

Transparency, Disclosure, and Emerging Market Companies' Access to Capital in Global Equity Markets

Carol Ann Frost*

State University of New York at Buffalo

Elizabeth A. Gordon**

Rutgers University

Grace Pownall***

Emory University

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* Associate Professor of Accounting & Law, School of Management, 350 Jacobs Management Center, State University of New York at Buffalo, Buffalo, New York, 14260; phone 716-645-3197; email Cfrost2@buffalo.edu

**Boutillier Endowed Faculty Scholar and Assistant Professor of Accounting, Rutgers Business School, Department of Accounting and Information Systems, Rutgers University, Janice H. Levin Building, Room 241, 94 Rockefeller Road, Piscataway New Jersey, 08854; phone 732-445-5849; email egordon@business.rutgers.edu.

***Professor of Accounting, Goizueta School of Business, Emory University, 1300 Clifton Road NE, Atlanta, Georgia, 30322; phone 404-727-0775; email Grace_Pownall@bus.emory.edu

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ABSTRACT

This study examines associations between transparency, disclosure, and access to capital in global equity markets by emerging market companies. We use a sample of 342 companies from 17 Latin American and emerging Asian countries, and estimate OLS and Ordered Logit regressions in which capital access is the dependent variable, and five different proxies for these companies' transparency and disclosure are independent variables. We use a measure of global equity offering activity to proxy for capital market access.

We find strong support for the hypothesis that transparency and disclosure are positively associated with emerging market companies' global capital market access, after controlling for many factors expected to influence emerging market companies' ability to raise capital globally.

Key words: Transparency; disclosure; foreign stock exchange listings; International Financial Reporting Standards.

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1. Introduction

Many studies document positive associations between capital market benefits and expanded transparency and disclosure. For example, evidence is consistent with the view that expanded disclosure is associated with greater market liquidity and lower cost of equity capital.¹ Evidence from cross-border settings is relatively limited, but generally consistent with results from single country studies. For example, Bhattacharya, Daouk, and Welker [2003] find positive associations between proxies for earnings informativeness, reduced cost of equity, and equity trading volume in 34 countries during 1985-1998.

Little evidence, however, links corporate transparency and disclosure to a key aspect of cost of equity capital – access to new equity capital in global markets, particularly in the context of emerging market companies. Such research is particularly relevant because emerging market companies face greater barriers to equity capital access than their developed market counterparts, and expanded disclosure and transparency might lessen such barriers.

Barriers limiting emerging market companies' access to equity capital include the following. First, emerging capital markets generally have highly limited pools of available capital. Second, the high degree of risk - economic, political, and financial - in emerging markets deters potential foreign investors. A third factor is that the generally weak corporate disclosure and transparency in emerging economies introduces information risk that has been cited as a further deterrent to potential investors.

Do emerging market companies use enhanced transparency and disclosure to increase their access to equity capital in global markets? To address this question, we investigate associations between transparency and disclosure (measured primarily during 2000) and international capital offerings made during 2000-2004 in a sample of 342 companies from 17 emerging Latin American and Asian countries. Positive associations between emerging market companies' transparency and disclosure levels and their global equity offering activities would be consistent with the view that low transparency and disclosure impose constraints on

¹ For a review of many studies, see Healy and Palepu [2001].

companies' ability to develop the level of investor and analyst interest necessary for successful overseas listings and capital offerings.²

It is well-known that emerging market companies entering U.S. equity markets (and to a lesser extent European markets) face regulatory and stock exchange requirements for expanded financial reporting and disclosure. Thus, a decision to raise equity (and/or to list) overseas generally also involves a decision to expand disclosure and transparency. In this study, we address whether emerging market companies enhance their disclosure and transparency *incremental* to expanded disclosure and transparency resulting from regulatory and stock exchange requirements.

We estimate models in which a polychotomous dependent variable represents different levels of global equity market offering activity. This variable is our empirical proxy for our theoretical construct, access to capital. Our independent variables are five measures of transparency and disclosure. The estimation model includes many additional variables that proxy for the benefits, costs, and constraints related to emerging market companies' global equity offering activities.

The dependent variable has six levels (0 to 5) that represent increasing levels of global equity offerings activity, defined as follows. At the highest value of 5, the company has made a public equity offering in the U.S. (which we assume to be a cost of capital minimizing strategy). At the lowest value of 0, the company has neither raised equity nor listed equity overseas (and is listed only in the home market). The other four variable values (1, 2, 3, and 4) represent intermediate levels of offering activity (capital access): (1) public European and/or London equity offers, (2) over-the-counter ADR trading in the U.S., (3) U.S. Rule 144A private placements, and (4) listed on a U.S. stock exchange. Our global equity offering measure assumes that overseas stock exchange listings and ADR program launches in the U.S. are intermediate steps that foreign companies might take as they progress towards actual equity offerings.³

Our proxy for access to capital implicitly assumes that an emerging market company maximizes its access to capital (minimizes its cost of capital) by making a U.S. public equity offering. As discussed more fully in the following section, companies raising capital in the U.S.

² This study focuses on access to equity capital. Emerging market companies' access to the long-term debt markets is a closely related issue.

³ For evidence consistent with this assumption, see Reese and Weisbach [2002] and Decker [2004].

often begin the process by establishing depositary receipt programs, listing on U.S. and/or U.K. and other European stock exchanges, and/or raising public equity in European markets.

We define transparency and disclosure as follows. Financial transparency exists when information about an entity's financial performance and condition 1) reflects economic reality (is credible), and 2) is readily accessible to financial statement users. Disclosure is the transmission of information about an entity to external parties. We examine five measures of transparency and disclosure: 1) Standard and Poor's Transparency and Disclosure index, 2) accounting principles used in the annual report to shareholders (home GAAP, International Financial Reporting Standards [IFRS], reconciliation to U.S. GAAP, and U.S. GAAP), 3) auditor (big five versus not-big five), 4) whether the annual report to shareholders is translated into English, and 5) a categorical variable representing the extent to which the company provides freely available financial and other investor-oriented information on its website.

The S&P Transparency and Disclosure (T&D) index provides data on three broad categories of companies' annual report disclosures: financial and accounting information, governance structure, and ownership structures.⁴ We obtain information on accounting principles, auditor choice, and whether the annual report is translated into English from sample companies' annual reports. The internet reporting variable is constructed by coding information from sample companies' websites. A nine-level scale is used to indicate the level of information dissemination, where the levels range from 0 (no company website) to 8 (conference calls are provided on the website).

Our empirical model controls for the following constraints on emerging market companies' overseas capital access: geographic region (Latin America versus Asia), country risk, and four financial and market measures that proxy for several benefits of listing and offering equity overseas: the market to book ratio, return on equity, foreign revenues divided by total revenues, and a measure of saturation in the home market (market value of the firm divided by the market capitalization in the home country).

Our study makes several contributions. First, by using relatively direct measures of capital access, transparency, and disclosure, our tests are potentially more powerful, and rely on fewer assumptions than those that use less direct measures. In particular, we link measures of transparency and disclosure with actual capital offerings made by the sample companies.

⁴ Refer to Patell and Dallas [2002] and Patel, Balic and Bwakira [2002] for detailed descriptions of the S&P T&D index, and to *Euromoney* [2001] for total and subcategory scores for the companies analyzed in this research. Khanna, Palepu, and Srinivasan [2004] and Patel, Balic, and Bwakira [2002] are examples of recent research using the S&P index.

Second, our tests use a detailed measure of strictly voluntary web-based information dissemination. Our study therefore offers the important advantage of providing evidence on both strictly voluntary disclosure made outside of periodic financial reports, and transparency and disclosure in annual reports to shareholders. Also, by examining five different measures of transparency and disclosure, we provide a relatively comprehensive analysis of this construct. Analysis of different measures lets us address the incremental role played by different types of disclosure and transparency.

Third, we provide new evidence on emerging market companies' transparency, disclosure, and global capital market activities. For example, as discussed below, we document that international capital market activity is highly limited for many of the largest emerging market companies, and that many of these companies exhibit surprisingly weak transparency and disclosure, considering their size and economic importance.

Finally, because our study focuses exclusively on emerging market companies, we can design more powerful and parsimonious empirical models. Because the quality of transparency and disclosure is relatively low in emerging market companies, the capital market benefits of expanded transparency and disclosure might be relatively great for companies in emerging markets. We also expect that associations among the variables studied differ for developed and emerging market companies.

A summary of our results is as follows. First, we find strongly positive associations between proxies for equity capital market access and transparency and disclosure, even after controlling for many potentially relevant explanatory variables. Specifically, our analyses indicate that global capital market equity offering activity is positively correlated with: 1) Extent of information dissemination on company websites; 2) Standard & Poor's Financial Transparency and Disclosure Index; 3) Accounting standards used in the annual report to shareholders (ARS); and 4) Whether the ARS had been translated (or partially translated) into English and thereby made accessible to English language-speaking readers. Our proxy for audit quality – whether the auditor was a big-five or not a big-five auditor - is not associated with equity offering activity, however.

Second, our evidence indicates that the low disclosure and transparency of emerging market companies documented in prior research persists, in spite of calls for reform following the financial crises in Asia, Latin America, and other regions (See Beim and Calomiris [2001]). For example, we find that the median Latin American sample company does not provide a

website with English language financial statements, and only rarely do sample companies provide U.S. or International GAAP-related financial statement data.

From these results, we conclude that generally weak transparency and disclosure may continue to constrain emerging economy companies' ability to access equity capital in overseas markets, and that companies may enhance their transparency and disclosure as part of their global equity capital-raising strategies.

The rest of this paper is organized as follows. Section 2 presents background that forms the basis for our conceptual model. Our hypothesis and empirical model are in section 3. Section 4 discusses and describes the sample, empirical measures, and data. Results are in section 5, and section 6 presents conclusions.

2. Background

This study uses the following conceptual framework to structure empirical tests: (1) Companies in emerging economies generally face severe capital constraints in their home markets; (2) One approach for companies seeking new capital is to access global markets;⁵ (3) Many barriers (constraints) face emerging market companies seeking access to global capital markets, including country risk (economic, political, and financial) and information risk; and (4) Emerging market companies can reduce one barrier, "information risk," by increasing their transparency and disclosure.

2.1 CAPITAL CONSTRAINTS IN EMERGING MARKETS

Emerging economies face the related goals of building their local financial institutions and markets, and attracting international investment.⁶ Emerging financial markets are generally not sufficiently developed to attract the levels of private capital investment needed for significant improvements in economic conditions and social welfare (International Finance Corporation [2005]). These markets are also characterized by unique financial structures and institutions. Further impeding investments is that fact that emerging market countries often rate high on

⁵ In the limit, very high capital costs mean not having *any* access to capital. Thus, access to capital is in some respects the same issue as cost of capital.

⁶ Beim and Calomiris [2001] present a useful overview of emerging markets, investment characteristics and performance of emerging markets securities, and the unique features of emerging financial market risk.

measures of political, economic, financial and country risk. Such factors influence investor attitudes to emerging markets and emerging markets companies' ability to access capital.

2.2 GLOBAL CAPITAL MARKETS AS A SOURCE OF NEW CAPITAL

Many companies overcome home market capital constraints by raising debt and equity in overseas markets. Use of overseas markets is most common when local capital is restricted. Capital offerings are often made simultaneously in two or more international markets when the amount of capital being raised is so large that a single market does not offer a large enough pool of interested investors.

Even companies from developed economies raise significant amounts of new capital in overseas markets. Henderson, Jegadeesh, and Weisbach [2004] present comparative data on equity capital raised by firms domiciled in the G7 countries, and in many different non-G7 regions during 1990-2001. Their evidence indicates that reliance on foreign sources of equity capital vary dramatically across countries and regions. The size of foreign equity issues relative to home issues exceeds 100% in the Central American and Caribbean region and in the Middle East region. Even among Western European companies, the percentage is 18.5%.⁷ Frost and Shklovskaya [2002] describe the main sources of equity and debt financing for companies from each of six regions. Like Henderson et al. [2004], they find substantial reliance on foreign equity markets for companies from both emerging and developed economies, with greater reliance on foreign markets by emerging market companies. They also report substantial reliance on foreign sources of debt, especially in the case of emerging market companies.⁸

Equity and debt capital inflows to emerging economies even exceed foreign direct investment (FDI) inflows, which have been the focus of most empirical research on external funding to emerging economies.⁹ Even when comparison is restricted to cross-border offerings,

⁷ Not surprisingly, for U.S. companies the size of foreign equity issues relative to home issues is less than 1%.

⁸ See International Organization of Securities Commissions [2002] for further comparative evidence on domestic and international corporate bond markets.

⁹ FDI is an "... investment made by a resident entity in one economy (direct investor) with the objective of establishing a lasting interest in an enterprise resident in an economy other than that of the investor [Organisation of Economic Co-Operation and Development, 2002]."

the total debt and equity capital raised exceeded FDI inflows in 1998, 1999, 2000, 2001, and for the four-year period as a whole.¹⁰

2.3 BARRIERS FACING EMERGING MARKET COMPANIES ENTERING GLOBAL CAPITAL MARKETS

Emerging market companies face unique barriers to accessing new capital. Direct barriers include legal barriers such as foreign ownership restrictions and taxes on foreign investment. Indirect barriers arise from (1) relatively low levels of available information, (2) low quality accounting standards (from an investor protection perspective), (3) low levels of investor protection, and (4) weak enforcement mechanisms.¹¹ Additional (related) country-specific risks that discourage foreign investment include liquidity risk, political risk, economic policy risk, and currency risk [Bekaert 1999/2000].

Potential investors in emerging market companies face especially high levels of information risk due to these companies' relatively low levels of transparency and disclosure. For instance, Patel and Dallas [2002] compare annual report transparency and disclosure rankings (discussed in section 4) across seven regions, and report dramatically lower rankings in Emerging Asia than in the other (non-emerging economy) regions. Similarly, Saudagaran and Diga [1997] summarize evidence from several sources and report that, as compared with developed markets, in emerging markets (1) extent of annual report disclosure is lower; (2) the number of auditors per 100,000 population is lower; and (3) audit reports are less comprehensive.¹²

Within emerging markets, disclosure levels vary considerably. For example, Klapper and Love [2004] report wide variation in governance disclosures in a sample of companies from 14 emerging market countries (from Credit Lyonnais Securities Asia). Like Klapper and Love,

¹⁰ Data on FDI inflows are from United Nations Department of Economic and Social Affairs and United Nations Conference on Trade and Development [2002]. Capital offerings data are compiled by Frost and Shklovskaya [2002].

¹¹ Many studies have documented these characteristics. For one example, refer to Claessens and Fan [2002], who survey the literature on corporate governance in Asia and confirm that minority rights in Asia are limited, corporate transparency is low, and corporate transactions tend to be relationship-based.

¹² Frost and Ramin [2003] compare financial report and website disclosures of six major automobile manufacturers – two domiciled in emerging market countries, and four domiciled in developed economies. Although based on a small sample, the results are consistent with what has widely been observed in practice: companies in emerging market economies disclose less than their developed market counterparts. Meek and Thomas [2004] discuss the role of financial crises in Asia and other Emerging Economies in leading to accounting reforms in many countries in these regions.

Durnev and Kim [2004] (using Credit Lyonnais Securities Asia and S&P data) also observe that levels of disclosure vary greatly in countries with low levels of legal protection. They hypothesize that despite low disclosure levels, firms will optimize their disclosures more given incentives for disclosure. They find positive associations between a firm's disclosure of financial and governance information and its growth opportunities, need for external capital and concentration of cash flow rights.

The above evidence suggests that, although an emerging market company might not be able to control country-specific barriers to accessing new capital, it can perhaps overcome an important source of firm-specific risk – information risk – by increasing the level of its transparency and disclosure.

2.4 DISCLOSURE AND CAPITAL ACCESS

It is reasonable to expect that emerging market companies use enhanced transparency and disclosure to increase their access to equity capital in global markets. To date, little evidence has been provided to support this expectation. Much of the existing evidence that might be relevant focuses on non-U.S. companies listing shares (not necessarily raising equity) in U.S. markets. In many studies, extent of disclosure is not directly measured, but rather is defined in terms of regulatory constraints imposed by the U.S. SEC and stock exchanges. In other words, many authors assume that when listing overseas, companies increase their transparency and disclosure levels to meet regulatory requirements.

A growing body of research views listing outside of the home country as a bonding mechanism by which firms domiciled in a jurisdiction with weak investor protection or poor enforcement mechanisms can voluntarily subject themselves to higher disclosure standards and stricter enforcement in order to attract investors who would otherwise be reluctant to invest.¹³ This literature is distinct from, but consistent with the view that firms will voluntarily increase their disclosure when seeking new capital overseas. Through voluntarily listing in a jurisdiction with stricter enforcement and higher disclosure, the agency costs of the controlling shareholders and the risk of expropriation can be reduced. By listing outside of its home country, a company provides a credible pre-commitment to a given level of disclosure.

¹³ See, for example, Coffee [1999], Stultz [1999], and Fuerst [1998]. Karolyi [1996] alludes to this idea in the context of emerging market companies. Those companies in emerging market countries with foreign ownership restrictions can reduce the agency costs of controlling shareholders and thus alleviate effects of foreign ownership restrictions on the underlying cost of capital through cross-listing

Consistent with the pre-commitment to disclosure under bonding, the economic and finance literature provides two other motivations for the link between the decision to access capital outside the domestic market, the cost of capital and disclosure. The first is based on Merton's [1987] "investor recognition" hypothesis which suggests that enhanced disclosure from listing reduces the cost of following the firm.¹⁴ The second is Barry and Brown's [1985] "estimation risk" hypothesis which suggests that increased disclosure will increase investors' ability to assess firm value.¹⁵

Recent empirical research shows that U.S. exchanges with strict regulatory requirements have *more* foreign listings than European exchanges (Pagano, Randl, Roell, and Zechner [2001], Pagano, Roell, and Zechner [2002]). In contrast, many European exchanges with relatively weak investor protection, "low quality" accounting standards and inefficient court bureaucracy have become less attractive to European firms.¹⁶

Several recent studies find evidence consistent with the bonding hypothesis, suggesting that companies will list on exchanges with stringent disclosure requirements. Doidge Karolyi and Stulz [2004] find that growth opportunities are more highly valued for firms that choose to list in the U.S., particularly those from countries with weak investor rights. Also consistent with bonding, Reese and Weisbach [2002] find that subsequent issuance activity of firms that listed in the U.S. was greater for firms from countries with weaker shareholder protection.

A disclosure method that many companies voluntarily employ to communicate with investors both inside and outside the home market is internet financial reporting (IFR). IFR is a voluntary choice to provide information via a corporate website. Benefits of IFR include its low costs, wide reach, and speed (Debrecceny, Gray, and Rahman [2002]). Research suggests that larger, more profitable firms, and more technology-oriented firms are more likely have greater IFR (Debrecceny, Gray, and Rahman [2002], Ashbaugh, Johnstone, and Warfield [1999]). Through IFR, companies that list outside their domestic market potentially can reduce any geographic and temporal information asymmetries. Debrecceny, Gray, and Rahman [2002] investigate internet reporting presentation and content in 660 large companies in 22 countries. Their results indicate that IFR by these non-U.S. firms is positively associated with equity

¹⁴ See Lang, Lins and Miller [2003], and Baker Nofsinger and Weaver [2002].

¹⁵ See Lang, Lins and Miller [2003], Sundaram and Logue [1996], Mittoo [1992], and Alexander, Eun, and Janakiramanan [1988].

¹⁶ For example, see Pagano et al. [2001; 2002], and Coffee [2002, note 13]. See Saudagaran and Meek [1997] for a review of many relevant studies. Biddle and Saudagaran [1992; 1995] illustrate earlier research that finds a negative association between the listing decision and the exchange's disclosure requirements.

market activity in the U.S. (stock exchange listings and OTC trading). They also present weak evidence that IFR is negatively associated with non-U.S., non-domestic equity market activity.

While the choice to report via the internet is voluntary, information presented on a company's website can be mandatory reports or additional voluntary disclosures. Ettredge, Richardson, and Scholz [2002] find that the presence of required items is significantly associated with size and information asymmetries while voluntary information disclosure is associated with variables proxying for size, information asymmetry, demand for external capital, and companies' disclosure reputation. They investigate U.S. firms only.

3. Hypotheses and Empirical Models

Here we present our hypothesis and the empirical model used in hypothesis tests.

Hypothesis: Emerging market companies' access to global equity capital is positively associated with the companies' financial reporting choices beyond the requirements of the host countries' reporting requirements.

Our hypothesis is based on our discussion linking access to global equity capital and capital companies' transparency and disclosure levels in section 2. Emerging market companies can, at least partially, overcome the unique indirect barriers they face in accessing capital through increased levels of transparency and disclosure. The bonding hypothesis, the reduction in agency costs through the pre-commitment to disclosure, Merton's [1987] "investor recognition" hypothesis and Barry and Brown's [1985] "estimation risk" hypothesis all support the link between access to capital and transparency levels.

We test our hypothesis by estimating an empirical model where access to capital (actual overseas capital offerings and listings made during 2000-2004) is the dependent variable and our five measures of transparency and disclosure (primarily during 2000) are independent variables. (Exhibit 1 presents variable descriptions, computational details, and data sources.) Several additional variables are included in our estimation to control for other factors expected to influence firm- and country-specific global capital access, such as the extent of a company's non-domestic activity, its geographic region, its country risk, its size relative to its domestic equity market, its profitability, sales growth, and size. Our primary estimation model is as follows:

$$\text{AccCap}_i = \alpha + \beta_1 \text{InfoDis}_i + \beta_2 \text{Transp}_i + \beta_3 \text{AUD}_i + \beta_4 \text{GAAP}_i + \beta_5 \text{Transl}_i + \beta_6 \text{FREV}_i + \beta_7 \text{Reg}_i + \beta_8 \text{CounRisk}_j + \beta_9 \text{M}_i/\text{M}_j + \beta_{10} \text{ROE}_i + \beta_{11} \text{GROWTH}_i + \beta_{12} \text{SIZE}_i + \varepsilon_i$$

Where

i indexes firms and j indexes countries;

AccCap_i is a categorical variable representing access to global equity capital equaling 0 if firm i makes no overseas offerings or stock exchange listings during 2000-2004; = 1 if firm i makes a public European and/or London equity offering, and/or has equity officially listed in London and/or in Continental Europe; = 2 if firm i trades over-the-counter in the U.S.; = 3 if firm i makes an SEC Rule 144A private equity offering in the U.S.; = 4 if firm i is listed on a U.S. stock exchange (including Nasdaq); and = 5 if a firm i makes a public equity offering in the U.S.¹⁷

InfoDis_i is a categorical variable representing the extent to which the company provides freely available financial and other investor-oriented information on its website. InfoDis equals = 0 if firm i has no website; = 1 if a domestic language only website is provided; = 2 if English version of website available; = 3 if the English version apparently mirrors {in form and content} the domestic language version; = 4 if the website provides an investor relations page; = 5 if the website provides current annual financial statements; = 6 if the website provides prior years' annual financial statements; = 7 if the website provides press releases; and = 8 if the website provides conference calls.

Transp_i is Standard & Poor's Transparency and Disclosure index. Each company's score is the percentage of items (out of a total of 35 possible) that represent disclosure attributes related to financial transparency and information disclosure.

AUD_i is a bivariate variable used to proxy for audit quality equaling 1 if firm i uses a global auditor and zero otherwise.

GAAP_i is a categorical variable measuring the company's use of accounting standards. $\text{GAAP} = 0$ if firm i does not use or disclose either IFRS or U.S. GAAP in the primary annual financial statements; = 1 if firm i uses IFRS; = 2 if firm i includes a reconciliation to U.S. GAAP; = 3 if firm i uses U.S. GAAP.

Transl_i is a bivariate variable measuring the accessibility of financial information to non-domestic financial statement users. $\text{Transl} = 1$ if firm i 's annual report is not presented in English; = 0 otherwise.

FREV_i is total foreign revenues divided by total revenues.

Reg_i is a bivariate variable to identify region. $\text{Reg} = 1$ if firm i is domiciled in Latin America; = 0 if firm i is domiciled in Asia.

¹⁷If a company accesses capital in more than one of the categories listed, we assign the highest value applicable. For instance, a company included in Capital Access levels 2, 3, 4, or 5 might in addition meet the conditions for inclusion in level 1.

CounRisk_j is Country Risk Score assigned by The PRS Group, Inc. [1999]. Risk scores for the countries in this study range from a low of 51.8 for Indonesia, which is considered “high risk,” to a maximum of 83.5 for Taiwan, which is considered “very low risk.”

M_i / M_j is a measure of a company’s saturation in the home market. It equals market value of firm *i* divided by market capitalization in the home country, for the most recent available of 2000, 1999, or 1998

ROE_i is a company’s return on equity, a measure of profitability. ROE = firm *i*’s net income divided by shareholders’ equity from Global Vantage, Datastream, or Economatica using average shareholders equity for the most recent available of 2000, 1999, or 1998.

GROWTH_i is a company’s sales growth (annualized) from Global Vantage, in the most recent fiscal year available of 2000, 1999, or 1998.

SIZE_i is a sales or total revenues in U.S. dollars from Global Vantage, in the most recent fiscal year available of 2000, 1999, or 1998.

We expect four of the five transparency and disclosure variables (InfoDis, Transp, AUD, and GAAP) to be positively and significantly associated with access to capital, and the fifth (Transl, an indicator variable that takes the value of one if the firm does not translate its financial statement into English) to be negatively associated with access to capital. The control variables for company’s non-domestic activity, size relative to domestic equity market, profitability, expected growth, and size are expected to be positive. Country risk is also expected to be positively associated with access to capital, since higher values of CounRisk indicate lower risk. We do not have an expectation on the sign of geographic region.

4 Sample, Empirical Measures and Data Sources

4.1 SAMPLE

Our initial sample consists of the 342 companies included in Standard & Poor’s Transparency & Disclosure (T&D) ratings for the emerging Asia and Latin America regions (*Euromoney* [2001]).¹⁸ Seven Latin American countries are represented in the sample: Argentina (nine companies), Brazil (30 companies), Chile (21 companies), Colombia (one company), Mexico (18 companies), Peru (eight companies), and Venezuela (two companies). Companies from ten Asian countries are in the sample: China (16 companies), India (43 companies), Indonesia (13 companies), Korea (47 companies), Malaysia (51 companies),

¹⁸ The Standard & Poor’s Transparency and Disclosure (T&D) database contains scores for almost 2000 companies in 30 countries. See Patel and Dallas [2002] and Patel, Balic and Bwakira [2002].

Pakistan (10 companies), Philippines (9 companies), Sri Lanka (one company), Taiwan (37 companies), Thailand (26 companies).

Most of the annual reports used for developing our four annual report-based transparency and disclosure measures (see below) were released in mid-2000.¹⁹ The website disclosure variable is from spring 2004 web searches.²⁰ To determine equity offering and listing activity, we examine the entire five-year period.

Estimation is based on 290 observations, since financial and market data from Global Vantage and Datastream are not available for 52 companies. This sample used in estimation and testing represents roughly 70% of the market capitalization covered by the S&P/IFCI index.²¹

4.2 CAPITAL MARKET ACCESS

Access to capital refers to a company's ability to obtain equity capital at reasonable prices. We assume that emerging market companies can increase their access to capital by raising new equity capital in the U.S. and/or U.K. and other European markets. We view the establishment of Level I ADR programs (for over-the-counter trading) in the U.S., and listings on U.S. stock exchanges and in Europe as intermediate steps that for many companies culminate in equity offerings in the U.S. and/or in Europe.²² Even in cases where listings don't lead to equity offerings, evidence supports the view that listings do reduce the cost of equity capital, in part by relaxing price pressure in capital markets saturated with relatively large domestic companies' equity securities.

We rank emerging market firms' choices from those where capital is expected to be the least to most reasonably priced. We assume that companies obtain the least reasonable prices in the smaller home country markets, and the most reasonable prices in the deep and highly liquid U.S. public equity markets.

¹⁹ Most of the annual reports have December, 1999 – June 2000 fiscal year ends.

²⁰ Unfortunately, we do not have a measure of website disclosure levels as of 2000. However, we strongly expect that sample companies' rank ordering in terms of website disclosure levels is fairly stable across time. Diagnostic tests are underway to evaluate this expectation.

²¹ This estimate is based on information presented in Patel, Balic, and Bwakira [2002]. They analyzed S&P T&D scores for 280 companies in 13 of the 17 countries included in our sample, and report that these companies comprise 74% of the S&P/IFCI market capitalization in those 13 countries. For information on the S&P/IFCI (emerging stock markets) Index, see Standard & Poor's [2002].

²² Stock exchange listings in the U.S. and the U.K. (and to a lesser extent, in Continental Europe) involve conforming with securities regulators' and stock exchanges' reporting and disclosure requirements, and therefore represent progress towards conforming with the more stringent reporting and disclosure requirements associated with equity offerings.

Our procedure for determining the access to capital dependent variable for each sample firm is as follows. First, we search the following data sources to determine whether the company had made a U.S. public equity offering during the sample period: Thomson Financial SDC New Issues Database; NYSE, Nasdaq, and American Stock Exchange data, including data available on these stock exchanges' websites; and data from the Bank of New York's and JP Morgan's "ADR Universe" websites.²³

For U.S. stock exchange listing data (for sample companies that did not make U.S. public offerings) we referred to data from the U.S. stock exchanges, The Bank of New York, and JP Morgan "ADR Universe." The SDC New Issues Database, and data from Bank of New York and JP Morgan "ADR Universe" data are used to identify sample companies that made Rule 144A private placement offerings in the U.S.

To determine whether the remaining companies issued new equity in European equity markets (including London) or were listed in Continental Europe and/or in London at any time during the sample period, we referred to the following data sources: the SDC new issues database, and lists of foreign listed firms obtained from each of the European stock exchanges during early and later years within the sample period. Note that the SDC database does not distinguish between Euro equity offerings and London Stock Exchange (LSE) offerings made by non-domestic companies. Data provided by the LSE indicates that none of our sample companies issued equity on the LSE.

4.3 TRANSPARENCY AND DISCLOSURE

4.3.1 Standard & Poor's Transparency and Disclosure Index

The Standard & Poor's Transparency and Disclosure (T&D) index is one of four measures in this study that use information from sample companies' annual reports to shareholders (ARs). S&P's T&D study was undertaken to evaluate disclosure practices of hundreds of companies from around the world. A study of emerging market companies in Latin America and Asia was launched in 2001. In their study, S&P searched company annual reports (both English and local language) for presence of 98 possible attributes broadly divided into the following three sub-categories: (1) Financial transparency and information disclosure (35 attributes); (2) Ownership structure and investor relations (28 attributes); (3) Board and management structure and process (35 attributes). Each question was scored on a binary basis to

²³ Because of the possibility of inaccuracies in the various datasets, we generally required confirmation of equity offerings from at least two data sources.

ensure objectivity, and scores for the three subcategories and an overall score were developed from scores on individual questions.²⁴

Our primary tests use the T&D subcategory score representing financial transparency and information disclosure. Each company's score represents the percentage of disclosure items (out of 35 total items) that appear on the annual report. For example, if 20 of the 35 items appear, the company has an "overall decile rank" of 6 (57% rounded up to 60, and then divided by 10).²⁵

4.3.2 Additional Measures from Annual Reports

We also coded three types of information from sample companies' ARSs: Accounting standards used, auditor (big five versus not big five) and whether the report was translated into English. We obtained the fiscal 1999 ARS for each sample company from Thomson Research (fiscal year-ends July 1, 1999 – June 30, 2000). We selected fiscal 1999 because this is the year that most closely matches the annual report year coded by Standard & Poor's staff in developing the Transparency and Disclosure scores. If the 1999 ARS was not available, we used a more recent annual report as close to fiscal 1999 as possible. Annual reports were available for all but five companies.

We did not analyze the annual reports (e.g., Forms 20-F) that the U.S. listed sample companies filed with the U.S. Securities and Exchange Commission (SEC), since our goal was to capture a more voluntary aspect of disclosure. For example, it is well known that Form 20-F filers must provide reconciliation (to U.S. GAAP) disclosures. However, whether these same firms also present such disclosures in their primary ARSs is an empirical question.

Accounting Standards (GAAP). We assume that accounting standards used in the ARS are related to transparency and disclosure, with the following rank ordering from highest to lowest transparency: (1) U.S. GAAP; (2) Reconciliation to U.S. GAAP; (3) International Financial Reporting Standards (IFRS); and (4) non-U.S. GAAP, non-IFRS standards. Evidence supports our assumption that more transparent accounting standards may be associated with greater access to capital. For example, Ashbaugh [2001] examines 211 non-U.S. non-U.K. companies listed or quoted on the London Stock Exchange. She finds that companies reporting

²⁴ See Patel and Dallas [2002].

²⁵ Because the three subcategory scores are highly correlated with each other, we use the financial transparency and information disclosure subcategory score for empirical tests. Diagnostic tests are underway to assess whether our results are robust to the particular T&D subcategory included in logit estimation.

using U.S. GAAP or IFRS are listed on more equity markets than those that do not, and that the use of IFRS is associated with seasoned equity offerings.

Auditor Quality (AUD). We assume that the big five auditors, relative to non-big five auditors, are more stringent in requiring the use of accounting principles and disclosure in conformance with GAAP and legal requirements. Therefore, companies audited by big five auditors will exhibit relatively greater transparency and disclosure. We expect that the greater credibility associated with a big-five audit is associated with greater market access.

Translation to English (Transl). Annual reports translated into the English language are more accessible to global investors, and therefore these ARSs exhibit greater disclosure and transparency. As noted in section 3, the translation variable is assigned a value of 0 for ARSs presented in English, and assigned the higher value of 1 in cases where an English language annual report is not available on the Thompson Research database. This is in contrast to our other four transparency and disclosure measures, whose values are greater for higher levels of transparency and disclosure.

4.3.3 Information Dissemination on Company Websites

Investors and creditors demand timely and comprehensive reporting of a company's activities, financial position, and performance. We use internet disclosure to proxy for companies' efforts to widely disseminate such information. We searched company websites during February, 2004, and coded the extent of website disclosure according to a nine level categorical measure. This measure ranges from 0 (no website) to a maximum of 8 (the company's website provides conference calls). Examples of intermediate values are 1 (a domestic language only website is available), 5 (the website provides current financial statements); and 7 (the website provides press releases). Refer to exhibit 1 for a complete list of variable values for this measure.

Our internet disclosure measure is somewhat different than measures used in prior research. For example, Debreceeny, Gray, and Rahman [2002] use two ordinal scores to represent the level of internet reporting. One score, representing IFR "content" has five possible levels, ranging from "no IFR" to "full financial and additional downloadable information". Their second score represents IFR "presentation" (dynamic, static, or no website). Lymer and Debreceeny [2003] examine relative frequencies of companies from five country subsamples providing each of more than 25 website disclosure items.

4.4 CONTROL VARIABLES

We control for many factors (at the firm, country, and region level) that are expected to be associated with global equity offering and listing activities of emerging market companies. Some factors proxy for the benefits of (or relative need for) seeking capital overseas; other factors proxy for constraints that limits firms' ability to access overseas capital.

Foreign Revenues Divided by Total Revenues (FREX). FREX measures the relative importance of a company's foreign sales activities. We expect that emerging market companies with extensive foreign sales activities might have more visibility and stronger reputations in overseas markets, and therefore might face fewer barriers to accessing overseas equity capital. In addition, prior research indicates that extent of foreign revenues is positively associated with cross-border listing activity. This evidence suggests that companies with substantial foreign sales activities might list shares on overseas stock exchanges to raise their visibility and thereby promote sales in overseas markets.

Geographic Region (Reg). We include an indicator variable that is assigned the value of 1 for Latin American companies, and the value of 0 for Asian companies. We include this control variable because many factors common to countries within a region can significantly affect these companies' access to overseas capital. Economic, political, and information risk have all been shown to be regional in nature in particular settings. As one example, a financial crisis in one emerging market country can trigger a "contagion effect", which adversely affects access to capital by other countries in that same region, as apparently happened with the Mexican Crisis of 1994-1995 (Beim and Calomiris [2001]). As a second example, the economic, sociohistorical, and institutional factors that influence the development of financial reporting and disclosure systems (which in turn are associated with degree of information risk) are often specific to entire geographic regions (Choi, Frost, and Meek [2002]).

Evidence on cross-border capital offerings supports the view that regionally based constraints and opportunities can affect emerging market companies' access to capital. Frost and Shklovskaya [2002] document dramatic cross-regional differences in amounts of cross-border equity and debt raised by emerging economy issuers during 1998-2001 (relative to amounts raised in the home market). Similarly, Henderson, Jegadeesh, and Weisbach [2004] document differences in non-Japanese Asian versus Latin American issuers' foreign relative to home market preferred equity and debt offerings during 1990-2001.

Country Risk (CounRisk). As country risk increases, a company's access to global equity capital is expected to decrease. For example, many commentators cite country risk as a decisive

factor that has constrained Latin American companies from raising equity overseas. We use country risk scores assigned by the *International Country Risk Guide (ICRG) Risk Rating System* (PRS Group, Inc., 1999). This widely recognized system assigns risk points to a preset range of risk components according to a weighted scale for each country covered by the system. Scales are designed so that in each category, the highest value is assigned to the lowest risk. The system recognizes three risk categories – political, economic, and financial.²⁶ The sum of risk points assigned to each risk component within each risk category is the “overall risk” for that category.²⁷

Each country is also assigned a “composite risk rating,” which is the result of aggregating the total risk points for each risk category. Specifically, the political risk rating contributes 50% to the composite rating, and financial and economic risk ratings each contribute 25%. In all cases, the higher the number of risk points, the lower the perceived risk.

Political risk components include items such as Government Stability, Socioeconomic Conditions, Investment Profile, Internal Conflict, External Conflict, Corruption, and Law and Order. Financial risk components include Foreign Debt as a Percentage of GDP, Foreign Debt Service as a Percentage of Exports of Goods and Services, Current Account as a Percentage of Exports of Goods and Services, and Exchange Rate Stability. Economic risk components include items such as GDP per head, Real GDP Growth, Annual Inflation Rate, and Budget Balance as a Percentage of GDP.²⁸

Market saturation (M_i/M_j). Market saturation is measured as a firm’s equity market value divided by the entire equity market value in its home country. As this measure of market saturation increases, a firm’s need for (benefit from) accessing overseas equity capital markets increases. For example, many companies launch global equity offerings (where equity is simultaneously offered in U.S. and Euro markets, for example), because such an offering is the only way to generate sufficient market demand.

²⁶ Country risk and its three components (political, economic, and financial risk) are highly and significantly positively correlated with Pearson and Spearman correlation coefficients ranging from .76 to .97.

²⁷ This discussion closely follows PRS Group [1999], which presents detailed discussion of risk components and their measurement.

²⁸ Other country risk ratings are widely available, and are generally highly correlated with the PRS composite risk rating. For example, in one diagnostic test we found that the Spearman correlation between our country risk measure and the *Euromoney* [2000] Access to Capital (country risk) rating is 72% for the countries and time period of our study.

Return on equity (ROE) and sales growth (GROWTH). ROE and the sales growth are computed as net income divided by shareholders' equity, and annualized sales growth, respectively. Each is computed using data from fiscal year 2000 where possible. Data from 1999 are used if 2000 data are not available, and 1998 data are used if neither 2000 nor 1999 data are available. ROE is a comprehensive indicator of a company's financial performance, and sales growth can be viewed as a measure of growth. We assume that highly profitable, high growth emerging market countries will have easier access to overseas equity capital.

Firm size (SIZE). Size is a firm's sales or total revenues. Fiscal year 2000 data are used where possible. Data from 1999 are used if 2000 data are not available, and 1998 data are used if neither 2000 nor 1999 data are available. Our size measure controls for size-related differences in characteristics of firms within and across countries.

4.5 DATA DESCRIPTION

Table 1 presents information about the sample companies. As shown there, 89 of the sample companies are Latin American, and 253 companies are from emerging Asia. Composite country risk varies substantially across countries, ranging from "high risk" for Indonesia (51.8) to "very low risk" for Taiwan (83.5). Country risk averages 66.6 ("moderate risk") for the 17 emerging market countries included in our analysis. This risk level is high compared with risk in developed economies. For example, for the same period, a random sample of ten Western European countries exhibited composite country risk of 85.0 ("very low risk"). Table 1 also shows that in both geographic regions, all four major industry classifications (consumer goods and industrial, finance, high tech, and other industries) are well represented.

Table 2 presents information about sample companies' overseas equity offering and listing activities. As noted above, we view overseas listing as a step that facilitates future equity offerings.³⁰ Table 2 shows that none of the Latin American companies entered the European equity markets, in contrast to 14 (5.5%) of the Emerging Asian companies who did. Roughly similar percentages of Latin American and Asian sample companies traded OTC in the U.S. during the sample period.

³⁰ Of course, others have proposed alternative explanations for overseas listings. A less restrictive assumption that is consistent with our conceptual framework is that emerging economy companies list overseas to reduce their cost of equity capital.

Table 2 also shows that regional patterns characterize Rule 144A private equity offerings, U.S. exchange listings, and public U.S. equity offerings. Specifically, Asian companies are almost three times as likely as Latin American companies to make Rule 144A offerings (12.3% and 4.5% of the sample companies, respectively). In contrast, Latin American companies are more likely to list on U.S. exchanges or to make U.S. public offerings. Specifically, 30 (33.7%) of the Latin American companies listed on NYSE or NASDAQ, compared with 6 (2.4%) of the Asian companies. Fourteen (15.7%) of the Latin American companies made public offerings in the U.S., compared with 21 (8.3%) of the Asian companies.

Table 3 presents descriptive information on sample companies' transparency and disclosure. The table suggests that transparency and disclosure remain strikingly low in Latin America and emerging Asia. For example, the mean value of Transl is .19, indicating that about one in five of the sample companies did not provide an English language annual report. Table 3 also indicates that the S&P Transparency and Disclosure score is lower for our emerging markets sample firms than for firms from developed economies. Specifically, the table indicates that the mean value of Transp is 5.9 (5.75 and 5.98 for Latin America and Asia, respectively), in contrast to mean values exceeding 7.0 for Europe, the U.K., the U.S., and Japan.³¹ Similarly, InfoDis averages only 4.2 (3.61 and 4.45 for Latin America and Asia, respectively). Thus, the typical sample company provides an English language website that provides an investor relations page, but does not provide current annual financial statements, press releases, or conference calls. This result is consistent with Debrecny, Gray, and Rayman [2002], who report that internet content ratings for subsamples of emerging market country firms is substantially lower than for subsamples of developed country firms.

Descriptive results shown in table 3 suggest that transparency and disclosure are higher in emerging Asia than in Latin America: Website disclosure (InfoDis) is greater for the Asian sample companies, S&P financial transparency (Transp) is greater, and the relative frequency of English language annual reports (inverse of Transl) is greater than for the Latin American companies. These results are consistent with evidence in Patel, Balic, and Bwakira [2002], who examine disclosure differences in emerging markets. They analyze differences in Standard and Poor's Transparency and Disclosure (T&D) scores in 19 emerging markets over three years (in the late 1990's), and conclude that companies in Asian emerging markets exhibit significantly higher transparency and disclosure than companies in Latin America. They suggest that regional

³¹ Refer to Patel and Dallas [2002] for further evidence on transparency and disclosure scores for different geographic regions.

differences in disclosure quality might play a role in explaining the differences between emerging Asian and Latin American cross-listed companies.

Table 4 presents summary statistics for three control variables. FREV (foreign revenues deflated by total revenues) averages .28 for the overall sample, with a median value of zero. In fact, most firms in each of the country subsamples did not report significant overseas sales. Mean ROE averages .09 for the overall sample, as well as for Latin America and for Asia. These figures are somewhat lower than the mean ROE of 10.7 reported for all publicly traded U.S. companies by Palepu, Healy, and Bernard [2004].

5. RESULTS

Table 6 presents results from OLS estimations of our empirical model in equation (1), for the full sample and for each region separately. These results describe the linear approximations of the relations between the test and control variables and our sample emerging markets firms' access to capital. Because our dependent variable is categorical, several assumptions of the OLS regressions are violated, such as that the error terms are distributed with mean equal to zero and are uncorrelated with the independent variables. Because we know the assumptions necessary for OLS estimation are likely to be violated, we also present results from maximum likelihood estimation of the empirical model as an ordered logit regression (see Long [1997]), and perform tests of our hypotheses in the ordered logit framework. A comparison of the OLS and ordered logit regression results is presented in table 7.

[Insert Tables 6 and 7 About Here]

5.1 CONTROL VARIABLES

We first evaluate the results of estimating the relations between our access to capital variable and our control variables. Based on results in the literature, we predicted that firms from emerging markets would be more likely to seek low-cost equity capital in Europe or the United States if they are (1) more multinational (so the coefficient on FREV should be positive); (2) from lower risk countries (so the coefficient on CounRisk should be positive since CounRisk takes higher values for lower risk countries); and (3) from domestic markets that are saturated already with their securities (so the coefficient on M_i/M_j should be positive). For the sample as a whole, our predictions are consistent with the estimated coefficients on our proxies for country-specific risk and market saturation, but not for multinationality. In addition, we expected that firms that successfully raised low-cost equity capital in Europe or the United States are more

likely to be (a) profitable (so the coefficient on ROE should be positive), (b) growing (so the coefficient on GROWTH should be positive) and (c) large (so the coefficient on SIZE should be positive). Our expectation is consistent with the coefficients on ROE and SIZE for the full sample but not with the coefficient on GROWTH. Our conclusion from these results is that our empirical model is controlling for some but not all of the factors suggested in the literature to be associated with foreign stock exchange listings. Our empirical model does not allow us to confirm that either multinationality or growth matter for European or U.S. listings by emerging markets firms.

Estimation of the empirical model separately on the 73 Latin American firms indicates that only ROE is significant, and not SIZE. For the 217 firms from Asia, SIZE but not ROE is associated with our proxy for access to capital.

5.2 TEST VARIABLES

With respect to our transparency and disclosure choice proxies, choice of GAAP is positively associated with AccCap, and failure to present an English language version of the financial statements is negatively associated with AccCap, for the full sample and both regional subsamples. Our proxy for financial statement transparency is positively associated with access to capital for the full sample, and both information dissemination and the choice of auditor have no reliable associations with AccCap for the full sample or either subsample.³²

Turning to table 7, the first column of estimates repeats the OLS coefficient estimates and goodness of fit statistics from table 6, and the second column of estimates gives the coefficient estimates and goodness of fit statistics from a maximum likelihood estimation of the empirical model as an Ordered Logit regression. Results between the two columns are quite similar with respect to sign and significance level, increasing our confidence in the OLS results. The significance levels (untabulated) of the F-statistic in OLS and the Wald Chi-Square in Ordered Logit are very similar.

Our tests reject the null hypothesis that firms' transparency and disclosure choices are not associated with their access to low cost capital in European and U.S. capital markets for the proxies InfoDis, Transp, GAAP, and Transl, although not for the proxy for choice of Auditor.

³² The high correlation between InfoDis and Size (.138 for the full sample, significant at the .001 level) provides at least a partial explanation for weak results related to information dissemination.

5.3 SENSITIVITY ANALYSES

Our access to capital variable in the primary tests is Offerings, which takes increasing categorical values if the sample firm issued only at home, in European markets, in the over-the-counter market in the U.S., or in the Rule 144A private placement market in the U.S. The highest values of the Offerings variable are assigned to sample firms that are listed or traded on U.S. national stock exchanges but do not raise new equity, and finally for sample firms that raised new equity on U.S. national exchanges. To assess the sensitivity of our results to firms' historical actions (issuing new equity capital) vs. to their intentions (taking actions that would make them eligible to take those actions), we replicate our primary analysis with a slight difference in the dependent variable. The alternate proxy for access to capital, referred to as Listing, takes increasing categorical values if the sample firm is listed only at home (Listing = 0), if the sample firm is listed in London (Listing = 1), if the sample firm is traded over-the-counter in the U.S. (Listing = 2), if the sample firm is has issued equity in the Rule 144A private equity market in the U.S. (Listing = 3), if the sample firm has a level II ADR facility and is listed on the NYSE or the NASDAQ in the U.S. (Listing = 4), and if the sample firm has a level III ADR facility and is an item 18 filer in the U.S. (Listing = 5). The major difference between Offering and Listing is those firms that have prepared themselves to offer new equity in the U.S. (by establishing a level III ADR facility and filing with the SEC complying with the more stringent item 18 provisions of Form 20-F, but has not issued new equity. Results using Listing rather than Offering (not tabulated but available) support the same inferences as the OLS and Ordered Logit results presented in Sections 5.1 and 5.2.

Sensitivity analyses currently in progress assess violations of the Ordered Logit assumption of equidistant parallel lines between categories of the dependent variable. Because we suspect that some of the factors in our empirical model will have different effects on issuers who list in Europe vs. those traded in the U.S., for instance, we are estimating a Generalized Ordered Logit model (see Barton and Simko [2002] for an example of this model used in an accounting context). The Generalized Ordered Logit model makes more strenuous demands on the data because separate parameters are estimated for each level of the categorical dependent variable, and is harder to interpret with respect to empirical generalities, but will provide insight into the extent to which bias has been introduced into our primary parameter estimates by violation of the equidistant parallel regression lines assumption.

In addition, future sensitivity analyses will incorporate alternate proxies for growth (a company's market-to-book ratio and three-year percentage growth in Sales in US dollars) and country risk (political risk, economic risk, and financial risk individually). In addition, analyses in progress use different components of the S&P Transparency and Disclosure Scores (ownership structure and investor relations, and management structure and processes) as well as the over decline ranking transparency score from S&P. Because these variables are constructed by counting the percentage of 98 attributes displayed by each sample firm, they are necessarily somewhat ad hoc and imprecise, and the exact effect for which we seek a proxy may actually be represented on another or several of the S&P components.

6. SUMMARY AND CONCLUSIONS

This study examines whether emerging market companies use enhanced transparency and disclosure to increase their access to equity capital in global markets. To address this question, we investigate associations between transparency, disclosure, and international capital offerings in a sample of 342 companies from 17 emerging Latin American and Asian countries during 1999 – 2004. Positive associations between emerging market companies' transparency and disclosure levels and their global equity offering activities are consistent with the view that low transparency and disclosure impose constraints on companies' ability to develop the level investor and analyst interest necessary for successful overseas listings and capital offerings.

We estimate models in which a polychotomous dependent variable represents different levels of global equity market offering activity. This variable is our empirical proxy for our theoretical construct, access to capital. Our independent variables are five measures of transparency and disclosure. The empirical model includes additional variables that proxy for the benefits, costs, and constraints related to emerging market companies' global equity offering activities.

We find strong support for the hypothesis that emerging market companies' access to global equity capital is positively associated with these companies' transparency and disclosure levels. Specifically, most of our transparency and disclosure measures are significantly associated with market access in OLS and Ordered Logit regression estimations.

References

- Alexander, G. J.; C.S. Eun; and S. Janakiramanan. "International Listings and Stock Returns: Some Empirical Evidence." *Journal of Financial and Quantitative Analysis* (June 1988): 135-51.
- Ashbaugh, H. "Non-US Firms' Accounting Standard Choices." *Journal of Accounting and Public Policy* 10 (2001): 129-153.
- Ashbaugh, H.; K.M. Johnstone; and T.D. Warfield. "Corporate Reporting on the Internet." *Accounting Horizons* 13 (1999): 241-257.
- Bailey, W.G.; A. Karolyi; and C. Salva. "The Economic Consequences of Increased Disclosure: Evidence from International Cross-listings" Working Paper, Ohio State and Cornell University, 2002.
- Baker, H. K.; J.R. Nofsinger; and D.G. Weaver. "International Cross-Listing and Visibility," *Journal of Financial and Quantitative Analysis* 37 (September 2002): 495-522.
- Barry, C.B., and S.J. Brown. "Differential Information and Security Market Equilibrium." *Journal of Financial & Quantitative Analysis* 20 (December 1985): 407-423.
- Barton, J. and P. Simko. "The Balance Sheet as an Earnings Management Constraint." *The Accounting Review* 77 (2002): 1-27.
- Beim, D.O., and C.W. Calomiris. 2001. *Emerging Financial Markets*. McGraw-Hill Irwin, Boston: 364 pp.
- Benos, E. and M.S. Weisbach. "Private Benefits and Cross-listings in the United States." *Emerging Markets Review* 5 (June 2004): 217-240.
- Bhattacharya, U., H. Daouk, and M. Welker. 2003. "The World Price of Earnings Opacity." *The Accounting Review* 78 (July 2003): 641-679.
- Chen, K.C.W.; Z. Chen; and J.K.C Wei. "Disclosure, Corporate Governance, and the Cost of Equity Capital: Evidence from Asia's Emerging Markets." Working Paper, Hong Kong University of Science and Technology, 2003.
- Choi, F.D.S., C.A. Frost, and G. K. Meek. *International Accounting, Fourth Edition*. Upper Saddle River, NJ: Prentice-Hall, 2003.
- Claessens, S. and J. P. H. Fan. "Corporate Governance in Asia: A Survey." *International Review of Finance*. 3(2002): 71-103.
- Coffee Jr., J. C. "Racing towards the Top?: The Impact of Cross-listing and Stock Market Competition on International Corporate Governance." *Columbia Law Review* 7 (November 2002): 1757-1832.

- Coffee, Jr. J.C. "Privatization and Corporate Governance: The Lessons from Securities Market Failure." *Journal of Corporation Law* 25 (1999): 1-40.
- Debreceeny, R; G.L. Gray; and A. Rahman. "The Determinants of Internet Financial Reporting." *Journal of Accounting and Public Policy* 21 (2002): 371–394.
- Decker, W.E. "The Attractions of the U.S. Securities markets to Foreign Issuers and the Alternative Methods of Accessing the U.S. Markets: from the Issuer's Perspective." *Fordham International law Journal*. (Symposium 1004): S10-S24.
- Doidge, C. A.; G. A. Karolyi; and R.M. Stulz. "Why Are Firms that List in the U.S. Worth More?" *Journal of Financial Economics* 71 (2004): 205-238.
- Doidge, C.A. "U.S. Cross-listings and the Private Benefits of Control: Evidence from Dual-Class Firms." *Journal of Financial Economics* 72 (2004): 519-553.
- Durnev, A. and E.H. Kim. "To Steal or Not to Steal: Firm Attributes, Legal Environment, and Valuation." Working Paper, University of Michigan Business School, 2003
- The Economist*. "Survey: Asian Business. (April 7, 2001): 18 pp.
- Ettredge, M. V. J. Richardson, and S. Scholz. "Dissemination of Information for Investors at Corporate Web Sites" *Journal of Accounting and Public Policy* 21 (2002): 357-369.
- Euromoney*. "Country risk: Commodity Price Boost Emerging Markets" (March 2000): 106-112.
- Euromoney*. "Standard & Poor's Weighs up Global Corporate Reports." (October, 2001): 102-109.
- Frost, C.A., and K.P. Ramin. 2003. "Corporate Financial Disclosure: A Global Assessment," in Choi, F.D.S., ed., *International Finance and Accounting Handbook, 4th ed.* New York: Wiley.
- Frost, C.A. and Y. Shklovskaya. *Global Capital Access During 1998-2001: Focus on Emerging Markets – An Introduction to the Tuck Global Capital Offerings Database*. Center for International Business, Tuck School of Business at Dartmouth College. September 10, 2002.
- Fuerst, O. "A Theoretical Analysis of the Investor Protection Regulations Argument for Global Listing of Stocks." Working Paper, 1998.
- Henderson, B.J., N. Jegadeesh, and M.S. Weisbach. "World Markets for Raising New Capital." NBER Working Paper 10225. <http://www.nber.org/papers/w10225>. January, 2004.
- Hope, O., T. Kang, and Y. Zang. "Bonding to the Improved Disclosure Environment in the United States: Firms' Listing Choices and their Capital Market Consequences." Singapore Management University and University of Toronto working paper. March 4, 2005.
- International Finance Corporation. <http://www.ifc.org/ifcext/enviro.nsf/Content/SFME> Website accessed in January 2004.

- International Organization of Securities Commissions, The Emerging Markets Committee. *The Development of Corporate Bond Markets in Emerging Market Countries*. May, 2002.
- Karolyi, G.A. "What Happens to Stocks that List Shares Abroad? A Survey of the Evidence and its Managerial Implications" (September 1996). <http://ssrn.com/abstract=1612>
- Karolyi, G. A., "The Role of ADRs in the Development of Emerging Equity Markets." Working Paper, The Ohio State University, 2004.
- Khanna, T.; K. Palepu; and S. Srinivasan. "Disclosure Practices of Foreign Companies Interacting with U.S. Markets." *Journal of Accounting Research* (May 2004): 475-508.
- Klapper, L.F. and I. Love. "Corporate Governance, Investor Protection, and Performance in Emerging Markets." *Journal of Corporate Finance* 10 (November 2004): 703-728.
- La Porta, R.; F. Lopez-de-Silanes; A. Shleifer; and R.W. Vishny. "Investor Protection and Corporate Governance." *Journal of Financial Economics* (2000): 3-27.
- Lang, M.; K.V. Lins; and D. Miller. "ADRs, Analysts and Accuracy." *Journal of Accounting Research* 41 (2003): 317-345.
- Long, J. *Regression Models for Categorical and Limited Dependent Variables*. Advanced Quantitative Techniques in the Social Sciences Series 7. SAGE Publications, 1997.
- Meek, G. K. and W. B. Thomas. "A Review of Markets-Based International Accounting Research." *Journal of International Accounting Research*. 3 (2004): 21-41.
- Merton, R.C. "A Simple Model of Capital Market Equilibrium with Incomplete Information." *Journal of Finance*. 42(1987): 483-510.
- Mittoo, U.R. "Managerial Perceptions of the Net Benefits of Foreign Listing: Canadian Evidence." *Journal of International Financial Management & Accounting* 4 (Spring 1992): 40-63.
- Organisation fo Economic Co-Operation and Development. 2002. *International Investment Perspectives*. No. 1. Paris: 206 pp.
- Pagano, M.; A. A. Roell; and J. Zechner. "The Geography of Equity Listing: Why do Companies List Abroad?" *Journal of Finance* 57 (December 2002): 2651-2695.
- Pagano, M.; O. Randl; A. A. Roell; and J. Zechner."What Makes Stock Exchanges Succeed? Evidence from Cross-listing Decisions." *European Economic Review* 45 (May 2001): 770-783.
- Palepu, K.G., P.M. Healy, and V.L. Bernard. *Business Analysis & Valuation Using Financial Statements, Third Edition*. Mason, Ohio: South-Western, 2004.
- Palepu, K, Khanna, T. and Kogan, J., "Globalization and Similarities in Corporate Governance: A Cross-Country Analysis" (August 9, 2002). Harvard NOM Working Paper No. 02-31; Strategy Unit Working Paper No. 02-041; Harvard Business School Working Paper No. 02-041. <http://ssrn.com/abstract=323621>

Patel, S. A., A. Balic and L. Bwakira. "Measuring Transparency and Disclosure at Firm-level in Emerging Markets." *Emerging Markets Review* 3(2002): 325-337.

Patel, S. A., and G. Dallas. *Transparency and Disclosure: Overview of Methodology and Study Results – United States*. New York: Standard & Poor's, October 16, 2002.

PRS Group Inc., The. 1999. *International Country Risk Guide*. Volume XX, Number 12 (December).

Reese, Jr, W.A., and M.S. Weisbach "Protection of Minority Shareholder Interests, Cross-listings in the United States, and Subsequent Equity Offerings." *Journal of Financial Economics* 66 (October 2002): 65-104.

Saudagaran, S. M., and G.C. Biddle. "Financial Disclosure Levels and Foreign Stock Exchange Listing Decisions." *Journal of International Financial Management and Accounting* 4 (1992): 106-148.

Saudagaran, S.M. "An Empirical Study of Selected Factors Influencing the Decision to List on Foreign Stock Exchanges." *Journal of International Business Studies* 19 (Spring 1988): 101-128.

Saudagaran, S.M., and G.C. Biddle. "Foreign Listing Location: A Study of MNCs and Stock Exchanges in Eight Countries." *Journal of International Business Studies* 26 (1995): 319-342.

Saudagaran, S.M., and J.G. Diga. "Financial Reporting in Emerging Capital markets: Characteristics and Policy Issues." *Accounting Horizons* 11 (June 1997): 41-64.

Saudagaran, S. M. and G. K. Meek, "A Review of Research on the Relationship Between International Capital Markets and Financial Reporting by Multinational Firms". *Journal of Accounting Literature* 16 (1997): 127-159.

Standard & Poor's. 2002. *2002 Emerging Stock Markets Factbook*. Paris: The McGraw Hill Companies, 370 pp.

Stultz, R. M., "Globalization, Corporate Finance, and the Cost of Capital." *Journal of Applied Corporate Finance* 12 (Fall, 1999): 8-25.

Sundaram, A.K., and D.E. Logue. "Valuation Effects of Foreign Company Listings on U.S. Exchange." *Journal of International Business Studies* 27 (1996): 67-89.

United Nations Department of Economic and Social Affairs and United Nations Conference on Trade and Development. *World Economic Situation and Prospects 2002*. New York: United Nations. 2002.

Table 1
Sample Description by Country, Region & Full Sample

| <u>Country</u> | <u># Sample Companies</u> | <u>Country Risk</u> | <u>Industry Distribution</u> | | | |
|-----------------------------|---------------------------|---------------------|-----------------------------------|----------------|------------------|-------------------------|
| | | | <u>Consumer Goods, Industrial</u> | <u>Finance</u> | <u>High Tech</u> | <u>Other Industries</u> |
| <i>Latin America</i> | | | | | | |
| Argentina | 9 | 67.5 | 0 | 2 | 1 | 6 |
| Brazil | 30 | 59.5 | 5 | 2 | 9 | 14 |
| Chile | 21 | 69.0 | 7 | 3 | 2 | 9 |
| Colombia | 1 | 55.0 | 1 | 0 | 0 | 0 |
| Mexico | 18 | 68.8 | 10 | 3 | 2 | 3 |
| Peru | 8 | 66.5 | 1 | 2 | 0 | 5 |
| Venezuela | 2 | 61.0 | 0 | 0 | 1 | 1 |
| <u>Subtotal</u> | <u>89</u> | | <u>24</u> | <u>12</u> | <u>15</u> | <u>38</u> |
| | <u>26.0%</u> | | <u>27.0%</u> | <u>13.5%</u> | <u>16.8%</u> | <u>42.7%</u> |
| <i>Asia</i> | | | | | | |
| China | 16 | 74.0 | 6 | 1 | 0 | 9 |
| India | 43 | 64.3 | 13 | 3 | 14 | 13 |
| Indonesia | 13 | 51.8 | 5 | 2 | 3 | 3 |
| Korea | 47 | 79.3 | 8 | 13 | 19 | 7 |
| Malaysia | 51 | 74.5 | 27 | 13 | 4 | 7 |
| Pakistan | 10 | 53.3 | 0 | 2 | 1 | 7 |
| Philippines | 9 | 71.0 | 1 | 6 | 1 | 1 |
| Sri Lanka | 1 | 59.8 | 1 | 0 | 0 | 0 |
| Taiwan | 37 | 83.5 | 8 | 5 | 21 | 3 |
| Thailand | 26 | 74.0 | 3 | 11 | 7 | 5 |
| <u>Subtotal</u> | <u>253</u> | | <u>72</u> | <u>56</u> | <u>70</u> | <u>55</u> |
| | <u>74.0%</u> | | <u>28.4%</u> | <u>22.1%</u> | <u>27.7%</u> | <u>21.7%</u> |
| <i>Grand Total</i> | <u>342</u> | | <u>96</u> | <u>68</u> | <u>85</u> | <u>93</u> |
| | | | <u>28.1%</u> | <u>19.9%</u> | <u>24.9%</u> | <u>27.2%</u> |

See Exhibit 1 for variable definitions and explanations.

Table 2
Companies' Activity in U.S. and U.K. Capital Markets by Country, Region & Full Sample

| <u>Country</u> | <u>No.</u> | <u>Home market ONLY</u> | <u>Public Euro or London offering</u> | <u>Trades OTC in the U.S.</u> | <u>Rule 144A private equity offering</u> | <u>Listed on a U.S. exchange</u> | <u>Public equity offering in the U.S.</u> |
|-----------------------------|------------|-------------------------|---------------------------------------|-------------------------------|--|----------------------------------|---|
| <u>Latin America</u> | | | | | | | |
| Argentina | 9 | 1 | 0 | 0 | 1 | 6 | 1 |
| Brazil | 30 | 7 | 0 | 4 | 0 | 17 | 2 |
| Chile | 21 | 8 | 0 | 1 | 0 | 5 | 7 |
| Colombia | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| Mexico | 18 | 5 | 0 | 6 | 2 | 1 | 4 |
| Peru | 8 | 7 | 0 | 0 | 1 | 0 | 0 |
| Venezuela | 2 | 1 | 0 | 0 | 0 | 1 | 0 |
| <u>Subtotal</u> | 89 | 30 | 0 | 11 | 4 | 30 | 14 |
| <i>Percent</i> | | 33.7% | 0.0% | 12.4% | 4.5% | 33.7% | 15.7% |
| <u>Asia</u> | | | | | | | |
| China | 16 | 4 | 0 | 2 | 1 | 1 | 8 |
| India | 43 | 17 | 3 | 3 | 14 | 2 | 4 |
| Indonesia | 13 | 10 | 1 | 0 | 0 | 0 | 2 |
| Korea | 47 | 29 | 2 | 2 | 7 | 3 | 4 |
| Malaysia | 51 | 44 | 2 | 5 | 0 | 0 | 0 |
| Pakistan | 10 | 8 | 1 | 1 | 0 | 0 | 0 |
| Philippines | 9 | 4 | 2 | 2 | 1 | 0 | 0 |
| Sri Lanka | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| Taiwan | 37 | 21 | 1 | 4 | 8 | 0 | 3 |
| Thailand | 26 | 16 | 2 | 8 | 0 | 0 | 0 |
| <u>Subtotal</u> | 253 | 154 | 14 | 27 | 31 | 6 | 21 |
| <i>Percent</i> | | 60.9% | 5.5% | 10.7% | 12.3% | 2.4% | 8.3% |
| <u>Grand Total</u> | 342 | 184 | 14 | 38 | 35 | 36 | 35 |
| <i>Percent</i> | | 53.8% | 4.1% | 11.1% | 10.2% | 10.5% | 10.2% |

See Exhibit 1 for variable definitions and explanations.

Table 3
Sample Companies' Transparency and Disclosure by Country, Region & Full Sample

| <u>Country</u> | | <u>n*</u> | <u>InfoDis_i</u> | <u>Transp_i</u> | <u>AUD_i</u> | <u>GAAP_i</u> | <u>Transl_i</u> |
|-----------------------------|----------|-----------|----------------------------|---------------------------|------------------------|-------------------------|---------------------------|
| <i><u>Latin America</u></i> | | | | | | | |
| Argentina | mean | 9 | 4.56 | 6.22 | .78 | .44 | .22 |
| | std. dev | | 3.13 | 1.64 | .44 | .88 | .44 |
| | median | | 6.00 | 7.00 | 1.00 | 0 | 0 |
| Brazil | mean | 30 | 3.53 | 6.03 | .87 | .37 | .3 |
| | std. dev | | 3.27 | 1.22 | .35 | .85 | .47 |
| | median | | 3.5 | 6.00 | 1.00 | 0 | 0 |
| Chile | mean | 21 | 3.10 | 5.71 | 1.00 | .48 | .19 |
| | std. dev | | 2.77 | 1.62 | 0 | .87 | .4 |
| | median | | 1.00 | 6.00 | 1.00 | 0 | 0 |
| Colombia | mean | 1 | 1.00 | 4.00 | 0 | 0 | 1 |
| Mexico | mean | 18 | 4.28 | 5.39 | .89 | .44 | .11 |
| | std. dev | | 2.89 | 1.29 | .32 | .86 | .32 |
| | median | | 5.00 | 5.00 | 1.00 | 0 | 0 |
| Peru | mean | 8 | 2.75 | 5.50 | .75 | .13 | .5 |
| | std. dev | | 2.43 | .76 | .46 | .35 | .53 |
| | median | | 2.00 | 5.00 | 1.00 | 0 | .50 |
| Venezuela | mean | 2* | 4.5 | 5.00 | 0 | 0 | 0 |
| | std. dev | | 5.00 | 2.83 | | | |
| | median | | 4.50 | 1.00 | | | |
| <hr/> | | | | | | | |
| <i><u>Subtotal</u></i> | mean | 89 | 3.61 | 5.75 | .86 | .39 | .25 |
| | std. dev | | 2.99 | 1.38 | .35 | .81 | .44 |
| | median | | 4.00 | 6.00 | 1.00 | 0 | 0 |

* number of available firms in each country. Some firms have missing variables. See Exhibit 1 for variable definitions and explanations.

Table 3**Sample Companies' Transparency and Disclosure by Country, Region & Full Sample**
(continued)

| <u>Country</u> | | <u>n*</u> | <u>InfoDis_i</u> | <u>Transp_i</u> | <u>AUD_i</u> | <u>GAAP_i</u> | <u>Transl_i</u> |
|---------------------------|----------|-----------|----------------------------|---------------------------|------------------------|-------------------------|---------------------------|
| <u>Asia</u> | | | | | | | |
| China | mean | 16 | 3.88 | 7.44 | .88 | 1.00 | .13 |
| | std. dev | | 3.03 | 1.31 | .34 | .89 | .34 |
| | median | | 4.00 | 7.50 | 1.00 | 1.00 | 0 |
| India | mean | 43 | 5.63 | 5.72 | .12 | .51 | 0 |
| | std. dev | | 1.69 | 1.10 | .32 | .88 | 0 |
| | median | | 6.00 | 6.00 | 0 | 0 | 0 |
| Indonesia | mean | 13 | 4.54 | 6.31 | .46 | .46 | .15 |
| | std. dev | | 2.54 | .75 | .52 | .88 | .38 |
| | median | | 5.00 | 6.00 | 0 | 0 | 0 |
| Korea | mean | 47 | 4.68 | 6.38 | .26 | .17 | .43 |
| | std. dev | | 2.31 | 1.13 | .44 | .56 | .50 |
| | median | | 5.00 | 7.00 | 0 | 0 | 0 |
| Malaysia | mean | 51 | 3.67 | 6.17 | .82 | 0 | 0 |
| | std. dev | | 2.95 | .91 | .39 | 0 | 0 |
| | median | | 3.00 | 6.00 | 1.00 | 0 | 0 |
| Pakistan | mean | 10 | 4.90 | 5.90 | 0 | .20 | 0 |
| | std. dev | | 2.23 | .74 | 0 | .63 | 0 |
| | median | | 5.50 | 6.00 | 0 | 0 | 0 |
| Philippines | mean | 9 | 4.89 | 5.78 | .56 | .22 | 0 |
| | std. dev | | 2.32 | .97 | .53 | .67 | 0 |
| | median | | 5.00 | 6.00 | 1.00 | 0 | 0 |
| Sri Lanka | mean | 1 | 3.00 | 5.00 | 1.00 | 0 | 1 |
| Taiwan | mean | 37 | 4.00 | 4.76 | .38 | .05 | .51 |
| | std. dev | | 2.38 | .80 | .49 | .33 | .51 |
| | median | | 4.00 | 5.00 | 0 | 0 | 1.00 |
| Thailand | mean | 26 | 4.27 | 6.12 | .81 | 0 | 0 |
| | std. dev | | 2.95 | .86 | .40 | 0 | 0 |
| | median | | 5.50 | 6.00 | 1.00 | 0 | 0 |
| <i><u>Subtotal</u></i> | mean | 253 | 4.45 | 5.98 | .47 | .23 | .17 |
| | std. dev | | 2.55 | 1.17 | .50 | .63 | .38 |
| | median | | 5.00 | 6.00 | 0 | 0 | 0 |
| <u>Grand Total</u> | mean | 342 | 4.23 | 5.92 | .57 | .27 | .19 |
| | std. dev | | 2.69 | 1.23 | .50 | .68 | .39 |
| | median | | 5.00 | 6.00 | 1.00 | 0 | 0 |

* number of available firms in each country. Some firms have missing variables. See Exhibit 1 for variable definitions and explanations.

Table 4
Sample Companies' Control Variable by Country, Region & Full Sample

| <u>Country</u> | | <u>n*</u> | <u>FREV_i</u> | <u>M_i/M_j</u> | <u>ROE_i</u> |
|-----------------------------|----------|-----------|-------------------------|------------------------------------|------------------------|
| <i><u>Latin America</u></i> | | | | | |
| Argentina | mean | 9 | 0 | 1.14 | .08 |
| | std. dev | | 0 | .87 | .08 |
| | median | | 0 | .88 | .09 |
| Brazil | mean | 30 | .02 | 1.16 | .10 |
| | std. dev | | .07 | 1.47 | .24 |
| | median | | 0 | 0.67 | .10 |
| Chile | mean | 21 | 0.01 | 2.00 | .05 |
| | std. dev | | 0.02 | 1.57 | .10 |
| | median | | 0 | 1.28 | .08 |
| Colombia | mean | 1 | 0 | 9.86 | .11 |
| Mexico | mean | 18 | 4.73 | 3.76 | .08 |
| | std. dev | | 19.47 | 4.58 | .21 |
| | median | | 0 | 1.74 | .12 |
| Peru | mean | 8 | .06 | 2.14 | .15 |
| | std. dev | | .15 | 1.07 | .11 |
| | median | | 0 | 2.12 | .14 |
| Venezuela | mean | 2 | 0 | 16.75 | -.01 |
| | std. dev | | | 20.20 | .01 |
| | median | | | 16.75 | -.01 |
| <hr/> | | | | | |
| <i><u>Subtotal</u></i> | mean | | .98 | 2.47 | .09 |
| | std. dev | | 8.82 | 4.21 | .18 |
| | median | | 0 | 1.24 | .09 |
| | n | | 88 | 79 | 80 |

* number of available firms in each country. Some firms have missing variables. See Exhibit 1 for variable definitions and explanations.

Table 4
Sample Companies' Control Variable by Country, Region & Full Sample (continued)

| <u>Country</u> | | <u>n*</u> | <u>FREV_i</u> | <u>M_i/M_j</u> | <u>ROE_i</u> | |
|---------------------------|----------|-----------|-------------------------|------------------------------------|------------------------|------|
| <i><u>Asia</u></i> | | | | | | |
| China | mean | 16 | .08 | .55 | .09 | |
| | std. dev | | .16 | 1.41 | .07 | |
| | median | | 0 | .13 | .08 | |
| India | mean | 43 | .01 | .98 | .20 | |
| | std. dev | | .07 | 1.52 | .15 | |
| | median | | 0 | .43 | .13 | |
| Indonesia | mean | 13 | .01 | 3.19 | .17 | |
| | std. dev | | .04 | 3.34 | .19 | |
| | median | | 0 | 1.98 | .18 | |
| Korea | mean | 47 | .07 | 1.51 | -.07 | |
| | std. dev | | .22 | 3.16 | .66 | |
| | median | | 0 | .34 | .04 | |
| Malaysia | mean | 51 | .03 | 1.03 | .02 | |
| | std. dev | | .11 | 1.79 | .36 | |
| | median | | 0 | .44 | .08 | |
| Pakistan | mean | 10 | 0 | 4.77 | .18 | |
| | std. dev | | 0 | 6.97 | .20 | |
| | median | | 0 | 2.47 | .22 | |
| Philippines | mean | 9 | 0 | 2.92 | .06 | |
| | std. dev | | 0 | 1.41 | .04 | |
| | median | | 0 | 2.32 | .06 | |
| Sri Lanka | mean | 1 | 0 | 7.23 | .10 | |
| Taiwan | mean | 37 | .03 | 1.54 | 2.07 | |
| | std. dev | | .07 | 2.17 | 1.67 | |
| | median | | 0 | .86 | 1.37 | |
| Thailand | mean | 26 | .04 | 2.79 | .22 | |
| | std. dev | | .11 | 3.05 | 3.75 | |
| | median | | 0 | 1.54 | .01 | |
| <hr/> | | | | | | |
| <i><u>Subtotal</u></i> | | mean | 253 | .03 | 1.72 | 0.09 |
| | | std. dev | | .13 | 2.85 | 1.29 |
| | | median | | 0 | .65 | .10 |
| | | n | | 253 | 234 | 228 |
| <hr/> | | | | | | |
| <i><u>Grand Total</u></i> | | mean | 342 | .28 | 1.91 | .09 |
| | | std. dev | | 4.48 | 3.26 | 1.11 |
| | | median | | 0 | .83 | .10 |
| | | n | | 341 | 313 | 308 |

* number of available firms in each country. Some firms have missing variables. See Exhibit 1 for variable definitions and explanations.

Table 5
Correlations (Pearson above the diagonal and Spearman below)

Panel A: Correlations – Full Sample

| | <u>AccCap_i</u> | <u>InfoDis_i</u> | <u>Transp_i</u> | <u>AUD_i</u> | <u>GAAP_i</u> | <u>Transl_i</u> | <u>FREV_i</u> | <u>REG</u> | <u>CounRisk</u> | <u>M_i/M_j</u> | <u>ROE_i</u> |
|------------------------------------|---------------------------|----------------------------|---------------------------|------------------------|-------------------------|---------------------------|-------------------------|------------|-----------------|------------------------------------|------------------------|
| AccCap_i | | .169*** | .162*** | .163*** | .376*** | -.198*** | .104** | -.321*** | -.132** | .189*** | -.003 |
| InfoDis_i | .193*** | | .090* | -.151*** | .163*** | -.154*** | .058 | .137** | -.041 | .109** | .024 |
| Transp_i | .154*** | .118** | | .048 | .207*** | -.150*** | .005 | .081 | -.075 | .038 | .055 |
| AUD_i | .158*** | -.111** | .043 | | .115** | -.292*** | .050 | -.345*** | -.014 | .020 | .019 |
| GAAP_i | .338*** | .172*** | .215*** | .124** | | -.193*** | -.022 | -.101* | -.168*** | .020 | .012 |
| Transl_i | -.216*** | -.161*** | -.149*** | -.292*** | -.196*** | | -.029 | -.089* | .214*** | -.096* | -.030 |
| FREV_i | .078 | .062 | .050 | .168*** | -.010 | -.146*** | | -.092* | -.011 | -.004 | -.016 |
| REG | -.303*** | .099 | .074 | -.345*** | -.092* | -.089* | -.028 | | .385*** | -.100* | .003 |
| CounRisk | -.190*** | -.063 | -.049 | -.044 | -.191*** | .230*** | .039 | .452*** | | -.114** | -.032 |
| M_i/M_j | .178*** | .168*** | -.029 | .130** | -.031 | -.153*** | .051 | -.195*** | -.167*** | | .039 |
| ROE_i | .087 | .076 | -.065 | -.058 | .059 | -.039 | -.042 | .016 | -.190*** | .293*** | |

See Exhibit 1 for variable definitions and explanations.

Table 5

Correlations (Pearson above the diagonal and Spearman below)

Panel B: Correlations – Latin America

| | <u>AccCap_i</u> | <u>InfoDis_i</u> | <u>Transp_i</u> | <u>AUD_i</u> | <u>GAAP_i</u> | <u>Transl_i</u> | <u>FREV_i</u> | <u>CounRisk</u> | <u>M_i/M_i</u> | <u>ROE_i</u> |
|------------------------------------|---------------------------|----------------------------|---------------------------|------------------------|-------------------------|---------------------------|-------------------------|-----------------|------------------------------------|------------------------|
| AccCap_i | | .313*** | .192** | .060 | .269* | -.497*** | .132 | -.079 | .116 | .024 |
| InfoDis_i | .289*** | | .147 | -.082 | .182* | -.353*** | .122 | .024 | .167 | .017 |
| Transp_i | .21** | .157 | | -.112 | .171 | -.141 | .015 | -.137 | -.014 | .151 |
| AUD_i | .061 | -.091 | -.123 | | .026 | -.153 | .041 | .076 | -.256** | -.144 |
| GAAP_i | .28*** | .203** | .186* | .027 | | -.278*** | -.050 | .043 | .001 | -.026 |
| Transl_i | -.436*** | -.327*** | -.150 | -.153 | -.282 | | -.063 | -.128 | -.071 | .189* |
| FREV_i | .120 | .088 | -.067 | -.057 | .066 | -.135 | | .092 | -.022 | -.195* |
| CounRisk | .035 | .023 | -.078 | .159 | .074 | -.15 | .109 | | .253** | -.094 |
| M_i/M_j | .096 | .121 | -.093 | -.119 | -.039 | -.016 | .000 | .314 | | .113 |
| ROE_i | -.027 | .037 | .042 | -.096 | -.012 | .156 | -.055 | -.150 | .284*** | |

Panel C: Correlations – Asia

| | <u>AccCap_i</u> | <u>InfoDis_i</u> | <u>Transp_i</u> | <u>AUD_i</u> | <u>GAAP_i</u> | <u>Transl_i</u> | <u>FREV_i</u> | <u>CounRisk</u> | <u>M_i/M_i</u> | <u>ROE_i</u> |
|------------------------------------|---------------------------|----------------------------|---------------------------|------------------------|-------------------------|---------------------------|-------------------------|-----------------|------------------------------------|------------------------|
| AccCap_i | | .185*** | .206*** | .574 | .416*** | -.134** | .130** | .007 | .194*** | -.003 |
| InfoDis_i | .191*** | | .047 | -.126** | .177*** | -.046 | .082 | -.133** | .100 | .028 |
| Transp_i | .149*** | .094 | | .132** | .240*** | -.146** | .133** | -.113* | .081 | .059 |
| AUD_i | .045 | -.075 | .120* | | .108* | -.409*** | .155*** | .154*** | .064 | .028 |
| GAAP_i | .339*** | .163*** | .233*** | .124** | | -.166*** | -.048 | -.190*** | .010 | .017 |
| Transl_i | -.151** | -.080 | -.137** | -.409*** | -.169*** | | -.123** | .358*** | -.122* | -.047 |
| FREV_i | .074 | .053 | .108* | .232*** | -.050 | -.156*** | | .090 | .021 | -.005 |
| CounRisk | -.063 | -.140** | -.141 | .059 | -.228*** | .449*** | .034 | | -.158** | -.035 |
| M_i/M_j | .132** | .211*** | .004 | .111* | -.078 | -.227*** | .068 | -.141** | | .045 |
| ROE_i | .142** | .091 | -.112* | -.052 | .096 | -.108* | -.035 | -.167*** | .299*** | |

See Exhibit 1 for variable definitions and explanations.

Table 6
Ordinary Least Squares Regressions by Region & Full Sample

Model: $AccCap_i = \alpha + \beta_1 InfoDis_i + \beta_2 Transp_i + \beta_3 AUD_i + \beta_4 GAAP_i + \beta_5 Transl_i$
 $+ \beta_6 FREV_i + \beta_7 Reg_i + \beta_8 CounRisk_j + \beta_9 M_i/M_j + \beta_{10} ROE_i + \beta_{11} GROWTH_i + \beta_{12} SIZE_i \varepsilon_i$

| | Predicted Sign | Full Sample | Latin America | Asia |
|------------------------------------|---------------------------|------------------------|--------------------------|-------------|
| Intercept | | 0.031 | 1.089 | -2.293 ** |
| InfoDis_i | + | 0.056 | 0.038 | 0.026 |
| Transp_i | + | 0.147 ** | 0.173 | 0.086 |
| AUD_i | + | -0.085 | -0.072 | -0.111 |
| GAAP_i | + | 0.900 *** | 0.440 * | 1.173 *** |
| Transl_i | - | -0.848 *** | -2.068 *** | -0.334 |
| FREV_i | + | 0.011 | 0.009 | 0.931 |
| REG | ? | -1.560 *** | | |
| CounRisk | + | 0.020 | -0.005 | 0.012 |
| M_i/M_j | + | 0.025 | 0.011 | 0.042 |
| ROE_i | + | 0.003 * | 0.007 * | 0.001 |
| GROWTH_i | + | -0.000 | 0.006 | 0.013 |
| SIZE_i | + | 0.258 *** | 0.178 | 0.263 *** |
| F-Value | | 15.60 *** | 3.91 *** | 9.32 *** |
| Adjusted R ² | | 0.377 | 0.308 | 0.298 |
| n | | 290 | 73 | 217 |

***, **, * denote significance at the 0.01, 0.05 and 0.10 levels, respectively. See exhibit 1 for variable definitions and sources.

Table 7
Comparison of
Ordinary Least Squares Regression Estimation
and Ordered Logit Regression Estimation
and Hypothesis Tests

Model: $AccCap_i = \alpha + \beta_1 InfoDis_i + \beta_2 Transp_i + \beta_3 AUD_i + \beta_4 GAAP_i + \beta_5 Transl_i$
 $+ \beta_6 FREV_i + \beta_7 Reg_i + \beta_8 CounRisk_j + \beta_9 M_i/M_j + \beta_{10} ROE_i + \beta_{11} GROWTH_i + \beta_{12} SIZE_i + \varepsilon_i$

| | Predicted Sign | OLS Estimates | Ordered Logit Estimates | |
|------------------------------------|-------------------|------------------|-------------------------------|-----|
| InfoDis_i | + | 0.056 | 0.084 | * |
| Transp_i | + | 0.147 ** | 0.187 | * |
| AUD_i | + | -0.085 | -0.113 | |
| GAAP_i | + | 0.900 *** | 1.152 | *** |
| Transl_i | - | -0.848 *** | -1.251 | *** |
| FREV_i | + | 0.011 | 0.004 | |
| REG | ? | -1.560 *** | -1.858 | *** |
| CounRisk | + | 0.020 | 0.032 | * |
| M_i/M_j | + | 0.025 | 0.050 | |
| ROE_i | + | 0.003 * | 0.003 | |
| GROWTH_i | + | -0.000 | 0.002 | |
| SIZE_i | + | 0.258 *** | 0.350 | *** |
| F-Value | | 15.60 *** | | |
| Adjusted R ² | | 0.377 | | |
| Wald Stat β=0 | | | 102.48 | *** |
| n | | 290 | 290 | |

***, **, * denote significance at the 0.01, 0.05 and 0.10 levels, respectively. See exhibit 1 for variable definitions and sources.

Exhibit 1
Description of Variables and Data Sources

| <u>Variable</u> | <u>Description and source information</u> |
|--|---|
| <i>Access to Capital</i> | |
| AccCap | <p>Categorical variable taking on the following values: The company</p> <p>0: Makes no overseas equity offerings or is listed on overseas stock exchanges during the period (2000-2004);</p> <p>1: Makes a public European and/or London equity offering, and/or has equity officially listed in London and/or in Continental Europe;</p> <p>2: Trades over-the-counter in the U.S.;</p> <p>3: Makes an SEC Rule 144A private equity offering in the U.S.;</p> <p>4: Is listed on NYSE, Nasdaq, or the American Stock Exchange in the U.S.;</p> <p>5: Makes a public equity offering in the U.S.</p> <p><i>Sources:</i> Securities Data Corporation (SDC) New Issues Database; Bank of New York and Morgan Stanley (ADR Universe) websites (accessed at several times during 1999-2004), lists of foreign listed firms, delisting data, and offering data from many stock exchanges (The Nasdaq Stock Market, Inc., The New York Stock Exchange, Inc., The London Stock Exchange Inc., and lists of foreign listed companies obtained from Continental European stock exchanges).</p> |
| <i>Transparency and disclosure variables</i> | |
| Transp | <p>Standard & Poor's Transparency and Disclosure index. Each company's score is the percentage of annual report items (out of a total of 35 possible) that represent disclosure attributes related to financial transparency and information disclosure. For example, if 20 of the 35 items appear, the company has a "decile rank" of 6 (57% rounded up to 60, and then divided by 10). Refer to the appendix for additional information on the S&P index.</p> <p><i>Source:</i> <i>Euromoney</i> [2001].</p> |
| GAAP | <p>Categorical variable GAAP takes on the following values:</p> <p>2: Domestic GAAP;</p> <p>3: International Financial Reporting Standards (IFRS);</p> <p>4: Non-U.S. GAAP with reconciliation to U.S. GAAP disclosures;</p> <p>5: U.S. GAAP.</p> <p><i>Source:</i> Hand collected from sample company annual reports obtained from Thomson Research [fiscal year-ends between July 1, 1999 and June 30, 2000]).</p> |
| AUD | <p>Auditor categorical variable taking on the following values:</p> <p>1: "Big four" auditor;</p> <p>0: Non-"big four" auditor.</p> <p><i>Source:</i> Hand collected from sample company annual reports obtained from</p> |

Thomson Research (fiscal 1999 [fiscal year-ends between July 1, 1999 and June 30, 2000]).

InfoDis

Web disclosure variable taking on the following values:

- 0: Firm I has no website;
- 1: A domestic language only website is available;
- 2: An English version of the website is available;
- 3: The English version apparently mirrors (in form and content) the domestic language version;
- 4: The website provides an investor relations page;
- 5: The website provides current financial statements;
- 6: The website provides prior years' annual financial statements;
- 7: The website provides press releases;
- 8: The website provides conference calls.

Source: Hand collected from company websites searched during February, 2004.

Transl

Categorical variables measuring the accessibility of financial information to non-domestic financial statement users. The variable takes on the following values:

- 1: Company's annual report is not presented in English;
- 0: Company's annual report is presented in English.

Source: Hand collected from company websites searched during February, 2004.

Control Variabi

Reg

Geographic region categorical variable taking on the following values:

- 1: Latin America domicile;
- 0: Asia domicile.

Source: *Euromoney* (2001).

CounRisk

Measure of overall country risk assigned by The PRS Group, Inc. [1999]. Each country is assigned a "composite risk rating," which is an aggregation of the total risk points for each of three risk categories: Political risk, economic risk, and financial risk. The political risk rating contributes 50% to the composite rating, and financial and economic risk ratings each contribute 25%. In all cases, the higher the number of risk points, the lower the perceived risk. Composite risk scores for the countries in this study range from a low of 51.8 for Indonesia ("high risk"), to a maximum of 83.5 for Taiwan ("very low risk").

Further details on components of risk scores are as follows. (1) Political risk components include items such as government stability, socioeconomic conditions, investment profile, internal conflict, external conflict, corruption, and law and order. (2) Financial risk components include items such as foreign debt as a percentage of GDP, foreign debt service as a percentage of exports of goods and services, current account as a percentage

of exports of goods and services, and exchange rate stability. (3) Economic risk components include items such as GDP per head, real GDP growth, annual inflation rate, and budget balance as a percentage of GDP.

Source: PRS Group, Inc. *International Country Risk Guide* [December, 1999].

- M_i / M_j A measure of a company's saturation in the home market. It equals market value of firm i divided by market capitalization in the home country, for the most recent available of 2000, 1999, or 1998. Data from 1999 are used if 2000 data are not available, and 1998 data are used if neither 2000 nor 1999 data are available. *Sources:* Global Vantage, Datastream, and Economatica databases.
- ROE_i Net income divided by shareholders' equity for the most recent fiscal year available from 2000. Data from 1999 are used if 2000 data are not available, and 1998 data are used if neither 2000 nor 1999 data are available. *Sources:* Global Vantage, Datastream, and Economatica databases.
- $GROWTH_i$ A company's sales growth (annualized) in 2000. Data from 1999 are used if 2000 data are not available, and 1998 data are used if neither 2000 nor 1999 data are available. *Sources:* Global Vantage.
- $SIZE_i$ Market value of equity in 2000. Data from 1999 are used if 2000 data are not available, and 1998 data are used if neither 2000 nor 1999 data are available. *Sources:* Global Vantage.

Appendix

Standard & Poor's Transparency & Disclosure Scores³³

Standard & Poor's Transparency & Disclosure (T&D) scores assess the level of transparency and disclosure of companies in emerging markets (Asia, Latin America, Central and Eastern Europe, and Africa) as well as developed markets (Europe, developed Asia and the U.S.). Transparency and disclosure are evaluated by searching company annual reports (both English and local language) for the information of 98 possible attributes broadly divided into the following three sub-categories: (1) Financial transparency and information disclosure (35 attributes); (2) Ownership structure and investor relations (28 attributes); and (3) Board and management structure and process (35 attributes).

Each question is scored on a binary basis to ensure objectivity, and scores for the three broad subcategories and an overall score are developed from scores on individual questions.

Example questions:

Financial transparency and information disclosure (35 attributes)

Business focus

- Is there a discussion of corporate strategy?
- Does the company give an overview of industry trends?
- Does the company give an output forecast of any kind?

Accounting policy review

- Provide financial information on a quarterly basis?

Accounting policy details

- Does the company disclose methods of asset valuation?

Related party structure and transactions

- Provide a list of affiliates in which it holds a minority stake?
- Does the company disclose the ownership structure of affiliates?

Information on auditors

- Does the company disclose how much is pays in audit fees to the auditor?

Ownership structure and investor relations (28 attributes)

Does the annual report provide:

- A description of the share classes?
- A review of shareholders by type?
- A description of the voting rights?

Board and management structure and processes (35 attributes)

Does the annual report disclose:

- A list of board members?
- A list of board committees?
- Details of directors' remuneration and performance-related pay for directors?

³³ This discussion closely follows Patel, Balic, and Bwakira [2002]. Also see Patel and Dallas [2002].

The rise of global markets for em corporate debt. It did not take long for international investors to incorporate the implications of this major shift in the direction of EME economic and financial policies into their global portfolio allocation decisions. In just a few years, determined implementation of prudent macroeconomic policy frameworks by many EME governments convinced global investors that they could count on sustained, rules-based access to EM financial systems for both purchases and sales of corporate debt and equity. EM debt and equity quickly came to be regarded by global investors as a needed component of a well-diversified international asset portfolio. These years also witnessed the huge rise in China's capital investment, output and exports. Our committed Equity Capital Markets team is widely recognized as a global leader in equity capital raising. We offer access to our superior structuring and execution services as well as exceptional global distribution capabilities. We work closely with public and private companies, and financial sponsors to originate, structure and execute equity and equity-linked financings such as initial public offerings, follow on offerings, convertible bonds and equity private placements. Prime Services. #1 JPM ECM ranked globally in 2019 and 2018 (Dealogic). Equity Capital Markets. Realize your strategic objectives and fuel the growth of your enterprise. Created with Sketch.

Emerging market equity funds are an opportunity to invest assets into one or more developing countries. Find out more on this investment, only with BlackRock. Emerging market equity investing offers many potential benefits, including improved global diversification and the opportunity to access growing economies and undervalued securities. Diversification: International diversification is one way to possibly reduce your overall volatility. EM equity funds can help you take this a step further by investing in markets that don't move in sync with each other. Opportunity: One of the biggest potential benefits of EM equity funds is the potential to improve your portfolio's overall long-term returns. Emerging market economies have become more financially integrated, granting them greater access to capital but also rendering them more exposed to global financial shocks. With this increased integration, questions arise as to whether institutional frameworks – including corporate governance – have improved accordingly, and helped emerging markets to be more resilient in the face of a more uncertain external environment. Emerging market firms that safeguard the rights of shareholders to a greater extent tend to be less sensitive to global financial shocks (Figure 3). In fact, moving from the lower to the upper end of the firm-level governance indices reduces the impact of the VIX for emerging market firms by about 50% on average. Transparency of share ownership, shareholder communications and voting in global capital markets. No part of this document can be reproduced, by any means, without the prior and express written consent of Computershare. March 2015 Version 1.4. A range of legislative initiatives have sought to address access to shareholder communications by beneficial owners, both at a global level¹ and regionally², but these have not yet had widespread impact. Shareholder voting – how effectively do voting processes on corporate matters operate? While registered shareholders can readily exercise voting rights directly with the issuer, investors holding indirectly via intermediaries often face a range of issues in voting effectively.