	$5,469	$39,596	$94,496		$139,561
1997	$17,048	$10,631	$87,325		$115,004
1998	$1,137	$8,535	$91,407		$101,079
1999	$5,417	$20,543	$133,576		$159,536
2000	$27,759	$182,262	$134,721		$344,742
2001	$2,641	$16,175	$69,348		$88,164
2002	$5,210	$2,787	$58,727		$66,724
2003	$3,771	$4,393	$49,125		$57,289
2004	$5,399	$10,954	$102,645		$118,999
2005	$12,455	$12,449	$124,935		$149,839
2006	$14,414	$4,952	$162,868		$182,234
2007	$15,771	$3,384	$205,637		$224,793
Total	$121,487	$329,186	$1,366,842		$1,817,515

Table II: Industry Sectors

Industry sector representation across all IPOs in the sample from 1995 through 2007. Industry sector is from Worldscope when available. Otherwise, industry sector is determined by using two-digit SIC code and industry sector frequency.

Industry Sector	Number of IPOs	Percentage of IPOs
Aerospace & Defense	64	0.36
Alternative Energy	49	0.28
Automobiles & Parts	255	1.43
Banks	524	2.94
Beverages	113	0.63
Chemicals	434	2.44
Construction & Materials	605	3.4
Electricity	145	0.81
Electronic & Electrical Equip.	955	5.36
Equity Investment Instruments	33	0.19
Financial Services	740	4.16
Fixed Line Telecommunications	162	0.91
Food & Drug Retailers	136	0.76
Food Producers	458	2.57
Forestry & Paper	88	0.49
Gas, Water & Multiutilities	82	0.46
General Industrials	135	0.76
General Retailers	700	3.93
Health Care Equipment & Services	545	3.06
Household Goods	249	1.4
Industrial Engineering	638	3.58
Industrial Metals & Mining	1,309	7.35
Industrial Transportation	344	1.93
Leisure Goods	230	1.29
Life Insurance	49	0.28
Media	758	4.26
Mobile Telecommunications	131	0.74
Nonlife Insurance	150	0.84
Oil & Gas Producers	466	2.62
Oil Equipment & Services	204	1.15
Personal Goods	420	2.36
Pharmaceuticals & Biotechnology	738	4.14
Real Estate Investment & Services	575	3.23
Software & Computer Services	2,061	11.57
Support Services	923	5.18
Technology Hardware & Equip.	1,124	6.31
Tobacco	9	0.05
Travel & Leisure	628	3.53
Unclassified	579	3.25
Total	17,808	100

Table III: IPOs and Cross-Listings by Countries with Active Listing Markets

The number of IPOs and cross-listings in the sample from 1995 through 2007 for countries with the most active listing markets. *Foreign IPOs* are IPOs that go public in at least one foreign country but not in their home country. *Global IPOs* are IPOs that go public simultaneously (within 75 days) in both their home country and at least one foreign country. *Domestic IPOs* are IPOs that go public in their home country but not in any foreign country. *Cross-listings* are post-IPO cross-listings (from 1995 onward) of a firm in any foreign country. The table is split into issues that list in a particular country and issues that originate from a particular country. Some Foreign and Global IPOs list in more than one country and may be counted more than once under listings.

Ctry	Foreign IPOs List in Ctry	Global IPOs List in Ctry	Domestic IPOs List in Ctry	Total IPOs List in Ctry	Cross Listings List in Ctry	Foreign IPOs Orig in Ctry	Global IPOs Orig in Ctry	Cross Listing Orig in Ctry
Argentina	0	0	8	8	4	5	2	14
Australia	23	6	1,339	1,368	86	28	17	181
Austria	6	0	42	48	34	15	3	1
Brazil	0	1	99	100	1	6	2	65
Canada	41	8	1,599	1,648	140	42	19	455
China	0	1	1,109	1,110	0	189	3	9
Finland	1	0	49	50	9	3	2	19
France	24	6	594	624	86	11	8	121
Germany	56	0	581	637	NA	6	8	174
Greece	1	0	181	182	2	18	2	20
Hong Kong	13	3	756	772	9	57	26	46
India	0	0	291	291	0	10	0	183
Indonesia	0	0	199	199	4	3	3	8
Ireland	0	3	5	8	23	40	16	61
Israel	0	0	29	29	14	90	0	29
Italy	1	0	206	207	46	14	5	69
Japan	3	1	1,934	1,938	16	2	1	97
Luxembourg	1	1	3	5	229	13	2	22
Malaysia	0	1	458	459	0	4	0	10
Mexico	0	0	42	42	8	2	5	37
Netherlands	7	2	53	62	241	30	10	71
New Zealand	3	12	42	57	83	8	3	42
Norway	9	0	113	122	50	2	3	21
Philippines	1	2	69	72	11	3	0	15
Russia	0	0	15	15	0	7	3	44
Singapore	156	6	438	600	37	8	2	14
South Korea	1	0	923	924	2	4	4	78
Spain	1	0	50	51	48	2	3	67
Switzerland	9	6	74	89	77	15	2	58
Taiwan	0	0	461	461	1	11	1	121
United Kingdom	251	67	1,676	1,994	1,288	23	12	210
United States	308	68	3,300	3,676	792	74	11	543
Total	916	194	16,738	17,848	3,341	745	178	2,905

Table IV: Origination of Foreign and Global IPOs by Countries Without Active Listing Markets

The country of origin for Foreign and Global IPOs in the sample from 1995 through 2007 for countries without active listing markets. *Foreign IPOs* are IPOs that go public in at least one foreign country but not in their home country. *Global IPOs* are IPOs that go public simultaneously (within 75 days) in both their home country and at least one foreign country. *Cross-listings* are post-IPO cross-listings (from 1995 onward) of a firm in any foreign country. All countries that provide Foreign IPOs, Global IPOs and cross-listings are included in the table.

	Foreign IPOs Orig in Ctry	Global IPOs Orig in Ctry	Cross Listings Orig in Ctry
Angola	1	0	0
Bahamas	4	0	0
Bahrain	0	0	8
Bangladesh	1	0	0
Barbados	1	0	1
Belgium	5	0	48
Bermuda	47	0	10
British Virgin Islands	2	0	0
Cambodia	1	0	0
Cayman Islands	17	0	11
Channel Islands	0	0	2
Chile	5	0	10
Colombia	0	0	3
Croatia	0	0	8
Cyprus	7	0	10
Czech Republic	0	0	11
Denmark	1	0	11
Dubai	0	0	1
Ecuador	0	0	4
Egypt	0	0	19
Estonia	1	0	3
French Guiana	1	0	0
Ghana	0	0	5
Gibraltar	1	0	0
Guernsey	7	0	0
Hungary	2	0	25
Iceland	1	0	0
Jersey	6	0	0

Table IV: (continued) Origination of Foreign and Global IPOs by Countries Without Active Listing Markets

	Foreign IPOs Orig in Ctry	Global IPOs Orig in Ctry	Cross Listings Orig in Ctry
Jordan	0	0	2
Kazakhstan	0	0	6
Lithuania	0	0	4
Macau	0	0	0
Macedonia	1	0	0
Morocco	0	0	5
Neth. Antilles	1	0	0
Nigeria	0	0	3
Oman	0	0	1
Pakistan	0	0	7
Panama	3	0	0
Papua New Guinea	3	0	0
Peru	2	0	4
Poland	0	0	29
Portugal	1	0	9
Romania	0	0	2
Slovakia	0	0	2
Slovenia	0	0	4
South Africa	6	0	51
Sri Lanka	0	0	1
Sweden	7	0	75
Thailand	3	0	6
Tunisia	0	0	1
Turkey	1	0	22
UAE	3	0	0
Ukraine	2	0	0
Venezuela	0	0	7
Vietnam	1	0	0
Zambia	0	0	1
Zimbabwe	0	0	4
Total	145	0	436

Table V: Summary Statistics

Summary statistics on firm characteristics for IPOs and cross-listings from 1995 through 2007. *Domestic IPOs* are IPOs that go public in their home country but not in any foreign country. *Foreign IPOs* are IPOs that go public in at least one foreign country but not in their home country. *Global IPOs* are IPOs that go public simultaneously (within 75 days) in both their home country and at least one foreign country. *Cross-listings* are post-IPO cross-listings (from 1995 onward) of a firm in any foreign country. Financial statement information is from the year prior to the IPO or cross-listing where available, otherwise, it is in the year of the IPO. *Proceeds* are from Bloomberg. *Net Income, Total Assets, Sales, Foreign Sales (%)* and *ROA* are from Worldscope and Datastream. *High Tech* is a dummy variable as defined in the Appendix. *Proximity* is the distance between originating and listing country in kilometers from Sarkissian and Schill (2004). Firm and offering characteristics are winsorized at the 1% level. All values are in $US millions unless noted otherwise.

Variable	Mean	Med.	Std. Dev.	Min	Max	No. Obs.
			Domestic IPOs			
Proceeds	69.4	18.2	172.6	0.2	1,410.6	16,515
Net Income	10.7	1.8	101.0	-219.7	3,832.1	11,607
Total Assets	685.4	45.5	6,879.6	0.3	190,815.7	11,774
Sales	241.1	30.0	1,336.0	0.0	35,619.3	11,592
Foreign Sales (%)	17.8	0.0	29.5	0.0	100.0	5,153
ROA	0.7	6.1	29.7	-205.3	53.5	8,025
High Tech	0.2	0.0	0.4	0.0	1.0	16,738
Proximity	.	.	.	.	.	.
			Foreign IPOs			
Proceeds	113.7	39.9	223.4	0.2	1,410.6	859
Net Income	20.8	3.2	105.1	-180.9	1,623.4	643
Total Assets	637.9	42.3	3,885.9	0.3	69,243.5	643
Sales	341.2	29.7	1,803.4	0.0	29,542.4	643
Foreign Sales (%)	47.0	45.0	42.0	0.0	100.0	319
ROA	1.5	10.2	41.0	-205.3	53.5	645
High Tech	0.3	0.0	0.5	0.0	1.0	892
Proximity	5,462.6	3,795.0	4,571.3	63.0	18,837.0	892
			Global IPOs			
Proceeds	428.2	198.7	487.6	0.5	1,710.6	175
Net Income	149.2	8.2	510.7	-180.9	3,699.2	141
Total Assets	7,166.2	470.4	22,429.1	0.9	190,815.7	139
Sales	2,821.8	254.1	7,803.3	0.0	55,963.2	141
Foreign Sales (%)	40.9	36.6	33.7	0.0	100.0	88
ROA	-3.2	3.5	26.0	-115.0	37.3	110
High Tech	0.2	0.0	0.4	0.0	1.0	178
Proximity	4,748.9	2,588.0	4,579.6	261.0	17,004.0	178
			Cross-Listings			
Proceeds	.	.	.	.	.	0
Net Income	569.7	75.2	10,66.5	-219.7	3,832.1	1,840
Total Assets	24,078.3	2,594.1	49,008.8	0.3	190,815.7	1,837
Sales	9,184.8	1,369.1	15,741.2	0.0	55,963.2	1,836
Foreign Sales (%)	40.2	37.9	32.0	0.0	100.0	1,333
ROA	-2.8	4.3	30.7	-205.3	53.5	1,725
High Tech	0.2	0.0	0.4	0.0	1.0	3,341
Proximity	4,987.6	5,479.0	4,515.3	89.0	18,847.0	3,341

Table VI: Difference in Means Between Foreign and Global IPOs and Cross-Listings

Summary statistics on firm and home country characteristics for IPOs and cross-listings from 1995 through 2007. *Foreign IPOs* are IPOs that go public in at least one foreign country but not in their home country. *Global IPOs* are IPOs that go public simultaneously (within 75 days) in both their home country and at least one foreign country. *Cross-listings* are post-IPO cross-listings (from 1995 onward) of a firm in any foreign country. Financial statement information is from the year prior to the IPO or cross-listing where available, otherwise, it is in the year of the IPO. *Proceeds* are from Bloomberg. *Net Income, Total Assets, Sales, Foreign Sales (%)* and *ROA* are from Worldscope and Datastream. *High Tech* is a dummy variable as defined in the Appendix. *Private Bond, Listed Cos/Capita* and *Stock Mkt Turn* are from the World Bank's Financial Structure Dataset in the year of the IPO. *Financial Reform* is an index of liberalization, between zero and one, from Abiad, Detragiache, and Tressel (2008). *Disclose* is an index of disclosure requirements from La Porta, Lopez-de Silanes, Shleifer, and Vishny (1998). *Listing Markets Return* is an equally weighted average return over the year prior to the listing for the seven most popular foreign/global IPO listing markets: US, UK, Singapore, Germany, Canada, France and Australia. *Mkt Return* is the buy and hold return over the year prior to the listing in the home (h) or listing (l) country. *% Industry IPOs* is the percentage of all IPOs in the same industry that went public in the home (h) or listing (l) country in the prior three years. *Proximity* is the distance between originating and listing country in kilometers from Sarkissian and Schill (2004). Firm and offering characteristics are winsorized at the 1% level. All values are in $US millions unless noted otherwise. * denotes statistical significance at the 10% level, ** denotes statistical significance at the 5% level, and *** at the 1% level.

	Foreign - Cross		Global - Cross	
Variable	Difference	Significance	Difference	Significance
Panel A: Firm Characteristics				
Net Income	-549	***	-420	***
Total Assets	-23,440	***	-16,912	***
Sales	-8,844	***	-6,362	***
Foreign Sales (%)	6.79	***	0.63	
ROA (%)	4.23	***	-0.48	
High Tech	0.10	***	0.05	
Panel B: Country Characteristics				
$\text{Private Bond}_{\text{h}}$	-0.08	***	-0.10	***
$\text{Listed Cos/Capita}_{\text{h}}$	0.20	***	0.12	***
$\text{Stock Mkt Turn}_{\text{h}}$	-0.17	***	-0.25	***
$\text{Financial Reform}_{\text{h}}$	-0.08	***	0.03	**
$\text{Disclose}_{\text{h}}$	-0.03	***	-0.03	**
Listing Markets Return	0.07	***	0.06	***
$\text{Mkt Return}_{\text{h,1yr}}$	0.08	***	0.07	***
$\text{Mkt Return}_{\text{l,1yr}}$	0.05	***	0.03	*
$\%\text{ Industry IPOs}_{\text{h}}$	-0.04	***	-0.03	***
$\%\text{ Industry IPOs}_{\text{l}}$	0.07	***	0.05	***
Proximity	475	***	-238.8	

Table VII: Determinants of Going Public Abroad

Logit analysis of the determinants of going public abroad. The dependent variable is a dummy variable representing the type of IPO: Domestic IPO, Foreign IPO or Global IPO. *Domestic IPOs* are IPOs that go public in their home country but not in any foreign country. *Foreign IPOs* are IPOs that go public in at least one foreign country but not in their home country. *Global IPOs* are IPOs that go public simultaneously (within 75 days) in both their home country and at least one foreign country. *Proceeds* are from Bloomberg. *ROA, Sales and % Foreign Sales* are from Worldscope and Datastream. *High Tech* is a dummy variable as defined in the Appendix. Financial statement information is from the year prior to the IPO where available, otherwise, it is in the year of the IPO. *Private Bond, Listed Cos/Capita* and *Stock Mkt Turn* are from the World Bank's Financial Structure Dataset in the year of issuance. *Listing Markets Return* is an equally weighted average return over the year prior to the listing for the seven most popular foreign/global IPO listing markets: US, UK, Singapore, Germany, Canada, France and Australia. *% Industry IPOs*$_h$ is the percentage of all IPOs in the same industry that went public in the home country in the prior three years. *Financial Reform* is an index of liberalization, between zero and one, from Abiad, Detragiache, and Tressel (2008). *Disclose* and *Enforce* are indices of disclosure requirements and public enforcement from La Porta, Lopez-de Silanes, Shleifer, and Vishny (1998). Country characteristics are for the home country unless otherwise noted. Firm and offering characteristics are winsorized at the 1% level. Includes year fixed effects. *z* scores are adjusted for clustering in home countries.

	Domestic IPO		Foreign IPO		Global IPO		Domestic IPO		Foreign IPO		Global IPO		Domestic IPO		Foreign IPO		Global IPO	
Variable	Marg. Eff.	z	Marg. Eff.	z	Marg. Eff.	z	Marg. Eff.	z	Marg. Eff.	z	Marg. Eff.	z	Marg. Eff.	z	Marg. Eff.	z	Marg. Eff.	z
			Model 1a						***Model 1b***						***Model 1c***			
Ln(Proceeds)	-0.006	-2.99	0.004	2.25	0.002	4.75	-0.006	-1.94	0.003	1.20	0.003	3.38	-0.003	-2.76	0.001	1.17	0.002	3.32
ROA (*100)							0.022	0.99	-0.017	-0.81	-0.005	-2.40						
Sales (*100)													0.000	-0.22	0.000	-0.26	0.000	1.99
%Foreign Sales (*1000)													-0.018	-1.79	0.014	1.55	0.003	2.12
High Tech	-0.014	-2.00	0.013	1.92	0.001	1.17	-0.011	-1.82	0.008	1.48	0.002	1.48	-0.007	-1.41	0.005	1.23	0.002	1.21
Listed Cos/Capita$_h$	-0.009	-0.72	0.008	0.66	0.001	0.91	-0.007	-0.37	0.006	0.32	0.001	0.80	-0.001	-0.20	0.001	0.17	0.000	0.29
Stock Mkt Turnover$_h$	0.012	1.80	-0.009	-1.57	-0.002	-1.87	0.016	1.31	-0.013	-1.19	-0.003	-1.27	0.003	0.85	-0.002	-0.69	-0.001	-0.93
Listing Market Return	-0.023	-1.68	0.022	1.64	0.001	0.27	-0.003	-0.12	0.006	0.25	-0.003	-0.68	0.006	0.83	-0.002	-0.44	-0.004	-1.04
% Industry IPOs$_h$	0.211	4.06	-0.196	-3.77	-0.016	-4.26	0.302	3.50	-0.285	-3.36	-0.017	-2.47	0.129	2.31	-0.109	-2.01	-0.020	-3.72
N	17,405						8,502						5,475					
			Model 2a						***Model 2b***						***Model 2c***			
Ln(Proceeds)	-0.009	-3.57	0.006	2.53	0.003	5.81	-0.008	-2.47	0.005	1.69	0.003	3.86	-0.007	-3.95	0.004	2.80	0.003	4.04
ROA (*100)							0.015	1.03	-0.013	-0.93	-0.002	-2.39						
Sales (*100)													-0.001	-1.35	0.000	1.01	0.000	1.76
%Foreign Sales (*1000)													-0.036	-4.47	0.032	4.24	0.004	2.74
High Tech	-0.013	-2.22	0.012	1.98	0.001	1.26	-0.014	-1.94	0.012	1.63	0.002	1.66	-0.007	-1.25	0.006	1.11	0.001	1.05
Private Bond $_h$	0.051	2.88	-0.042	-2.50	-0.009	-3.59	0.068	2.53	-0.060	-2.42	-0.008	-2.19	0.033	2.57	-0.024	-2.31	-0.010	-2.95
Financial Reform$_h$	0.001	0.05	-0.012	-0.64	0.011	2.69	0.039	1.46	-0.052	-2.24	0.013	1.69	0.073	3.12	-0.074	-3.56	0.001	0.19
N	13,867						6,288						4,542					
			Model 3a						***Model 3b***						***Model 3c***			
Ln(proceeds)	-0.009	-2.76	0.006	2.23	0.003	3.18	-0.010	-2.95	0.006	2.18	0.004	2.83	-0.005	-1.96	0.001	0.65	0.004	2.74
ROA (*100)							0.030	1.94	-0.025	-1.81	-0.005	-2.06						
Sales (*100)													-0.001	-1.48	0.001	1.17	0.000	1.95
% Foreign Sales (*100)													-0.051	-4.11	0.044	4.17	0.008	2.70
High Tech	-0.019	-1.99	0.018	1.89	0.001	0.72	-0.011	-1.60	0.008	1.23	0.002	1.54	-0.010	-1.81	0.008	1.43	0.002	1.61
Disclose$_h$	0.179	1.79	-0.159	-1.59	-0.020	-2.43	0.184	2.12	-0.157	-1.93	-0.027	-1.93	0.149	2.18	-0.121	-1.81	-0.029	-3.36
Low Disclose$_h$_Low Enforce$_h$	0.030	2.14	-0.027	-1.93	-0.004	-2.56	0.031	1.61	-0.026	-1.43	-0.005	-2.07	0.021	2.31	-0.017	-2.01	-0.004	-2.81
Low Disclose$_h$_High Enforce$_h$	0.030	3.42	-0.026	-3.17	-0.003	-2.60	0.032	3.17	-0.028	-3.08	-0.004	-2.16	0.020	2.99	-0.017	-2.63	-0.004	-2.79
High Disclose$_h$_Low Enforce$_h$	0.025	1.42	-0.023	-1.39	-0.002	-0.86	0.024	1.23	-0.021	-1.20	-0.003	-1.01	0.011	0.78	-0.010	-0.76	-0.001	-0.56
N	16,109						7,780						5,359					

Table VIII: Statistics on Domestic IPOs that Subsequently Cross-List

Summary statistics on firm characteristics for *Subsequent Cross-Listings* which are IPOs that go public first in their home country and then cross-list later. *Domestic IPOs* are IPOs that go public in their home country but not in any foreign country. *Cross-Listings* are cross-listings post-IPO (from 1995 onward) of a firm in any foreign country. Financial statement information is from the year before the IPO or cross-listing when available, otherwise financial variables are from the year of the IPO. The sample of Domestic IPOs and Cross-Listings used in this table exclude Subsequent Cross-Listings. *Net Income, Total Assets, Sales, Foreign Sales*, and *ROA* are from Worldscope and Datastream. *High Tech* is a dummy variable as defined in the Appendix. *Proximity* is the distance between originating and listing country in kilometers from Sarkissian and Schill (2004). Firm and offering characteristics are winsorized at the 1% level. All values are in $US millions unless noted otherwise. ** denotes statistical significance at the 5% level, *** at the 1% level.

Variable	Mean of Subsequent Cross-Lists at time of IPO	Mean of Subsequent Cross-Lists at time of Cross-List	Difference in Means between Subsequent Cross-Lists at time of Cross-List and at time of IPO	Difference in Means between Subsequent Cross-Lists and Other Cross-Lists at time of Cross-Listing
Net Income	77.8	96.0	18.2	-535.8***
Total Assets	5,237	6,931	1,694***	-19,452***
Sales	1,579	2,197	618***	-7,922***
Foreign Sales	0.23	0.27	0.04**	-0.14***
ROA	-0.06	-0.09	-0.04	-0.08***
Hi Tech		0.39		0.23***
Proximity (kms)		6,202		1,324***

Table IX: Differences Between the Determinants of Going Public Abroad Now or Cross-Listing Later

Logit analysis of the choice of going public abroad at the time of the IPO or going public at home and then cross-listing later. The dependent variable is a dummy variables representing the type of IPO: Foreign IPO, Global IPO, or Subsequent Cross-Listing. *Subsequent Cross-Listings* are IPOs that go public first in their home country and then cross-list later. All variables for Subsequent Cross-Listings are measured at the time of the IPO. *Foreign IPOs* are IPOs that go public in at least one foreign country but not in their home country. *Global IPOs* are IPOs that go public simultaneously (within 75 days) in both their home country and at least one foreign country. *Proceeds* are from Bloomberg. *High Tech* is a dummy variable as defined in the Appendix. *Private Bond, Listed Cos/Capita and Stock Mkt Turn* are from the World Bank's Financial Structure Dataset in the year of issuance. *Listing Markets Return* is an equally weighted average return over the year prior to the listing for the seven most popular foreign/global IPO listing markets: US, UK, Singapore, Germany, Canada, France and Australia. *% Industry IPOs*$_h$ is the percentage of all IPOs in the same industry that went public in the home country in the prior three years. *Financial Reform* is an index of financial liberalization, between zero and one, from Abiad, Detragiache, and Tressel (2008). *Disclose* is an index of disclosure requirements from La Porta, Lopez-de Silanes, Shleifer, and Vishny (1998). *Proximity* is the distance between originating and listing country in kilometers from Sarkissian and Schill (2004). All country characteristics are for the home country unless otherwise noted. Firm and offering characteristics are winsorized at the 1% level. Includes year fixed effects. *z* scores are adjusted for clustering in home countries.

	Foreign IPO		Global IPO		Subsequent Cross-Listing	
Variable	Marg. Eff.	z	Marg. Eff.	z	Marg. Eff.	z
Model 1 (N=1,081)						
Ln(Proceeds)	-0.072	-5.65	0.073	6.26	-0.001	0.86
High Tech	0.007	0.18	-0.015	-0.39	0.008	0.37
Private Bond$_h$	-0.112	-1.45	0.082	1.28	0.031	0.04
Listed Cos/Capita$_h$	-0.205	-1.76	0.186	1.97	0.019	0.42
Stock Mkt Turnover$_h$	0.055	1.54	-0.061	-1.72	0.006	0.33
Model 2 (N=930)						
Ln(Proceeds)	-0.069	-2.17	0.059	5.52	0.010	0.37
High Tech	0.003	0.04	-0.046	-1.35	0.044	0.66
Listing Markets Return	0.267	1.15	0.101	0.68	-0.369	-2.13
% Industry IPOs$_h$	-1.382	-2.67	0.010	0.06	1.372	3.24
Financial Reform$_h$	-0.760	-2.54	0.378	3.31	0.383	1.18
Model 3 (N=1,006)						
Ln(Proceeds)	-0.085	-5.02	0.086	6.02	-0.001	-0.21
High Tech	0.068	1.12	-0.072	-1.44	0.003	0.18
Disclose$_h$	-0.254	-1.99	0.205	1.79	0.049	0.79
Proximity	0.000	0.16	0.000	-0.65	0.000	0.77

Table X: IPOs and Cross-Listings for the Most Active Listing Markets for Foreign and Global IPOs By Sub-Periods

The number of IPOs and cross-listings from 1995 through 2001 and 2002 through 2007 for the seven most active listing markets for foreign and global IPOs. The remaining listing markets are categorized as Other. *Domestic IPOs* are IPOs that go public in their home country but not in any foreign country. *Foreign IPOs* are IPOs that go public in at least one foreign country but not in their home country. *Global IPOs* are IPOs that go public simultaneously (within 75 days) in both their home country and at least one foreign country. *Cross-Listings* are cross-listings post-IPO (from 1995 onward) of a firm in any foreign country. *Proceeds* are from Bloomberg in $US millions and are winsorized at the 1% level.

Listing Market	Domestic IPOs 1995-2001	Domestic IPOs 2002-2007	Foreign IPOs 1995-2001	Foreign IPOs 2002-2007	Global IPOs 1995-2001	Global IPOs 2002-2007	Cross-Listings 1995-2001	Cross-Listings 2002-2007
Panel A: Number of Issues								
United States	2,416	884	184	124	55	13	543	249
United Kingdom	779	897	35	216	37	30	731	557
Singapore	223	215	28	128	5	1	25	12
Germany	432	149	46	10	0	0	0	0
Canada	643	956	13	28	2	6	76	64
France	395	199	13	11	6	0	60	26
Australia	487	852	12	11	4	2	51	35
Other	3,732	3,479	20	37	22	11	607	305
Total	9,107	7,631	351	565	131	63	2,093	1,248
Panel B: Total Dollar Proceeds ($US mils)								
United States	210,993	135,295	31,865	23,490	26,706	8,445	-	-
United Kingdom	45,789	65,856	4,802	16,900	23,726	11,281	-	-
Singapore	4,251	9,394	703	5,187	200	1,099	-	-
Germany	29,617	22,622	7,388	1,713			-	-
Canada	15,235	34,435	226	1,314	1,022	539	-	-
France	17,305	23,265	2,798	371	2,707		-	-
Australia	15,793	28,174	777	83	1,023	108	-	-
Other	193,167	295,119	3,233	6,669	10,426	5,457	-	-
Total	532,148	614,161	51,791	55,727	65,810	26,929	-	-
Panel C: Average Dollar Proceeds ($US mils)								
United States	87	153	173	189	486	650	-	-
United Kingdom	63	76	166	86	659	376	-	-
Singapore	19	44	25	41	40	1,099	-	-
Germany	70	154	168	171			-	-
Canada	24	36	17	47	511	90	-	-
France	45	118	215	37	541		-	-
Australia	33	33	65	10	256	54	-	-
Other	53	85	180	185	497	546	-	-

Table XI: Determinants of Listing Market for Foreign and Global IPOs

Probit analysis of the determinants of the listing market for Foreign and Global IPOs. The dependent variable is a dummy variable representing the choice of listing market for the seven most active markets for foreign and global IPOs: US, UK, Singapore, Germany, Canada, France, or Australia. The remaining listing markets are grouped into Other and are not shown to conserve space. *Foreign IPOs* are IPOs that go public in at least one foreign country but not in their home country. *Global IPOs* are IPOs that go public simultaneously (within 75 days) in both their home country and at least one foreign country. *Proceeds* are from Bloomberg. *High Tech* is a dummy variable as defined in the Appendix. *Mkt Return* is the buy and hold return over the year prior to the listing in either the home or listing country. *% Industry IPOs*$_l$ is the percentage of all IPOs in the same industry that went public in the listing country in the three years prior to the listing. *% Foreign IPOs*$_l$ is the percentage of foreign IPOs from the home country that listed in the listing country in the past three years. *After 2001* is a dummy variable that takes the value of 1 if the IPO year is later than 2001.*Proximity* is the distance between originating and listing country in kilometers from Sarkissian and Schill (2004), and its marginal effect is multiplied by 100. *Disclose* is an index of disclosure requirements from La Porta, Lopez-de Silanes, Shleifer, and Vishny (1998). Subscripts denote whether the variable is based on the home country (h) or the listing country (l). Firm and offering characteristics are winsorized at the 1% level. *z* scores are adjusted for clustering in home countries.

	US		UK		Singapore		Germany		Canada		France		Australia	
Variable	Marg. Eff.	z	Marg. Eff.	z	Marg. Eff.	z	Marg. Eff.	z	Marg. Eff.	z	Marg. Eff.	z	Marg. Eff.	z
Ln(Proceeds)	0.051	2.42	0.011	0.74	-0.028	-1.63	0.001	0.54	-0.028	-2.11	-0.002	-0.93	-0.006	-1.10
High Tech	0.085	1.24	-0.094	-1.53	0.050	1.51	0.007	0.56	-0.035	-1.78	-0.003	-0.82	-0.010	-1.01
Mkt $\text{Ret}_{\text{l,1yr}}$-Mkt $\text{Ret}_{\text{h,1yr}}$	0.076	0.63	-0.398	-2.46	0.055	0.58	0.013	0.56	0.163	2.50	-0.001	-0.16	0.090	0.86
% Industry IPOs_{l}	0.939	3.31	-0.302	-0.91	-0.480	-1.45	-0.019	-0.54	0.080	0.75	-0.075	-1.11	-0.113	-1.58
% Foreign IPOs_{l}	0.291	1.99	-0.036	-0.21	-0.207	-2.02	0.003	0.39	-0.112	-1.22	-0.015	-0.95	0.078	0.93
Proximity (*100)	0.000	2.02	0.000	-1.02	0.000	-1.53	0.000	-0.63	0.000	-0.75	0.000	-1.00	0.000	1.56
$\text{Disclose}_{\text{l}}$-$\text{Disclose}_{\text{h}}$	0.946	4.93	-0.491	-2.34	0.145	1.32	-0.033	-0.62	-0.382	-2.22	0.011	0.90	-0.191	-1.26
After 2001	-0.373	-6.03	0.353	5.17	0.015	0.76	-0.005	-0.62	0.029	1.49	-0.001	-0.33	-0.019	-1.99
N	638													

Table XII: Determinants of Proceeds

OLS of the determinants of offering proceeds. The dependent variable is the log of *Proceeds* from Bloomberg. The sample consists of Foreign and Global IPOs only. *Foreign IPOs* are IPOs that go public in at least one foreign country but not in their home country. *Global IPOs* are IPOs that go public simultaneously (within 75 days) in both their home country and at least one foreign country. *Foreign* is a dummy variable if the IPO is a Foreign IPO. *High Tech* is a dummy variable as defined in the Appendix. *Mkt Return* is the buy and hold return over the year prior to the listing in either the home or listing country. *% Industry IPOs*$_l$ is the percentage of all IPOs in the same industry that went public in the listing country in the three years prior to the listing. *% Foreign IPOs*$_l$ is the percentage of foreign IPOs from the home country that listed in the listing country in the past three years. *After 2001* is a dummy variable that takes the value of 1 if the IPO year is later than 2001. *Proximity* is the distance between originating and listing country in kilometers from Sarkissian and Schill (2004), and its marginal effect is multiplied by 100. *Disclose* is an index of disclosure requirements from La Porta, Lopez-de Silanes, Shleifer, and Vishny (1998). *Mkt Ret*$_{l,1yr}$ is the buy-and-hold return in the listing market the year prior to the IPO. *Private Bond, Listed Cos/Capita* and *Stock Mkt Turn* are from the World Bank's Financial Structure Dataset in the year of issuance. *% Industry IPOs*$_h$ is the percentage of all IPOs in the same industry that went public in the home country in the prior three years. *Financial Reform* is an index of financial liberalization, between zero and one, from Abiad, Detragiache, and Tressel (2008). *Disclose* is an index of disclosure requirements from La Porta, Lopez-de Silanes, Shleifer, and Vishny (1998). *Proximity* is the distance between originating and listing country in kilometers from Sarkissian and Schill (2004). Firm and offering characteristics are winsorized at the 1% level. z scores are adjusted for clustering in home countries.

	Model 1		Model 2		Model 3	
Variable	Coeff.	t-stat	Coeff.	t-stat	Coeff.	t-stat
Global	1.038	3.99	1.152	3.99	1.230	3.79
Total Assets (*1000)	0.034	3.01	0.027	4.26	0.034	4.31
High Tech	-0.181	-1.58	-0.286	-2.09	-0.006	-0.03
Listed Cos/Capita$_l$	-0.852	-4.46				
Stock Mkt Turnover$_l$	0.258	1.29				
Mkt Ret$_{l,1yr}$	1.087	2.31				
% Industry IPOs$_l$	1.735	3.21				
% Foreign IPOs$_l$	0.195	0.69				
Private Bond$_l$			2.026	8.06		
Financial Reform$_l$			0.665	0.28		
Disclose$_l$					-0.521	-0.71
Disclose$_l$-Disclose$_h$					2.033	5.63
Proximity (*100)					0.004	0.71
N	748		505		492	
R^2	0.30		0.42		0.33	