Dividend payout and corporate governance along the corporate life-cycle

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ABSTRACT

Manuscript Type: Empirical

Research Question/Issue: This study seeks to test the *outcome* and *substitution* agency models of dividends at different stages of the corporate life-cycle.

Research Findings/Insights: In a sample of 220 firms from 21 emerging market countries, I show that the *outcome* model of dividends, which predicts that dividend payout increases in the strength of shareholder rights, prevails all along the corporate life-cycle, but only where creditor rights are strong. Hence, the agency cost of equity and debt version of the outcome model of dividends holds. I find no evidence in support of the *substitution* model of dividends.

Theoretical/Academic Implications: The findings in this paper serve to highlight the profound influence that creditors exert on corporate payout policy. When shareholders enjoy considerable legal rights, but not so creditors, creditors demand, and firms consent to lower dividends. Furthermore, I find no evidence to suggest that firms substitute (large) dividends for poor governance in emerging markets.

Key Words: Corporate Governance; Agency Models of Dividends; Corporate Life-Cycle; Creditor Rights; Emerging Markets.

INTRODUCTION

In their 2000 publication, La Porta, Lopez-de-Silanes, Shleifer and Vishny (2000) present two agency cost models of dividends. The first model, referred to as the *outcome* model, suggests that dividends are an outcome of effective governance, where governance can be country governance i.e. legal rules, corporate governance, or both (see Mitton, 2004; and Bartram, Brown, How & Verhoeven, 2012). Given free cash flow, and their associated agency costs, shareholders prefer dividends to retained earnings since dividends reduce the pool of funds which can be consumed privately by controlling insiders (see Jensen, 1986; Easterbrook, 1984). Presumably, while all shareholders have a preference for dividends given free cash flow, the outcome model suggests that it is the shareholders with the greatest legal rights (and/or belonging to better-governed firms) whom can extract the largest dividends from firms. Hence, the theoretical prediction of the outcome model is that dividend payouts increase in shareholder rights *and* free cash flow. However, when better-governed firms are young, growing fast, but still unprofitable (and thus presumably with negative free cash flow i.e. internal funds<funds required for investment), their shareholders do not demand larger dividends. In effect, they substitute lower current dividends for expected higher future dividends (see La Porta, Lopez-de-Silanes, Shleifer &Vishny, 2000; Mitton, 2004; and Bartram, Brown, How & Verhoeven, 2012). In stark contrast, the shareholders of fast-growing poorly-governed firms do not agree to lower current dividends, and seek to extract as much as they can from firms in the form of a dividend. The logical conclusion from this line of reasoning, which is *implicit* in the assumptions underlying the agency models of dividends, is that the *outcome* model is more likely to prevail when firms are 'mature' i.e. when they are characterized as having diminished investment opportunities (i.e. the M/B ratio falls as the firm matures), experience slower growth, are profitable, and as a result have positive free cash flow. Hence, in the absence of growth, and the presence of free cash flow, shareholders demand dividends. The outcome model states that the shareholders of the better-governed firms will extract the largest dividends.

The second model, referred to as the *substitution* model predicts otherwise. This model predicts a *negative* relationship between the strength of shareholder rights (and/or corporate governance) and corporate dividend payouts. Poorly-governed firms pay the largest dividends. They do so for reasons which may appear on the face of it counter-intuitive. The reasoning behind these firms paying large

dividends is as follows. Begin with the notion that these poorly-governed firms are financially-constrained i.e. their internal funds are not sufficient to fund their investment opportunity set. Furthermore, the costs of external financing are prohibitively high, since the cost of (equity) capital decreases in the quality of corporate governance (Chen, Chen & Wei, 2009). For these firms, higher dividends serve to establish a reputation for equitable treatment of current (and potential shareholders), which in turn should allow these firms to access external capital at lower cost, thereby reducing their financing constraints. In effect, the management of poorly-governed firms substitute higher (current and future) dividends for lower external financing costs. In contrast, better-governed firms, whom are much less likely to be financially constrained, pay lower dividends. Furthermore, and as alluded to earlier, the shareholders of better-governed firms accept lower current dividends given firm growth. Consequently, this line of reasoning suggests that the *substitution* model of dividends is much more likely to manifest when firms, of various governance qualities, are 'immature'. 'Immature' firms are characterized as young, fast-growing, with sizable investment opportunities, but as of yet unprofitable, resulting in negative free cash flow. Better-governed 'immature' firms pay lower dividends. Poorly-governed 'immature' firms pay reputationally-enhancing large dividends. Hence, if the substitution model is to prevail, it is more likely to do so when firms are 'immature'.

In the period since the publication of La Porta, Lopez-de-Silanes, Shleifer and Vishny (2000), a sizable literature has found support in favour of the *outcome* and *substitution* models of dividends. On the one hand, Mitton (2004), Chae, Kim and Lee (2009), Jiraporn, Kim and Kim (2011), Adjaoud and Ben-Amar (2010), Bartram, Brown, How and Verhoeven (2012), Brockman and Unlu (2009, 2011), Byrne and O'Connor (2012), Shao, Kwok & Guedhami (2009), and Sawicki (2009) in post-Asian crisis Asia, all support the view that dividend payouts increase in shareholder rights. On the other hand, John and Knyazeva (2006), Officer (2007), Jo and Pan (2009), Jiraporn and Ning (2006), Chae, Kim and Lee (2009), and Sawicki (2009) in pre-Asian crisis Asia, uncover evidence which supports the *substitution* model i.e. dividend payouts decrease in shareholder rights.

In this paper I adopt a different approach. I begin with the premise that the *outcome* and *substitution* models of dividends are much more likely to prevail at different stages of the corporate life-cycle. I exploit cross-sectional differences in corporate maturity, and test the *outcome* and *substitution*

models of dividends *along* the corporate life-cycle. This approach contrasts notably with almost all other studies, since these studies test both agency models, typically in a single-year, using a sample of firms at very different stages of their life-cycle.[1] To perform these tests, I collect a sample of 220 firms from 21 emerging market countries. Like Mitton (2004), I test the agency models of dividends using shareholder rights measured at the corporate level (i.e. corporate governance) by employing the corporate governance scores complied by Credit Lyonnais Securities Asia (CLSA, 2001), and use the firm maturity measures of DeAngelo, DeAngelo and Stulz (2006), namely the ratio of retained earnings to assets (or total equity) to identify each firms position along its life-cycle. I find no evidence to suggest that the *substitution* model prevails when firms are 'immature'. In contrast, the *outcome* model manifests all along the corporate life-cycle i.e. for 'immature' and 'mature' firms. However, in a final series of tests, I show that the outcome model is contingent on both strong shareholder rights (i.e. quality corporate governance) and strong creditor rights. Where creditor rights are weak, dividend payouts tend to be much lower. Hence, the original agency cost of equity (i.e. the costs associated with the conflict between management/controlling insider and shareholders/outsiders) version of the outcome model of dividends, inclusive of the agency costs of debt equity (i.e. the costs associated with the conflict between the providers of capital to the firm, namely shareholders and creditors), which predicts that dividends are an outcome of strong shareholder *and* creditor rights, holds. This result is in line with the findings of Brockman and Unlu (2009), Shao, Kwok and Guedhami (2009), and Byrne and O'Connor (2012).

The paper proceeds as follows. In the next section I present a brief literature review and develop three hypotheses. From here, I describe the data and present the empirical findings. I end with some concluding remarks.

LITERATURE REVIEW & HYPOTHESIS DEVELOPMENT

In this paper I test two agency models of dividends, namely the *outcome* and *substitution* models of La Porta, Lopez-de-Silanes, Shleifer and Vishny (2000) at different stages of the *corporate life-cycle*. The corporate life-cycle model of dividends (see for example Grullon, Michaely and Swaminathan (2002), De Angelo, DeAngelo and Stulz (2006), Bulan, Subramanian and Tanlu (2007), and Denis and Osobov

[1] The primary drawback with this approach is that depending on the nature of the firms in the sample, the tests are likely to be biased towards an acceptance of one of the agency models over the other.

(2008)) suggests that the likelihood of paying a dividend in the first instance and the dividend amount increases over the corporate life-cycle. The factors which determine the payout decision over the corporate life-cycle specifically relate to the firm's investment opportunity set, their growth rate, the costs of external capital, and the agency costs associated with free-cash flow. Entirely inconsistent with the signalling models of dividends, the life-cycle model of dividends suggests that firms first pay a dividend, and continue to do so when they reach 'maturity'.[2] Mature firms are characterized as those whose internally-generated funds are more than sufficient to meet their diminished investment opportunity set (i.e., M/B ratio falls as firms mature), have lower growth rates, lower profitability, but positive and increasing free cash flow. For mature firms, dividends serve to reduce the agency costs of free cash flow (Jensen, 1986; Easterbrook, 1984). In stark contrast, internal funds are not sufficient to meet the investment needs of fast-growing, unprofitable 'immature' firms. For these firms, there is neither the funds (i.e. free cash flow), nor the necessity from an agency perspective (no agency costs of free cash flow) to pay a dividend. The life-cycle model of dividends is summarized in Figure 1.[3] In summary, according to the life-cycle model of dividends, and all else equal, 'mature' firms initiate and continue to pay dividends; 'immature' firms do not.

The *outcome* and *substitution* models of dividends are theoretically grounded in Jensen's (1986) free cash flow hypothesis. Both agency models agree that dividends paid to shareholders serve to reduce agency costs. In the case of the outcome model, dividends paid serve to reduce the agency costs of free cash flow. In the case of the substitution model, dividends paid serve to reduce the agency costs of poor-governance, since some of these firms, whom are likely to be financing constrained, have negative free cash flow. However, these agency models of dividends disagree on one crucial point, namely the direction of the relationship between the strength of corporate governance and the likelihood of paying a dividend and the dividend amount (payout). Let's elaborate further. Both begin with the premise that given free cash flow, shareholders (outsiders) prefer dividends to retained earnings, since expropriation of free cash flow by self-serving insiders is value-decreasing for minority shareholders.[4] On the one hand, the

[2] The signaling models of dividends suggest that dividend initiations lead and not lag (as the life-cycle model of dividends predicts) firm profitability (see for example Ross, 1977; Bhattacharya, 1979).
[3] For an extensive review of the life-cycle model of dividends, see Bulan and Subramanian (2009).
[4] But will accept lower *current* dividends for expected higher *future* earnings given firm growth and strong corporate governance (see Mitton, 2004; and Bartram, Brown, How & Verhoeven, 2012). Chae, Kim and Lee (2009) show that

outcome model suggests that the ability on the part of shareholders to force firms to pay dividends rests crucially on the efficiency of the corporation's governance system. Thus, the outcome model predicts that the likelihood of paying a dividend and the dividend amount (payout) increases when free cash flow exists *and* where shareholder rights are strong. [5] Hence, dividends are an *outcome* of strong corporate governance *and* free cash flow (Chae, Kim and Lee, 2009). [6] In the period subsequent to the publication of the La Porta, Lopez-de-Silanes, Shleifer and Vishny (2000) paper, numerous studies have found support in favour of the outcome model of , using either shareholder rights measured at the firm (corporate governance) or country level, or both (e.g., Mitton (2004), Chae, Kim and Lee (2009), Jiraporn, Kim and Kim (2011), Adjaoud and Ben-Amar (2010), Bartram, Brown, How and Verhoeven (2012), Brockman and Unlu (2009, 2011), Byrne and O'Connor (2012), Shao, Kwok & Guedhami (2009), and Sawicki (2009) in post-Asian crisis Asia).

On the other hand, the *substitution* model suggests otherwise. It predicts that poorly-governed firms, presumably with sizable agency conflicts, and wishing to enhance their reputation for equitable treatment of outsiders (presumably to raise external capital at lower cost) pay large dividends. In doing so these firms commit to fair treatment of their minority shareholders, not just in the current period, but also subsequent periods since dividend cuts are costly. The very fact that these firms wish to access external capital at cheaper cost by paying reputationally-enhancing dividends *implicitly* implies that these firms are in the early stages of their life-cycle, since 'mature' firms, by definition, have internal funds which more than meets their investment needs i.e. free cash flow. Financially-constrained firms are those that, by definition, have identified positive net present value projects, do not have sufficient internal capital to funds these projects, and face too high a cost to fund externally. By definition, these firms are very much likely to be 'immature'. In contrast, the substitution model suggests that better-governed firms, without the necessity to enhance their reputation, pay lower dividends than their less well-governed

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better-governed firms with free cash flow and external financing constraints pay lower dividends (compared to the same firms without external financing constraints).

[5] Some papers focus solely on the relationship between the strength of corporate governance and the dividend amount (see Mitton, 2004; Sawicki, 2009; and Chae, Kim & Lee, 2009). Others establish the relationship between the strength of corporate governance and the likelihood of paying a dividend and the dividend amount (see Byrne & O'Connor, 2012; Bartram, Brown, How & Verhoeven, 2012). Brockman and Unlu (2009, 2011), Byrne and O'Connor (2012), and Shao, Kwok and Guedhami (2009) all focus on the relationship between country measures of shareholder (and creditor) rights and the likelihood of paying a dividend and the dividend amount.

[6] Using a sample of U.S. firms, Chae, Kim and Lee (2009) show that dividend payout increases in both corporate governance *and* the amount of free cash flow. However, in the absence of free cash flow, dividend payout actually decreases in the strength of corporate governance i.e. the substitution model prevails.

counterparts. Since the cost of (equity) capital decreases in corporate governance (Chen, Chen & Wei, 2009), the substitute model predicts that firms substitute (higher) dividends for poor governance in the hope that reputationally-enhancing higher dividends reduces their cost of capital. Consequently, the *substitution* model predicts that, all else equal, dividend payouts *decrease* in shareholder rights. In contrast to the predictions of the outcome model, (poorly governed) firms voluntarily, rather than under duress from shareholders (of firms with efficient governance), pay large dividends. As is the case for the outcome model, there exists plenty of empirical support for the substitution model (e.g. John and Knyazeva (2006), Officer (2007), Jo and Pan (2009), Jiraporn and Ning (2006), Chae, Kim and Lee (2009), Sawicki (2009) in pre-Asian crisis Asia) and Mitton (2004) in civil law countries only).[7] Brockman and Unlu (2011) show that the substitution model prevails in countries where disclosure environments are opaque and the outcome model in countries where disclosure environments are transparent. Shao, Kwok and Guedhami (2009) and Byrne and O'Connor (2012) find support in favour of the substitution model where creditor rights are weak.

Furthermore, and purely from a theoretical viewpoint, there is no reason to suggest that the relationship between the strength of country and/or corporate governance and dividend payout is static i.e. does not change over time. In a dynamic setting, both Liu (2002) and O'Connor (2006) find support in favour of the outcome *and* substitution models of dividends. They show that dividend payouts are greatest when country (Liu, 2002), or corporate (O'Connor, 2006) governance is strong (i.e. the outcome model prevails), but *changes* in governance lead to lower dividends (i.e. the substitution model prevails). Liu (2002) finds that dividend payouts tend to be greatest in countries who score highly in variables which account for country-level governance (the *outcome* model), but country-level governance reforms (changes) are associated with lower dividends (the *substitution* model). O'Connor (2006) finds likewise, but instead he uses corporate in place of country governance. He shows that exchange trading cross-listing Level 2/3 ADR firms *substitute* dividends for enhanced bonding, even though dividends remain higher in firms from countries with strong governance (the *outcome* model). Sawicki (2009) examines the agency models of

[7] The results of these tests using U.S. firms are mixed. Using the anti-takeover governance index of Gompers, Ishii and Metrick (2003) to measure the strength of corporate governance of U.S. firms, Knyazeva (2006), Officer (2007), Jo and Pan (2009), and Jiraporn and Ning (2006) find in favour of the substitution model. Again using U.S. firms, but now using governance data from the Institutional Shareholder Services, Jiraporn, Kim and Kim (2011) find evidence in favour of the outcome model. The ISS data is a much broader corporate governance measure than the G-Index, which in turn, likely explains the conflicting findings.

dividends around the time of the Asian crisis. The *substitute* model prevails pre-crisis, while the *outcome* model prevails post-crisis.

Along similar lines, it is likely that the outcome and substitution models will prevail, but most likely, at different stages *along* the corporate life-cycle. To elaborate, first consider when the outcome model is most likely to prevail. The outcome model of dividends is much more likely to manifest when firms are mature for a number of reasons. First, the outcome model rests crucially on the prevalence of free cash flow, which is likely to be of much greater relevance for mature firms since internally generated cash is more than sufficient to fund their diminishing investment opportunities (see Grullon, Michaely & Swaminathan, 2002; DeAngelo, DeAngelo & Stulz, 2006; and Denis & Osobov, 2008). In support, Chae, Kim and Lee (2009) show that for U.S. firms, the dividend amount increases in free cash flow *and* the strength of corporate governance. Second, the outcome model is much less likely to manifest for well-governed 'immature' firms, since the shareholders of these firms generally accept lower dividends given firm growth (see Mitton, 2004; and Bartram, Brown, How & Verhoeven, 2012). In contrast, the shareholders of poorly-governed firms do not. Furthermore, if external financing costs are prohibitively high for better-governed firms, their shareholders will again accept lower dividends (see Chae, Kim & Lee, 2009). While these arguments don't automatically rule against the outcome model, they do suggest that it is less likely that the outcome model will prevail at early stages of the corporate life-cycle since the dividend polices of high-growth firms, with different governance practices, are likely to be more similar, than would be the case in the absence of growth (i.e. when firms are more 'mature'). Third, the separation of ownership from control resulting in agency conflicts (and costs) between managers and minority shareholders is likely to be much more prevalent in complex, large 'mature' organizations. In contrast, in smaller, younger 'immature' firms, managers are much more likely to have a large controlling stake in the firm, thus reducing agency conflicts, since their interests are likely to be much better aligned with outsiders. As a result, the need for dividends to reduce the agency costs of free cash flow is more relevant for 'mature' firms and less relevant for 'immature' firms since the controlling managers have large cash flow rights in these firms, and as a consequence, the consumption of private benefits is likely to be much lower in these firms. Hence the agency costs of free cash flow are likely to be more severe for mature firms. This line of reasoning leads to the first testable hypothesis.

Hypothesis 1. The outcome model of dividends is more likely to prevail when firms are 'mature'.

The substitute model is likely to be much more relevant for 'immature' firms for some additional reasons not mentioned earlier. First, firms are much more likely to require external financing when they are young, 'immature', and growing fast. Since the costs of external financing are likely to be much higher for opaque poorly-governed firms (see Chen, Chen & Wei, 2009); there is a much greater incentive on the part of these firms to build reputation by paying large dividends. Hence, immature, young, opaque, and poorly-governed firms, with a need for external financing, may seek to establish a reputation for fair treatment of their minority shareholders by paying a dividend even given negative free cash flow. This, in turn may serve to reduce their cost of capital. Since bonding mechanisms are few in emerging markets, the emergence of the substitution model when firms are immature is a viable possibility (Benos & Weisbach, 2006). In contrast, there is much less of an incentive on the part of better-governed firms to follow suit since their cost of capital is likely to be much lower. This leads us to the second testable hypothesis.

Hypothesis 2. The substitution model of dividends is likely to prevail when firms are young and 'immature'.

Finally, recent work suggests that creditors and not shareholders exert the greatest influence over corporate dividend policy (see Brockman & Unlu, 2009; Shao, Kwok & Guedhami, 2009; and Byrne & O'Connor, 2012). Shao, Kwok and Guedhami (2009) and Byrne and O'Connor (2012) test the original agency costs of equity outcome and substitution models of dividends inclusive of the agency costs of debt. Both show that given the inclusion of the agency costs of debt that the outcome model of dividends prevails only where shareholders *and* creditors have considerable legal rights. When the latter are not well protected in law, and even when the former are, dividend payouts are much lower. Creditors demand, and firms consent to lower dividends. Hence, this leads to the third and final testable hypothesis.

Hypothesis 3. The ability of firms to pay higher dividends rests crucially on strong creditor and shareholder rights.

All three hypotheses are summarized in the bottom rows of Figure 1.

Insert Figure 1 about here

DATA

In this paper I examine the relationship between the strength of corporate governance and corporate dividend policy in emerging markets along the corporate life-cycle. To measure the strength of corporate governance, I follow Mitton (2004), and use the corporate governance scores developed by Credit Lyonnais Securities Asia (CLSA, 2001).[8] The CLSA governance ratings range from 0 to 100 with higher values suggesting better corporate governance. The rating for each individual firm, for which there is 495 in total across 25 countries, is a composite of 57 qualitative, binary (Yes/No) questions which span seven distinct governance categories, namely management discipline, transparency, independence, accountability, responsibility, fairness, and social awareness. The first six governance provisions have a 15% weighting in the composite index, while social awareness has a 10% weighting. The rating for each firm is constructed by CLSA analysts. In this paper, I use the first six governance provisions to construct the composite governance measure since dividend payout is unlikely to be related to social awareness. Consequently, the composite corporate governance score that I use in this paper is an equally weighed average of the first six corporate governance provisions.

I use three different dividend payout measures, namely dividends-to-earnings (%), measured as dividends per share divided by earnings per share, dividends-to-cashflow (%), measured as dividends per share divided by cashflow per share, and dividends-to-sales (%), measured as cash dividends (paid to common and preferred shareholders) divided by net sales. All data is sourced from Worldscope at year end 2001. In all regressions, I control for firm size, firm profitability, firm growth, cash, total equity and retained earnings. Size is measured as the log of book assets in US$, growth is the logarithmic one-year asset growth, profitability is earnings before interest and taxation (EBIT) to book assets, cash is cash scaled by book assets, and total equity is total shareholders' equity once again scaled by book assets. Size and profitability are expected to impact positively on dividend policy. In contrast, high growth firms typically pay smaller dividends. Finally, the expected relationship between cash holdings and dividend payout is ambiguous. For example, firms with high cash reserves but with little or no demand for external finance are likely to pay a dividend. In contrast, those firms with anticipated future growth opportunities

[8] These governance ratings have been used by many in a variety of settings. For example, and in addition to Mitton (2004) who explores the relationship between corporate governance and dividend policy, Klapper and Love (2004) examine the relationship between corporate governance and firm performance, Durnev and Kim (2005) governance and firm value, and more recently Chen, Chen and Wei (2009) governance and firm value via the cost of equity capital.

may finance this growth with their cash reserves, and refrain from paying a dividend. I proxy for the firms maturity or position along its life-cycle by using either retained earnings to total book assets (RE/TA) or retained earnings to total equity (RE/TE) (see DeAngelo, DeAngelo & Stulz, 2006; Denis & Osobov, 2008; and Brockman & Unlu, 2011). DeAngelo, DeAngelo and Stulz (2006), Denis and Osobov (2008) and Brockman and Unlu (2011) all show that dividend payout increases in RE/TA (and RE/TE), since as firms mature, the contribution of retained equity (relative to contributed equity) to total equity increases since firms become more profitable and have a reduced investment opportunity set, thus reducing the need for external (contributed) capital. Mature (Immature) firms are characterized with high (low) ratios of retained equity to total assets and retained equity to total equity. All firm level variables are winsorized at the 1st and 99th percentiles.

I include two country level determinants of dividend policy, namely shareholder and creditor rights. The literature suggests that dividends can be an *outcome* of, or *substitute* for shareholder rights. More recent work incorporates the agency costs of debt (i.e. the conflict between shareholders and creditors) and estimates the joint effect of shareholder and creditor rights on corporate dividend policy (see Brockman & Unlu, 2009; Shao, Kwok & Guedhami, 2009; and Byrne & O'Connor, 2012). I use the revised version of the anti-director rights measure from Spamann (2010) to account for the strength of shareholder rights at the country-level. Since this data is missing for China, Hungary, and Poland, I use the Djankov, La Porta, Lopez-de-Silanes and Shleifer (2008) measure of shareholder rights for these countries. The creditor rights measure is from Djankov, McLeish and Shleifer (2007) and ranges from a low of zero to a high of four, where higher values represent greater levels of creditor protection. Shareholders are best protected in Brazil, Pakistan, South Africa and Taiwan (all have a shareholder rights measure of 5), but much less so in China (Shareholder rights score of 1). Creditor protection is strongest in Hong Kong (Score of 4), and the weakest in Colombia and Mexico (Both have creditor rights scores of 0) (see columns 15 and 16 of Table 1). A priori, the sign on the shareholder and creditor rights variables are expected to be positive.

The final sample of firms is presented in Table 1. From my original sample, I lose 275 firms since some or all of the firm-level control variables are missing for these firms, resulting in a final sample of 220 firms. These 220 firms come from 21 countries, namely Argentina, Brazil, Chile, China, Colombia,

Hong Kong, Hungary, India, Indonesia, Korea (Republic), Malaysia, Mexico, Pakistan, Peru, Philippines, Poland, Singapore, South Africa, Taiwan, Thailand, and Turkey. The number of firms varies considerably by country. Taiwan (31 firms) followed by Hong Kong (25) and Malaysia (22) supply the largest number of firms. In contrast, there is just a single firm from Argentina, Colombia, Hungary, and Peru in the final sample of firms. The third and fourth columns of Table 1 contain the median and standard deviation corporate governance score by country. They suggest that the median firm is best-governed in Peru (76.5), then Singapore (67.4), followed closely by the sole Argentinian firm (66.7). In contrast, the median firm is poorly governed in Pakistan (33.6) and Poland (37.7).[9] Interestingly, while the median firm from Pakistan has the lowest governance score in this sample of firms, the greatest variation in governance scores occurs in Pakistan (standard deviation of 20.2). Hence, there are firms in Pakistan which are much better governed than their median counterpart. There is much less variation in corporate governance practices in Mexico (standard deviation of 4.0), Chile (4.2), and Korea (5.8). Overall, the median firm has a corporate governance score of 55.8, with a standard deviation of 14.6.[10]

Insert Table 1 about here

In the fifth to tenth columns of Table 1, I outline the median and standard deviation dividend payout by country, using all three dividend payout measures defined previously. They suggest that as a percentage of earnings, the median firm in Hungary (85.5%) followed closely by the median firms in Pakistan (76.8%) pay the largest dividends. In contrast, dividend payouts tend to be much lower in the Philippines (5.3%) and Korea (5.9%). The sole firms from Argentina and Poland pay no dividend at all in

[9] A large literature exists which examines the firm and country-level factors which promote firms to practice better corporate governance (see for example, Klapper & Love, 2004; Durnev & Kim, 2005, 2007). These 'governance-predictions' studies find that amongst others, large firms, firms with a need for external finance, and firms with large proportion of 'soft/intangible' assets practice good corporate governance. They also find that corporate governance improves with ownership concentration, provided there is no deviation from one-share-one-vote (i.e., dual-class firms typically have poorer governance than single-class share firms). Cross-listing firms and firms domiciled where country governance (e.g., shareholder rights strong, efficient judiciary) is strong also tend to be better governed. However, Doidge, Karolyi and Stulz (2007) show that some firms with these 'desirable' characteristics may not necessarily practice better governance, since the costs of doing so can outweigh the perceived benefits. The costs of doing so are greater where financial development weak. Aggarwal, Erel, Stulz, and Williamson (2009) highlight the differences in governance practices between U.S. and non-U.S. firms, and show that amongst others, differences in financial development between the U.S. and non-U.S. countries can explain part of the superior governance practices of U.S. firms. Furthermore, recent work suggests that some firms do not adopt 'desirable' aspects of corporate governance since their adoption can prove to be value-decreasing (Black, de Carvalho & Gorga, 2011).

[10] Klapper and Love (2004) show that the variation in corporate governance ratings (using CLSA corporate governance scores) decreases as country level investor protection increases.

2001. When using either cashflow or sales, dividend payouts tend to be high in Colombia (median dividends to cashflow (%) and dividends to sales (%) are 82.2% and 6.0%, respectively), and Pakistan (median dividends to cashflow (%) and dividends to sales (%) are 71.1% and 9.7%, respectively). The median firm pays much lower dividends in Brazil (median dividends to cashflow (%) and dividends to sales (%) are 9.5% and 2.9%, respectively), Korea (median dividends to cashflow (%) and dividends to sales (%) are 3.0% and 0.2%, respectively), and Taiwan (median dividends to cashflow (%) and dividends to sales (%) are 9.3% and 1.1%, respectively). In the full sample, the median firm pays 23.4%, 15.4%, and 2.2%, of its earnings, cashflow, or sales, respectively, as a dividend.

Finally, I present the median and variation in retained earnings to total assets (RE/TA) and retained earnings to total equity (RE/TE), respectively, in columns eleven to fourteen. Retained earnings, relative to either total assets or total equity, is much higher in Mexico (the median retained earnings to total assets (total equity) is 0.42 (0.98)), Peru (0.41 and 0.52, respectively), and Hong Kong (0.19 and 0.45, respectively). In contrast, retained earnings are much lower in Colombia (the median retained earnings to total assets (total equity) are 0.03 (0.05)), Hungary (0.01 and 0.01, respectively), and Korea (0.01 and 0.01, respectively). These figures suggest that there is considerable heterogeneity in terms of firm maturity across the sample of firms. The median firms retained earnings, scaled by either total assets or total equity, is 0.12 and 0.27, respectively.

METHODOLOGY

In this section, I begin by first examining the relationship between the strength of corporate governance and dividend payout. Then, I proceed to examine this aforementioned relationship by stage of the corporate life-cycle. I end by examining these same relationships by the strength of creditor rights.

I begin by estimating ordinary least squares (OLS) regressions of the following form:

$$DIV_i = \alpha + \beta_1 GOV_i + \beta_2 Size_i + \beta_3 Growth_i + \beta_4 Profitability_i + \beta_5 Cash_i + \beta_6 TE_i + \beta_7 RE_i + Industry_{idy} + Country_c + \varepsilon_i \quad (1)$$

$$DIV_i = \alpha + \beta_1 GOV_i + \beta_2 Size_i + \beta_3 Growth_i + \beta_4 Profitability_i + \beta_5 Cash_i + \beta_6 TE_i + \beta_7 RE_i + \beta_8 SR_c + \beta_9 CR_c + Industry_{idy} + \varepsilon_i \quad (2)$$

Where DIV_i is either dividends-to-earnings (%), dividends-to-cashflow (%), or dividends-to-sales (%), and GOV_i is the CLSA corporate governance score for each firm. Size, growth, profitability, cash, TE, and RE, are firm size, firm growth, firm profitability, firm cash, firm total equity, and firm retained earnings (to total assets), respectively. $Industry_{idy}$ are industry dummies, $Country_C$ country dummies, SR_C and CR_C, shareholder and creditor rights, respectively.[11] Financial firms are excluded. In Equation (2), country dummies are excluded when shareholder and creditor rights are included. All regressions are estimated with White (1980) standard errors. The coefficient estimates from estimating equations 1 and 2 are presented in Table 2.

RESULTS

The findings presented in Table 2 are in line with Mitton (2004), and others, and provide support in favour of the outcome model of dividends. The coefficient estimates on the corporate governance variable are always positive and statistically different to zero. They range from a low of 0.07 ($t = 2.12$; $p<0.05$) (using dividends to sales (%)) to a high of 0.438 ($t = 3.44$; $p<0.01$) using dividends to earnings (%).[12] These coefficient estimates imply that a one standard deviation change in corporate governance (14.6), which is close to the difference in the median corporate governance score for firms from India (53.4) and Singapore (67.4), changes dividend payout by 6.39 percentage points using dividends to earnings (%) (0.438 * 14.6), 4.96 percentage points using dividends to cashflow (%) (0.340 * 14.6), and 1.037 percentage points using dividends to sales (%) (0.071 * 14.6). While not always statistically significant, the firm-level control variables are of the correct sign. Large and profitable firms pay higher dividends. Growth firms tend to pay lower dividends. Furthermore, and consistent with the life-cycle

[11] Firms are designated into one of thirteen industries based on the following classifications using 4-digit SIC codes: Agriculture and Food (0100-0999 & 2000-2111); Mining and Construction (1000-1999, excluding 1300-1399); Textiles and Printing/Publishing (2200-2799); Chemicals (2800-2824, 2840-2899); Pharmaceuticals (2830-2836); Extractive (2900-2999, 1300-1399); Durable Manufacturers (3000-3999, excluding 3570-3579); Transportation (4000-4899); Utilities (4900-4999); Retail (5000-5999); Services (7000-8999, excluding 7370-7379); Computers (7370-7379, 3570-3579, 3670-3679); Public Administration (9000+).

[12] Mitton (2004) estimates variants of equations 1 and 2. His version of equation 1 excludes cash, total equity and retained earnings, and excludes these same variables and creditor rights from equation 2. Using both dividends to cashflow (%) and dividends to sales (%), the coefficient estimates on the corporate governance variable is comparable across studies. For example, using equation 1, the coefficient estimates on the corporate governance variable reported by Mitton (2004) is 0.278 and 0.056 (Using dividends to cashflow (%) and dividends to sales (%)), respectively. I report coefficient estimates of 0.270 and 0.070, respectively. Using dividends to earnings (%), the coefficient estimates on the corporate governance variable are much larger in this study (0.369) compared to 0.271 in Mitton (2004).

model of dividends, dividend payout (at least using dividends to earnings (%)) increases with corporate maturity i.e. when the ratio of retained earnings to total assets increases.[13] Finally, I find no evidence to suggest that corporate dividend payouts increase in country-level shareholder and creditor rights.[14] This contradicts the evidence presented in La Porta, Lopez-de-Silanes, Shleifer and Vishny (2000) and Mitton (2004) in the case of shareholder rights, and Brockman and Unlu (2009), Shao, Kwok and Guedhami (2009), and Byrne and O'Connor (2012) in the case of creditor rights. The latter three all highlight the profound influence that creditors have, over and above shareholders, in determining corporate dividend payout.

Insert Table 2 about here

In summary, the findings thus far are consistent with Mitton (2004), and many others, and provide support for the outcome model of dividends. Shareholders use their legal rights, in this instance measured at the firm-level, to extract large dividends from firms. All else equal, dividend payouts are greater in better governed firms. Next, I examine whether this relationship changes along the corporate life-cycle.

Results by Stage of Corporate Life-Cycle

To do so, I sub-divide my original sample of firms by level of retained earnings (either to total assets or total equity) and re-estimate equation 1 for each sub-sample of firms. Using the original sample of 220 firms, I create four quartiles, each with 55 firms, by level of retained earnings (to either total assets or total equity). The top panel of Table 3 outlines the mean and median RE/TA and RE/TE by quartile. The median RE/TA (RE/TE) ratio increases from 0.00 (0.00) for 'immature' firms (Lowest quartile) to a high of 0.43 (0.74) for 'mature' firms (Highest quartile). In the remaining rows of Table 3, and using each dividend payout measure, I present the average and standard deviation dividend payout and corporate governance score by retained earnings quartile. The summary findings using RE/TA are presented in the top panel, and RE/TE the bottom panel. "Lowest" and "Highest" correspond to the lowest and highest

[13] The conclusions are qualitatively unaffected when I use RE/TE in place of RE/TA.
[14] Bartram, Brown, How and Verhoeven (2012) do find support for the outcome model when they use Spamann's (2010) anti-director rights measure.

RE/TA (RE/TE) quartiles, while (2) and (3) are the intermediate quartiles. Since the summary findings are similar using RE/TA and RE/TE, I will concentrate on discussing the findings using RE/TA. They suggest the following. First, and consistent with the life-cycle model of dividends, average (and unreported median) dividend payout increases in corporate maturity i.e. as RE/TA or RE/TE increases. For example, the average firm in the lowest RE/TA quartile pays 17.67% (10.21%) of its earnings (cashflow) in the form of a dividend. Dividend payout continues to increase as firms mature (27.34% and 22.70%, respectively in quartile 2, and 34.82% and 24.97%, respectively in quartile 3). As expected, dividend payouts are the largest in the "Highest" RE/TA (or RE/TE) quartile. For example, using dividends to earnings (%) to measure dividend payout, the average firm in the "Highest" RE/TA quartile pays out 45.84% of its earnings in the form of a dividend, resulting in a 28.17 percentage point difference in average dividend payout between these firms and their "Lowest" RE/TA quartile counterparts. Interestingly, the average firm appears to practice better-governance as it matures. The governance score for the average firm increases from 50.97 in the lowest quartile to a high of 60.70 for the maturest of firms.[15] Second, there is considerable variation in corporate governance practices and dividend payouts within each RE/TA quartile. Using RE/TA and dividends to earnings (%), the standard deviations range from 24.95% to 29.82%, while the corporate governance scores range from a low of 12.15 (in quartile 3) to a high of 16.61 in quartile 1. The variation in governance scores and dividend payouts within each quartile opens up the possibility that, all else equal, part of the variation in dividend payouts is explained by variations in corporate governance practices. What is not evident here is whether it is better or poorly-governed firms which pay higher dividends. In the next section, I examine these possibilities in greater detail.

Insert Table 3 about here

To do so, I repeat the analysis presented in Table 3, but now by strength of corporate governance. For each quartile of firms, and using all three dividend payout measures, I outline the average dividend payout for firms with high (above-median) and low (below-median) corporate governance. Here again, the summary findings using RE/TA are presented in the top panel, and RE/TE the bottom panel,

[15] In contrast, Loderer and Waelchli (2011) show that corporate governance quality deteriorates with firm age.

and since the summary findings are similar using RE/TA and RE/TE, I will once again concentrate on discussing the summary findings using RE/TA. They suggest the following. First, dividend payout increases in firm-level maturity, for both well and poorly governed firms. Using dividends to earnings (%), and from lowest to highest RE/TA quartile, dividend payout increases from 23.42% to 50.07% for better-governed firms (High Corporate Governance) and from 13.95% to 38.44% for poorly-governed firms (Low Corporate Governance). Second, and central to the goal of this paper, is that the outcome model of dividends holds, but only when firms are mature. Across all four quartiles, and again assuming all else equal, better governed firms pay larger dividends than poorly-governed firms. However, it is only when firms are mature i.e. in quartiles 3 and 4 that there is a statistically significant difference in dividend payouts between well and poorly-governed firms. Furthermore, this holds using all three dividend payout measures. For example, when dividends to earnings (%) is used to measure corporate dividend payout, better governed firms pay 11.63% more of their earnings as dividends than do poorly-governed firms do (compare 50.07% to 38.44%). Using dividends to sales (%), better governed firms pay significantly higher dividends compared to their less well governed firms in quartiles 3 and 4 (compare 5.76% and 3.57% in quartile 3 and 9.77% and 5.87% in quartile 4). These summary findings are largely supportive of hypothesis 1, but not hypothesis 2. In the next section, I examine whether these relations are maintained when I estimate equation 1 by level of RE/TA (and RE/TE).

Insert Table 4 about here

The coefficient estimates arising from estimating equation 1 by stage of corporate life-cycle are presented in Table 5. Since the findings from Table 4 suggest that there is a clear distinction in the relationship between corporate governance and dividend payout between quartiles 1 and 2 together and 3 and 4 together, I estimate equation 1 for above (i.e. quartiles 3 and 4) and below-median (i.e. quartiles 1 and 2) RE/TA and RE/TE. This has the additional benefit in that my regressions now include 110 firms, as opposed to just 55 firms if I was to estimate equation 1 by RE/TA (RE/TE) quartile. In Table 5, all firm, industry, and country controls are included, but not reported. The analysis presented in Table 5 is in line with that presented in Table 4, since the coefficient estimates on the corporate governance variable is only positive *and* statistically significant in the regressions estimated for mature firms only i.e. with above-

median RE/TA or RE/TE. These findings suggest that the outcome model holds, but not along the corporate life-cycle. Shareholders use their legal rights to extract larger dividends from firms, not when firms are growing, but when firms are mature. It appears that the significant variation in dividend payouts for high-growth, immature firms, which was evident in Table 3, are in no part explained by variations in corporate governance practices (which were also evident in Table 3). These results support hypothesis 1, but not hypothesis 2.

Insert Table 5 about here

My findings thus far suggest the following. The outcome model holds only at latter stages of the corporate life-cycle. Dividend payouts are higher when corporations are mature (i.e. a high RE/TA or RE/TE) *and* are well-governed. When the RE/TA (RE/TE) ratio is low, better-governed firms still pay higher dividends, when compared to poorly-governed firms, but differences in corporate governance practices between well and poorly-governed firms appear to explain none of the differences in dividend payouts between these firms. Presumably a combination of firm and country-level factors explains the payout differences.

Results by Stage of Corporate Life-Cycle & Strength of Creditor Rights

In the final section of this paper, I examine if shareholders in mature well-governed firms are still able to extract large dividends from firms when creditor rights are weak. I do so, since recent work suggests that creditor exert a greater influence over corporate dividend payout than shareholders do (see Brockman and Unlu (2009), Shao, Kwok and Guedhami (2009), and Byrne and O'Connor (2012)). In essence, their work shows that the outcome model of dividends, inclusive of the agency costs of equity and debt, is contingent on strong shareholder rights *and* creditor rights.[16] Where creditor rights are weak, creditors demand, and firms consent to much lower dividends. If the same holds true here in this analysis, and there is no reason to expect otherwise, then a priori, I would expect that the coefficient estimate on the corporate governance variable to be large when creditor rights are strong and firms mature, and much smaller for mature firms in countries where creditor rights are weak. Hence, the shareholders of better-

[16] Brockman and Unlu (2009) and Shao, Kwok and Guedhami (2009) use country-level shareholder rights measures. Byrne and O'Connor (2012) use country and firm-level measures of shareholder rights.

governed firms may not be able to extract large dividends if creditor rights are weak. This is unlikely to be a real concern for shareholders of firms in Malaysia, South Africa, and Singapore since the median firm tends to be well-governed in these countries and creditor rights strong. In contrast, the median firm is well-governed in Brazil, but creditor rights weak (see Table 1).

As a precursor consider Table 6. In Table 6, I focus on the high corporate governance mature (High RE/TA or RE/TE) and 'immature' firms (Low RE/TA or RE/TE) and further sub-divide by strength of creditor rights. I present the average dividend payout, using all three dividend payout ratios, for each group of firms. A priori, if creditors exert influence on corporate dividend policy, then I would expect that dividend payouts should be larger when governance *and* creditor rights are strong. The summary dividend payouts for mature firms are presented in the top panel of Table 6. The bottom panel outlines the average payout statistics for the low RE/TA and RE/TE firms.

Insert Table 6 about here

Let's begin with the 'mature' firms (i.e. high RE/TA (RE/TE) firms). Using both RE/TA and RE/TE, and in line with prior expectations, dividends payouts are larger for better-governed firms in countries where creditor rights are strong. For these firms, dividend payouts tend to be much larger, albeit not always significantly so, when creditor rights are strong. In contrast, for the 'immature' firms, dividend payouts tend to be larger, albeit insignificantly so, where creditor rights are weak. Of course, the difference in average payouts may be determined by firm level characteristics, which once controlled for, will permit a more robust analysis of the relationship between corporate governance and dividend policy in different legal regimes. This is where I turn to next.

Insert Table 7 about here

In Table 7, I estimate equation 1 now by strength of creditor rights. The top panel contains the coefficient estimates for the high RE/TA (RE/TE) group of firms, and the bottom panel the low RE/TA (RE/TE) firms. They suggest the following. First, when I sub-divide the mature firm sample by strength of creditor rights, and estimate equation 1, the coefficient estimates on the corporate governance variable are positive and statistically significant only where creditor rights are strong. The coefficient

estimates on the corporate governance variable range from 0.176 (t =4.57; p<0.01) (using dividends to sales (%)) to 0.496 (t =2.57, p<0.05) (using dividends to earnings (%)), when I use RE/TA to account for the firms stage in its life-cycle. Hence, dividends are an outcome of strong corporate governance *and* creditor rights. Interestingly, and consistent with Shao, Kwok and Guedhami (2009) and Byrne and O'Connor (2012), the outcome model gives way to the substitution model, where creditor rights are weak. I, like them, am unable to explain this apparent anomaly. Second, when I perform the same analysis for the low RE/TA (RE/TE) group of firms, I find support in favour of the outcome model where creditor rights are strong. The coefficient estimates are consistent with the average payout summary measures presented earlier in Table 4. Specifically, the coefficient estimates on the corporate governance variable are positive *and* statistically significant (at least using dividends to earnings (%) and dividends to cashflow (%)) only where creditor rights are strong. Where they are not, the coefficient estimates on the corporate governance measure are much lower, sometimes negative, and always statistically insignificant.[17] Interestingly, in some instances dividends are more sensitive to governance for 'immature' firms where creditor rights are strong. For example, using dividends to earnings (%) as the payout measure and RE/TA as the life-cycle measure, the coefficient estimate on the corporate governance variable where creditor rights is strong is 0.629 (t =3.09; p<0.01) for 'immature' firms compared to 0.496 (t =2.57; p<0.05) for mature firms. These results suggest that, if anything, and contrary to our prior expectations which are summarised in hypothesis 2, the outcome model is more and not less relevant at early stages of the corporate life-cycle.

In summary, my results are in line with Shao, Kwok and Guedhami (2009) and Byrne and O'Connor (2012) who shows that the outcome model of dividends prevails where shareholders *and* creditors are well-protected. In this paper, I extend our understanding of the agency models by showing that the outcome model prevails in emerging markets where shareholder *and* creditor rights are strong. Furthermore, this relationship prevails all along the corporate life-cycle.

[17] In appendix 1, I show that these conclusions remain unchanged when I define strong creditor rights where creditor rights are greater than (but not equal) to 2. This reclassification has the additional benefit that there is now a much larger number of firms, at least relative to before, in the low creditor rights group of firms.

CONCLUSIONS

In this paper, I test the outcome and substitution models of dividends of La Porta, Lopez-de-Silanes, Shleifer and Vishny (2000) along the corporate life-cycle. I present three hypotheses. The first (and second) state that the outcome (substitution) model of dividends is most likely to prevail when firms are 'mature' ('immature'). The third suggests that the ability on the part of firms to pay higher dividends, either as an *outcome* of strong governance, or a *substitute* for weak governance, is contingent on strong creditor rights. Using a sample of 220 firms from 21 emerging markets, I find no evidence to suggest that the substitution model prevails in emerging markets. In contrast, the outcome model holds at early and later stages along the corporate life-cycle. While, as expected, dividend payouts are much lower when firms are 'immature' i.e. have negative or low ratios of retained earnings to assets (or total equity), compared to when firms are 'mature', at all stages along the corporate life-cycle, better-governed firms pay larger dividends than their poorly-governed counterparts. However, on closer inspection, I find that they can only do so where creditor rights are strong. Where creditor rights are weak, shareholders of better-governed firms appear powerless to prevent firms from consenting to the demands from creditors for lower dividends. These findings are in line with those of Brockman and Unlu (2009), Shao, Kwok and Guedhami (2009) and Byrne and O'Connor (2012). They show that the agency cost of equity and debt version of the outcome model of dividends holds i.e. dividend payouts are largest where shareholder *and* creditor rights are strong.

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FIGURE 1

Life-Cycle Model of Dividends & Summary of Hypotheses

	Life-Cycle Model of Dividends				
	Years/ Corporate Maturity Increasing in Direction of Arrow →				
Maturity	Immature Low RE/TA (or RE/TE)			Mature High RE/TA (or RE/TE)	
External Financing Need (EFN)	High	High	Moderate	Low	Low
Internal Financing	Negative or Low	Negative or Low	Low as a % of EFN	High as a % of EFN	Greater then EFN
Capacity to Pay a Dividend	None	None	Low	Increasing	High
Growth Stage	Start-up	Rapid Expanse	High Growth	Mature Growth	Decline

	Summary of Hypotheses	
	Years/ Corporate Maturity Increasing in Direction of Arrow →	
Maturity	Immature Low RE/TA (or RE/TE)	Mature High RE/TA (or RE/TE)
Hypothesis 1	The *outcome* model of dividends is more likely to prevail when firms are 'mature'	
Hypothesis 2	The *substitution* model of dividends is likely to prevail when firms are young and 'immature'	
Hypothesis 3	The ability of firms to pay higher dividends rests crucially on strong creditor *and* shareholder rights	

TABLE 1

Sample Description

This table describes the sample by country. # Firm is the number of firms. For each country, I report the median (MD) and standard deviation (SD) of corporate governance, dividends to earnings (%), dividends to cashflow (%), dividends to sales (%), retained earnings to total assets (RE/TE), and retained earnings to total equity (RE/TE), respectively. In the remaining columns, I report shareholder rights (SR) data from Spamann (2009) and Djankov et al. (2008) (for China, Hungary, and Poland), and creditor rights (CR) data from Djankov, McLeish, and Shleifer (2007). All firm-level data is sourced from Worldscope. Corporate governance measures are from CLSA (2001).

		Corporate Governance		Dividend Payout Measures						Corporate Life-Cycle Measure				Shareholder & Creditor Rights	
		Corporate Governance		Dividends to Earnings (%)		Dividends to Cashflow (%)		Dividends to Sales (%)		Retained Earnings to Total Assets (RE/TA)		Retained Earnings to Total Equity (RE/TE)		Shareholder & Creditor Rights	
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
Country	# Firm	MD	SD	MD	SD	MD	SD	MD	SD	MD	SD	MD	SD	SR	CR
Argentina	1	66.7	-	0.0	-	0.0	-	0.0	-	0.06	-	0.18	-	3	1
Brazil	14	61.8	9.1	31.9	34.3	9.5	27.7	2.9	6.0	0.07	0.10	0.16	0.27	5	1
Chile	7	62.4	4.2	34.8	16.5	11.7	10.5	1.3	1.7	0.11	0.13	0.40	0.21	5	2
China	11	48.2	11.6	28.8	24.7	15.9	17.5	5.8	7.9	0.06	0.07	0.14	0.10	1	2
Colombia	1	53.2	-	66.0	-	82.2	-	6.0	-	0.03	-	0.05	-	4	0
Hong Kong	25	59.8	14.4	43.1	32.7	46.7	32.2	6.1	9.2	0.19	0.81	0.45	0.40	4	4
Hungary	1	48.5	-	85.5	-	10.6	-	0.5	-	0.01	-	0.01	-	2	1
India	13	53.4	10.4	19.7	23.6	13.7	28.1	3.4	2.4	0.10	0.14	0.21	0.18	4	2
Indonesia	12	36.3	13.6	23.7	26.0	20.3	26.6	2.0	4.8	0.23	0.23	0.57	0.55	4	2
Korea	13	39.7	5.8	5.9	9.2	3.0	4.9	0.2	0.8	0.01	0.15	0.01	0.40	4	3
Malaysia	22	60.3	12.8	33.4	30.2	27.0	27.5	4.8	5.1	0.31	0.14	0.51	0.22	4	3
Mexico	4	67.0	4.0	28.1	14.9	15.4	8.0	4.0	2.8	0.42	0.28	0.98	0.76	2	0
Pakistan	4	33.6	20.2	76.8	40.7	71.1	36.4	9.7	7.8	0.02	0.02	0.05	0.05	5	1
Peru	1	76.5	-	18.9	-	33.0	-	8.0	-	0.41	-	0.52	-	4	0
Philippines	12	40.6	12.2	5.3	19.6	0.4	18.6	0.2	1.6	0.12	0.46	0.48	0.76	4	1
Poland	1	37.7	-	0.0	-	0.0	-	0.0	-	0.14	-	0.40	-	2	1
Singapore	18	67.4	6.7	44.0	31.9	24.8	29.0	1.9	7.1	0.14	0.30	0.45	0.62	4	3
Sth Africa	16	64.3	16.1	27.5	33.0	22.6	23.3	2.9	7.2	0.15	0.27	0.67	0.40	5	3
Taiwan	31	54.9	9.1	17.4	25.4	9.3	20.2	1.1	3.5	0.09	0.19	0.16	0.42	5	2
Thailand	6	54.6	15.3	46.0	38.8	26.0	20.6	4.6	8.5	0.18	0.17	0.37	0.41	4	2
Turkey	7	46.6	10.6	0.0	20.0	0.0	6.7	0.0	0.6	0.11	0.12	0.18	0.27	4	2
	Total Sample														
		MD	SD	MD	SD	MD	SD	MD	SD	MD	SD	MD	SD	Median	
	220	55.8	14.6	23.4	29.5	15.4	26.4	2.2	6.2	0.12	0.34	0.27	0.67	4	2

TABLE 2

Regression Estimates

This table reports coefficient estimates from ordinary least squares with heteroscedastic consistent t-stats presented underneath in parenthesis. The sample period is for the year 2001. The dependent variable is dividends to earnings (%), dividends to cashflow (%), and dividends to sales (%), as indicated. Size is the log of book assets in US$, growth is logarithmic one-year asset growth, profitability is earnings before interest and taxation to book assets, cash is cash to assets, and total equity to total assets, retained earnings is retained earnings to total assets. In columns (1), (3), and (5) a full set of country and industry dummies are included, but not reported. The country dummies are excluded from columns (2), (4), and (6). Shareholder rights data is from Spamann (2009) and Djankov et al. (2008) (for China, Hungary, and Poland), and creditor rights data is from Djankov, McLeish, and Shleifer (2007). All firm-level data is sourced from Worldscope. Corporate governance measures are from CLSA (2001). # Firms is the number of firms, and ***, **, and * denotes significance at the 1, 5, and 10% level, respectively.

	Dividend Payout Measure					
	Dividends to Earnings (%)		Dividends to Cashflow (%)		Dividends to Sales (%)	
	(1)	(2)	(3)	(4)	(5)	(6)
Corporate Governance	0.369**	0.438***	0.270*	0.340***	0.070**	0.071***
	(2.20)	(3.44)	(1.91)	(3.05)	(2.12)	(2.86)
Size	1.862	1.554	0.615	0.219	0.547*	0.442*
	(1.08)	(1.04)	(0.42)	(0.18)	(1.66)	(1.68)
Growth	-29.690**	-27.235**	2.691	2.893	-3.065	-2.359
	(2.06)	(2.18)	(0.22)	(0.27)	(1.02)	(0.91)
Profitability	18.308	8.653	26.156	20.806	12.467***	10.816***
	(0.80)	(0.48)	(1.49)	(1.42)	(3.04)	(2.88)
Cash	8.099	9.541	7.611	11.278	3.731	4.354
	(0.44)	(0.57)	(0.52)	(0.86)	(0.97)	(1.19)
Total Equity (TE)	15.975	20.804	8.712	13.970	8.893***	8.897***
	(1.11)	(1.56)	(0.67)	(1.21)	(3.10)	(3.48)
Retained Earnings (RE)	16.864**	13.471**	9.548	5.821	0.475	0.214
	(2.46)	(2.15)	(1.51)	(1.03)	(0.49)	(0.23)
Shareholder Rights (SR)		-0.485		0.382		-0.425
		(0.21)		(0.24)		(0.97)
Creditor Rights (CR)		1.588		3.004		0.475
		(0.69)		(1.46)		(1.08)
Industry Dummies	Included	Included	Included	Included	Included	Included
Country Dummies	Included	Excluded	Included	Excluded	Included	Excluded
# Firms	220	220	220	220	220	220
R-Squared	0.388	0.306	0.457	0.390	0.508	0.448

TABLE 3

Summary Statistics by RE/TA, RE/TE and Corporate Governance

This table reports the average and variation (standard deviation) of dividend payout ratios and corporate governance by level of retained earnings to total assets (RE/TA), or retained earnings to total equity (RE/TE), as indicated. Firms are assigned to one of four RE/TA or RE/TE quartiles. The top panel reports the mean and median retained earnings to total assets (RE/TA), or retained earnings to total equity (RE/TE), as indicated. The sample period is for the year 2001. Dividend payout is measured using dividends to earnings (%), dividends to cashflow (%), and dividends to sales (%), as indicated. All firm-level data is sourced from Worldscope. Corporate governance measures are from CLSA (2001).

	Summary Statistics				
	RE/TA Quartile				
	Lowest	(2)	(3)	Highest	High – Low
Mean	(0.15)	0.07	0.20	0.45	0.60
Median	0.00	0.08	0.20	0.43	0.43
	RE/TE Quartile				
	Lowest	(2)	(3)	Highest	High – Low
Mean	(0.50)	0.18	0.43	1.34	1.84
Median	0.00	0.17	0.42	0.74	0.74
	Dividend Payout by RE/TA and RE/TE Quartile				
	RE/TA				
Average	RE/TA Quartile				
	Lowest	(2)	(3)	Highest	High – Low
Dividends to Earnings (%)	17.67	27.34	34.82	45.84	28.17
Dividends to Cashflow (%)	10.21	22.70	24.97	37.78	27.57
Dividends to Sales (%)	2.47	3.33	4.69	8.35	5.88
Corporate Governance	50.97	53.31	55.87	60.70	9.73
	RE/TA				
Standard Deviation	RE/TA Quartile				
	Lowest	(2)	(3)	Highest	High – Low
Dividends to Earnings (%)	29.82	28.29	27.98	24.95	(4.87)
Dividends to Cashflow (%)	20.53	28.07	23.97	25.52	4.99
Dividends to Sales (%)	5.37	5.46	4.95	7.29	1.92
Corporate Governance	16.61	13.48	12.15	14.89	(1.72)
	RE/TE				
Average	RE/TE Quartile				
	Lowest	(2)	(3)	Highest	High – Low
Dividends to Earnings (%)	18.33	33.99	36.60	36.57	18.24
Dividends to Cashflow (%)	12.56	25.23	28.60	29.04	16.48
Dividends to Sales (%)	2.62	4.67	5.31	6.24	3.62
Corporate Governance	50.66	56.06	56.65	56.13	5.47
	RE/TE				
Standard Deviation	RE/TE Quartile				
	Lowest	(2)	(3)	Highest	High – Low
Dividends to Earnings (%)	29.32	30.82	28.68	25.74	(3.58)
Dividends to Cashflow (%)	23.71	27.50	25.41	26.01	2.30
Dividends to Sales (%)	5.38	6.12	5.90	6.98	1.60
Corporate Governance	16.33	12.97	12.65	15.53	(0.80)

TABLE 4

Summary Statistics by RE/TA, RE/TE and Corporate Governance

This table reports the average dividend payout by level of retained earnings to total assets (RE/TA) and corporate governance, or retained earnings to total equity (RE/TE) and corporate governance, as indicated. Firms are assigned to one of four RE/TA or RE/TE quartiles, and a high (above-median) or low (below-median) corporate governance group. The sample period is for the year 2001. Dividend payout is measured using dividends to earnings (%), dividends to cashflow (%), and dividends to sales (%), as indicated. All firm-level data is sourced from Worldscope. Corporate governance measures are from CLSA (2001). ***, **, and * denotes significance at the 1, 5, and 10% level, respectively.

	RE/TA				
	RE/TA Quartile				
Dividends to Earnings (%)	Lowest	(2)	(3)	Highest	High – Low
High Corporate Governance	23.42	28.88	40.22	50.07	26.65
Low Corporate Governance	13.95	26.00	29.22	38.44	24.49
Difference	9.47	2.88	11.00	11.63*	
	RE/TA Quartile				
Dividends to Cashflow (%)	Lowest	(2)	(3)	Highest	High – Low
High Corporate Governance	14.50	26.44	30.33	39.24	24.74
Low Corporate Governance	7.43	19.47	19.41	35.23	27.80
Difference	7.07	6.97	10.92*	4.01	
	RE/TA Quartile				
Dividends to Sales (%)	Lowest	(2)	(3)	Highest	High – Low
High Corporate Governance	3.30	2.69	5.76	9.77	6.47
Low Corporate Governance	1.93	3.88	3.57	5.87	3.94
Difference	1.37	(1.19)	2.19*	3.90*	
	RE/TE				
	RE/TE Quartile				
Dividends to Earnings (%)	Lowest	(2)	(3)	Highest	High – Low
High Corporate Governance	23.33	35.51	42.71	42.71	19.38
Low Corporate Governance	15.48	32.52	28.46	28.29	12.81
Difference	7.85	2.99	14.25*	14.42**	
	RE/TE Quartile				
Dividends to Cashflow (%)	Lowest	(2)	(3)	Highest	High – Low
High Corporate Governance	14.45	29.77	34.51	32.44	17.99
Low Corporate Governance	11.48	20.85	20.73	24.46	12.98
Difference	2.97	8.92	13.78**	7.98	
	RE/TE Quartile				
Dividends to Sales (%)	Lowest	(2)	(3)	Highest	High – Low
High Corporate Governance	3.34	4.68	6.21	8.11	4.77
Low Corporate Governance	2.21	4.66	4.10	3.71	1.50
Difference	1.13	0.02	2.11	4.40**	

TABLE 5

Regression Estimates by Level of RE/TA and RE/TE

This table reports coefficient estimates from ordinary least squares with heteroscedastic consistent t-stats presented underneath in parenthesis. The sample period is for the year 2001. Separate regressions are estimated for firms with high (above-median) and low (below-median) retained earnings to total assets (RE/TA), or retained earnings to total equity (RE/TE), as indicated. The dependent variable is dividends to earnings (%), dividends to cashflow (%), and dividends to sales (%), as indicated. A full set of firm-level controls, country and industry dummies are included, but not reported. All firm-level data is sourced from Worldscope. Corporate governance measures are from CLSA (2001). # Firms is the number of firms, and ***, **, and * denotes significance at the 1, 5, and 10% level, respectively.

	Dividend Payout Ratio					
	Dividends to Earnings (%)		Dividends to Cashflow (%)		Dividends to Sales (%)	
	RE/TA					
	Low RE/TA	High RE/TA	Low RE/TA	High RE/TA	Low RE/TA	High RE/TA
Corporate Governance	0.241	0.392*	0.164	0.285	0.010	0.170***
	(0.84)	(1.87)	(0.70)	(1.18)	(0.01)	(3.26)
Controls	Included	Included	Included	Included	Included	Included
Industry Dummies	Included	Included	Included	Included	Included	Included
Country Dummies	Included	Included	Included	Included	Included	Included
# Firms	110	110	110	110	110	110
R-Squared	0.605	0.516	0.592	0.516	0.538	0.557
	Dividend Payout Ratio					
	Dividends to Earnings (%)		Dividends to Cashflow (%)		Dividends to Sales (%)	
	RE/TE					
	Low RE/TE	High RE/TE	Low RE/TE	High RE/TE	Low RE/TE	High RE/TE
Corporate Governance	0.212	0.200	0.250	0.076	0.022	0.129**
	(0.69)	(0.89)	(1.06)	(0.37)	(0.38)	(2.60)
Controls	Included	Included	Included	Included	Included	Included
Industry Dummies	Included	Included	Included	Included	Included	Included
Country Dummies	Included	Included	Included	Included	Included	Included
# Firms	110	110	110	110	110	110
R-Squared	0.563	0.555	0.604	0.506	0.554	0.585

TABLE 6

Summary Statistics by Level of RE/TA, RE/TE and Creditor Rights

This table reports average dividend payout ratios by level of governance and creditor rights for firms with above-median retained earnings to total assets (RE/TA), or above-median retained earnings to total equity (RE/TE), as indicated. The sample period is for the year 2001. Dividend payout is measured using dividends to earnings (%), dividends to cashflow (%), and dividends to sales (%), as indicated. All firm-level data is sourced from Worldscope. Corporate governance measures are from CLSA (2001). Creditor rights data is from Djankov, McLeish, and Shleifer (2007). ***, **, and * denotes significance at the 1, 5, and 10% level, respectively.

	Dividend Payout Ratio		
	Dividends to Earnings (%)	Dividends to Cashflow (%)	Dividends to Sales (%)
	High RE/TA		
High Corporate Governance & High Creditor Rights	47.33	36.97	8.21
High Corporate Governance & Low Creditor Rights	30.18	19.23	5.87
Difference	17.15	17.74*	2.34
	Dividend Payout Ratio		
	Dividends to Earnings (%)	Dividends to Cashflow (%)	Dividends to Sales (%)
	High RE/TE		
High Corporate Governance & High Creditor Rights	44.63	35.60	7.40
High Corporate Governance & Low Creditor Rights	27.39	16.60	5.07
Difference	17.24	19.00*	2.33
	Dividend Payout Ratio		
	Dividends to Earnings (%)	Dividends to Cashflow (%)	Dividends to Sales (%)
	Low RE/TA		
High Corporate Governance & High Creditor Rights	24.76	19.63	2.33
High Corporate Governance & Low Creditor Rights	30.91	24.43	4.85
Difference	(6.15)	(4.80)	(2.52)
	Dividend Payout Ratio		
	Dividends to Earnings (%)	Dividends to Cashflow (%)	Dividends to Sales (%)
	Low RE/TE		
High Corporate Governance & High Creditor Rights	29.58	22.23	3.76
High Corporate Governance & Low Creditor Rights	32.75	26.58	5.26
Difference	(3.17)	(4.35)	(1.50)

TABLE 7

Regression Estimates by Level of RE/TA, RE/TE and Creditor Rights

This table reports coefficient estimates from ordinary least squares with heteroscedastic consistent t-stats presented underneath in parenthesis. The sample period is for the year 2001. Separate regressions are estimated for firms with high (above-median) and low (below-median) retained earnings to total assets (RE/TA) (or retained earnings to total equity (RE/TE), as indicated), domiciled in countries with high (above-median) and low (below-median) creditor rights. The dependent variable is dividends to earnings (%), dividends to cashflow (%), and dividends to sales (%), as indicated. A full set of firm-level control are included, but not reported. All firm-level data is sourced from Worldscope. Corporate governance measures are from CLSA (2001). # Firms is the number of firms, and ***, **, and * denotes significance at the 1, 5, and 10% level, respectively.

	Dividend Payout Measure					
	Dividends to Earnings (%)		Dividends to Cashflow (%)		Dividends to Sales (%)	
	High RE/TA					
	Low Creditor	High Creditor	Low Creditor	High Creditor	Low Creditor	High Creditor
Corporate Governance	-0.729	0.496**	-0.446	0.404**	-0.010	0.176***
	(1.56)	(2.57)	(0.71)	(2.32)	(0.09)	(4.57)
Controls	Included	Included	Included	Included	Included	Included
# Firms	13	97	13	97	13	97
R-Squared	0.445	0.197	0.275	0.148	0.754	0.271
	Dividend Payout Measure					
	Dividends to Earnings (%)		Dividends to Cashflow (%)		Dividends to Sales (%)	
	High RE/TE					
	Low Creditor	High Creditor	Low Creditor	High Creditor	Low Creditor	High Creditor
Corporate Governance	-0.528**	0.447**	-0.422	0.354**	-0.010	0.153***
	(2.60)	(2.34)	(0.80)	(2.14)	(0.22)	(4.42)
Controls	Included	Included	Included	Included	Included	Included
# Obs	14	96	14	96	14	96
R-Squared	0.889	0.257	0.386	0.168	0.784	0.302
	Dividend Payout Measure					
	Dividends to Earnings (%)		Dividends to Cashflow (%)		Dividends to Sales (%)	
	Low RE/TA					
	Low Creditor	High Creditor	Low Creditor	High Creditor	Low Creditor	High Creditor
Corporate Governance	-0.103	0.629***	0.027	0.414***	-0.021	0.032
	(0.20)	(3.09)	(0.06)	(2.83)	(0.27)	(0.88)
Controls	Included	Included	Included	Included	Included	Included
# Firms	26	84	26	84	26	84
R-Squared	0.335	0.257	0.328	0.276	0.489	0.295
	Dividend Payout Measure					
	Dividends to Earnings (%)		Dividends to Cashflow (%)		Dividends to Sales (%)	
	Low RE/TE					
	Low Creditor	High Creditor	Low Creditor	High Creditor	Low Creditor	High Creditor
Corporate Governance	-0.362	0.711***	0.069	0.491***	-0.010	0.057
	(0.54)	(3.45)	(0.13)	(3.08)	(0.05)	(1.42)
Controls	Included	Included	Included	Included	Included	Included
# Obs	25	85	25	85	25	85
R-Squared	0.325	0.300	0.306	0.289	0.475	0.365

APPENDIX 1

Regression Estimates by Level of RE/TA, RE/TE and Creditor Rights

This table reports coefficient estimates from ordinary least squares with heteroscedastic consistent t-stats presented underneath in parenthesis. The sample period is for the year 2001. Separate regressions are estimated for firms with high (above-median i.e. creditor rights measure greater than 2) and low (below-median i.e. creditor rights measure less than and equal to 2) retained earnings to total assets (RE/TA) (or retained earnings to total equity (RE/TE), as indicated), domiciled in countries with high (above-median) and low (below-median) creditor rights. The dependent variable is dividends to earnings (%), dividends to cashflow (%), and dividends to sales (%), as indicated. A full set of firm-level control are included, but not reported. All firm-level data is sourced from Worldscope. Corporate governance measures are from CLSA (2001). # Firms is the number of firms, and ***, **, and * denotes significance at the 1, 5, and 10% level, respectively.

	Dividend Payout Measure					
	Dividends to Earnings (%)		Dividends to Cashflow (%)		Dividends to Sales (%)	
	High RE/TA					
	Low Creditor	High Creditor	Low Creditor	High Creditor	Low Creditor	High Creditor
Corporate Governance	0.176	0.388	-0.072	0.464**	0.102**	0.206***
	(0.55)	(1.51)	(0.23)	(2.26)	(2.19)	(3.69)
Controls	Included	Included	Included	Included	Included	Included
# Firms	52	58	52	58	52	58
R-Squared	0.079	0.321	0.239	0.183	0.336	0.272
	Dividend Payout Measure					
	Dividends to Earnings (%)		Dividends to Cashflow (%)		Dividends to Sales (%)	
	High RE/TE					
	Low Creditor	High Creditor	Low Creditor	High Creditor	Low Creditor	High Creditor
Corporate Governance	0.019	0.438	-0.316	0.461**	0.062	0.182***
	(0.10)	(1.41)	(1.62)	(2.07)	(1.48)	(3.29)
Controls	Included	Included	Included	Included	Included	Included
# Obs	49	61	49	61	49	61
R-Squared	0.342	0.308	0.456	0.195	0.425	0.284
	Dividend Payout Measure					
	Dividends to Earnings (%)		Dividends to Cashflow (%)		Dividends to Sales (%)	
	Low RE/TA					
	Low Creditor	High Creditor	Low Creditor	High Creditor	Low Creditor	High Creditor
Corporate Governance	0.087	0.976***	0.190	0.499*	0.010	0.036
	(0.40)	(2.86)	(1.05)	(1.97)	(0.11)	(0.58)
Controls	Included	Included	Included	Included	Included	Included
# Firms	74	36	74	36	74	36
R-Squared	0.256	0.409	0.257	0.281	0.291	0.355
	Dividend Payout Measure					
	Dividends to Earnings (%)		Dividends to Cashflow (%)		Dividends to Sales (%)	
	Low RE/TE					
	Low Creditor	High Creditor	Low Creditor	High Creditor	Low Creditor	High Creditor
Corporate Governance	0.115	0.831**	0.265	0.323	0.010	0.044
	(0.48)	(2.18)	(1.33)	(1.25)	(0.15)	(0.70)
Controls	Included	Included	Included	Included	Included	Included
# Obs	77	33	77	33	77	33
R-Squared	0.221	0.476	0.229	0.472	0.253	0.590