Are the domestic investors of ¯rms cross-listed in the U.S. better protected?

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Abstract

The legal bonding hypothesis (Co®ee, 1999, 2002, Stulz, 1999, Reese and Weisbach, 2002, and Doidge, Karolyi, and Stulz, 2004) posists that ¯rms can e®ectively bypass their local market and opt-in to the superior disclosure and legal regime of the U.S. by cross listing on a U.S. exchange or Nasdaq. The crucial assumption underlying the legal bonding hypothesis is that the domestic or ordinary investors of these ¯rms are better protected under the U.S. regime. We test this proposition. Employing the agency models of dividends that derive a relationship between changes in investor protection and changes in ¯rm dividend payout, we document results consistent with the legal bonding hypothesis. Our initial results are consistent with the notion that the domestic investors of ¯rms that cross list on U.S. exchanges enjoy enhanced protection, post-listing. The domestic invrstors of OTC ¯rms are not. The domestic investors of Portal ¯rms appear to be. However, we believe that they are better protected through enhanced ¯rm level governance policies that are initiated post-listing in line with Pinnegar and Ravichandran (2004). Durnev and Kim (2002) and Klapper and Love (2002) document the e®ectiveness of ¯rm-level governance in enhancing ¯rm value and improving ¯rm performance. To reach these conclusions our paper warrants further study.

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1 Introduction

High-growth ¯rms domiciled in countries characterised by poor legal institutional frameworks, and thus poor investor protection (LaPorta et al., 1998, 2000) are very often constrained in their attempts to ¯nance their growth opportunities externally (Hail and Leuz, 2003). Absent effective legal reform, many ¯rms engage in substitute strategies designed to lower their domestic cost of capital. For example, the extant literature has suggested that such ¯rms can engage in cross-border strategic alliances (Siegel, 2004), seek political favour (Siegel, 2004, Leuz and Oberholzer-Gee, 2003), or commit themselves to greater protection of their minority shareholders by improving their internal ¯rm-level governance (Klapper and Love, 2003, Durnev and Kim, 2003). Furthermore, a ¯rm can substitute their home level governance for the superior disclosure and regulatory regime of the United States by cross-listing on a U.S. exchange or Nasdaq. Cross-listing in the United States lowers the ¯rms cost of equity capital (Hail and Leuz, 2004, and Eaton, Nofsinger and Weaver 2003). As a result, cross-listing in the U.S. improves the ¯rms ability to exploit their growth opportunities[1] (Lins, Strickland, and Zenner, 2003, Hail and Leuz, 2004, Lee, 2003, Reese and Weisbach, 2002).[2]

The ability of ¯rms to lower their cost of capital post-listing, is at least in part due to their commitment to better protect their investors under the U.S. legal and regulatory regime. Furthermore, the legal bonding hypothesis (Co®ee 1998, 2002, Reese and Weisbach 2002, Mitton 2002, Doidge, Karolyi and Stulz 2004, and Doidge 2004) posits that ¯rms can substitute their home level governance for the superior gover-

[1] Siegel (2004) outlines that Mexican ¯rms that list domestically, post-liberalization, were more likely to choose a U.S. listing rather than adopt a cross-border alliance. This is consistent with Claessens, Klingebiel and Schmukler (2003) who conclude that ¯rms can bind themselves to higher standards on international markets only when the country of origon has passed some hurdle in terms of legal and overall development.

[2] Pre-1998 the motivation behind a cross-listing, and the accrued bene¯ts were explained entirely in terms of integration bene¯ts. By cross-listing internationally, ¯rms can overcome the barriers to segmented markets (e.g., taxes, regulatory restrictions, or informational constraints) (Stapleton and Subrahmanyam, 1977, Alexander, Eun and Janaikamanan, 1987, 1988, Stulz, 1981, Errunza and Losq, 1985). The subsequent increase in the ¯rms non-domestic shareholder base, ensures that the risk of the ¯rm is globally, rather than domestically shared. Greater risk-sharing reduces the risk premium required by investors to hold the ¯rms stock. Foerster and Karolyi (1999) advance the `Recognition Hypothesis', a joint test of the market segmentation hypothesis and the `Awareness Hypothesis' of Merton (1987). Their results show how the segmentation bene¯ts only accrue to the ¯rm if investors hold the ¯rms stock. For an excellent review of the early cross-listing literature, see Karolyi (1998).

nance regime of the U.S. by cross-listing on a U.S. Exchange (NYSE, AMEX) or the Nasdaq, implying better protection for both U.S. and domestic investors. For example, Benos and Weisbach (2004) conclude that ¯rms that list in the United States confer substantially more rights on their shareholders, both U.S. and international, than they would have received otherwise. In addition, Reese and Weisbach (2002) document that emerging market U.S. cross-listed ¯rms, previously constrained in their attempts to raise domestic external capital pre-listing, raise substantial domestic capital post a U.S. listing. This line of reasoning suggests that ¯rms bond themselves to more transparency in, not only the U.S. market but also in their home market, implying an increase in protection for their domestic shareholders. Thus the crucial assumption underlying the legal bonding hypothesis is that the domestic or ordinary shareholders of the cross-listed ¯rms are better protected, post-listing (Kumar and Ramchand 2003, Benos and Weisbach 2004, Reese and Weisbach 2002). We attempt to test this crucial assumption.

The primary criticism aimed at the legal bonding hypothesis is that SEC enforcements against cross-listed ¯rms have been largely illusionary and non-e®ective, this does not imply that listing in the U.S. does not a®ord at least some protection to domestic investors. For example, there is a considerable literature that suggests that post-listing, cross-listed ¯rms provide greater disclosure under U.S. GAAP (Eaton, Nofsinger and Weaver, 2004), attract considerable institutional investment (Kumar and Ramchand, 2003), and are followed by more ¯nancial analysts (Baker, Nofsinger and Weaver, 2002, and Lang, Lins and Miller, 2002). For example, Baker, Nofsinger, and Weaver (2004) show for a sample of international ¯rms cross-listed on the NYSE how varying measures of disclosure, including analyst following is inversely related to both a ¯rms systematic risk, and their cost of equity capital. In connection, Lang, Lins and Miller (2004) show how analysts can act as e®ective monitors in emerging markets. There exists a substantial literature documenting the monitoring role played by institutional investors (Smith, 1996, Carleton et al., 1998). In connection, Bradshaw, Bushee and Miller (2002)[3] show that ¯rms who reconcile their accounts to U.S. GAAP, attract sizable institutional investment . In addition, a cross-listing can signi¯cantly alter the behaviour of management and align their interests with those of minority investors (Tribukait, 2002). Furthermore, in a sample of 144 ¯rms cross-listed on the U.S., Kumar et al. (2003) show that many of these undergo signi¯cant governance related changes, in the form of a reduction in the dominant shareholders ownership in the year following

[3]Khanna, Palepu, and Srinivasan (2003) show how ¯rms interacting with U.S. product, labour, and equity markets adopt U.S. GAAP.

a cross-listing, but not in the form of a change in ownership structure (Ayyagari, 2004). This suggests that absent e®ective legal bonding, reputational bonding can still be e®ective in increasing the quality of the ¯rms information environment, and hence reduce incomplete (Merton, 1987) and asymmetric information (Easley and O'Hara, 2003) borne by investors. Irrespective of whether ¯rms can e®ectively legally bond to the U.S. disclosure and regulatory environment, reputational bonding can still increase the protection of domestic shareholders

Our paper is not the ¯rst to attempt to answer whether the domestic investors of ¯rms cross-listed in the U.S. are in fact better protected. However, we take a di®erent approach. Unlike the others, we do not examine any one speci¯c governance variable and relate changes in this variable to increased investor protection. We do the opposite. We relate changes in investor protection to changes in governance variables, thus allowing us to examine a number, rather than one governance variable[4]. Thus, initially, we examine whether the domestic investors of ¯rms cross-listed in the U.S. are better protected. We then relate this change in investor protection, to changes in governance, and disclosure related variables. We do so by adopting the agency models of dividends (Easterbrook, 1984)[5]. These models suggest that ¯rm dividend payout can address agency problems characterised by the separation of ownership from control by reducing managements opportunity to invest ¯rms free cash °ow in negative net present value projects. Furthermore the payout of dividends exposes ¯rms to the added scrutiny of the capital market by increasing their reliance on external capital to fund their growth opportunities (Easterbrook, 1984, Roze®, 1982). This line of reasoning suggests that dividends and alternative goverance mechanisms are substitutes for one another (Easterbrook, 1984). In fact Liu (2002) ¯nds evidence in favour of this. Generally, these ¯ndings suggest that changes in ¯rm dividend payout imply changes in domestic investor protection.

Using a sample of 496 ¯rms with sponsored ADR programs and 2922 non cross-listed ¯rms we estimate a panel data tobit model and a di®erence-in-di®erence analysis over the period from 1980-2002. Our results imply that for exchange listed ADRs and consistent with the le-

[4] The results that we present in this paper are for the ¯rst part of the paper. We are currently working on the second part.

[5] In recent years, ¯nancial economists have once again returned to agency models in their quest to understand why exactly ¯rms pay dividends, the famous Dividend Puzzle (Easterbrook, 1984, Roze®, 1982, Jensen, 1986) These models propose that ¯rm dividend policies address agency problems between controlling shareholders, and outside shareholders by forcing ¯rms to pay out dividends, rather than allow FCF to remain in the control of controlling shareholders.

gal bonding hypothesis that the domestic investors of ¯rms are better protected, post-listing. Furthermore, we also ¯nd that the domestic investors of ¯rms trading over-the-counter (OTC) via a Level 1 ADR are not better protected. However, inconsistent with the legal bonding hypothesis, but perhaps consistent with Pinegar et al. (2004)[6], our results suggest that post-listing, minority investors of ¯rms trading under SEC Rule 144a on the PORTAL, are better protected. Pinegar et al. (2004) show how this enhanced protection does not arrive under the U.S. disclosure and legal regime, but via actions by the ¯rm to voluntarily commit to fair treatment of their investors. This conclusion, which warrants further study would be consistent with the legal bonding hypothesis, and consistent with our ¯ndings.

2 Cross-Listing in the U.S.

A non-US ¯rm can list their ordinary shares in the United States either directly, or as American Depositary Receipts. ADRs are in e®ect a derivative product, representing either a multiple or fraction of the ordinary share[7]. Precluding Israeli and Canadian ¯rms, the majority of overseas listings in the U.S are by way of ADRs. Foreign ¯rms that list their shares directly in the U.S. must meet two requirements; ¯rst a minimum of 50% of the companies shares must be held by U.S. nationals, and second, either the issuers' business is headquartered in the U.S., or most of the senior executives or directors are U.S. citizens, or 50% of the ¯rms assets are located in the U.S. Furthermore, non-U.S. ¯rms can also trade in the U.S. via ADRs. There are four depositary receipt programs available to ¯rms, di®ering in terms of their trading locale, disclosure and legal requirements, and capital raising entitlements. They are a Level 1, Level 2/3 exchange listings, and private placements traded on the Portal under SEC Rule144a.

A sponsored, public Level 1 OTC depositary receipt program is the simplest way for non-US ¯rms to access US and non-US capital markets. They trade `over-the-counter' and also on some exchanges outside of the U.S., with prices published on the \Pink Sheets". Unlike, Level 2/3 Depositary Receipt programs, Level 1 ¯rms are not obligated to comply and conform to US GAAP (Generally Accepted Accounting Principles) or to ¯le periodic reports with the SEC (Securities & Exchange Commission). In this regard, a Level 1 program allows the ¯rm access to the US Capital markets, without the costs associated with accounting

[6] Of course we have to prove this.

[7] This ratio is determined by the ADR Ratio. The ADR Ratio is set to allow the ¯rm to compete in a price range similiar to their peer industry group in the U.S.

and legal compliance. They require minimal SEC registration, and are exempt from the SEC's reporting and accounting obligations under Rule 12g3-2(b). Numerous studies (Sarr, 2001) have found that the primary factor deterring ¯rms from establishing exchange-listed ADRs, has been the costs associated with compliance to US GAAP. In this regard it is not surprising that of the total number of ADR Programs, the list is dominated by Level 1 Programs. In 1999, the OTCBB (Over the Counter Bulletin Board) introduced regulation requiring all ¯rms to comply with the reporting requirements under the Securities & Exchange Act of 1934. This in e®ect increased the disclosure requirements of the ¯rms, and imposed signi¯cant costs on the part of ¯rms. Bushee and Leuz (2003) outline that this \Eligibility Rule" forced many ¯rms o® the OTCBB to less regulated markets. For those ¯rms that remained, they experienced positive stock returns and permanent increases in liquidity. Furthermore all remaining ¯rms were subject to increased liability under section 18 of the 1934 Securities Act.

Level 2 and Level 3 ADR programs facilitate those non-US ¯rms that wish to list on an organised exchange (NYSE/AMEX) or Nasdaq in the United States. Level II ADRs are sponsored, public ADRs that do not provide for capital raising in the US. On the other hand, Level III provisions, facilitate the issuance of new stock in the United States. The literature has also shown that a Level 2 and 3 ADR facilitate greater merger and acquisition activity on the part of the ¯rm in the U.S. (Burns, 2001, Kumar and Ramchand, 2003, Tolumen and Torstila, 2002); a U.S. ADR Listing facilitates a more cost e±cient stock based acquisition strategy on the part of the ¯rm. The number of exchange listed programs has risen substantially in the last decade. For example, the number has risen form 256 programs in 1993 to a peak of 623 in 2001. The ¯gure, as of June 2003, now stands at 527. In connection, most of this increase has been concentrated in NYSE Listings: The NYSE share of ADR exchange listings has risen from 17% in 1985 to 65% in 1999. Over the same period, Nasdaq's share of depositary receipt listings declined alarmingly, from 77% in 1985 to 34% in 1999. The American Stock Exchange's share has fallen from 5% to 1% over the same period: it now accounts for only two depositary receipt listings. The Bank of New York (2002) provide evidence to suggest that ADRs can constitute 5 to 15% of the ¯rms' investor base. In connection, Edison and Warnock (2003) show how, contingent on being cross-listed on a U.S. exchange, U.S. investors do not bias their portfolio holdings in favour of U.S. stocks; emerging market ¯rms, cross-listed in the U.S. are incorporated into U.S. portfolios at full International CAPM (ICAPM) weights.

Unlike Level 1 ADRs (and also Rule 144A ADRs) a Level 2/3 ADR obligates the ¯rm to adhere to sizable disclosure, regulatory, and legal requirements. More speci¯cally, an exchange listed ADR necessitates the ¯rm to conform and adhere to US GAAP through Form 20-F Form 20-F registration statement contains detailed ¯nancial disclosure about the issuer and detailed ¯nancial statements reconciled to US GAAP. Exchange-Listed ADRs must register their ADRs through File F-6. In addition, Level 3 capital raising ADRs must ¯le Form F-1.[8] This form registers the underlying equities that are o®ered publicly in the US. Second, Level 2/3 ¯rms become subject to greater SEC scrutiny. Finally, an exchange listed ADR becomes subject to civil liability[9] under section 18 of the 1934 Securities & Exchange Act (Leuz, 2003)

A Rule 144A depositary receipt program, established by the SEC in 1990 (also known as a Restricted ADR (RADR)) facilitates access to US and non-US markets through a private placement of sponsored depositary receipts to Quali¯ed Institutional Buyers (QIBs). Trades are executed under the PORTAL (Private O®erings Retail Trading Automated Linkage) system, and cleared through the Depositary Receipt Trust (DRT). Like Level 1 ADRs, they do not require compliance with US GAAP or SEC registration. Under Regulation S, a company can o®er a depositary receipt program to non-US investors on Designated O®shore Securities Markets `DOSM'. It is not uncommon for ¯rms to establish a Level 1 ADR in connection with a 144A Program. Rule 144a and Reg S private placements are, not surprisingly, given the size of the private placement market, less liquid than public placements in the U.S.

3 The Legal Bonding Hypothesis and Implications for Domestic Investor Protection

The legal bonding hypothesis, originally documented in the literature by Co®ee (1999), and furthered by amongst others, Stulz (1999), Co®ee (2002), Reese and Weisbach (2002), Doidge (2004), and Doidge, Karolyi, and Stulz (2004), models the decision of ¯rms to cross-list in the U.S. in terms of disclosure and legal di®erences across countries. Firms that are constrained in their ability to fund their growth opportunities at home (Reese and Weisbach, 2002, and Lins, Strickland and Zenner, 2003[10])

[8] The Governance Requirements of the individual exchanges (NYSE/AMEX) and Nasdaq imposed on US ¯rms have been largely waived for DRs. (Co®ee, 2002 p31).

[9] De¯ne

[10] The Capital Constraints Hypothesis of Lins, Strickland, and Zenner (2003) is often cited as the `stepping stone' between the traditional risk premium hypothesis, and the legal bonding hypothesis. Their theory simply states that ¯rms (especially

due largely in part to underdeveloped legal institutions and capital markets (LaPorta et al., 1997) can mitigate against ¯nancial constraints by cross-listing on a U.S. exchange or Nasdaq (Hail & Leuz, 2004[11]). This is achieved through a commitment to protect their investors better, and reveal more information (Cantale, 1996, Moel, 1999, and Feurst, 2000). In essence, the legal bonding hypothesis posits that such ¯rms can e®ectively substitute their home level governance for the superior U.S. governance regime (Braverman, 1996, and Fox, 1998) `Listing' over-the-counter, via a Level 1 ADR, or under the SEC Rule 144a on the PORTAL, do not entail any signi¯cant regulatory obligations on the ¯rm, and thus imply no change in domestic investor protection.

Cross-listing in the United States[12] via a Level 2/3 Exchange listing, compels the ¯rm to comply with U.S. reporting and regulatory laws. More speci¯cally, bonding to the U.S. obligates the ¯rms to; [1] Conform to, and reconcile their accounting procedures to U.S. GAAP. This is required only of Level II/III ADRs, and for direct listings on a U.S. Exchange (NYSE/AMEX) or Nasdaq. Level 1, and RADR's are not obliged to do so. Reconciliation to U.S. GAAP and a commitment to provide fuller disclosures endows signi¯cant economic bene¯ts on the ¯rm. For example, the accounting literature documents a relationship between a ¯rms commitment to provide greater disclosure and the cost of capital (Leuz and Verrechia, 2000, Bushee and Leuz, 2003, and Eaton, Nofsinger and Weaver, 2004). Furthermore, Lang, Ready and Yetman (2003) ¯nd that non-US ¯rms cross-listed in the U.S. have higher quality accounting information, measured in terms of earnings management[13], and timely loss recognition, relative to non-cross listed

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emerging market ¯rms) cross-list in the U.S. to fund their growth opportunities. Capital constraints at home preclude the ¯rm from doing so. This capital constraints hypothesis, together with the legal bonding hypothesis, explicity state that the ¯rms ability to ¯nance their growth opportunities, and overcome their domestic market capital constraints, is facilitated when ¯rms bond themselves to the U.S. governance regime. As such, the ¯rm commits to enhance the protection of their minority shareholders. This gave rise to `The Better abillty to fund their growth opportunities' hypothesis.

[11]Hail and Leuz (2003) ¯nd that the cost of capital is negatively related to the degree of investor protection in a country; the greater the protection a®orded to minority shareholders, the lower the cost of obtaining capital.

[12]Co®ee (1999) notes that ¯rms do not appear to view cross-listings in non-US markets (For example, the LSE) as a close substitute for US listings. He outlines that \for the foreign issuer, the NYSE still o®ers a critical advantage: its reputation as a leading repository for high disclosure standards and market transparency. Here it cleary outranks, its nearest competitor for listings, the LSE". However, Salva (2003) ¯nds evidence in favour of the London Stock Exchange providing a bonding role for cross-listed non-UK ¯rms.

[13]Leuz et al. (2003) show how earnings management is negatively related to the

¯rms. [2] Exchange-listed ADRs, and direct listings must register and ¯le periodic forms with the Securities and Exchange Commission (SEC). Registration is completed on form 20-F, under the Securities Act of 1934. Furthermore, capital-raising Level 3 ADR's must also register the securities on form F-1 under the Securities Exchange Act of 1933. Form 20-F requires the ¯rm to reconcile their home level accounting standards to US GAAP. RADR's are exempt under 12g3-2(b). Level 1 OTC ¯rms are no longer exempt since the introduction by the SEC of the `Eligibility Rule' in 1999[14]. Prior to this, Level 1 OTC ¯rms were a®orded the same exemption that currently applies to RADR's. Registration with the SEC also exposes the ¯rm to possible SEC enforcement. [3] Furthermore, a U.S. cross-listing also changes the ¯rms legal liability. An exchange listed ADR becomes subject to civil liability under section 18 of the 1934 Securities & Exchange Act (Leuz, 2003). Co®ee (1999) outlines how a U.S. cross-listing entails a sizable litigation risk. In connection, Seetharaman, Gul, and Lynn, (2002), outline how auditors of UK exchange-listed ¯rms, cross-listed in the US, charge a higher fee, to compensate them for the greater litigation risk associated with the U.S. legal regime. Although enforcement can prove to be di±cult, Doidge (2001) outlines how the SEC can discipline ¯rms by de-registering shares and suspending trading of the ADRs. The ¯ndings of Bailey, Karolyi and Salva (2002), and Lang, Ready and Yetman (2003) suggest that the increased enforcement and litigation environment, adopted by non-US cross-listed ¯rms is, at a minimum, a su±cient threat that ensures they ful¯l their obligations. In a sample of Mexican cross-listed ¯rms, Tribukait (2002) ¯nds evidence consistent with this. The U.S. Security Laws, are not only designed to improve ¯rm disclosure and ¯nancial reporting, but are also designed to mitigate the e®ects of the separation of ownership and control. Co®ee (1999) points out that such laws are also designed to reduce ¯rm agency costs by placing substantive obligations on controlling insiders. Doidge (2001) outlines that this is achieved by imposing ownership disclosure, insider trading, tender o®er, and `Going Private' rules on controlling shareholders/management.

Cross-listing in the U.S. also exposes the ¯rms to the added scrutiny of `Reputational Intermediaries' (Co®ee, 1999). These include ¯nancial analysts, U.S. underwriters (for capital raising Level 3 ADR's), debt rating agencies, international auditors, and institutional investors[15]. The

degree of investor protection.

[14] See Bushee and Leuz (2003) for an analysis of the impact of the `Eligibility Rule' on both ¯rm participation on the OTCBB, and for the economic consequences for those that remained.

[15] `Shareholder Activism', also termed `Relationship Investing' has, over the course

extant literature demonstrates how each can be effective in monitoring controlling shareholders/management activity. For example, Doukas, McKnight and Pantzalis (2000) find empirical support to suggest that financial analysts are effective in reducing firm agency costs. In connection, Lang, Lins and Miller (2004) document that analysts add most in their role of monitors, when they cover firms with poor internal governance. Furthermore, their analysis suggests that analysts can help to partially overcome the negative effects of poor external governance. In an earlier study, Lang, Lins and Miller (2002) find that a U.S. cross-listing is associated with increased analyst coverage, and greater earnings forecast accuracy, with analyst coverage greater for exchange-listed ADRs. In a discussion of the latter, Leuz (2003) outlines how increased analyst following relies exclusively on the act of listing; a cross-listing is associated with increased analyst following, but enhanced disclosure is required for greater forecast accuracy. Baker, Nofsinger and Weaver (2002), demonstrate how a non-domestic cross-listing is associated with enhanced firm visibility; the authors define visibility as the extent to which analysts follow a firm, and the amount of a firms news coverage. Their results show that an international cross-listing is associated with increased firm visibility. Furthermore, firms that cross-list on the NYSE enjoy greater visibility than their counterparts that list on the London Stock Exchange. Fan and Wong (2002) outline how the big-five auditors fulfil an important monitoring role in East Asia, thus providing an important governance mechanism.

Cross-Listing in the U.S. is associated with increased [1] firm-level disclosure, and a simultaneous increase in [2] SEC enforcement, and [3] legal liability. Although, the literature has documented considerable support in favour of the legal bonding hypothesis, it is however, not without its critics. Much, if not all of the critics of the legal bonding hypothesis, question the extent to which breaches of SEC regulation, by non-U.S. firms are actually enforced (Fanto, 1996, LaPorta, Lopez-Silanes, Shleifer and Vishny, 1999 (hereafter LLSV(1999), Licht, 2001, 2002, Siegel, 2003, 2004). For example, Siegel (2004) characterises the SEC policy with respect to non-US firms as largely a hands-off, zero en-

of the last decade, become quiet prominent in the United States. This has in part been driven by the ineffectivness of the market for corporate control in the U.S. over the same period, and in part due to the fact that a sizable proportion of U.S. public pension funds were Indexed (shares cannot be sold when investors are unhappy with management performance). Concurrently, numerous studies have examined the activities of specific instiitutions. For example, Smith (1996) focuses on the activities of CalPERS (California Public Employees Retirement Systems), while Carleton et al. (1998) concentrates on the TIAA-CREF. Del Grucio and Hawkins (1998) examine a broader set of institutional shareholder activists.

forcement policy. Licht (2002) concludes the the threat of enforcement is `largely illusionary'. More recently, Siegel (2003) provides evidence to suggest that during the `Mexican Crisis', Mexican ¯rms cross-listed in the U.S. su®ered signi¯cant negative share price returns, largely attributable to illegal asset taking on the part of inside owners. Second, Licht (2002) outlines that the SEC operates a more accomadating regulatory environment for non-US ¯rms, by waiving many of their regulatory requirements Consequently, Licht (2002) argues that the U.S. has two SEC Regulatory regimes; one for domestic, and other for non-US ¯rms. Furthermore, Lang, Raedy and Wilson (2004) show how, compared to a U.S. matched sample, ¯rms cross-listed in the U.S. manage their earnings more aggresively. In connection, King and Segal (2003) outline how Canadian ¯rms cross-listed in the U.S. are valued at a discount relative to their U.S. counterparts. They attribute at least part of this discount to di®erences in the goverance regimes imposed on both sets of ¯rms. Both sets of ¯ndings are consistent with the arguements put forward by Licht (2002); non-U.S. ¯rms that cross-list in the U.S. are not subject to the same level of disclosure and regulatory rules required of U.S. ¯rms. Finally, LLSV (1999) characterise bonding to the U.S. governance regime as purely reputational, rather than e®ective legal bonding. In fact, it would now appear that in the words of Joos (2003, p.396) that \At the very least, empirical work suggests that the e®ectiveness of the bonding role of the SEC regulation presents an empirical question rather than an established fact".

The crucial assumption underlying the legal bonding hypothesis is that the under the U.S. regulatory regime, the ¯rms domestic or ordinary minority investors are better protected. Although the debate surrounding the e®ectiveness of SEC enforcement has implications for domestic investor protection, the absence of SEC enforcement, does not imply that the domestic investors of ¯rms, listed on U.S. exchanges are not better protected; it simply implies that those investors are not protected to the same extent to which domestic U.S. investors are. Reconciliation and adherence to U.S. GAAP, analyst following, institutional holdings, and the threat of punishment, can, enhance the protection afforded to domestic investors. This still implies that the bene¯ts accrue only to the domestic investors of exchange listed ¯rms.

4 Agency Models of Dividends

The separation of ownership from control[16] results in an agency cost for shareholders and outsiders. Absent e®ective governance mechanisms, this can lead to a wasteful use of free cash °ow (FCF) by corporate insiders and management at the expense of outsiders and minority shareholders. Consequently, this provides a motive for investors to force ¯rms to disgorge cash from controlling managers. The literature has suggested a number of mechanisms through which the free cash °ow of ¯rms is not wasted on negative non present value projects. These include, amongst others, debt (Fluck, 1998, 1999, Harvey, Lins and Roper, 2003), managerial stock incentives (Fenn and Liang, 2001), block holders (DeAngelo and DeAngelp, 2000) and dividends (Easterbrook, 1984, Jensen, 1986, LaPorta et al., 2000, Liu, 2002). The agency models of dividends outline how dividends can play a role in reducing the agency costs of free cash °ow, because they remove corporate wealth from insider control (Faccio et al., 2003).

Agency models of dividends relax the Modigliani and Miller (1961) assumption about the independence of dividend and investment policies. In the presence of agency costs, dividend policy can serve as a partial remedy to this problem (Roze®, 1982). These models suggest that ¯rm dividend payout can address agency problems by reducing managements opportunity to invest ¯rms free cash °ow in negative negative net present value projects (Jensen, 1986). Furthermore the payment of dividends exposes ¯rms to the added scrutiny of the capital market by increasing their reliance on external capital to fund their growth opportunities (Easterbrook, 1984, Roze®, 1982)[17]. In fact, recent research by DeAngelo, DeAngelo and Stulz (2004) outlines how absent dividend payouts, the ¯rms capital structure would eventually evolve into one characterised by low debt, and high cash levels. This form of capital structure is condusive to potentially large agency costs. Recent evidence in favour of the agency models of dividends have been documented by Borokhovich, Brunarski, Harman and Kehr (2004), Trojanowski (2004), Gugler and Yurtoglu (2002), and Gugler (2003). A related study ¯nds that shareholders discount the value of ¯rms with, amongst others, no dividend payments (Kalcheva and Lins, 2004). Furthermore, numerous studies have documented that the falling propensity of ¯rms to pay dividends

[16] This seperation of ownership from control is not uniformly de¯ned across the world. In the U.S. and the U.K. and Ireland (Faccio and Lang, 2002) the relationship is de¯ned as one between dispersed shareholders and management, and between controlling insiders (mostly families) and outsiders in Asia, and mainland Europe (Claessens, Djankov and Lang, 2000).

[17] Lins cash paper.

over time can be partially explained by the adoption of better external and internal corporate governance (Osobov, 2004, Fama and French, 2001, DeAngelo, DeAngelo and Skinner, 2002, Baker and Wugler, 2002). In line with Easterbrook (1984), this suggests that corporate governance and dividends substitute for one another in reducing agency costs.

To clarify the role played by dividends in reducing the agency costs of free cash °ow, we outline the equilibrium dividend policy of a ¯rm, outlined in Fluck (1999). The model proceeds as follows: outsiders face two options; (1) They can retain management by not engaging in a control challenge and receive their fraction of dividends. Management receive their share along with their private bene¯ts of control (2) Outsiders can initiate a control challenge to remove management. The probability of succeeding is p(i): The author derives the ¯rms dividend policy that sustains managerial control:

$$d^{\alpha\alpha} \leq \frac{p(i)\grave{A}_l}{p(i) + \pm(1 \text{ ¡ } \pm)(1 \text{ ¡ } p(i))^2} \cdot d^{\alpha} \cdot \frac{\pm p(i)\grave{A}_m}{1 \text{ ¡ } \pm(1 \text{ ¡ } p(i))} \leq d^{\alpha\alpha\alpha} \qquad (1)$$

where p(i) is as before, ± is a discount factor, $\grave{A}_l$ is the outsiders dividend share of payout, and $\grave{A}_m$ is the controlling managements private bene¯ts of control. Equation (1) simply states that the maximum amount of dividends that management is willing to pay out is greater than the mimimum amount that outsiders are willing to accept while complying with current managerial control. $d^{\alpha\alpha}$ is an increasing function of p(i);the more e®ective outsiders are in disciplining management, the more is paid out in dividends. This forms the basis of the `Outcome' model of dividends outlined by LaPorta et al. (2000). Dividend payouts are greater in countries where investors are better protected, and lower in countries where investors are poorly protected. On the other hand, the substitution model posits that dividends are an e®ective substitution for legal protection implying greater dividend payouts in countries where investors are poorly protected. The authors ¯nd support in favour of the outcome model; dividend payouts are greater in countries where investors are better protected. Both Faccio et al. (2003) and Gugler (2003) ¯nd evidence in favour of the outcome model. If p(i) is equal to 0, outsiders have no power in disciplining management and cannot force any dividends from management ($\grave{A}_l$): Dividend payout disciplines management in a number of ways: ¯rst it reduces the amount of free cash °ow left at the disposal of management, thus reducing the quantity available to expropriate, and second, by paying dividends it forces management to obtain external capital to fund growth opportunities, thus

subjecting them to the scrutiny of the capital markets (Easterbrook, 1984). Theoretically, cross-listing in the United States improves the protection a®oarded to minority investors/outsiders. From the `Outcome' and `Substitution' models of dividends, increases in p(i) either:

- Forces ¯rms to pay out more dividends or
- Outsiders may accept less dividends as cross-listing in the U.S. imposes sizable restraints on the ability of management to expropriate their minority inverstors. In this regard cross-listing in the U.S. and dividends may act as substitute mechanisms in controlling the agency costs of free cash °ow. This argument is consistent with Easterbrook (1984) who argues that dividends and alternative bonding devices may be substitutes for one another. Similarly, Liu (2002) concludes that, in an emerging market setting that speci¯c functional governance reforms are associated with lower ¯rm dividend payouts; improvements in external governance reduces the role played by dividends in reducing the agency costs of free cash °ow. These arguments form the basis of the substitution hypothesis.

5 Econometric Issues and Testable Hypotheses

In this section we outline the empirical methodology that we employ in our analysis. The primary drawback with ¯rm-level accounting data is that there exists, at least to the best of our knowledge, no time series measure for ¯rm level disclosure, legal liability etc. Thus, in order to estimate the impact of an international cross-listing on ¯rms' dividend payout, we estimate equation (2):

$$Div_{it} = \alpha + \phi_1 L1_{it} + \phi_2 L2{=}3_{it} + \phi_3 Rule144a_{it} + \beta' x_{it} + \pm c_{it} + \varepsilon_{it} + \mu_i \quad (2)$$

$\phi_1 = (\gamma_1^{post} - \gamma_1^{pre})$; $\phi_2 = (\gamma_2^{post} - \gamma_2^{pre})$; $\phi_3 = (\gamma_3^{post} - \gamma_3^{pre})$: The motivation behind estimating the changes in dividend payout, and not simply the post-listing dividend payout is to mitigate against concerns regarding self-selection. A ¯nding of lower dividend payouts for cross-listed ¯rms, post-listing implies nothing if those ¯rms paid out lower dividends pre-listing as well. To further alleviate these concerns we estimate seperately, pre and post-listing dividend payouts for all cross-listed ¯rms, corresponding to the following equations:

$$Div_{it} = \alpha + \beta_1^{pre} L1_{it} + \beta_2^{pre} L2{=}3_{it} + \beta^{pre} Rule144a_{it} + \gamma' x_{it} + \delta c_{it} + \varepsilon_{it} + \mu_i \quad (3)$$

$$Div_{it} = \alpha + \beta_1^{post} L1_{it} + \beta_2^{post} L2{=}3_{it} + \beta^{post} Rule144a_{it} + \gamma' x_{it} + \delta c_{it} + \varepsilon_{it} + \mu_i \quad (4)$$

The results are presented in tables 5 (g) and (h). Finally, we estimate equation (2) along the lines of a `Difference-in-Difference' estimator. To do so we subtract from each firms payout the median non cross-listed firm payout (DivEARN & DivCF) for each year. Using this adjusted dividend payout ratio we re-estimate equation (2). This adjusted payout ratio is not censored. Due to data limitations we estimate (5) over the period from 1990 to 2002. The results are presented in tables 5 (e) and (f).

$$AdjDiv_{it} = \alpha + \phi\beta_1 L1_{it} + \phi\beta_2 L2{=}3_{it} + \phi\beta_3 Rule144a_{it} + \gamma' x_{it} + \delta c_{it} + \varepsilon_{it} + \mu_i \quad (5)$$

Div_{it} is the dividend payout ratio for each firm i in year t and $L1_{it}; L2{=}3_{it}; Rule144a_{it}$ are standard 0/1 dummy variables that equal one if the firm i is cross-listed in the United States in year t, via a Level 1, 2/3, Rule 144a ADR Program, x_{it} is the i^{th} firm level control variable, c_{it} is a set of time invariant country and industry level variables. $\{\alpha; \beta_1; \beta_2; \beta_3; \gamma; \delta\}$ is a vector of parameters to be estimated, and ε_{it} is an error term. The inclusion of time-invariant country level variables would be perfectly correlated with the group specific constant term, and thus precludes us from estimating a fixed effects model Consequently, we estimate a random effects model, with an error term augmented with μ_i[18]. This specification represents the extent to which the intercept of country i differs from the overall intercept. Under this specification, we attempt to isolate the impact of cross-listing on the firms' dividend payout by controlling for both firm and country level determinants of dividend payout. Furthermore, our dummy variable specification allows the impact of cross-listing to differ across the different types of ADR Programs (Level 1, Level 2/3, Rule 144a). We employ two different measures of our dependent variable, Div_{it}. First, we employ the traditional measure of dividend payout as the amount of dividends paid out from earnings, Div/EARN. It is defined as Dividend per share/Earnings per share*100. Our second measure is Dividends to cashflow. It measures the amount of cash paid out to shareholders from cashflow, and is

de¯ned as Dividends per share/Cash°ow per share*100. Both variables are calculated using data from Worldscope. However, as pointed out by LaPorta et al. (2000), both measures have their limitations; ¯rst, both measures depend on the countries accounting conventions, and consequently they may not be comparable across countries. Second, both can be easily manipulated using accounting tricks. The Div/EARN measure may also be sensitive to earnings management on the part of ¯rms. For example, Leuz et al. (2003) show how ¯rms domiciled in countries characterised by poor protection of investors manage their earnings more aggressively. Finally, the diversion of resources may have occurred before earnings or cash°ows were reported, thus overstating the true amount paid out to shareholders. Firm dividend payout is censored to the left as payout can never be negative. If we hypothesised that dividends could only be paid out of available earnings, rather than available and retained earnings, our dependent variable would have been both left and right censored. (Bhattacharyya, Mawani and Morill, 2003). Han, Lee and Suk (1999) employ a tobit analysis to examine the relationship between dividend payout and institutional ownership. In the truest sense of the variable, dividend payout is partly quantitative (amount paid) and qualatative (to pay or not to pay). Given the nature of our dependent variable, we estimate a random e®ects panel tobit model. Our randon e®ects speci¯cation is supported by the Breusch and Pagan (1980) test, which strongly rejects the hypothesis that the variation of random e®ects is zero.

The crucial assumption underlying the legal bonding hypothesis is that the domestic or ordinary investors of ¯rms cross-listed on U.S. exchanges (or Nasdaq) are better protected, at least partially, under the U.S. governance regime. The agency models of dividends and especially the ¯ndings of Liu (2002), suggest that ¯rms dividend payout is a function of changes in investor protection. Furthermore the legal bonding hypothesis states that it is only those ordinary shareholders of ¯rms cross-listed on U.S. exchanges who are better protected. Consequently, a priori, we would expect that:

Hypothesis 1

$$¢¯_2 6= 0 \tag{6}$$

$$¢¯_1; ¢¯_3 = 0 \tag{7}$$

Second, we follow Liu (2002) and examine the sensitivity of dividends to free cash °ow. Improvements in investor protection should alter the

role played by dividends in controlling the costs associated with free cash °ow:

Hypothesis 2

$$¢^{-}_{2} ¤ FCF 6= 0 \tag{8}$$

$$¢^{-}_{1} ¤ FCF; ¢^{-}_{3} ¤ FCF = 0 \tag{9}$$

Finally, we isolate the impact of an exchange-listed ADR across legal regimes. We employ only those ¯rms from countries where investors are poorly protected. We de¯ne these countries as those with a LaPorta et al. (1998) anti-director rights measure of 2 or lower. The disclosure and legal obligations required of these ¯rms are considerably more demanding for these ¯rms, relative to those ¯rms that originate from countries with e®ective governance. Consequently, we would expect that:

Hypothesis 3

$$¢^{-}_{2} ¤ LowIP 6= 0 > ¢^{-}_{2} \tag{10}$$

$$¢^{-}_{1} ¤ LowIP; ¢^{-}_{3} ¤ LowIP = 0 = ¢^{-}_{1}; ¢^{-}_{3} \tag{11}$$

6 Firm, Industry and Country Control Variables

In order to isolate the impact of cross-listing across ¯rms, we attempt to control for both ¯rm, industry, and country-level determinants of dividend payout cited in the literature, and employed in numerous other dividend studies (Han, Lee and Suk, 1999, Bhattacharyya, Mawani and Morill, 2003, Liu, 2002, Agrawal and Jayaraman, 1994). Following Liu (2002) we employ the following controls: (1) Firms Investment Opportunity Set (2) Pro¯tability of Assets in place (3) Firm Size (4) Free Cash Flow (FCF) (5) Asset Tangibility (6) Operating and Financial Leverage and (7) Earnings Volatility[19]. Finally like LaPorta et al. (2000), and Liu (2002) we do not control for open market stock repurchases. Although there is a sizable literature that suggests, amongst others, dividends and share repurchases are substitute devices for returning cash to shareholders, and thus lowering the agency costs associated with free cash

[19] Han, Lee and Suk (1999) also control for the ¯rms target dividend payout ratio, a la Lintner (1956).

°ow) (Grullon and Michaely, 2000, Brav, Graham, Harvey and Michaely, 2003), the evidence also suggests that those ¯rms who repurchase their stock do not pay dividends (LaPorta et al., 2000). Furthermore, Jagannathan, Stephens and Weisbach (2000) provide an alternative view; dividends and share repurchases are complementary to one another as dividends are paid out of of the permanent component of ¯rms earnings, while shares are repurchased using the transitory component of earnings. Consequently, the exclusion of share repurchases will if anything understate, rather than overstate our results.

Roze® (1982), Higgins (1972) and Jensen, Solberg and Zorn (1992) posit that ¯rms with greater growth opportunities pay out lower dividends, thus reducing the need for costly external ¯nance. We, like Liu (2002), and Bhattacharyya et al. (2003) employ the Market to Book Value of Assets MBA as our proxy for the ¯rms investment opportunity set. Although other studies have used sales and revenue growth as an equivalent proxy measure (Agarwal et al., 1994, Han et al., 1999). Adam and Goyal (2002) show that the MBA is the best measure for the ¯rms investment set. Jensen at al. (1992) outline how ¯rm pro¯tability and ¯rm payout are positively related; more pro¯table ¯rms are able to payout greater dividends. We employ Return on Equity ROE, de¯ned as Earnings per share (EPS) divided by the book growth per share, expressed as a % as our measure of ¯rm pro¯tability. There exists a sizable literature (Jensen, 1986) that demonstrates the relationship between free cash °ow and dividend payout. Free Cash Flow FCF, de¯ned as cash-°ow over and above which is required to maintain assets in place (Jensen, 1986), involves a signi¯cant cost, in terms of the agency con°ict between the controlling shareholders and outside shareholders. Dividends are one mechanism through which FCF can be diverted away from wasteful investment towards outside shareholders. We de¯ne FCF as Earnings before Interest and Taxation EBIT plus Depreciation, Depletion, and Amortization DDA less Capital Expenditures CAPEX.

Fazarri et al. (1988) show how ¯nancial constraints impact negatively on ¯rm dividend payout. We control for both operating and ¯nancial constraints, although both are endogenous. We de¯ne ¯nancial leverage as Debt to Sales Debt and operating leverage as the cost of goods sold COGS. Debt increases the probability of bankruptcy, and thus acts as a disciplinary device precluding managers from investing in poor projects. Zwiebel (1996) shows how managers may deliberately choose debt to credibly constrain their own future empire building, and thus like dividend payout is an alternative method of disgorging free cash °ow from managers (Harvey, Lins and Roper, 2003). We proxy for ¯rm size using the natural log of total assets expressed in a common currency (US$)

Total Assets. Bhattacharyya et al. (2003) find that larger firms payout a higher proportion of their earnings as dividends, and retain less for investment. We calculate asset tangibility as total assets less other intangible assets AssetTang. Aivazian, Booth and Cleary (2003) explain that asset tangibility is designed to measure the proportion of long term \Hard" assets in the firms capital structure. Similarly, Klapper and Love (2003) outline how the composition of a firms assets will affect its contracting environment, because it is easier to monitor, and harder to steal fixed, `Hard' assets, than `Soft' intangible assets. Finally, as outlined by Fama and French (2002), earnings and cash flow volatility lower firm dividend payout. We calculate earnings volatility as the variance of the previous three years EPS EarnVolatility. To enable comparison of variables across countries, we follow the approach of Liu (2002) and scale all financial variables by net sales due to its comparability across countries. Thus, we scale COGS, FCF, and Debt by net sales. Finally we repeat our analysis by including American Depositary Receipt Dividends as a covariate in our equations. ADR dividends are ordinary share dividends paid to the holders of ADRs', converted to US$ at the prevailing spot exchange rate. We have no prior beliefs on the sign of the coefficient. For example, cross-listed firms may pay lower dividends post-listing, because of the increased shareholder base that they have to service with dividends. On the contrary, we find that firms that initiate and pay ADR dividends pay higher dividends. Furthermore, we find that the inclusion of ADR dividends does not alter our main conclusions.[20] All ADR Dividend data is sourced from The Bank of New York (www.adrbny.com).

Finally, in order to account for differences in dividend payout across countries and industries, we include both country and industry dummies. First, we employ two country dummies; (1) A simple 0/1 dummy for legal origin; 1 if the country employs common law, and 0 if the firm adopts civil law (2) We also employ a second dummy that accounts for cross-country differences in investor protection; we classify those firms as firms from high investor protection countries if their anti-director score is equal to or greater than the median value of 3 (LaPorta et al., 1998) . We control for payout differences across industries by classifying each firm in our sample according to their Primary SIC code; based on this classification we form seven industry dummies; (1) Agriculture, Fishing, and Forestry (2) Mining and Construction (3) Manufacturing (4) Transportation, Communications, Electric, Gas and Sanitary Services

[20] Gorman, Mahanajan, and Weijand (2004) examine the dividend capture in ADRs. They find that uncertainty regarding the exact amount of ADR dividend to be received, but not a foreign exchange risk premium, inhibit dividend capture.

(5) Wholesale and retail trade (6) Services and (7) Public Administration. We exclude all ¯nance, insurance, and real estate ¯rms (SIC beginning with 6).

7 Sample Description & Summary Statistics

In the following subsections, we outline the construction of our sample, and provide some summary statistics.

7.1 Sample Description

In order to test our predictions, we obtained a complete list of depositary receipts from The Bank of New York (www.adrbny.com) , and sourced additional information from Deutsche Bank (www.adr.db.com) and JP Morgan (www.adr.com). From each we were able to obtain the names, listing dates, the ¯rms' country of origin, the type of depositary receipt (Level 1 OTC, Level 2/3 Exchange (NYSE, Nasdaq, AMEX), Portal Rule144a) as of July 2003. We also sourced a list of direct listings, for which the legal requirements for cross-listing are essentially the same as those for ADRs from the o±cial website of the NYSE and Nasdaq. For ¯rms with joint simultaneous DR listings (OTC/Portal Programs) we classify these ¯rms as Level 1 OTC programs. If a ¯rm has multiple DR programs, with di®erent start dates, we classify this ¯rm according to its earliest DR program, and ignore any subsequent programs. Finally, we include only those ¯rms with sponsored DR programs; ¯rms that voluntarily trade as ADRs in the U.S. To be included in our ¯nal sample we imposed the following preconditions; [1] We only include those ¯rms for which data relating to both variants of our dependent variable is available [2] We exclude those ¯rms with either, zero pre or post listing dividend payout date. This `Narrow' sample approach is nessesecary to ensure that any conclusions that we make are not due to a signi¯cant change in our sample makeup around the cross-listing data. We obtained our non-cross listed sample from the country lists provided by Datastream. From the country lists, we exclude all ¯rms with a U.S. listing, and include only those ¯rms in our sample with data available on all our control variables. We also place the following data restrictions on both samples; [1] We exclude observations due to probable data errors; negative net sales or revenues, negative MBA, and negative dividends paid. [2] In common with LaPorta et al. (2000), and Liu (2002), we eliminate possible outliers in our dependent variable(s) by removing the top 1% of outliers. [3] Due to possible errors in scaling the data with net sale or revenues, we also eliminate outliers from each of our covariates by eliminating the top and bottom 1% of observations.

After imposing these requirements, our final sample is composed of 3,418 firms from 39 countries; 496 of which are either firms trading in the U.S. as ADRs or listed directly on U.S. Exchanges, the remainding 2,922 are non cross-listed firms. Our sample description is provided in Table 1. We list, by country, the number of non cross-listed firms, cross-listed firms, and the number of U.S. cross-listings by type, both direct cross-listings, for which Canadian firms dominate the sample, and the different types of ADR programs. Like Liu (2002), but unlike La-Porta et al. (2000) we include those firms from countries with mandatory dividend requirements. As a result, we include firms from Brazil, Chile, Colombia, and Greece[21]. The UK have the largest number of cross-listed firms in our sample, followed by Canada and Hong Kong. Colombia, Denmark, and Russia supply only one firm each that meet all our data requirements.

7.2 Summary Statistics

Tables 2(a) and (b) and table 3 contain some summary statistics for both our cross-listed and non cross-listed sample. First, in tables 2(a) & (b) we calculate the mean and median dividend-to-earnings, and dividend-to-cash°ow ratios for each country. Furthermore, we classify each country according to a measure of investor protection. We characterise those firms with an Anti-Director Rights measure of 3 or above as countries that afford to minority investors/outsiders, significant protection. Those countries, below this threshold are classified as `Poor Investor Protection' countries. Our results suggest that over the period from 1990-2002, dividend payouts are significantly greater in countries where investors are better protected, results consistent with the Outcome model of dividends proposed by La Porta et al. (2000). The time series behaviour of dividends-to-cash°ow, and dividends-to-earnings are shown graphically in figures (1) and (2). Figures (3) to (14) outline the behaviour of dividend payout around the cross-listing date for each ADR level, for both developed and emerging markets.

In table 3 we present summary statistics for our full, non cross-listed, and cross-listed sample, respectively over our full sample period. They suggest that our mean cross-listed firm pays lower dividends, is more profitable with greater growth opportunities, and is larger. These results are consistent with the findings of Pagano et al. (2003), Claessens et al. (2003), and Durand and Tarca (2002), amongst others Finally we report pairwise correlations for all our firm level variables employed in our analysis in table 6. The majority of the relations documented are of

[21] The dividend requirements in each country are; 50, 30, 50, and 35% respectively.

the expected sign; for example, dividend payout (dividends-to earnings) is negatively related to debt, earnings volatility, growth opportunities, and …rm size are positively related to …rm pro…tability. However, the table also presents some puzzling …ndings; both variants of our dependent variable are negatively correlated with FCF, while dividends-to-cash°ow is positively correlated with growth opportunities (MBA). Finally, we exclude from our analysis asset tangibility due to its signi…cantly high correlation with FCF.

In tables 4(a) and (b) we present some simple before-after estimates of each variant of our dependent variable. The behaviour of dividends around the list year are outlined in …gures 3 to 14. We present mean and median percentage changes for a number of di®erent pre and post-listing intervals. Speci…cally, we present statistics for six di®erent intervals; the …ve year pre and post-listing period (column 6), the year prior to listing and the lsit year (column 7), two years post-listing (column 8), and …ve years post listing (column 9). Columns 10 and 11 present results for the list year and two years post and …ve years post listing, respectively. We concentrate on outlining the mean and median percentage change results presented in column 6. We present results for each ADR level, but segmented by country development (developed vs. emerging) and country legal origon (low and high investor protection). We outline the results for the developed/emerging market divide. The results for dividends-to-earnings, and dividends-to-cash°ow are presented in tables 4 (a) and (b) respectively. The results for over-the-counter …rms are similiar for both variants of our dependent variable: emerging market …rms that trade over-the-counter payout higher mean and median dividends, post-listing. On the contrary, emerging market …rms pay less dividends post trading over-the-counter. In general, the results for Portal …rms suggest that post-listing, they payout larger dividends. Finally, exchange listed …rms appear to pay lower dividends post-listing, although the results are mixed for emerging market exchange listed …rms.

Figures 1 and 2 present the time series behaviour of dividend payouts over time for both emerging and developed market …rms. In line with the extant literature, the graphs suggest that over time dividend payouts have been falling (Osobov, 2004, Fama and French, 2001, DeAngelo, DeAngelo and Skinner, 2002, Baker and Wugler, 2002).

8 Results

Our results are presented in tables 5a-d. Tables 5 (a) and (b) outline the results for each di®erent hypotheses outlined in section 5. In each we employ only those …rm controls outlined in Bhattacharyya et al. (2003),

and Faccio et al. (2003); growth opportunities MBA, leverage and ¯rm size Total Assets. We report results for both variants of our dependent variable. Second, we augment our vector of ¯rm level control variables with three additional controls; ¯rm pro¯tability ROE, free cash °ow FCF and earnings volatility EarnVolatility. The results are presented in tables 5 (c) and (d).

Each table of results are laid out in the same way; column 1 presents our dependent variable and our vector of control variables, and column 2 the predicted sign for each covariate. Column 3, 4 and 5 outlines the results for hypothesis 1, 2 and 3 presented in equations 3 and 4, 5 and 6, and 7 and 8 respectively. We present our results by hypotheses.

8.1 Hypothesis 1

Hypothesis 1 is outlined in equations 6 and 7 and the results are presented in column 3 of each table. We begin by discussing the results for tables 5 (a) and (b). The results for hypothesis 1 are broadly similar using both variants of our dependent variable. In each, our ¯rm level covariates are all correctly signed and all are statistically signi¯cant at conventional levels. Larger ¯rms payout more dividends, while leverage and growth opportunities impact negatively on dividend payout. Our results for exchange listed ¯rms are consistent with our outlined hypothesis; ¢¯$_2$ 6= 0: The coe±cient suggests that post-listing, exchange listed ¯rms pay signi¯cantly lower dividends, implying that ¯rms substitute improved governance governance for dividends. This is in line with Liu (2002). These results are consistent with the notion that the domestic investors of ¯rms cross listed on U.S. exchanges are better protected under the adopted U.S. disclosure and legal regime. The addition of our additional covariates, presented in tables 5 (c) and (d) do not change our earlier conclusions. We ¯nd that of the additional covariates, only earnings volatility is statistically signi¯cant, although the other two are correctly signed. As before, we ¯nd that ¯rms that substitute their home level governance for the U.S. governance regime o®er greater protection to their domestic/ordinary shareholders; signi¯cantly lower dividend payout implies this.

The results for ¯rms that trade over-the-counter and/or on the Portal are inconsistent with our hypothesis outlined in equation 7. In fact we ¯nd that ¢¯$_1$; ¢¯$_3$ 6= 0: For both OTC and Portal ¯rms, we ¯nd that post-listing these ¯rms pay signi¯cantly lower dividends (in the case of OTC this is only the case using dividends-to-earnings). When we add to our model our additional covariates, we ¯nd that ¢¯$_1$ is no longer signi¯cant. However, ¢¯$_3$ remains statistically signi¯cant. Without additional work we cannot claim that this is inconsistent with the le-

gal bonding hypothesis. For example, cross listing in the U.S. is not the only bonding device for ¯rms to commit to reduce better protect their minority shareholders. For example, research by Durnev and Kim (2002) and Klapper and Love (2002) suggest that there are alternative bonding mechanisms, in the form of ¯rm level/internal governance associated with higher q's and ¯rm performance. In connection, Siegel (2003) outlines that at least some of those ¯rms from emerging markets that choose not to cross-list in the U.S., refrain from doing so because `they had better alternatives'. This alternative was in the form of a crossborder strategic alliance. This argument suggest that post-listing, ¯rms that trade on the Portal commit to better protect their investors by initiating ¯rm-level governance policies designed to do so. In fact, Pinegar and Ravichandran (2004, p.40) conclude that Rule 144a/Reg S ¯rms \can and often do respond to incentives to create their own assurances of fair treatment for minority investors", thus aligning the interests of both controlling insiders and outsiders. They reach similar conclusions in an earlier paper (Pinegar and Ravichandran, 2002)[22].

8.2 Hypothesis 2

Hypothesis 2 is outlined in equations 8 and 9 and the results are presented in column 4 of each table. We begin by discussing the results for tables 5 (a) and (b). Like before, we begin by discussing our results for tables 5 (a) and (b). In both, yet again we ¯nd that out three covariates are correctly signed and statistically signi¯cant. In general, we ¯nd that $¢^{¯}_{2} ¤ FCF = 0$; $¢^{¯}_{1} ¤ FCF$; $¢^{¯}_{3} ¤ FCF = 0$: Although $¢^{¯}_{3} ¤ FCF \neq 0$ in table 5 (a), the coe±cient is insigni¯cant in tables 5 (b), (c) and (d). For both OTC and exchange listed ¯rms, the coef¯cients remain statistically insigni¯cant in tables 5 (c) and (d). These ¯ndings do not nessecarily imply no change in domestic investor protection; whereas ¯rms pay lower dividends post-listing, the role played by dividends in controlling the agency costs associated with free cash °ow is maintained. Second, this ¯nding may be a result of measurement error in our construction of our free cash °ow variable. In each speci¯cation, free cash °ow is surprisingly statistically insigni¯cant. This may drive the conclusions that we have drawn.

[22] This argument also suggests that ¯rms that list on U.S. exchanges may also do the very same. Consequently, the conclusions that we have drawn may thus wrongly attribute the implied increase in investor protection to the adoption of the U.S. goverance regime. This requires further analysis.

8.3 Hypothesis 3

Hypothesis 3 is outlined in equations 10 and 11 and the results are presented in column 5 of each table. In this speci¯cation we examine the impact of cross listing in the U.S. on the dividend payout of ¯rms domiciled in countries characterised by poor protection of minority investors. In line with the legal bonding hypothesis the domestic investors of these ¯rms should enjoy the greatest incremental increase in protection. Consequently, our ¯ndings for hypothesis 1 should be greater in magnitude (and of the same sign). Are ¯ndings are consistent with this argument. We begin with tables 5 (a) and (b).

In each, our ¯rm level covariates are all correctly signed and all are statistically signi¯cant at conventional levels. Larger ¯rms payout more dividends, while leverage and growth opportunities impact negatively on dividend payout. Our results for exchange listed ¯rms are consistent with our outlined hypothesis; $¢^{¯}_2 ¤ FCF ¬ 0 > ¢^{¯}_2$ implying that in line with the legal bonding hypothesis, the domestic investors of ¯rms who pre-listing enjoyed little investor protection, experience the greatest incremental gains in investor protection. This result is robust to the use of both variants of our dependent variable and the inclusion of additional covariates in tables 5 (c) and (d).

Our results for OTC ¯rms are the same as before, $¢^{¯}_1 ¤ LowIP = 0 = ¢^{¯}_1$: However, unlike hypothesis 1, the results for Portal ¯rms suggest that post-listing their domestic/ordinary investors are not better protected, consistent with the legal bonding hypothesis. However, on closer inspection our results are consistent with Pinegar and Ravichandran (2004). Their analysis suggests that post-listing developed market/high investor protection ¯rms commit to better protect their investors. It may well be the case that developing market ¯rms where investors are poorly protected do not commit to better protect their inverstors post listing in the U.S. This line of reasoning is consistent with our ¯ndings. However until we further examine this our initial results remain tentative.

8.4 Self-Selection Issues

To further reduce concerns relating to self-selection we estimate pre and post-listing dividend payout for cross listed ¯rms relative to non cross listed ¯rms. The results presented in tables 5 (g) and (h) suggest that post-listing cross listed ¯rms dividend payout is signi¯cantly di®erenent than pre listing payout. We present results for hypothesis I and II. Our results suggest, in line with our previous ¯ndings that ¯rms that cross list in the U.S. pay signi¯cantly lower dividends post-listing. Prelisting, we ¯nd that these ¯rms tended to payout larger dividends than

non cross listed ¯rms.

8.5 Di®erence-in-Di®erence Analysis

The results from our di®erence-in-di®erence analysis is presented in tables 5 (e) and (f). We present results for hypothesis I and II. Our ¯ndings are largely in line with those already documented. We ¯nd that ¯rms that cross-list on U.S. exchanges and on the Portal pay lower dividends post-listing. However, we ¯nd that not all the ¯ndings are statistically signi¯cant but this may be due to the reduced sample size that data limitations imposed upon us.

9 Concluding Remarks

Using the agency models of dividends we attempt to make inferences about the incremental protection a®oarded to the domestic investors of ¯rms cross-listed in the U.S. Our initial results suggest that those domestic/ordinary investors of ¯rms cross-listed on U.S. exchanges are better protected post-listing. This is largely consistent with the predictions of the legal bonding hypothesis. Second, and also consistent with the legal bonding hypothesis our results suggest that trading over-the-counter in the U.S. does not increase the protection of domestic investors holding these ¯rms. Inconsistent with the legal bonding hypothesis, we ¯nd that trading in the U.S. under Rule 144a appears to o®er better protection to the domestic shareholders of these ¯rms. However, we believe that this is a result of voluntary actions on the part of these ¯rms to better protect their investors post-listing. However, this warrants further study. Our ¯ndings also forward the dividend literature in one notable way. Our results suggest that governance reforms, external to both the ¯rm and its' country of residence are e®ective in reducing the role played by dividends in reducing agency costs. The extant literature has found that governance reform within a country does likewise.

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Table 1: Sample Description

The following table outlines the number of ADRs' per country, and ADR Level (Level I (OTC), Level II/III Exchange Listed (AMEX, NYSE, NASDAQ), and Rule 144a (PORTAL)). N (NCL) is the number of non cross-listed firms included in our analysis. We employ two measures for our Dependent Variable; Dividend-to-Earnings (Div/EARN) and Dividend-to-CashFlow (Div/CF) for our sample of firms. For firms with multiple ADR listings, we use the first ADR and do not record subsequent DR programs. Furthermore, for joint OTC/PORTAL listings, we report them as OTC Listings. All Financial firms (SIC Beginning with 6) are excluded.

Country	N(CL)	N(NCL)	Ordinary	Level I	Level II/III	Rule 144a
Argentina	5	17	0	0	5	0
Australia	23	86	0	14	8	1
Austria	9	23	0	9	0	0
Belgium	3	22	0	2	1	0
Brazil	21	222	0	13	7	1
Canada	37	112	37	0	37	0
Chile	4	25	0	0	4	0
China	8	22	0	3	5	0
Colombia	1	25	0	0	0	1
Denmark	1	33	0	0	1	0
Finland	8	31	0	4	3	1
France	24	134	0	12	12	0
Germany	17	129	0	8	7	2
Greece	1	17	0	1	0	0
Hong Kong	36	65	0	31	3	2
India	32	46	0	13	6	13
Ireland	2	20	0	2	0	0
Israel	0	66	0	0	0	0
Italy	15	51	0	6	8	1
Japan	28	684	0	15	12	1
Korea	14	44	0	5	5	4
Mexico	16	33	0	4	11	1
Netherlands#	13	19	0	5	8	0
New Zealand	2	34	0	1	1	0
Norway	8	22	0	4	3	1
Peru	3	56	0	0	1	2
Phillipines	5	22	0	4	0	1
Poland	3	63	0	3	0	0
Portugal	4	29	0	1	2	1
Russia	1	0	0	0	1	0
Singapore	11	66	0	10	0	1
South Africa	19	23	0	12	5	2

Country	N(CL)	N(NCL)	Ordinary	Level I	Level II/III	Rule 144a
Spain	5	83	0	1	3	1
Sweden	10	28	0	2	7	1
Switzerland	8	7	0	2	4	2
Taiwan	23	27	0	8	5	10
Thailand	8	28	0	8	0	0
Turkey	0	120	0	0	0	0
UK	64	322	1	27	36	0
TOTAL						

Table 2a: High Investor Protection ADR Firms by Country (1990-2002)

The following table outlines the Mean (Median) Country dividend data (Dividend/Cash Flow & Dividend/Earnings) by Legal Origon. We define those countries' as 'High Investor Protection' if their level of Investor Protection ('Anti-Director Rights' from LLSV (1998)) is equal to or greater than the median value of 3. Part (a) of Table 1 is comprised of 'High Investor Protection' Countries, and Part (b) 'Low Investor Protection' Countries. N is the number of ADRs per country for which Div/EARN, and (Div/CF) data is available. Our two variants of Dividend Payout are sourced from Worldscope. **Div/EARN is ((Dividends per Share/Earnings per Share)*100) and Div/CF is ((Dividends per Share/Cash Flow per Share)*100).** The Difference in Medians' (in brackets) is calculated using the Mann-Whitney nonparametric test. The difference in means is calculated using a two-sample t-test assuming unequal variances. *** represents significance at the 1% level.

Country	N	Div/Earnings (%)	Div/CF (%)
Argentina	17 (15)	41.26% (36.22%)	25.7% (18.30%)
Australia	57 (57)	30.24% (22.47%)	20.29% (17.89%)
Canada	74 (74)	18.14% (6.03%)	11.63% (5.89%)
Chile	7 (8)	47.55% (42.24%)	31.22% (23.79%)
Hong Kong	80 (75)	32.70% (32.23%)	28.11% (25.00%)
India	58 (56)	24.69% (22.57%)	16.35% (15.04%)
Ireland	12 (11)	9.66% (0.00%)	9.10% (0.00%)
Japan	49 (46)	29.40% (24.25%)	10.94% (9.44%)
New Zealand	3 (4)	29.84% (13.87%)	23.32% (23.16%)
Malaysia	5 (5)	33.58% (27.45%)	22.75% (20.46%)
Norway	11 (11)	21.59% (17.65%)	10.71% (9.20%)
Singapore	17 (17)	26.47% (23.89%)	18.08% (11.98%)
South Africa	32 (32)	28.06% (29.14%)	19.65% (18.87%)
Spain	7 (8)	36.46% (41.21%)	13.69% (11.54%)
UK	109 (105)	31.46% (33.14%)	24.61% (26.32%)
TOTAL		28.29% (25.16%)	19.41% (15.65%)

Summary Table

	Div/EARN %	Div/CF %
High Protection	28.29% (25.16%)	19.41% (15.65%)
Low Protection	23.75% (20.41%)	13.23% (10.75%)
High vs. Low	Mean 0.00***	Mean 0.00***
	Median 0.00***	Median 0.00***

Table 2b: Low Investor Protection ADR Firms by Country (1990-2002)

The following table outlines the Mean (Median) Country dividend data (Dividend/Cash Flow & Dividend/Earnings) by Legal Origon. We define those countries' as 'High Investor Protection' if their level of Investor Protection ('Ant Director Rights' from LLSV (1998)) is equal to or greater than the median value of 3 (See Appendix). Part (a) of Table 1 is comprised of 'High Investor Protection' Countries, and Part (b) 'Low Investor Protection' Countries. N is the number of ADR's per country for which Div/EARN, and (Div/CF) data is available. Our two variants of Dividend Payout are sourced from Worldscope. **Div/EARN is ((Dividends per Share/Earnings per Share)*100) and Div/CF is ((Dividends per Share/Cash Flow per Share)*100).**

Country	N	Div/Earnings (%)	Div/CF (%)
Austria	11 (11)	31.66% (28.92%)	15.39% (14.97%)
Belgium	3 (3)	44.79% (42.79%)	15.35% (14.08%)
Brazil	39 (39)	28.96% (29.43%)	13.24% (10.75%)
China	26 (25)	30.48% (27.41%)	12.93% (2.89%)
Colombia	3 (3)	34.1% (36.2%)	20.66% (24.35%)
Denmark	1 (1)	16.33% (13.54%)	12.89% (10.27%)
Finland	9 (8)	35.31% (34.25%)	17.89% (17.78%)
France	48 (47)	27.56% (28.98%)	14.55% (14.03%)
Germany	34 (34)	31.22% (30.00%)	12.72% (10.54%)
Greece	3 (2)	52.1% (40.1%)	23.84% (22.4%)
Israel	39 (42)	6.07% (0.00%)	4.65% (0.00%)
Italy	18 (17)	28.21% (25.03%)	13.34% (12.24%)
Korea	17 (17)	21.77% (15.04%)	5.214% (3.99%)
Mexico	22 (22)	18.96% (13.76%)	12.05% (8.74%)
Netherlands	28 (24)	18.72% (13.45%)	15.66% (13.28%)
Peru	5 (5)	30.27% (29.56%)	17.81% (14.72%)
Phillipines	10 (10)	11.51% (4.90%)	10.25% (3.74%)
Poland	8 (8)	5.48% (0.00%)	4.37% (0.00%)
Portugal	7 (5)	30.80% (33.00%)	16.64% (18.05%)
Russia	9 (4)	26.25% (7.51%)	9.91% (2.46%)

Country	N	Div/Earnings (%)	Div/CF (%)
Sweden	14 (14)	27.93% (27.64%)	19.96% (19.13%)
Switzerland	9 (12)	25.82% (29.17%)	16.57% (14.04%)
Taiwan	41 (41)	12.95% (0.00%)	12.19% (0.00%)
Thailand	10 (10)	16.00% (0.00%)	13.76% (1.86%)
Turkey	8 (8)	14.18% (0.00%)	10.04% (0.00%)
TOTAL		23.75% (20.41%)	13.23% (10.75%)

Table 3: Summary Statistics

In the following table we outline summary statistics for all firm-level control variables included in our analysis for the **full sample**, the **non cross-listed sample**, and the **cross-listed sample**. We report; (1) the number of firm-year observations for each variable (2) Mean (3) Median (4) Minimum (5) Maximum (6) Standard Deviation. We report difference in means for the CL and NCL firms using the Satterthwaite (unequal variance) t-test. ***, **, * represent significance at the 1, 5, and 10% significance level respectively.

Variable	Sample	Obs	Mean	Median	Min	Max	Std Dev
DivEARN (%)	Full	39021	37.84	31.01	0	310.28	36.40
	NCL	32419	38.48***	31.1	0	309.28	36.75
	CL	6602	34.65	30.65	0	309.21	34.35
DivCF (%)	Full	35179	20.26	14.52	0	140.47	21.59
	NCL	28678	20.71***	14.49	0	140.47	22.28
	CL	6501	18.29	14.66	0	133.33	18.08
COGS/Net Sales	Full	37679	3268	0.73	0	527520	31862
	NCL	31120	3956.8***	0.74	0	527520	35020
	CL	6559	0.905	0.70	0	634	10.33
ROE (%)	Full	38090	12.02	9.93	-86.09	124.48	18.93
	NCL	31647	11.79*	9.5	-86.09	124.05	18.43
	CL	6443	13.14	12.46	-85.91	124.48	21.20
Asset Tang/Net Sales	Full	32872	140.29	1.10	0.026	4452457	24558
	NCL	27572	166.12	1.07	0.026	4452475	26814
	CL	5300	5.91	1.24	0.094	9851	153.37
Earnings Volatility	Full	31297	7074	0.37	0	2045684	78110
	NCL	25855	6422	0.66	0	2045684	63536
	CL	5442	10172	0.07	0	1770451	96882
Free-Cash Flow/Net Sales	Full	33540	25.92	0.08	-2.72	365481	2580
	NCL	27102	31.33	0.06	-2.72	365481	2870
	CL	6438	3.12	0.97	-2.7	3718	49.55
Debt/Net Sales	Full	41849	217.54	0.21	0	9026756	44125
	NCL	34773	261.5	0.20	0	9026756	48407
	CL	7076	1.35	0.28	0	3345	41.43
MBA	Full	33895	2.58	1.69	0	32.67	3.02
	NCL	28517	2.51***	1.66	0	32.67	3.07
	CL	5378	2.98	1.83	0	32.55	3.77
Total Assets (US$) (000's)	Full	36610	1310758	636939	0	9503687	1713865
	NCL	31121	1182073***	585721	0	9498809	1570104
	CL	5509	2037851	1158972	0	9503687	2232352

Table 4(a): Dividends-to-Earnings Changes around the List Date - (Year '0')

The following table outlines the percentage change in **Dividends-to-Earnings Ratio's ((Dividends per share/Earnings per share))*100)** of American Depositary Receipt firms, by country and ADR Level around the time of listing in the United States. The sample of firms includes both Developed and emerging market firms, and firms domiciled in High & Low Level Investor Protection countries' that list via American Depositary Receipts in the United States on Level I, II/III, or Rule 144a. Dividends-to-Earnings Ratio's (%) in the year -1 is the Median (Mean) Div/EARN in the year prior to listing in the United States via an ADR. Year '0' refers to the Dividends-to-Earnings Ratio in the year of listing in the US. ?(-1,0), ?(-1,2), ?(-1,5), ?(0,2) and ?(0,5) refer to respectively the (Mean) & Median % Change in Dividends-to-Earnings from Year -1 to Year 0, Year -1 to Year 2, Year -1 to Year 5, Year 0 to Year 2, and finally Year 0 to Year 5. We report Paired t-tests for testing the Mean difference, and the Mann-Whitney test (z-stat) for the Median difference in the Dividends-to-Earnings ratio 'before and after' the list date – P-Value is reported in Brackets. We report the changes for Level I (OTC), Level II/III (EXCHANGE), and Rule 144A (PORTAL) ADRs'.

Series	Div/EARN (-1) %	Div/EARN (0) %	Div/EARN (A) [-5,-1]	Div/EARN (B) [0,5]	((B) – (A))%	?(-1,0)	?(-1,2)	?(-1,5)	?(0,2)	?(0,5)
Emerging OTC	28.33% (27.94%)	24.73% (26.79%)	29.37% (28.38%)	24.4% (26.37%)	-16.92% (-7.08%)	-12.7% (-2.72%)	-11.26% (-6.58%)	-22.62% (-3.68%)	+1.65% (-2.57%)	-11.36% (+0.44%)
Developed OTC	24.7% (24.44%)	25.74% (26.62%)	24.34% (25.38%)	29.46% (30.61%)	+21.03% (+20.60%)	+4.21% (+8.91%)	+23.07% (+29.17%)	+26.23% (+35.7%)	+18.1% (+18.59%)	+21.13% (+24.6%)
t (Emerging)	-	-	-	-	-	0.30 (0.761)	-0.36 (0.721)	-1.53 (0.131)	-0.04 (0.971)	-1.03 (0.308)
M-W Emerg.	-	-	-	-	-	0.5403	0.3574	0.4541	0.7624	0.7053
t (Developed)	-	-	-	-	-	1.02 (0.309)	3.08*** (0.003)	1.58 (0.120)	2.95*** (0.004)	0.67 (0.506)
M-W Dev.	-	-	-	-	-	0.5744	0.038**	0.0075***	0.1393	0.0391**
Emerging PORTAL	26.37% (26.14%)	18.29% (22.1%)	21.52% (25.16%)	19.86% (25.67%)	-7.71% (+2.02%)	-30.64% (-15.45%)	-28.74% (+9.14%)	-27.72% (-20.16%)	+2.73% (+29.09%)	+4.20% (-5.56%)
Developed PORTAL[1]	12.53% (19.72%)	16.37% (28.08%)	15.69% (22.53%)	26.43% (28.56%)	+68.45% (+26.76%)	+30.64% (+42.39%)	+161% (+51.62%)	+168% (+77.48%)	+100.18% (+6.48%)	+105% (+24.64%)
t (Emerging)	-	-	-	-	-	-0.51 (0.616)	0.96 (0.344)	-1.89* (0.071)	1.71* (0.099)	-0.34 (0.735)
M-W Emerg.	-	-	-	-	-	0.5594	0.9518	0.2392	0.5894	0.6321
t (Developed)	-	-	-	-	-	1.29 (0.223)	1.55 (0.153)	1.96* (0.078)	-0.02 (0.987)	0.92 (0.380)
M-W Dev.	-	-	-	-	-	0.5101	0.2076	0.2071	0.5854	0.3502
Emerging EXCHANGE	14% (24.91%)	17.87% (26.27%)	14.00% (23.64%)	20.15% (25.21%)	+43.9% (+6.64%)	+27.64% (+5.45%)	+31.64% (-9.91%)	+34.7% (-11.32%)	+3.13% (-14.57%)	+5.54% (-15.91%)
Developed EXCHANGE	17.94% (21%)	17.26% (21.7%)	23.81% (24.52%)	18.91% (23.09%)	-20.57% (-5.83%)	-3.79% (+3.33%)	+1.33% (-9.91%)	+0.27% (+8.38%)	+5.33% (+1.93%)	+4.22% (+4.88%)

[1] Only 16 Firms.

Series	Div/EARN (-1) %	Div/EARN (0) %	Div/EARN (A) [-5,-1]	Div/EARN (B) [0,5]	((B) – (A))%	?(-1,0)	?(-1,2)	?(-1,5)	?(0,2)	?(0,5)
t (Emerging)	-	-	-	-	-	-0.14 (0.892)	-0.45 (0.656)	-1.57 (0.132)	-1.04 (0.305)	-0.12 (0.904)
M-W Emerg.	-	-	-	-	-	0.4821	0.9169	0.7829	0.5477	0.4704
t (Developed)	-	-	-	-	-	1.41 (0.162)	1.11 (0.267)	0.44 (0.661)	1.49 (0.138)	1.37 (0.174)
M-W Dev.	-	-	-	-	-	0.818	0.6945	0.5157	0.8469	0.6179
Low IP OTC	19.3% (20.97%)	24.42% (26.08%)	19.53% (22.84%)	25.03% (27.15%)	+28.16% (+18.87%)	+26.5% (+24.36%)	+41.29% (+42.10%)	+18.8% (+27.32%)	+11.67% (+14.26%)	-6.10% (+2.37%)
High IP OTC	29.87% (28.34%)	27.45% (28.33%)	29.21% (29.16%)	28.27% (29.97%)	-3.21% (+2.77%)	-8.10% (-0.03%)	-5.69% (+4.51%)	-0.26% (+8.78%)	+2.262% (+4.55%)	+8.52% (+8.82%)
t (Low IP)	-	-	-	-	-	2.30** (0.024)	3.12*** (0.003)	0.41 (0.685)	2.13** (0.036)	0.36 (0.720)
M-W Low	-	-	-	-	-	0.1093	0.011**	0.1348	0.3298	0.90
t (High IP)	-	-	-	-	-	0.90 (0.370)	0.30 (0.768)	-0.11 (0.909)	0.57 (0.569)	-1.00 (0.322)
M-W High	-	-	-	-	-	0.703	0.868	0.681	0.7675	0.5382
Low IP PORTAL	23.89% (25.52%)	31.93% (37.54%)	24.41% (24.17%)	31.52% (33.23%)	+29.12% (+37.48%)	+33.65% (+47.1%)	+42.36% (+29.34%)	+29.5% (+9.05%)	+6.51% (-12.06%)	-3.10% (-25.86%)
High IP PORTAL	28.6% (28.19%)	21.71% (25.15%)	20.14% (24.50%)	21.42% (26.83%)	+6.35% (+9.51%)	-24.09% (-10.78%)	-39.5% (-4.68%)	-16.4% (+2.44%)	-20.4% (+6.83%)	+10.04% (+14.83%)
t (Low IP)	-	-	-	-	-	2.97*** (0.006)	1.93* (0.066)	-0.36 (0.731)	-0.62 (0.540)	-1.62 (0.143)
M-W Low	-	-	-	-	-	0.0685*	0.1143	0.7409	0.8917	0.740
t (High IP)	-	-	-	-	-					0.56 (0.581)
M-W High	-	-	-	-	-	0.7674	0.64	0.843	0.7842	0.7467
Low IP EXCHANGE	12.42% (20%)	10.03% (16.33%)	15.52% (21.33%)	15.66% (20.33%)	+0.90% (-4.68%)	-19.24% (-18.35%)	+17.06% (-0.25%)	+27.37% (+3.8%)	+44.96% (+22.16%)	+57.7% (+27.12%)
High IP EXCHANGE	16.04% (23.31%)	16.09% (23.13%)	23.28% (25.9%)	18.00% (24.17%)	-22.68% (-6.67%)	+0.31% (-0.77%)	-14.02% (-5.60%)	+40.83% (+7.16%)	-14.29% (-7.04%)	+40.39% (+7.99%)
t (Low IP)	-	-	-	-	-	-0.84 (0.406)	0.24 (0.814)	-0.91 (0.365)	1.99* (0.051)	0.72 (0.476)
M-W Low	-	-	-	-	-	0.5083	0.8730	0.8048	0.3848	0.40
t (High IP)	-	-	-	-	-	-0.65 (0.52)	-0.77 (0.443)	-0.28 (0.783)	0.25 (0.80)	1.15 (0.253)
M-W High						0.9179	0.5650	0.5582	0.6238	0.4984

Table 4(b): Dividends-to-Cash Flow (Div/CF) Changes around the List Date - (Year '0')

The following table outlines the percentage change in **Dividends-to-Cashflow ((Dividends per share/Cash Flow per share))*100)** of American Depositary Receipt firms, by country and ADR Level around the time of listing in the United States. The sample of firms includes both Developed and emerging market firms, and firms domiciled in High & Low Level Investor Protection countries' that list via American Depositary Receipts in the United States on Level I, II/III, or Rule 144a. Dividends-to-Cash Flow (%) in the year -1 is the Median (Mean) Div/CF in the year prior to listing in the United States via an ADR. Year '0' refers to the Dividends-to-Earnings Ratio in the year of listing in the US. ?(-1,0), ?(-1,2), ?(-1,5), ?(0,2) and ?(0,5) refer to respectively the (Mean) & Median % Change in Dividends-to-Cash flow from Year -1 to Year 0, Year -1 to Year 2, Year -1 to Year 5, Year 0 to Year 2, and finally Year 0 to Year 5. We report Paired t-tests for testing the Mean difference, and the Mann-Whitney test (z-stat) for the Median difference in the Dividends-to-Cash Flow 'before and after' the list date – P-Value is reported in Brackets. We report the changes for Level I (OTC), Level II/III (EXCHANGE), and Rule 144A (PORTAL) ADRs'.

Series	Div/CF (-1) %	Div/CF (0) %	Div/CF (A) [-5,-1]	Div/CF (B) [0,5]	((B) – (A))%	?(-1,0)	?(-1,2)	?(-1,5)	?(0,2)	?(0,5)
Emerging OTC	16.69% (22.04%)	18.32% (20.62%)	17.76% (22.07%)	17.42% (20.064%)	-1.91% (-9.08%)	+9.76% (-6.44%)	-6.29% (-10.34%)	-3.17% (-14.33%)	-14.62% (-4.17%)	-11.79% (-8.43%)
Developed OTC	13.53% (15.1%)	14.1% (17.01%)	14.12% (16.22%)	16.39% (17.63%)	+16.07% (+8.69%)	+4.21% (+12.64%)	+11.82% (+16.15%)	+41.01% (+32.7%)	+7.3% (+3.11%)	+35.31% (+17.81%)
t (Emerging)	-	-	-	-	-	-0.74 (0.460)	-1.16 (0.25)	-2.22** (0.029)	-0.26 (0.793)	-1.70* (0.092)
M-W Emerg.	-	-	-	-	-	0.8487	0.4843	0.1526	0.6952	0.1822
t (Developed)	-	-	-	-	-	1.69* (0.094)	1.26 (0.21)	1.52 (0.133)	-0.02 (0.981)	1.02 (0.31)
M-W Dev.	-	-	-	-	-	0.3074	0.2570	0.0132**	0.8768	0.1190
Emerging PORTAL	12.77% (18.29%)	16.26% (17.73%)	11.97% (17.85%)	12.71% (17.65%)	+6.18% (-1.12%)	+27.3% (-3.06%)	-22.47% (-11.64%)	-14.8% (-27.33%)	-39.1% (-8.85%)	-33.08% (-25.04%)
Developed PORTAL[1]	4.09% (12.79%)	11.92% (14.4%)	6.71% (10.44%)	13.41% (15.45%)	+99.85% (+47.98%)	+191.4% (+12.58%)	+272% (+19.7%)	+318% (+39.4%)	+27.8% (+6.31%)	+43.6% (+23.8%)
t (Emerging)	-	-	-	-	-	-0.61 (0.544)	-0.34 (0.735)	-1.02 (0.318)	-0.08 (0.937)	-0.63 (0.534)
M-W Emerg.	-	-	-	-	-	0.8614	0.5082	0.4084	0.3753	0.2921
t (Developed)	-	-	-	-	-	0.47 (0.647)	0.42 (0.679)	2.32** (0.043)	0.21 (0.834)	1.14 (0.279)
M-W Dev.	-	-	-	-	-	0.2184	0.2486	0.1320	0.6081	0.3539
Emerging EXCHANGE	9.24% (16.97%)	8.75% (18.69%)	9.33% (17.10%)	8.69% (16.77%)	-6.85% (-1.92%)	-5.30% (+10.13%)	-18.5% (+2.06%)	+50.43% (-11.72%)	-13.94% (-7.33%)	+58.8% (-19.85%)
Developed EXCHANGE	11.68% (14.65%)	12.71% (16.8%)	14.19% (16.94%)	13.41% (16.7%)	-5.49% (-1.41%)	+8.81% (+14.7%)	+14.12% (+14.53%)	+14.12% (-2.25%)	+4.87% (-0.11%)	+4.87% (-14.76%)
t	-	-	-	-	-	0.65	0.08	-1.04	-0.44	-1.37

[1] The sample contains' 13 firms.

Series	Div/CF (-1) %	Div/CF (0) %	Div/CF (A) [-5,-1]	Div/CF (B) [0,5]	((B) – (A))%	?(-1,0)	?(-1,2)	?(-1,5)	?(0,2)	?(0,5)
(Emerging)						(0.519)	(0.933)	(0.31)	(0.664)	(0.181)
M-W Emerg.	-	-	-	-	-	0.8538	0.8830	0.7099	0.7410	0.6169
t	-	-	-	-	-	1.47	1.46	-0.46	0.46	-1.09
(Developed)						(0.144)	(0.147)	(0.649)	(0.649)	(0.278)
M-W Dev.	-	-	-	-	-	0.4271	0.2615	0.7070	0.7407	0.7650
Low IP OTC	7.5% (11.9%)	12.14% (12.73%)	10.42% (12.63%)	13.08% (13.74%)	+25.52% (+8.78%)	+61.86% (+6.97%)	+77.2% (+17.05%)	+83.7% (+20.67%)	+9.47% (+9.42%)	+13.5% (+12.8%)
High IP OTC	15.59% (20.82%)	16.44% (22.1%)	17.24% (22.09%)	14.14% (19.39%)	-17.98% (-12.22%)	+5.45% (+6.14%)	-18.4% (-10.03%)	-9.55% (-18.29%)	-22.62% (-15.24%)	-14.23% (-23.03%)
t	-	-	-	-	-	0.73	1.27	0.75	1.11	0.36
(Low IP)						(0.468)	(0.208)	(0.459)	(0.272)	(0.719)
M-W Low	-	-	-	-	-	0.1138	0.0681*	0.0128**	0.6982	0.2548
t	-	-	-	-	-	0.53	-1.66*	-2.49**	-2.01**	-2.43**
(High IP)						(0.596)	(0.099)	(0.015)	(0.047)	(0.017)
M-W High	-	-	-	-	-	0.8278	0.2072	0.1531	0.1586	0.1051
Low IP PORTAL	14.14% (18.37%)	13.89% (17.06%)	11.68% (13.00%)	14.30% (16.70%)	+22.43% (+28.46%)	-1.76% (-7.13%)	+2.19% (-26.07%)	-13.01% (-11.64%)	+4.03% (-20.39%)	-11.44% (-4.86%)
High IP PORTAL	18.4% (20.78%)	24.5% (28.54%)	22.4% (23.46%)	23.86% (27.71%)	+6.51% (+18.11%)	+33.15% (+37.34%)	+17.71% (+45.5%)	+26.19% (+27.57%)	-11.59% (+5.99%)	-5.22% (-7.11%)
t	-	-	-	-	-	-0.24	-2.52**	-1.20	-1.10	0.57
(Low IP)						(0.814)	(0.019)	(0.249)	(0.283)	(0.575)
M-W Low	-	-	-	-	-	0.5278	0.4791	0.3725	0.9927	0.6480
t	-	-	-	-	-	1.45	1.15	0.14	-0.16	-1.78*
(High IP)						(0.165)	(0.27)	(0.888)	(0.872)	(0.10)
M-W High	-	-	-	-	-	0.3865	0.3427	0.3785	0.8815	0.99
Low IP EXCHANGE	6.79% (13.46%)	8.81% (13.55%)	10.84% (13.892%)	9.99% (14.24%)	-7.84% (+2.5%)	+29.74% (+0.66%)	+44.03% (+14.04%)	+81.88% (-3.56%)	+19.06% (+13.28%)	+40.18% (-4.2%)
High IP EXCHANGE	14.61% (17.48%)	15.82% (19.01%)	15.75% (19.14%)	17.56% (20.09%)	+11.49% (+4.96%)	+8.28% (+8.75%)	+18.06% (+13.6%)	+31.07% (+15.1%)	+9.03% (+4.47%)	+21.04% (+5.83%)
t	-	-	-	-	-	-0.49	1.20	-1.23	1.33	-0.46
(Low IP)						(0.624)	(0.231)	(0.223)	(0.186)	(0.651)
M-W Low	-	-	-	-	-	0.8617	0.4466	0.6415	0.5793	0.7729
t	-	-	-	-	-	1.36	1.06	1.39	0.16	0.06
(High IP)						(0.175)	(0.292)	(0.168)	(0.873)	(0.953)
M-W High	-	-	-	-	-	0.6186	0.3312	0.1982	0.6485	0.3876

Table 5(a): Pre and Post Listing Dividends-to-Earnings and the simple model

In the following table we present results for our full sample over the period from 1980-2002. We estimate the following equation using a Panel Random Effects Tobit Model controlling for firm, country and industry effects. We employ two variants of our dependent variable; Dividend-to-Earnings (%) and Dividend-to-Cashflow (%). *, **, *** represent significance at 10, 5, and 1% respectively. P-values are reported in parentheses. In this table, we employ three firm-level controls; MBA, Firm Size (Natural Log Total Assets ($)) and Leverage (Debt). All firm variables are defined in the appendix.

Dividends-to-Earnings	**Predicted Sign**	**Hypothesis I**	**Hypothesis II**	**Hypothesis III**
Constant	+/-	-55.62 (0.00)***	-45.23 (0.00)***	-52.90 (0.00)***
MBA	-	-0.6564 (0.00)***	-0.3971 (0.00)***	-0.6414 (0.00)***
Ln(Total Assets)	+	5.74 (0.00)***	5.01 (0.00)***	5.52 (0.00)***
Leverage	-	-0.0791 (0.04)**	-0.0875 (0.04)**	-0.0789 (0.04)**
Level I	+/-	-1.53 (0.097)*	-	-
Level 2/3	+/-	-4.66 (0.00)***	-	-
Rule 144a	+/-	-6.73 (0.00)***	-	-
Level 1*FCF	+/-	-	-0.0068 (0.45)	-
Level 2/3*FCF	+/-	-	-0.0493 (0.73)	-
Rule 144a*FCF	+/-	-	-0.6321 (0.03)**	-
Level 1*AntiDirector	+/-	-	-	-3.09 (0.17)
Level 2/3*AntiDirector	+/-	-	-	-7.27 (0.01)**
Rule144a*AntiDirector	+/-	-	-	-0.1385 (0.98)
Industry Effects		Included	Included	Included
Country Effects		Included	Included	Included

Table 5(b): Pre and Post Listing Dividends-to-Cashflow and the simple model

In the following table we present results for our full sample over the period from 1980-2002. We estimate the following equation using a Panel Random Effects Tobit Model controlling for firm, country and industry effects. We employ two variants of our dependent variable; Dividend-to-Earnings (%) and Dividend-to-Cashflow (%). *, **, *** represent significance at 10, 5, and 1% respectively. P-values are reported in parentheses. In this table, we employ three firm-level controls; MBA, Firm Size (Natural Log Total Assets ($)) and Leverage (Debt). All firm variables are defined in the appendix.

Dividends-to-Cashflow	**Predicted Sign**	**Hypothesis I**	**Hypothesis II**	**Hypothesis III**
Constant	+/-	-15.85 (0.00)***	-18.41 (0.00)***	-15.49 (0.00)***
MBA	-	0.0456 (0.30)	0.0487 (0.28)	0.0509 (0.25)
Ln(Total Assets)	+	2.02 (0.00)***	2.02 (0.00)***	2.00 (0.00)***
Leverage	-	-0.0924 (0.00)***	-1.34 (0.00)***	-0.0927 (0.00)***
Level I	+/-	0.6575 (0.11)	-	-
Level 2/3	+/-	-1.86 (0.00)***	-	-
Rule 144a	+/-	-3.33 (0.00)***	-	-
Level 1*FCF	+/-	-	-0.0031 (0.46)	-
Level 2/3*FCF	+/-	-	-0.0056 (0.93)	-
Rule 144a*FCF	+/-	-	-0.0699 (0.61)	-
Level 1*AntiDirector	+/-	-	-	-0.3092 (0.76)
Level 2/3*AntiDirector	+/-	-	-	-2.24 (0.05)*
Rule144a*AntiDirector	+/-	-	-	-1.71 (0.59)
Industry Effects		Included	Included	Included
Country Effects		Included	Included	Included

Table 5(c): Pre and Post listing Dividend-to-earnings and the full model

In the following table we present results for our full sample over the period from 1980-2002. We estimate the following equation using a Panel Random Effects Tobit Model controlling for firm, country and industry effects. We employ two variants of our dependent variable; Dividend-to-Earnings (%) and Dividend-to-Cashflow (%). *, **, *** represent significance at 10, 5, and 1% respectively. P-values are reported in parentheses. In this table, we employ three firm-level controls; MBA, Firm Size (Natural Log Total Assets ($)) and Leverage (Debt), and augment our equation with Return on Equity (ROE), Free Cash Flow (FCF), and Earnings Volatility. All firm variables are defined in the appendix.

Dividends-to-Earnings	Predicted Sign	Hypothesis I	Hypothesis II	Hypothesis III
Constant	+/-	-34.68 (0.00)***	-31.16 (0.00)***	-32.95 (0.00)***
MBA	-	-0.3631 (0.00)***	-0.3769 (0.00)***	-0.3605 (0.00)***
Ln(Total Assets)	+	4.72 (0.00)***	4.46 (0.00)***	4.58 (0.00)***
Leverage	-	-2.40 (0.00)***	-2.41 (0.00)***	-2.42 (0.00)***
FCF	+	-0.0168 (0.98)	-0.0152 (0.95)	-0.0153 (0.95)
Earnings Volatility	-	-0.0195 (0.06)*	-0.0186 (0.07)*	-0.0196 (0.06)*
ROE	+	0.0103 (0.62)	0.0087 (0.67)	0.0081 (0.69)
Level I	+/-	-0.9271 (0.39)	-	-
Level 2/3	+/-	-5.04 (0.00)***	-	-
Rule 144a	+/-	-7.44 (0.03)**	-	-
Level 1*FCF	+/-	-	-0.0048 (0.60)	-
Level 2/3*FCF	+/-	-	-0.0830 (0.59)	-
Rule 144a*FCF	+/-	-	-0.2575 (0.52)	-
Level 1*AntiDirector	+/-	-	-	-2.36 (0.35)
Level 2/3*AntiDirector	+/-	-	-	-9.78 (0.00)***
Rule144a*AntiDirector	+/-	-	-	-4.24 (0.60)
Industry Effects		Included	Included	Included
Country Effects		Included	Included	Included

Table 5(d): Pre and Post Listing Dividend-to-Cashflow and the full model

In the following table we present results for our full sample over the period from 1980-2002. We estimate the following equation using a Panel Random Effects Tobit Model controlling for firm, country and industry effects. We employ two variants of our dependent variable; Dividend-to-Earnings (%) and Dividend-to-Cashflow (%). *, **, *** represent significance at 10, 5, and 1% respectively. P-values are reported in parentheses. In this table, we employ three firm-level controls; MBA, Firm Size (Natural Log Total Assets ($)) and Leverage (Debt), and augment our equation with Return on Equity (ROE), Free Cash Flow (FCF), and Earnings Volatility. All firm variables are defined in the appendix.

Dividends-to-Cashflow	**Predicted Sign**	**Hypothesis I**	**Hypothesis II**	**Hypothesis III**
Constant	+/-	-7.49 (0.00)***	-6.96 (0.04)**	-6.53 (0.03)**
MBA	-	0.0601 (0.21)	0.0618 (0.19)	0.0669 (0.15)
Ln(Total Assets)	+	1.18 (0.00)***	1.16 (0.00)***	1.13 (0.00)***
Leverage	-	-1.36 (0.00)***	-1.38 (0.00)***	-1.36 (0.00)***
FCF	+	-0.0022 (0.60)	-0.0164 (0.60)	-0.0023 (0.58)
Earnings Volatility	-	-0.0077 (0.11)	-0.0076 (0.11)	-0.0309 (0.11)
ROE	+	0.0722 (0.00)***	0.0722 (0.00)***	0.0717 (0.00)***
Level I	+/-	1.10 (0.11)	-	-
Level 2/3	+/-	-1.29 (0.03)**	-	-
Rule 144a	+/-	-1.17 (0.55)	-	-
Level 1*FCF	+/-	-	0.0143 (0.65)	-
Level 2/3*FCF	+/-	-	-0.0089 (0.90)	-
Rule 144a*FCF	+/-	-	0.1210 (0.47)	-
Level 1*AntiDirector	+/-	-	-	-0.0615 (0.95)
Level 2/3*AntiDirector	+/-	-	-	-4.73 (0.00)***
Rule144a*AntiDirector	+/-	-	-	-2.97 (0.45)
Industry Effects		Included	Included	Included
Country Effects		Included	Included	Included

Table 5(e): 'Difference-in-Difference' Estimation of Pre and Post-Listing Dividends-to-Earnings

In the following table we report our 'Difference-in-Difference' results for hypothesis I and II controlling for firm, country and industry effects. For each firm we subtract from Dividends-to-Earnings the median NCL Dividends-to-Earnings for each year employed in our analysis. Our results are those for our Adjusted Dividends-to-Earnings. *, **, *** represent significance at 10, 5, and 1% respectively. P-values are reported in parentheses. In this table, we employ all firm level variables. All firm variables are defined in the appendix.

Adj Dividends-to-Earnings	Predicted Sign	Hypothesis I Simple Model	Hypothesis I Full Model	Hypothesis II Simple Model	Hypothesis II Full Model
Constant	+/-	-30.93 (0.00)***	-15.02 (0.00)***	-18.98 (0.00)***	-4.60 (0.00)***
MBA	-	-0.6378 (0.00)***	-0.3562 (0.00)***	-0.5630 (0.00)***	-0.4257 (0.00)***
Ln(Total Assets)	+	3.05 (0.00)***	2.10 (0.00)***	2.20 (0.00)***	1.36 (0.00)***
Leverage	-	-0.0004 (0.74)	-0.0011 (0.39)	-0.0008 (0.54)	-0.0015 (0.27)
Earn Volatility	-	-	3.53e-06 (0.32)	-	3.62e-06 (0.31)
ROE	+	-	-0.1466 (0.00)***	-	-0.1135 (0.00)***
FCF	+	-	-0.00005 (0.58)	-	-0.00005 (0.60)
Level I	+/-	-0.1144 (0.88)	-0.5226 (0.58)	-	-
Level 2/3	+/-	-1.80 (0.07)*	-1.89 (0.10)*	-	-
Rule 144a	+/-	-0.7109 (0.71)	-3.18 (0.27)	-	-
Level 1*AntiDirector	+/-	-	-	0.2380 (0.91)	-0.0124 (0.996)
Level 2/3*AntiDirector	+/-	-	-	-1.14 (0.74)	-1.21 (0.73)
Rule144a*AntiDirector	+/-	-	-	-1.87 (0.77)	-4.56 (0.57)
Industry Effects		Included	Included	Included	Included
Country Effects		Included	Included	Included	Included

Table 5(f): 'Difference-in-Difference' Estimation of Pre and Post-Listing Dividends-to-Cashflow

In the following table we report our 'Difference-in-Difference' results for hypothesis I and II controlling for firm, country and industry effects. For each firm we subtract from Dividends-to-Cashflow the median NCL Dividends-to-Cashflow for each year employed in our analysis. Our results are those for our Adjusted Dividends-to-Cashflow. *, **, *** represent significance at 10, 5, and 1% respectively. P-values are reported in parentheses. In this table, we employ all firm level variables. All firm variables are defined in the appendix.

Adj Dividends-to-Cashflow	Predicted Sign	Hypothesis I Simple Model	Hypothesis I Full Model	Hypothesis II Simple Model	Hypothesis II Full Model
Constant	+/-	2.47 (0.63)	10.37 (0.00)***	2.60 (0.33)	10.66 (0.00)***
MBA	-	-0.0938 (0.026)**	-0.0798 (0.09)*	-0.0972 (0.02)**	-0.0828 (0.08)*
Ln(Total Assets)	+	0.1897 (0.24)	0.4243 (0.02)**	0.1829 (0.25)	0.4430 (0.02)*
Leverage	-	0.0002 (0.65)	-0.0010 (0.75)	0.0003 (0.65)	-0.0011 (0.73)
FCF	+	-	0.0011 (0.74)	-	0.0012 (0.72)
Earn Volatility	-	-	8.24E-07 (0.62)	-	8.90E-07 (0.60)
ROE	+	-	0.0228 (0.00)***	-	0.0255 (0.00)***
Level I	+/-	0.9597 (0.03)**	1.06 (0.04)**	-	-
Level 2/3	+/-	-1.15 (0.05)**	-1.27 (0.04)**	-	-
Rule 144a	+/-	0.4350 (0.67)	-0.6350 (0.66)	-	-
Level 1*AntiDirector	+/-	-	-	0.3841 (0.70)	0.3002 (0.80)
Level 2/3*AntiDirector	+/-	-	-	-0.7635 (0.64)	-0.5691 (0.73)
Rule144a*AntiDirector	+/-	-	-	-1.27 (0.68)	-1.40 (0.70)
Industry Effects		Included	Included	Included	Included
Country Effects		Included	Included	Included	Included

Table 5(g): Pre and Post-Listing Dividends-to-Earnings for Cross Listed Firms and Self-Selection

In the following table we report pre and post-listing estimates of dividends-to-earnings for cross-listed firms over the full sample period. Each equation is estimated separately with dummy variables employed in each specification representing pre and post-listing time periods. We present only the estimated coefficients for our dummy variables. Furthermore we present only the results for hypothesis I and II. P stats are presented in parenthesis.

Dividends-to-Earnings	Hypothesis I		Hypothesis I		Hypothesis II		Hypothesis II	
	Simple Model		Full Model		Simple Model		Full Model	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Level 1	0.8162 (0.64)	-4.45 (0.00)***	-1.62 (0.48)	-3.91 (0.03)**	-	-	-	-
Level 2/3	2.38 (0.35)	-13.54 (0.00)***	2.70 (0.38)	-13.29 (0.00)***	-	-	-	-
Rule 144a	8.86 (0.05)**	-11.98 (0.00)***	11.16 (0.14)	-10.26 (0.03)**	-	-	-	-
Level 1*IP	-	-	-	-	3.07 (0.55)	-7.19 (0.055)*	0.0557 (0.92)	-6.57 (0.11)
Level 2/3*IP	-	-	-	-	7.57 (0.17)	-10.58 (0.016)**	11.35 (0.01)	-12.87 (0.00)***
Rule 144a*IP	-	-	-	-	6.43 (0.61)	6.08 (0.58)	9.39 (0.61)	-5.13 (0.64)

Table 5(h): Pre and Post-Listing Dividends-to-Cashflow for Cross Listed Firms and Self-Selection

In the following table we report pre and post-listing estimates of dividends-to-cashflow for cross-listed firms over the full sample period. Each equation is estimated separately with dummy variables employed in each specification representing pre and post-listing time periods. We present only the estimated coefficients for our dummy variables. Furthermore we present only the results for hypothesis I and II. P stats are presented in parenthesis.

Dividends-to-Earnings	Hypothesis I		Hypothesis I		Hypothesis II		Hypothesis II	
	Simple Model		Full Model		Simple Model		Full Model	
	Pre	Post	Pre	Post	Pre	Post	Pre	Post
Level 1	-2.45 (0.00)***	0.5833 (0.44)	-2.21 (0.016)**	1.30 (0.09)*	-	-	-	-
Level 2/3	2.05 (0.03)**	-5.01 (0.00)***	0.1467 (0.89)	-4.44 (0.00)***	-	-	-	-
Rule 144a	5.00 (0.02)**	-5.56 (0.00)***	4.87 (0.17)	-7.51 (0.00)***	-	-	-	-
Level 1*IP	-	-	-	-	-3.02 (0.057)*	-1.89 (0.31)	-2.70 (0.26)	-2.09 (0.20)
Level 2/3*IP	-	-	-	-	4.99 (0.00)***	-3.78 (0.00)***	4.77 (0.00)***	-3.47 (0.00)***
Rule 144a*IP	-	-	-	-	2.64 (0.62)	-1.65 (0.77)	-0.52 (0.94)	-7.85 (0.08)

Table 6: Correlation Matrix

In the following table (Note; Given that all financial variables have the same denominator, the pair-wise correlations are in all likelihood overstated) we report pairwise correlations for our firm-level control variables. ***, **, * represent significant at the 1%, 5%, and 10% level of significance respectively.

	DE	DCF	COGS	ROE	Tang	Earn	FCF	Debt	MBA	TA
DivEARN	1									
DivCF	0.59***	1								
COGS	-0.011***	-0.0315***	1							
ROE	0.057***	0.1617***	-0.0291***	1						
Tang	-0.0022	-0.0062	-0.0006	-0.0006	1					
Earn	-0.031***	-0.0443***	0.0202***	-0.025***	-0.0001	1				
FCF	-0.0058	-0.0056	-0.0008	-0.0084	0.9999***	0.040***	1			
Debt	-0.007***	-0.006***	-0.0005	-0.0015	0.0052	0.0012	0.541***	1		
MBA	-0.0304***	0.0159***	-0.0647***	0.20***	-0.0041	-0.0206***	-0.0058	-0.0028	1	
TA	0.0943***	-0.0596***	-0.024***	-0.124***	-0.0029	0.0165***	-0.0361***	-0.0173***	-0.0663***	1

Table 7: Variable Descriptions

In the following table we report the source and description of the firm, country, and industry level variables employed in our analysis. The definitions given are those outlined by the data providers. We report the expected sign for each covariate as outlined by theory and extant studies. The descriptions given are those, albeit abbreviated, by the data provider.

Variable	Expected Sign	Source	Description
Dividends-to-Earnings	N/A	Worldscope	Dividends per share represent the total amount of dividends declared during the year, Earnings per share represent the earnings for the year
Dividends-to-Cashflow	N/A	Worldscope	Dividends per share represent the total amount of dividends declared during the year, Cash Flow per share represents the cash earnings per share of the company
MBA	-	Datastream	Also called Discount to Net Asset Value, divides the market value by the net book value
FCF	+	Worldscope	=Earnings before Interest and Taxation (EBIT) + Depreciation Depletion & Amortization (DDA) – Capital Expenditures
Debt	-	Worldscope	Total Debt Represents all interest bearing and capitalized lease obligations. It is the sum of long and short term debt.
COGS	-	Worldscope	COGS definition differs across industries. For manufacturing companies, COGS represents specific or direct manufacturing cost of labour and material in the production of finished goods. For merchandise companies COGS represents the purchase price of items sold, as well as indirect overhead such as freight, inspecting and overhead costs
ROE	+	Worldscope	EPS divided by the book growth per share (Expressed as a %)
EPS Vol.	-	Worldscope	The variance of the previous three years EPS
Net Sales	N/A	Worldscope	Represents Gross sales and other operating revenue less discounts, returns and allowances
Total Assets	+	Worldscope	Total Assets represents the sum of total current assets, long term receivables, investment in unconsolidated subsidiaries, other investments, net property plant and equipment and other assets.
Asset Tang	+	Worldscope	Total Assets Less Other Intangible Assets.
D (Law)	+	LLSV(2000)	D=1 the firm originates from a Common Law Country
D (Investor Protection)	+	LLSV(1998)	D=1 if a firm originates in a country where investors are highly protected (Anti-director Rights >=median of 3)
Industry Dummies	N/A	Worldscope	Primary Standard Classification Codes (SIC).

ADR Dividend	+/-	Bank of New York	D=1 if a firm pays an ADR Dividend.

Figure 1: Developed & Emerging ADR's Div/EARN % (Median) 1980-2002

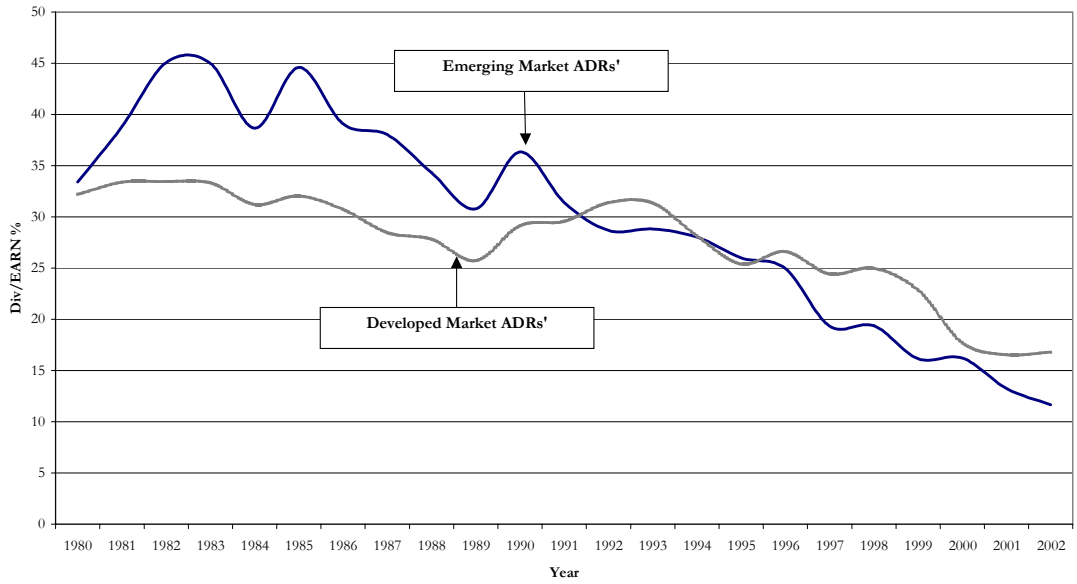

Figure 2: Developed & Emerging ADR's Div/CF % (Median) Ratios 1980-2002

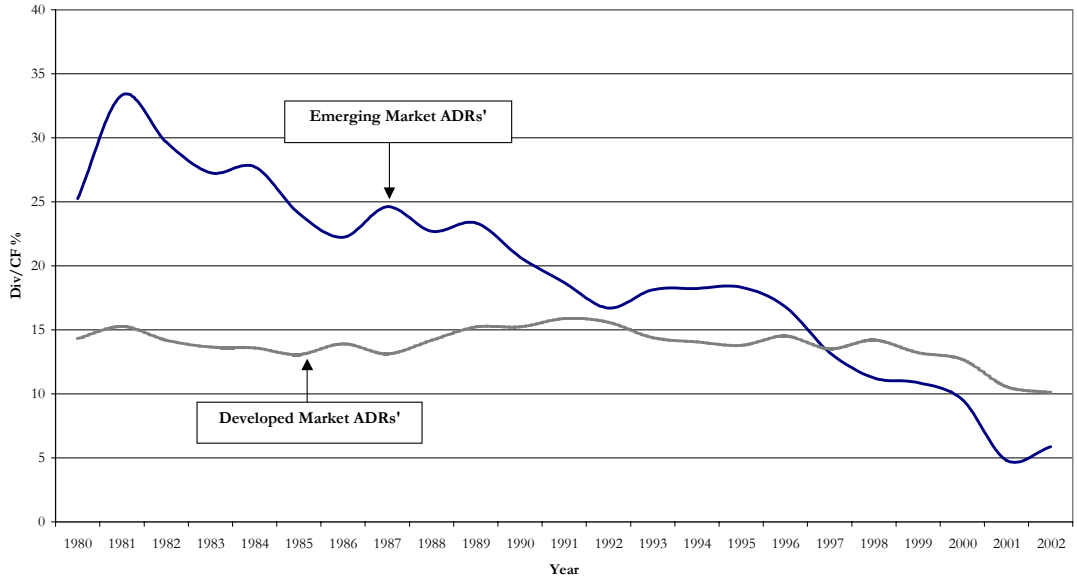

Figure 3: Developed & Emerging Div/EARN % (Median) Level I OTC ADRs' 'Around' the List Year

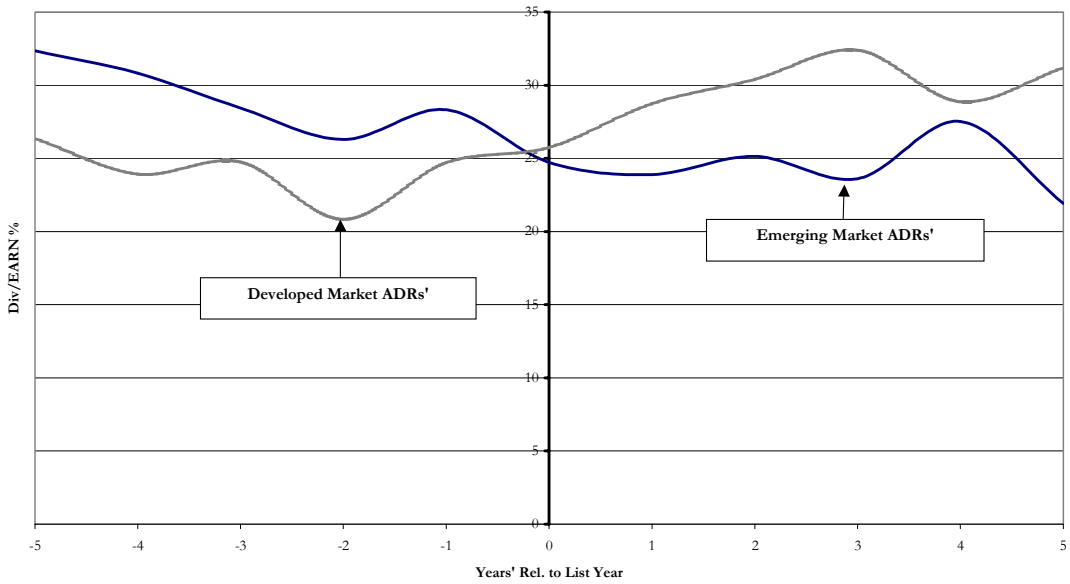

Figure 4: Developed & Emerging Div/CF % (Median) Level I OTC ADR's 'Around' the List Year

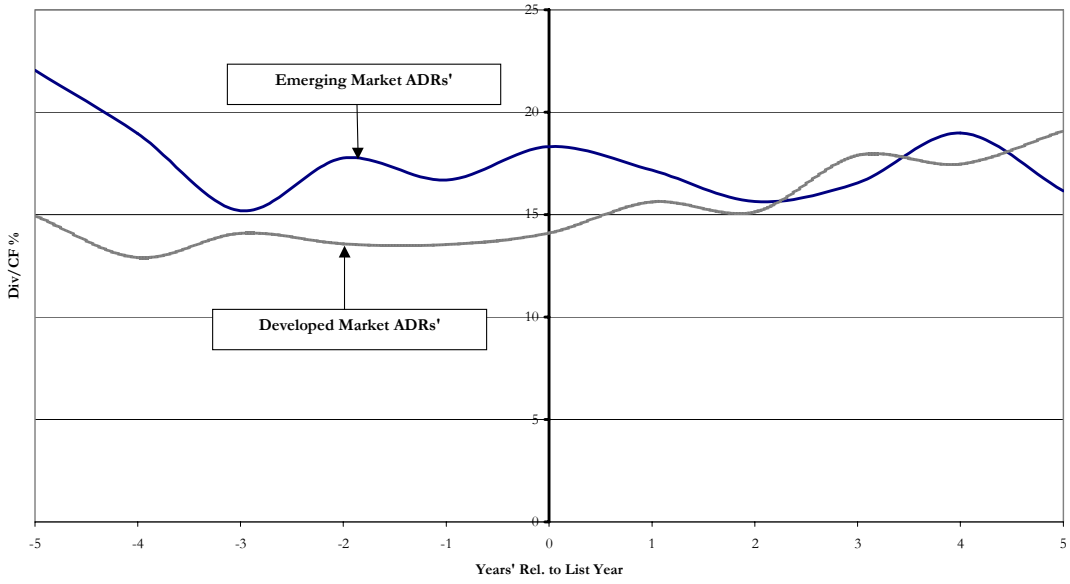

Figure 5: Developed & Emerging DivEARN % (Median) Level II/III Exchange ADRs' 'Around' the List Year

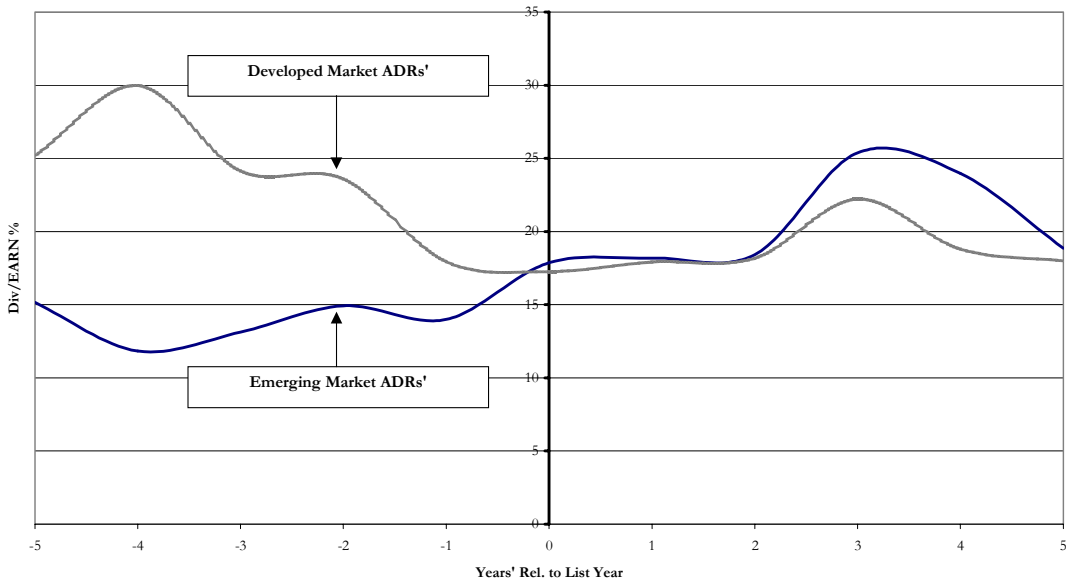

Figure 6: Developed & Emerging Level II/III Exchange Div/CF % (Median) ADR's 'Around' the List Year

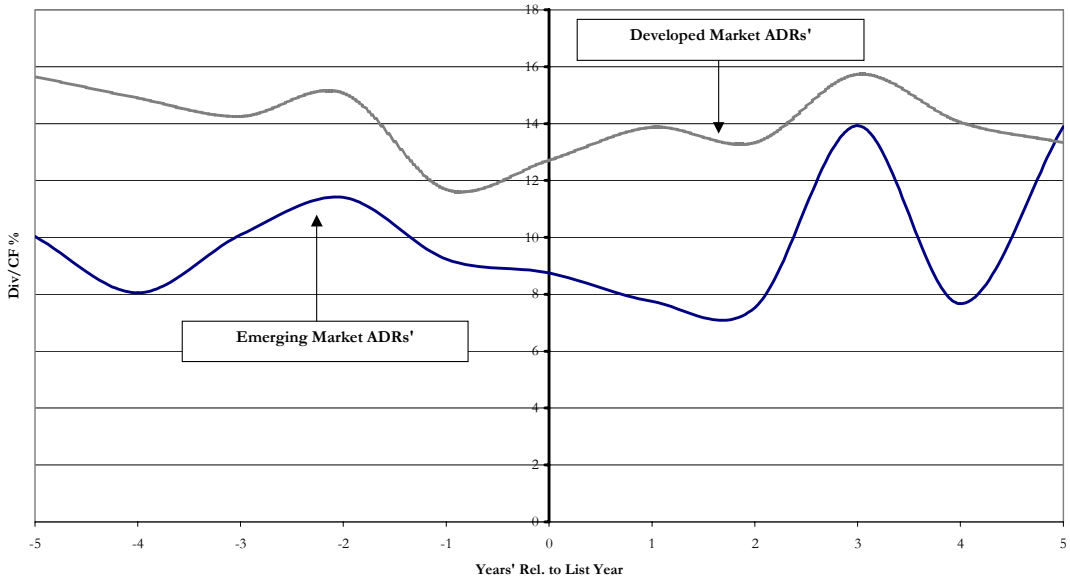

Figure 7: Developed & Emerging Div/EARN % (Median) Rule 144a PORTAL ADRs' 'Around' the List Year

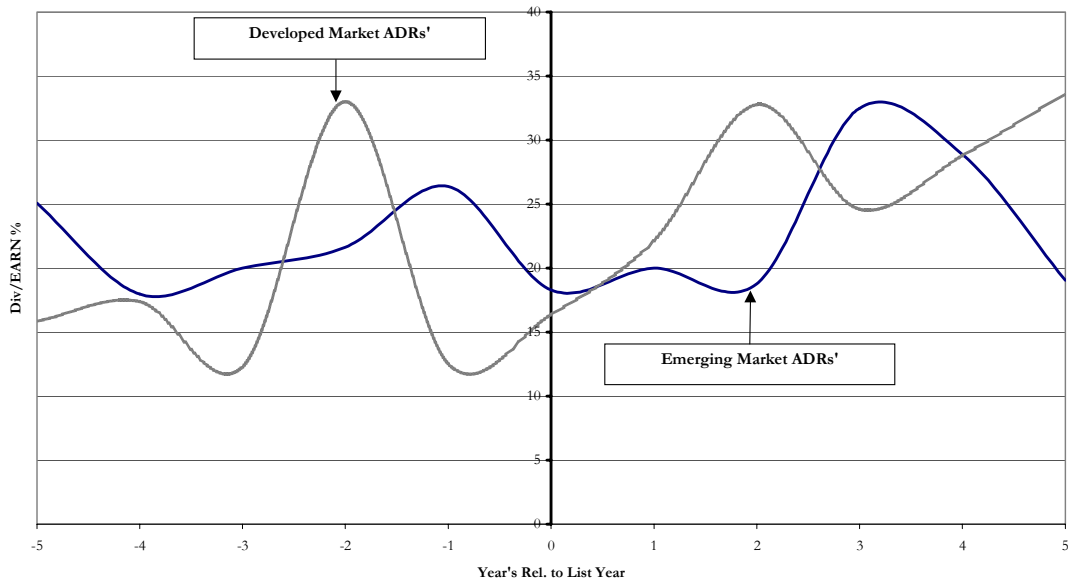

Figure 8: Developed & Emerging Rule 144a (PORTAL) ADR's Div/CF % (Median) 'Around' List Year

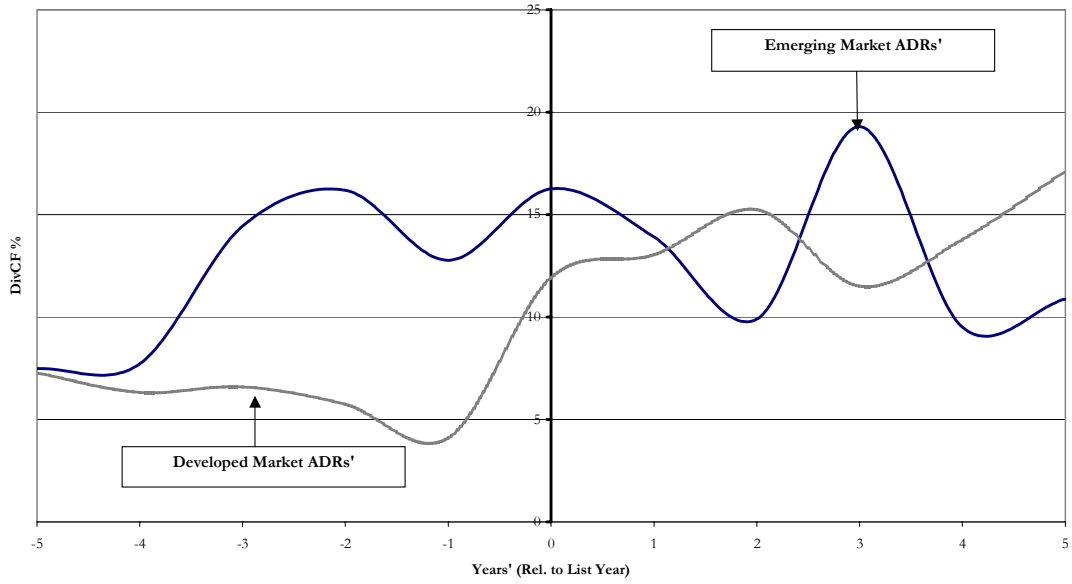

Figure 9: DivEARN Emerging & Developed OTC ADRs 'Around' List Year

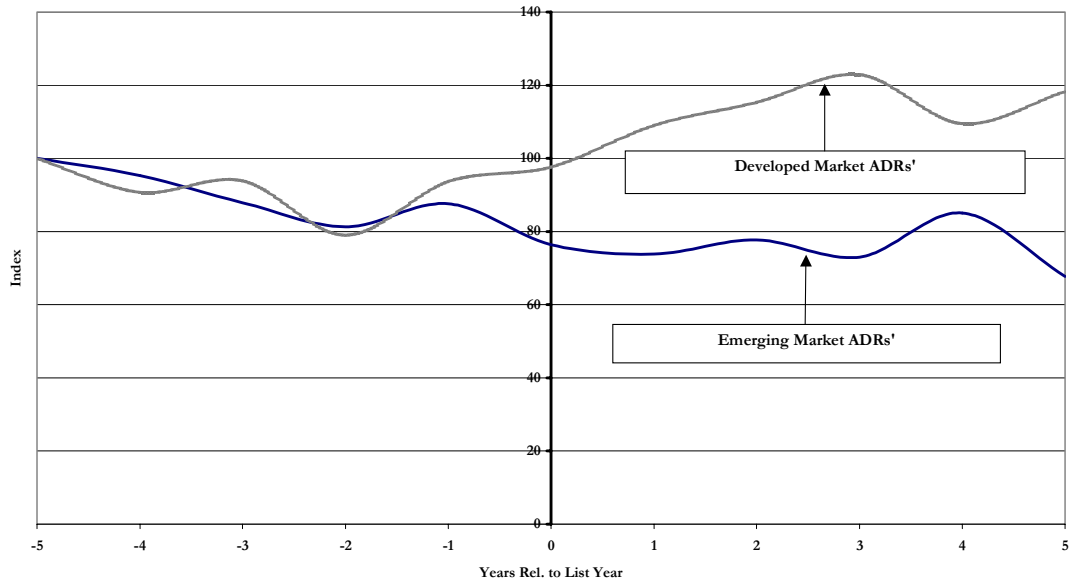

Figure 10: DivCF Emerging & Developed OTC ADRs 'Around' List Year

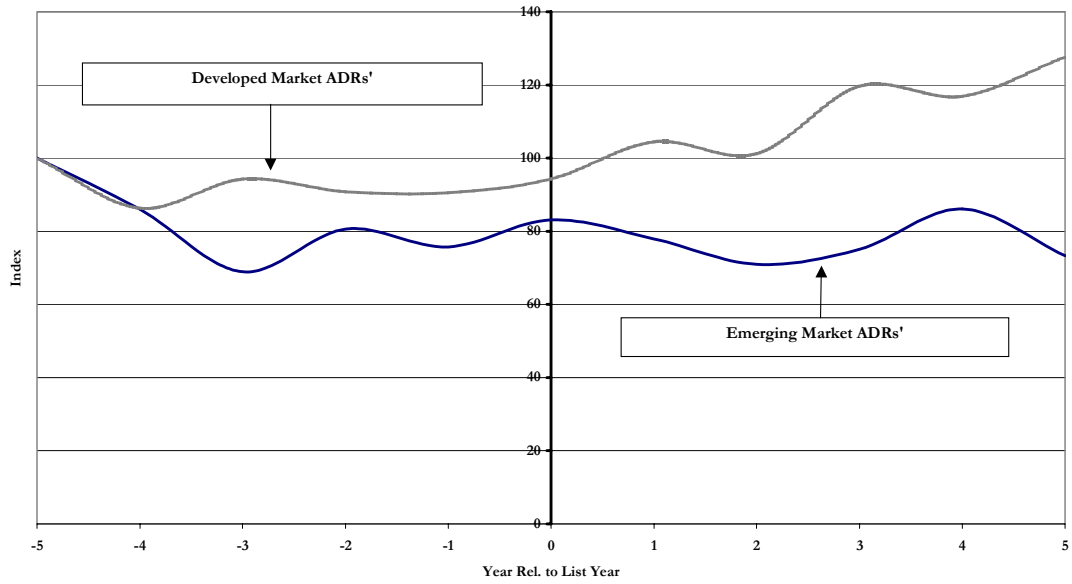

Figure 11: DivEARN Emerging & Developed Exchange ADRs 'Around' List Year

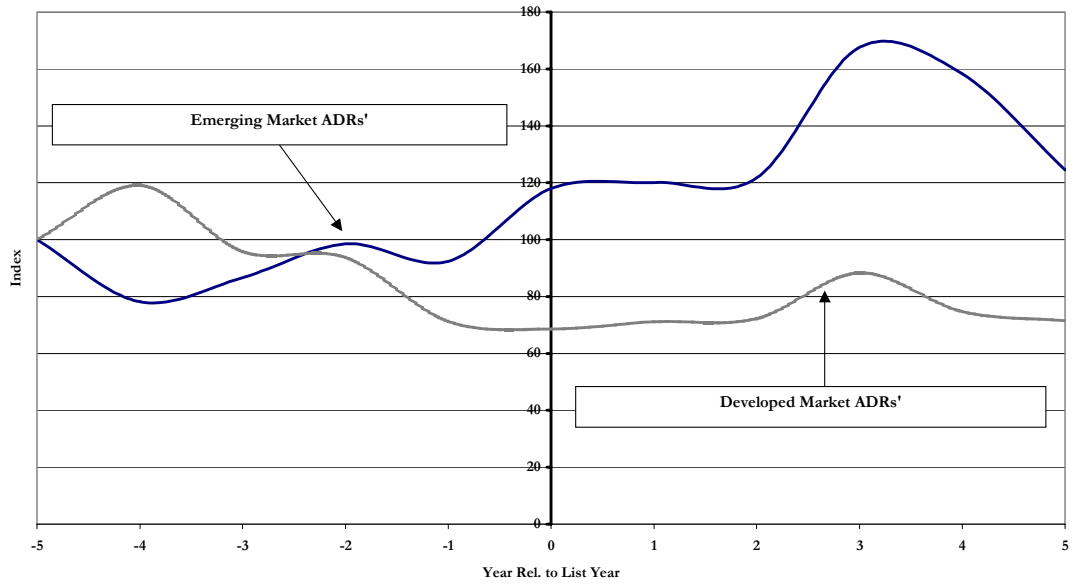

Figure 12: DivCF Emerging & Developed Exchange ADRs 'Around' List Year

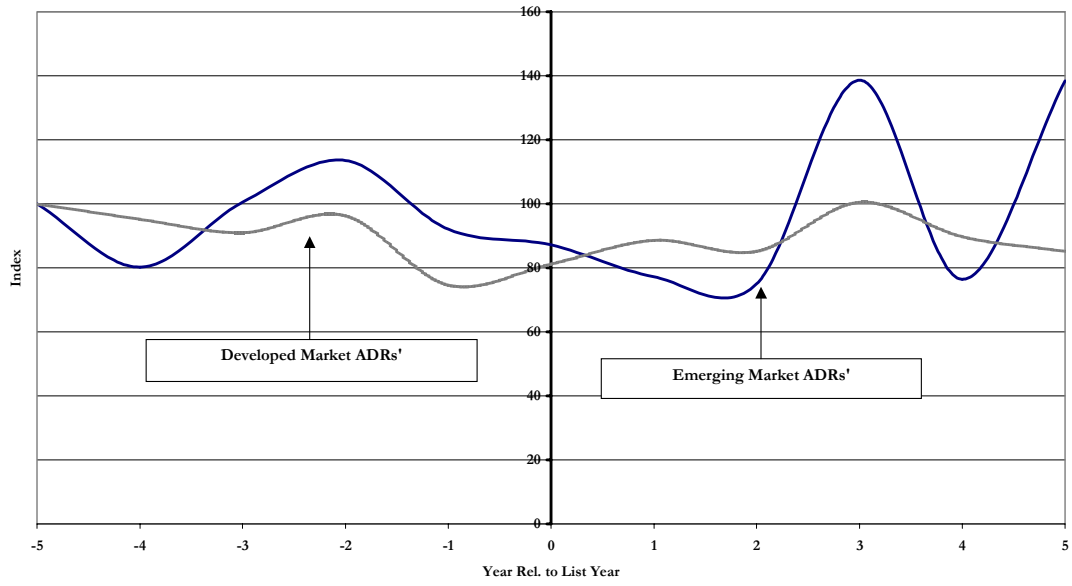

Figure 13: DivEARN Emerging & Developed Portal ADRs 'Around' List Year

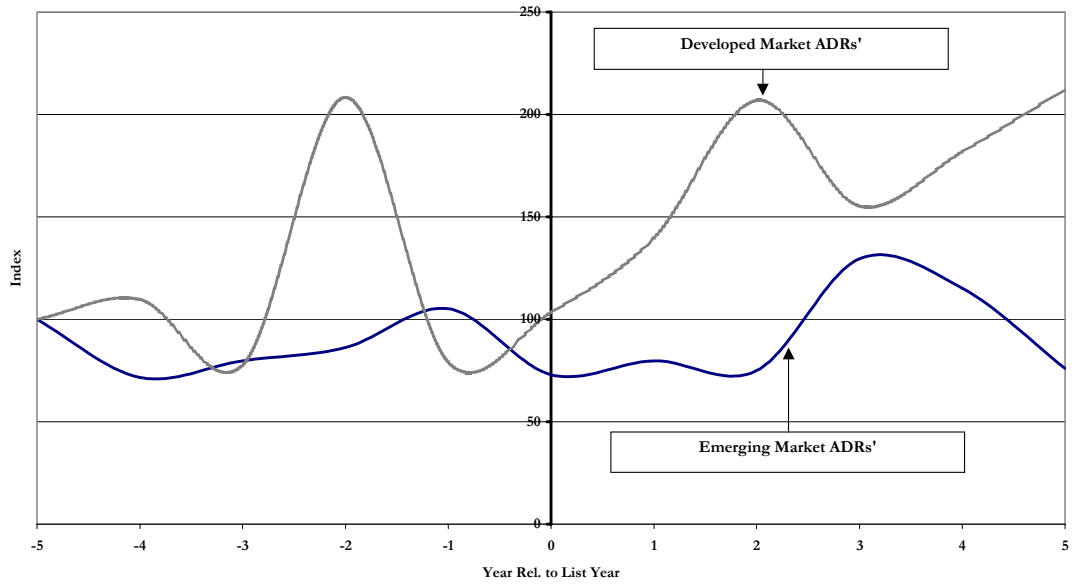

Figure 14: DivCF Emerging & Developed Portal ADRs 'Around' List Year