Agency Conflicts and Corporate Payout Policies: A Global Study

Söhnke M. Bartram and Philip Brown and Janice C.Y. How and Peter Verhoeven

Lancaster University Management School, University of New South Wales - Australian School of Business, University of Western Australia, Queensland University of Technology, School of Economics and Finance

13. July 2007

Agency Conflicts and Corporate Payout Policies: A Global Study

Söhnke M. Bartram[1], Philip Brown[2], Janice C.Y. How[3], and Peter Verhoeven[4]

Abstract

We investigate the roles of firm and country level agency conflicts in determining corporate payout policies. Based on a large sample of 29,610 firms in 43 countries from 2001 to 2006, we find that in high protection countries, investors are able to use their legal powers to extract cash from firms but their ability to do so can be substantially hindered when agency costs at the firm level are high. In poor protection countries, investors can seek refuge in firm level governance mechanisms to curb agency conflicts, suggesting a substitution between country and firm level investor protection. Finally, compared to repurchases, we find dividends are more likely to be the sole method of payout in high protection countries and in less closely held firms.

Keywords: Dividends, share repurchases, agency costs, payout choice, governance
JEL Classification: G3, F4, F3
This draft: 10 June 2010
First draft: 13 July 2007

[1] Lancaster University and SSgA, Management School, Department of Accounting and Finance, Lancaster LA1 4YX, United Kingdom, phone: +44 (15 24) 592 083, fax: +1 (425) 952 10 70, Email: <s.m.bartram@lancaster.ac.uk>, Internet: <http://www.lancs.ac.uk/staff/bartras1/>.

[2] University of New South Wales - Australian School of Business, Sydney, Australia, and University of Western Australia - Department of Accounting and Finance, School of Business, M250, 35 Stirling Highway, Crawley WA 6009, Australia. +61 8 6488 2899 (Phone), +61 8 6488 1047 (Fax), philip.brown@uwa.edu.au.

[3] School of Economics and Finance, Queensland University of Technology, GPO Box 2434 Brisbane, Queensland, Australia 4001. Email: janice.how@qut.edu.au

[4] School of Economics and Finance, Queensland University of Technology, GPO Box 2434 Brisbane, Queensland, Australia 4001. Email: peter.verhoeven@qut.edu.au

Helpful comments and suggestions by Tim Adam, John Becker-Blease, Kose John, Meziane Lasfer, Tracy Yue Wang and seminar participants at the Financial Intermediation Research Society Conference, Financial Management Association Annual Conference, Accounting and Finance Association of Australia and New Zealand Conference, and Queensland University of Technology are gratefully acknowledged. We are especially indebted to Institutional Shareholder Services for their corporate governance data. Kevin Aretz, Natalia Chatalova and Nikolaos Voukelatos provided valuable research assistance. Financial support from The University of Auckland's Business Faculty Staff Research Development Grant is gratefully acknowledged.

Agency Conflicts and Corporate Payout Policies: A Global Study

Abstract

We investigate the roles of firm and country level agency conflicts in determining corporate payout policies. Based on a large sample of 29,610 firms in 43 countries from 2001 to 2006, we find that in high protection countries, investors are able to use their legal powers to extract cash from firms but their ability to do so can be substantially hindered when agency costs at the firm level are high. In poor protection countries, investors can seek refuge in firm level governance mechanisms to curb agency conflicts, suggesting a substitution between country and firm level investor protection. Finally, compared to repurchases, we find dividends are more likely to be the sole method of payout in high protection countries and in less closely held firms.

Keywords: Dividends, share repurchases, agency costs, payout choice
JEL Classification: G3, F4, F3

Fifty years after Miller and Modigliani's seminal work on corporate financial policy, there is much about a company's payout policy that is still not well understood. Signaling future earnings and income taxes are widely believed to be two considerations when the board decides the payout.[1] We focus on a third, namely the role of dividends and other payouts in resolving agency-based conflict between insiders and outside shareholders (Jensen (1986)). All else equal, shareholders prefer the firm to pay out a larger fraction of its earnings since a lower retention rate reduces any opportunities for managers to squander money on unprofitable projects or to disadvantage outside shareholders in other ways.

La Porta, Lopez-de-Silanes, Shleifer and Vishny ((2000); hereafter LLSV) establish the importance of the quality of shareholder protection[2] as a country level proxy for lower agency costs in determining dividend payouts. Their results support the outcome model, which is based on the notion that minority shareholders in high protection countries can protect their interests by pressuring managers into distributing cash. Minority shareholders can do this because they have access to various legal mechanisms such as the right to vote on important corporate matters and the right to sue the firm for damages. The greater the minority rights, the more cash they can extract from the company, all else equal.[3] In this model, dividend policy reflects the level of investor protection.

However, agency costs can differ substantially across firms within any one country. This implies that country level measures of shareholder protection, as an indicator of expected agency costs, are limited in

[1] See DeAngelo, DeAngelo and Skinner (2008), who synthesize a vast amount of research on corporate payout policy grounded in the pioneering work of Lintner (1956) and Miller and Modigliani (1961). This research has focused on signaling models (e.g. Bhattacharya (1979), Miller and Rock (1985), John and Williams (1985), Ambarish, John and Williams (1987), Williams (1988), DeAngelo, DeAngelo and Skinner (1996), Benartzi, Michaely and Thaler (1997), Grullon and Michaely (2002)), agency costs (e.g. Jensen and Meckling (1976), Grossman and Hart (1980), Easterbrook (1984), Jensen (1986), Lang and Litzenberger (1989), Del Guercio (1996), Lie (2000), Grullon and Michaely (2002), Oded (2008)), clientele models and taxes (e.g. Brennan (1970), Elton and Gruber (1970), Kalay (1982), Miller and Scholes (1978), Desai and Jin (2008), Rossi and Laham (2008)), behavioral aspects (e.g. Thaler and Shefrin (1981)), payout choice (e.g. Vermaelen (1984), Bagwell (1991), Stulz (1988), Barclay and Smith (1988), Brennan and Thakor (1990), Jagannathan, Stephens and Weisbach(2000)), or other aspects of payout policy (e.g. Grullon, Paye, Underwood and Weston (2008), Daniel, Denis and Naveen (2008)).

[2] LLSV use two indicators of shareholder protection. One is based on a country's legal regime (common law or civil law) and the other on whether a country's index of antidirector rights is above or below the sample median.

[3] The alternative view, which is presented by the substitution model, assumes corporate insiders have an incentive to pay dividends to minority shareholders in order to establish a good reputation and thereby reduce the cost of capital in future equity issues. Under this view, a negative relationship between shareholder protection and payouts is predicted.

the insights they can yield since they do not allow for and thus do not capture variation in agency costs at the firm level. We thus test whether differences in firm level agency costs within the same regulatory environment also have explanatory power, and how they interact with country level agency costs in determining corporate payouts. Our findings have important implications for understanding country versus firm level constraints on managers.

Although both country level and firm level measures of agency conflicts have separately been found to matter in corporate payouts, the literature is surprisingly thin on their relative importance. Faccio, Lang and Young (2001) report higher dividend payouts in firms with lower agency conflicts, measured by the divergence between the controlling shareholder's ownership rights and its control rights, after accounting for country level investor protection. Our study differs from their work in a number of important ways.

While Faccio, Lang and Young (2001) focus on 5 Western and 9 Eastern countries, our sample comprises 43 countries, thus increasing the generality of our findings on corporate payout decisions. Further, in light of the increasing use of share repurchases to disburse cash (Fama and French (2001)), all our tests include the potentially important role of repurchases in the aggregate corporate payout; LLSV's study is based only on one year, 1994, which had relatively fewer repurchases compared to our much more recent and extended sample period (2001-2006).[4] More importantly, unlike Faccio, Lang and Young (2001), who treat country level investor protection as a control variable, we investigate the interplay between firm and country level agency cost measures in relation both to the total payout and to the choice of the form of payout (i.e., dividends versus stock repurchases).

[4] LLSV acknowledge (p. 5) share repurchases are excluded from their study and briefly discuss possible effects on their results. The increasing significance of share repurchases as a form of payout is clearly evident in our time series. For the period up to and including 1994, the year on which LLSV's results are based, the world average (median) of repurchases as a percentage of net income (earnings) was 3.69% (0.95%). The proportion increased from 2000 onwards, reaching an average of 6.99% (median 4.5%) in 2006. Share repurchases averaged about 3% (median 1%) of total payouts in each year up to and including 1994, but averaged about 11% (median 9%) in later years. The median proportion of firms engaging in share repurchases increased dramatically, from one in 100 in 1994 to almost one in five in 2006.

Overall, our findings confirm the generality of the outcome model of corporate payouts. The effectiveness of legal measures to protect outside shareholders differs substantially across countries, as reported by LLSV, but within a country, agency costs differ across firms as well. Consequently, although investors in high protection countries are able to use their legal power to extract cash, either in the form of dividends or repurchases, agency conflicts at the firm level hinder their ability to do so. For example, a one standard deviation decrease in ownership concentration, a proxy for firm level agency costs, is associated with a 2.6% increase in total payouts whereas a one standard deviation increase in ownership independence, another proxy for firm level agency costs, is associated with a 1.7% increase in total payouts. When the corporate governance score is used to proxy firm level agency costs, a one standard deviation increase in the governance score is associated with a 2.1% increase in total payouts. Finally, insider-dominated firms, proxying higher firm level agency costs, have a 3.6% lower payout than non insider-dominated firms. In low protection countries, firm level agency conflicts also matter to payouts with some evidence of substitutions between country and firm level investor protection.

A further implication of the outcome model is that firms with higher investment opportunities have lower payouts only in countries where investors enjoy adequate protection. The use of firm level data allows us to develop a robust test of this argument by including various measures of firm level agency costs in a 2×2×2 matrix of high versus low investor protection, high versus low agency costs, and high versus low growth opportunities. According to the outcome model, in high protection countries, payouts are predicted to decrease as we move from low growth/low agency cost firms to high growth/high agency cost firms. In low protection countries, investors are less able to force firms to disgorge an operating cash surplus, implying we should observe a lower payout ratio relative to firms in high protection countries, irrespective of growth opportunities and other agency costs.

Our results show high growth firms have significantly lower payouts when agency conflicts at both firm and country levels are low. Therefore, in the presence of investment opportunities, investors are

willing to defer the receipt of a return on their investment to a later period if they enjoy high protection at both the country and firm levels, consistent with the outcome model. As expected, the strength of the relationship between payouts and growth opportunities is reduced when agency costs at either the country or firm level increase, using ownership independence and insider-dominated firms to proxy firm level agency costs. This implies that although some protection, either at the firm or country level, is at least partly effective in enabling investors to extract surplus cash in the face of investment opportunities, the "best" outcome for corporate payouts occurs when protection is effective at both country and firm levels. Evidence of substitutions between country and firm level agency costs in the relationship between payouts and growth opportunities is found when we proxy firm level agency costs by ownership concentration and governance quality.

We extend the test of the outcome model to the choice of the form of payout since dividends and share repurchases can play different roles in mitigating agency conflicts. Consistent with predictions, investors in high protection countries are more able to pressure firms to pay the surplus cash in the (preferred) form of committed dividend payments. Agency conflicts at the firm level are also significant in explaining corporate choice of the form of payout. Of the firm level agency cost variables investigated, the outcome model of payout choice is supported when we proxy agency costs by ownership concentration. In countries where investors enjoy greater protection, more closely held (higher agency conflict) firms choose the more flexible option of repurchase while less closely held (lower agency conflict) firms choose dividends, thereby committing to the payout in the longer term.

We subject our findings to a battery of tests and find they are robust to several country and firm level variable specifications, and when we exclude the country that is the most heavily represented in our sample. Industry adjustments are also considered but they do not change the thrust of our conclusions. In the spirit of Spamann (2010), we investigate alternative measures of legal investor protection and add the

outcome model of corporate payouts to the list of tests that survive the corrections to the widely used antidirector rights index.

Our paper thus contributes to recent developments in international corporate finance research on the relative importance of firm and country level variables to key corporate policy outcomes. For example, Miller and Reisel (2009) study restrictive covenants attached to public corporate bonds and find that investor protection can be derived not only from legal rights provided by countries' laws but also from rights attached to individual securities at the issuer's discretion. Bruno and Claessens (2007) find a neutral or negative interaction effect between country regulatory regimes and firm corporate governance practices on firm valuation. Dahya, Dimitrov and McConnell (2008) conclude firm value is positively related to board independence for a sample of firms with a controlling shareholder in poor protection countries. Finally, Durnev and Kim (2005) and Klapper and Love (2004) find firms that need external funding adopt stronger governance practices than required by law, especially in weak investor protection countries. We extend this line of research by documenting the relative importance and the interactive effects of the strength of legal investor protection, as a proxy for country level agency conflicts, and firm level agency conflicts in determining corporate payout policy.

An implication of our findings is that the rights of minority shareholders are mostly determined at the country level rather than the firm level, consistent with other recent papers. In particular, Harford, Mansi and Maxwell (2008) report the effects of country level granting and enforcing of shareholder rights dominate the effect of variation in the control of firm level agency conflicts; Doidge, Karolyi and Stulz (2007) find that although firm-specific variables are successful in explaining variation in firm level corporate governance and disclosure practices, their explanatory power is dwarfed by that of country characteristics; and Aggarwal, Esrel, Stulz and Williamson (2007) find evidence that countries in which investors are poorly protected have poorer corporate governance as well.

The remainder of our paper is organized as follows. The next section describes the data and research method. Section II outlines the sample profile and discusses some univariate results. Results from multivariate analysis of cross-sectional differences in the amount of total payouts and the choice of the form of payouts (i.e., dividends versus share repurchases) are discussed in Section III. Section IV summarizes and concludes the paper.

I. Data and Method

Our sample is based on Thomson Financial's Worldscope database. Since share repurchases have become increasingly popular over time, we perform our analysis for the period 2001-2006. We eliminate firm-years with reportedly negative dividends (*Field: 04551*) and with non-positive sales (*Field: 07240*), net income (*Field: 01751*) or operating cash flow (*Field: 04201*), and financial firms (*Field: 04300*). Firm-years with missing data on dividends, sales, net income or cash flow, and where dividends and net income exceed sales, are also excluded. So are countries with less than 30 firm-year observations and with mandatory dividend payouts exceeding 25% of net income (Brazil, Chile, Columbia, Ecuador, Greece, Uruguay and Venezuela). Our final sample consists of 87,213 firm-year observations covering 29,610 firms in 43 countries. Appendix I shows the sample coverage by country and year.

For these firms, we obtain accounting data to compute payout ratios as well as variables describing other firm characteristics. Several variables are employed to measure corporate disbursements. We employ funds used to decrease outstanding common or preferred stock (*Field: 04751*) to proxy for share repurchases (Allen and Michaely, 2003). Dividend payout is the sum of common and preferred dividends (*Field: 04551*), while total payout is dividends plus share repurchases. To accommodate differences in accounting standards across countries and changes over time, the three payout measures (dividends, repurchases, and their sum) are scaled either by net income, net cash flow from operations, or net sales.

We compute the industry-adjusted measure of sales growth rate (Growth), where the growth rate is the average percentage change in the last five years' annual sales. For each firm in a given industry, we make this adjustment relative to the worldwide median for that industry in that year, rather than the country-wide median. The adjustment controls for differences in the growth and maturity of each industry. To alleviate the impact of data errors and outliers, we trim (set to missing) all payout and other firm characteristic variables outside the 1st to 99th percentiles. Appendix II summarizes the definition of all variables, and Appendix III provides correlation statistics.

A. Proxies of agency costs

We refer to the literature for proxies of firm level agency costs. The first proxy we use is ownership concentration. As share ownership becomes concentrated, the nature of the agency problem shifts away from manager-shareholder conflicts to conflicts between the controlling owner and minority shareholders (Hope (2003); Fan and Wong (2002); Berle and Means (1932)). Shleifer and Vishny (1997) note that when ownership gets beyond a certain point, large owners gain nearly full control of the company and are wealthy enough to prefer to use firms to generate private benefits that are not shared by minority shareholders. Claessens, Djankov and Lang (2000) highlight the significance of this agency problem when they report that highly concentrated ownership in East Asian nations diminishes firm value.[5] We measure ownership concentration using the fraction of shares that are closely held, as defined by Worldscope (*Field: 08021*),[6] and denote it as CloselyHeld.

[5] Among other effects, concentrated ownership structure may be associated with incentives to reduce accounting information quality, even to the point where outside investors and analysts have little confidence in the firm's reported earnings (Fan and Wong (2002)). Hope (2003) finds ownership concentration, measured at the country level, is negatively related to firms' disclosure levels. Similarly, Leuz, Nanda and Wysocki (2003) find earnings management is more pervasive in countries with a higher concentration of share ownership.

[6] Closely held shares include shares held by owners of more than 5 per cent of issued capital, shares held by officers, directors and their families, shares held in trust, shares held by another corporation (except in a fiduciary capacity by a bank) or shares held by a pension fund.

We investigate another dimension of share ownership, based on the independence indicator in the Osiris database from Bureau van Dijk. This indicator characterizes the degree of independence of a company with regard to its shareholders. Osiris provides 10 degrees of independence (A+, A, A-, B+, B, B-, C+, C, C- and D),[7] which we convert into a score of 1 to 10 and denote this variable by Independence, with a score of 10 indicating the highest degree of independence and thus the lowest agency cost.

From Osiris, we also extract information on the identity of the ultimate shareholder, defined as the largest shareholder with a direct and indirect holding greater than 25% of outstanding shares.[8] The four major groups of controlling shareholders are insiders, comprising individuals, families, managers, and employees (Insiders); state or public authorities (State); financial institutions, comprising banks, insurance companies, mutual and pension funds, and financial companies (FinInstitutions); and others, comprising industrial companies and foundation or research and development institutes. Of the firms with an ultimate owner, 52% are controlled by insiders, 12% by financial institutions, 6% by states or public authorities, and 30% by others. Insider-controlled firms are expected to have higher agency conflicts since insiders would prefer to retain a large part of earnings for rent extraction (Grossman and Hart (1988)).[9] It is less clear-cut how well the other controlling groups capture agency conflicts as their preference for a particular payout policy may be driven by factors unrelated to agency cost. For example, financial institutions may prefer payouts for survivability (Barclay, Holderness and Sheehan (2009)) or meeting "prudent man" rules

[7] Osiris assigns an A (Independence$\geq$8) if the firm has no recorded shareholders with more than 25% direct or total ownership. "A" firms are thus considered to be independent with no ultimate owner. "B" firms (5$\leq$Independence$\leq$7) have no recorded shareholders with more than 50% direct or total ownership, and one or more shareholders are recorded with more than 25% direct or total ownership. Firms are categorized "C" when they have one recorded shareholder with more than 50% direct or total ownership or when the source indicates that the company has an ultimate owner. "D" firms have one recorded shareholder with a direct ownership of over 50%. Since only "A" firms are truly independent, we also set Independence$\geq$8 as a dummy in the analysis. Similar results are obtained.

[8] Using other cutoffs (5%, 10% and 20%) yields similar conclusions. We base our analysis on the 25% cutoff since it provides a more powerful sample design by allowing us to focus our tests on firms that offer the most latitude for opportunistic behavior toward minority shareholders, and its implications for payout policy.

[9] That family-controlled firms have greater agency conflicts is well documented in the literature. For example, in Asian corporations, "Asia's minority shareholders have every reason to worry about how they are treated … Dominant families, Byzantine corporate structures and overly cozy political relationships leave minority shareholders at a disadvantage" (Asia's Stock Nightmare, 1997, p. 107).

(Gristein and Michaely (2005)), while states or public authorities may prefer higher payouts for political reasons.[10] The controlling groups other than insiders are thus treated primarily as control variables in our tests. In testing the importance of these controlling owners in relation to payouts, we control for the percentage shareholding by the ultimate shareholder (Ultimate).

We also proxy firm level agency costs by the quality of corporate governance using the measure developed by Brown and Caylor (2006). Governance is the equally weighted score of seven governance factors, as assessed by Institutional Shareholder Services (ISS).[11] Firms with higher corporate governance scores are expected to have lower agency costs since the ability of insiders to expropriate minority shareholders' interests in these firms is more restricted, ceteris paribus.

Our country level proxies for agency costs capture the quality of the legal framework, as in LLSV. The first measure is a dummy that equals one if a firm is headquartered in a civil law country, and zero otherwise. We also proxy the quality of investor protection using the LLSV's antidirector rights index and its revised and corrected measures sourced from Djankov, La Porta, Lopez-De-Silanes and Shleifer (2008) and Spamann (2010), respectively. The final measure is the anti self-dealing index, which provides a measure of shareholder protection from self-dealing by corporate insiders through corporate law.

B. Control variables

We control for differences in firm size in tests of the outcome model of total payouts. We measure firm size by the percentile market value of ordinary shares, the product of the number of shares outstanding and share price, for each country. This procedure ensures that the results are not swamped by countries with

[10] In China, government-controlled firms use dividend payments to tunnel resources from listed companies thus exacerbating the agency problem (Chen, Jian and Xu (2009)). However, we do not have any evidence to show that dividends are also used by governments in other countries as a tunneling tool.

[11] The governance variable includes two external corporate governance factors (no unauthorized poison pills and no staggered board) and five internal corporate governance factors: option re-pricing did not occur within the last three years; average options granted in the past three years as a percentage of basic shares outstanding did not exceed 3% (option burn rate is not excessive); all directors attended at least 75% of board meetings or had a valid excuse for non-attendance; board guidelines are in each proxy statement; and directors are subject to stock ownership guidelines.

large firms, such as the United States and the United Kingdom. In tests of the agency explanation for corporate payout choice, we also control for the tax advantage of dividends (TaxAdvantage), measured by the after-tax value of one dollar paid out in dividends over the after-tax value of one dollar paid out in capital gains.[12] We are able to compute the TaxAdvantage variable for every year for each country. Data on taxes are sourced from various issues of *PricewaterhouseCoopers Worldwide Tax, Ernst & Young Worldwide Corporate Tax Guide, American Council for Capital Information*, and *OECD Reports.*

II. Sample Profile and Univariate Tests

Table I provides descriptive statistics for firm level characteristics. Total payouts of companies are higher in countries where the legal system is based on common law compared to countries with a civil law system. In particular, the median total payout ratio is 13.2% (1.2%) of cash flow (sales) in common law countries and 10.9% (0.9%) in civil law countries, respectively. These differences are economically and statistically significant. However when payouts are measured as a fraction of earnings, we do not find statistically significant differences across countries with different legal regimes. Similar findings are observed when only dividends are considered in the payout.

<Table I>

Of the proxies for agency costs, CloselyHeld and Independence are significantly different across the legal regimes. Relative to firms in common law countries, firms in civil law countries have significantly higher agency costs, as indicated by their more closely held shares and lower degree of independence from shareholders. This finding is consistent with other evidence of higher ownership concentration in countries with poorer shareholder protection (La Porta, Lopez-De-Silanes, Shleifer and Vishny (1999)). No significant difference in dividend tax advantage and the percentage ownership by each of the ultimate owners (insiders, states, and financial institutions) is observed across the legal regimes.

[12] Details on the computation of dividend tax advantage can be found in Table A.1 of LLSV.

Table II provides detailed statistics on the percentage of corporate payers (either dividend payers or share repurchasers) by country and over time. For most of our sample period, about two-thirds of firms are dividend payers. In the most recent sample year (2006), dividends were paid by roughly three-quarters of the sample (average=71.0%; median=72.8%). Hong Kong, Canada, and Japan have the highest percentage of dividend payers in that year, about 90%. In contrast, just under half the firms in France, Sweden, Switzerland, and Turkey pay dividends. Grouping countries by legal origin shows that the mean and median proportions of dividend payers are not significantly different across the legal regimes. Similar results are found for the proportion of firms that repurchase shares. Ireland has by far the largest proportion of firms that repurchase their shares at 68.4%, compared to just 20.4% for the United States.

<Table II>

The average and median amounts of dividends paid each year constitute about 30% of net income, as Table III shows. The countries with a dividend payout (as a percentage of earnings) greater than 50% in the latest year (2006) are the Czech Republic (75.1%), New Zealand (61.1%), and Finland (54.6%).[13] In 2006, the global average (median) ratio of dividends to net income was 30.4% (28.0%) and this ratio has if anything remained constant over time. Partitioning countries by their legal origin, the results are generally consistent with LLSV's contention that firms in civil law countries distribute less of their earnings as dividends compared to firms in common law countries. However, the difference in dividend payouts across the legal regimes is statistically insignificant.

<Table III>

Including share repurchases in the payout ratio does not materially affect the above result. The United States, Denmark, and Switzerland have the largest difference between the dividend and total payout ratios in most years, implying share repurchases (as a percentage of earnings) are highest in these countries.

[13] Using the alternative denominators (operating cash flow and sales) for the payout ratio makes no material difference to the conclusions we draw from this table.

III. Results

A. Country level agency costs and total payouts

We begin our analysis by examining the outcome model of corporate payouts using total payouts, i.e. the sum of dividends and share repurchases, as the dependent variable. As in the LLSV's original regression, we regress the total payout ratio on proxies for country level investor protection, a measure of growth opportunities, and its interaction with investor protection. Since the choice of denominator in the total payout ratio does not materially affect our conclusion, we report in detail only the results for the most common measure, Payout/Earnings.

In the spirit of Spamann (2010), we run the tests using the various proxies of investor protection: legal regime; the LLSV's original antidirector rights index; the revised (Djankov, La Porta, Lopez-De-Silanes and Shleifer (2008)) and corrected (Spamann (2010)) antidirector rights index; and the anti self-dealing index (Djankov, La Porta, Lopez-De-Silanes and Shleifer (2008)). In addition to using these indices in their continuous form, we also transform them to dummies signaling low shareholder protection by setting them equal to one if the firm is headquartered in a country whose index value is below the median shareholder protection index at the country level, and zero otherwise. For ease of interpretation, we use the binary variable of investor protection in the interaction term. The decile rank of the firm's industry-adjusted historical annual sales growth rate (Growth) is used to proxy growth opportunities.

We employ generalized least squares (GLS) random effects panel regressions with robust standard errors to estimate our models. We do not use firm fixed effects due to the lack of variability in firm characteristics over our relatively short period of study.

Table IV shows the results are sensitive to how we calibrate investor protection. While legal regime is not significant, most of the investor protection indices are. Using the binary measure of investor protection, results show firms in low protection countries have on average lower total payouts than firms in high protection countries. For example, firms in countries with a lower than median score for the LLSV

antidirector rights index have on average a 7.9% lower payout than firms in other countries. Qualitatively similar results are found for the anti self-dealing index and Spamann's corrected antidirector rights index (hereafter, Spamann's measure). However, we do not find the same using the revised measure of antidirector rights index from Djankov, La Porta, Lopez-De-Silanes and Shleifer (2008).

<Table IV>

When we replace the binary investor protection variable with a continuous one, results for the anti self-dealing index and Spamann's measure remain intact. Therefore, consistent with the outcome model's prediction, corporate payouts reflect the capacity of minority shareholders to use legal powers to force corporate insiders to disgorge cash, either in the form of dividends or repurchases. In particular, in low protection countries, a relatively ineffective legal system has a greater influence on corporate payout policy than any incentive managers may have to signal non-expropriation by distributing cash to shareholders. As articulated by LLSV, shareholders in weak protection countries will try to grab whatever cash they can get immediately, even though the amount may not be much. This prediction is however not supported using the continuous original and revised measures of antidirector rights index.

The coefficient on sales growth (Growth) is significantly negative in all specifications. Its interaction with investor protection has a significantly positive coefficient when we proxy investor protection using the binary measure of the original and Spamann's antidirector rights index, and the anti self-dealing index. When we use the continuous measure of investor protection, the interaction term is significantly positive for the Spamann's measure. These results thus suggest that, in countries where investors enjoy greater protection, high growth firms have lower payouts presumably because investors know that when the company's investments pay off, they will be able to extract more cash. This is in sharp contrast to weak protection countries, where sales growth matters less in shaping corporate payout policy. Results from the Spamann's antidirector right index show a one decile increase in growth is associated with a 1.9% decrease

in payouts in high protection countries versus 1.7% in low protection countries. The revised antidirector rights index again yields findings contrary to the outcome model.

In sum, results appear sensitive to the measure of investor protection used, with the revised antidirector rights index bearing results that often are different from other measures of investor protection. This finding is in line with the evidence in Djankov, La Porta, Lopez-De-Silanes and Shleifer (2008), who report that the revised (and by construction the original) antidirector rights index is an inferior measure of investor protection than the conceptually less ambiguous anti self-dealing index. However, of all the measures of investor protection investigated, we find the results using the Spamann's measure are the strongest and most consistent. Spamann (2010) finds that corrections to the antidirector rights index profoundly alter many of the most influential results derived with the antidirector right index, including the relationship between investor protection and ownership dispersion, size of equity markets, and resilience to the Asian financial crisis. Our results show, as with the relationship between efficient capital allocation and investor rights (Spamann (2010)), the outcome model of corporate payouts survives the corrections. Since the Spamann's measure of antidirector rights index also offers the most reliable, consistent, and most easily reproducible measure of investor protection than the original and revised antidirector rights index (Spamann (2010)), we therefore focus on this measure in subsequent tests.

Including share repurchases in the payout ratio does not appear to matter much. This is perhaps not surprising since at least in the United States repurchases are largely the province of dividend payers (Fama and French, 2001).

B. Country and firm level agency costs and total payouts

In Table V, we assess how firm level agency conflicts moderate the relationship between country level agency costs and total payouts by including various firm level proxies for agency costs in the tests. This allows us to test whether firm level agency conflicts can explain total payouts over and above country level

agency conflicts. To address endogeneity between firm level agency costs and payouts, we use lagged values of firm level agency cost measures (and other firm-specific characteristics) in the tests.[14]

<Table V>

Including firm level agency cost variables in the equation, we see that the Investor Protection variable remains significantly positive in most regressions. Therefore, controlling for firm level agency conflicts, firms in higher protection countries have significantly higher payouts. High growth firms have significantly lower payouts, and this relationship is stronger in high protection countries. The exception is Specification (3) which shows that when we control for the quality of firms' corporate governance, the negative relationship between growth and payouts is stronger in low protection countries. Nevertheless, a caveat on this finding is in order since the ISS database covers mainly large and mid-cap firms.

Firm level proxies of agency conflicts are important in explaining total payouts. All of them are significant and have the expected sign. Our results are thus consistent with the outcome model that high agency cost firms distribute less of their earnings to shareholders. In high protection countries, a one standard deviation decrease in the extent to which shares are closely held (equivalent to 25.9%) is associated with a 2.6% increase in total payouts (Specification (1)) whereas a one standard deviation increase in ownership independence (equivalent to 3.1 units) is associated with a 1.7% increase in total payouts (Specification (2)). The interaction terms show that these relationships are not significantly different between high and low protection countries.

Better governed firms have higher payouts, consistent with the outcome model. The positive relationship between governance quality and payouts appears to be stronger in low protection countries, suggesting some substitutions between country and firm level governance mechanisms to curb agency

[14] Using contemporaneous variables yields virtually identical results (untabulated), which is to be expected in light of the stability of firm level measures of agency costs. For example, it is rare for ownership structure and corporate governance to change dramatically over such a relatively short period (six years in our study). The exogeneity of the relationship between ownership and performance has been supported by Gugler, Mueller and Yurtoglu (2003), Gilson (2005) and Krivogorsky and Grudnitski (2008). The stability of our firm level agency cost variables suggests that agency conflicts are more likely to impact on corporate payouts rather than the other way round.

conflicts. A one standard deviation increase in the corporate governance score (equivalent to 1.20 units) is associated with a 2.1% increase in total payouts in high protection countries versus 6.2% in low protection countries (Specification (3)), all else equal. The same caveat about the usage of ISS data however applies.

The identity of the ultimate owner also matters to payouts. Controlling for the percentage shareholding by the ultimate owner (Ultimate), results show firms whose ultimate shareholder is an insider have significantly lower payouts, consistent with the proposition that insiders pursue financial decisions that allow greater rent extraction (Grossman and Hart (1988)). Specifically, insider-dominated firms in high protection countries have a 3.6% lower payout (Specification (4)) than non insider-dominated firms. Having a financial institution or government (state) as the ultimate shareholder does not appear to matter to corporate payouts.

Overall, we find support for the outcome model of total payouts using country level proxies of agency conflicts. These results mostly remain when firm level agency cost variables are controlled for in the tests. Although investors in high protection countries have the legal power to extract cash (in the form of dividends or share repurchases), we find agency conflicts at the firm level hinder their ability to do so. Firm level agency conflicts also matter to payouts in low protection countries. Notwithstanding the nature of firms covered by ISS, our results suggest that investor protection can be derived not only from legal rights provided by countries' laws but also from firm level governance mechanisms. Evidence of substitutions between country and firm level investor protection has also been documented elsewhere in the literature (Miller and Reisel (2009); Bruno and Claessens (2007); Dahya, Dimitrov and McConnell (2008); Durnev and Kim (2005); Klapper and Love (2004)).

C. The interaction between investment opportunities and agency costs on total payouts

LLSV show that investment opportunities reduce dividend payouts in high protection countries but are unrelated to dividend payouts in low protection countries. We find support for this relationship using total

payouts for a larger sample drawn from a more recent and substantially longer time period. To test how firm level agency costs moderate this relationship, we first perform univariate tests of difference in total payouts for a 2×2×2 matrix of investor protection, growth opportunities, and firm level agency costs. Within this matrix, the best case scenario for investors insofar as payouts are concerned is when country level investor protection is high, and both growth opportunities and firm level agency costs are low, while the worst case scenario is when country level investor protection is low, and both growth opportunities and firm level agency costs are high.

Table VI reports the univariate results. Irrespective of the level of protection investors enjoy at the country level, firms with low growth opportunities and agency costs have the highest payout. We do not find the difference in payouts for these two sets of firms to be significant across low and high protection countries. Interestingly, corporate governance quality appears to matter more in determining total payouts in low protection than high protection countries. In low protection countries, the difference in the average (median) payout between firms with high and low governance quality is about 18% (27%), irrespective of firm level growth opportunities. In comparison, in high protection countries, the difference in the average (median) payout is 0.8% (1.7%) for low growth firms and 4.1% (8.8%) for high growth firms. This finding reinforces the above evidence of substitutions between country and firm level investor protection. Importantly, Table VI shows that, in addition to country level investor protection and growth opportunities, firm level agency costs also matter to payouts.

<Table VI>

Multiple regressions for the interaction between country level agency costs (as proxied by investor legal protection), firm level agency costs, and investment opportunities in relation to total payouts are reported in Table VII. For ease of interpretation of the results for interaction variables, we use the binary Spamann's antidirector rights index as the country level investor protection measure. For each measure of firm level agency cost, the sample median provides the cutoff for "high" and "low"; the exception is

Independence where the cutoff is a score of 8 (i.e., all "A" firms according to Osiris). Firms with insiders as the ultimate owner are considered to have "high" agency costs and, as before, are denoted by the dummy Insider. In the regression:

$$Payout = \beta_0 + \beta_1 Low\ Protection + \beta_2 High\ Agency\ Cost + \beta_3(Low\ Protection \times High\ Agency\ Cost) + \gamma_1 Growth + \gamma_2(Low\ Protection \times Growth) + \gamma_3(High\ Agency\ Cost \times Growth) + \gamma_4(Low\ Protection \times High\ Agency\ Cost \times Growth) + \varepsilon,$$

the shift in the level of payout due to agency conflicts at the country and firm levels is represented by the β coefficients and the γ coefficients describe the relationship between growth opportunities and total payouts for firms with different country and firm level agency costs. We again lag all right hand side variables by one period to address potential endogeneity concerns.

<Table VII>

Looking at the β coefficients, results show that the average payout amount for low agency cost firms in high protection countries, as captured by the intercept term β_0, is significantly positive. It is 32.3% in Specification (2), when firm level agency costs are measured by ownership independence. Moving to high agency cost firms in high protection countries reduces the payout to 22.9% ($\beta_0+\beta_2$). This drop in the payout amount (by 9.4%) is both statistically and economically greater (more than four times) than that observed for low protection countries. For low protection countries, moving from firms with low agency costs ($\beta_0+\beta_1$=28.1%) to high agency costs ($\beta_0+\beta_1+\beta_2+\beta_3$=26.3%) sees a reduction in total payouts by a magnitude of 2.2%.

Therefore, although protection at either the firm or country level appears to be effective in increasing investors' ability to extract surplus cash from firms, our regression results show that investors' ability to do so is significantly enhanced if protection is provided at both the firm and country levels. The effectiveness of investor protection at the firm level in forcing firms to disgorge surplus cash is significantly greater in high protection countries. This finding is robust to alternative measures of firm level agency costs.

The γ coefficients describe the relationship between growth opportunities and total payouts for the following groups of firms: γ_1 for low agency cost firms in high protection countries; $\gamma_1+\gamma_3$ for high agency cost firms in high protection countries; $\gamma_1+\gamma_2$ for low agency cost firms in low protection countries; and $\gamma_1+\gamma_2+\gamma_3+\gamma_4$ for high agency cost firms in low protection countries. An implication of the outcome model which we test here is that the relationship between investment opportunities and total payouts is strongest when country and firm level agency costs are low, but weakest when country and firm level agency costs are high. In between these extremes lie the cases where country and firm agency costs are in conflict, i.e., agency costs are high at the country level but low at the firm level, and low at the country level but high at the firm level.

The estimated coefficient on Growth (γ_1) is significantly negative, implying that high growth firms have significantly lower payouts when agency conflicts at both firm and country levels are low. This supports a prediction of the outcome model that in the presence of investment opportunities, investors are willing to defer the receipt of a return on their investment to a later period if they enjoy high protection at both the country and firm levels. For these firms, a one decile increase in growth decreases total payouts by about 2.2% (Specification (2)).

Specification (2) shows that, as expected, the strength of the relationship between payouts and growth opportunities is reduced as agency costs at either the country or firm level increase. In high protection countries, a one decile increase in growth decreases the total payout by 0.8% ($\gamma_1+\gamma_3$) for high agency cost firms, which is significantly lower than the 2.2% (γ_1) for low agency cost firms. In low protection countries, a one decile increase in growth decreases the total payout by 1.8% for low agency cost firms ($\gamma_1+\gamma_2$) and 1.3% for high agency cost firms ($\gamma_1+\gamma_2+\gamma_3+\gamma_4$). This pattern is also observed in Specification (4) when firm level agency costs are proxied by Insider, thus corroborating our findings of greater importance of firm level agency costs and growth opportunities in determining corporate payouts in high protection countries. Some protection, either at the firm or country level, is effective in enabling

investors to extract surplus cash in the face of investment opportunities, but the "best" outcome for corporate payouts occurs when protection is provided at both country and firm levels.

However, we find evidence of possible substitutions between firm and country level investor protection when CloselyHeld and Governance are used to proxy firm level agency costs. For these measures, the negative relationship between growth and payouts is strongest when agency costs are high at both firm and country levels.

D. Dividends or repurchases?

In this section, we extend our tests of the outcome model to the *choice of the form of payout* (dividends only versus share repurchases) since dividends and share repurchases can play different roles in mitigating agency conflicts and their effectiveness as a disciplinary mechanism depends on the extent of shareholder protection. Under the outcome model, shareholders in high protection countries are more able to use their legal powers to pressure firms to disgorge cash and, by extension, to dictate the preferred form of payout, i.e., committed dividend payments. Dividends are a stronger commitment device than repurchases since management is expected to maintain a stable dividend policy (Lintner (1956)) rather than a stable repurchase policy,[15] particularly in high protection countries (Brown, How and Verhoeven (2008)). As a consequence, dividends are more likely to be the form of payout in high protection countries. Where shareholder protection is poor, we would not necessarily expect such a relationship. Shareholders in poor protection countries are likely to welcome any cash distribution – which may not be much, as the preceding sections show – irrespective of the form that the cash distribution takes.

[15] Unlike dividends, repurchases are more discretionary and primarily serve to distribute temporary excess cash. Further, ex post deviations from the previous repurchase policy have less consequential impact on share price than deviations from the dividend policy (Allen and Michaely (2003)).

Table VIII reports the results from logistic regressions using a reduced sample of firms in countries where share repurchases were legal.[16] The reported coefficients show the marginal effects, calculated at the mean value of the continuous variables using the method proposed by Ai and Norton (2003). We employ random effects panel logit regressions with robust standard errors where the dependent variable takes a value of one for firms with an increase in dividends (as their sole method of payment) and zero for firms with a share repurchase. For these firms, the substitution between the forms of payout is more obvious. Other determinants of the payout choice, as identified from the literature, are controlled for in our tests and are lagged, as before.

<Table VIII>

Consistent with the outcome model, results show the estimated coefficient on Investor Protection is significantly positive in all specifications except for (3). In Specification (1), for instance, firms in higher protection countries have a 0.8% higher probability, on average, of choosing dividends as the form of payout. Therefore, in higher protection countries, investors are more able to dictate that firms' cash disbursements take the (preferred) form of dividends. This is consistent with dividends having less of a signaling role to play in poorer protection countries, where managers are more insulated from investor pressure, information asymmetry is likely to be resolved by direct communication between insiders and major stakeholder representatives, shareholdings are more concentrated, and minority shareholders are less protected (Brown, How and Verhoeven (2008)). The results are robust to controlling for firm level agency costs and other variables.

Agency conflicts at the firm level are also significant in explaining corporate choice of the form of payout. Of the firm level agency cost variables investigated, the outcome model of payout choice is supported for the CloselyHeld variable in Specification (1). Specifically, in countries where investors enjoy

[16] For example, repurchases have been prohibited in Austria and permitted in Belgium and Luxemburg, at least since 2005. Details on the laws on repurchases are summarized in Appendix IV.

greater protection, more closely held firms (higher agency conflict) tend to choose the more flexible option of repurchase while less closely held firms are more likely to choose dividends, thereby committing to the payout in the longer term. The reverse is observed for low investor protection countries.

Although Independence (Specification (2)) and Insider (Specification (4)) are significant, their sign is opposite to the outcome model's prediction of corporate payout choice. Independence has a significantly negative coefficient while its interaction with the investor protection dummy is significantly positive. Therefore, in high protection countries, dividends are less likely to be chosen as the preferred form of corporate payout by more independent firms. This association is much weaker in low protection countries.

The identity of the ultimate owner is relevant to the form of payout choice in high protection countries. Controlling for the percentage shareholding by the ultimate owner, insider-dominated firms in high protection countries have a 0.75% higher probability, on average, of choosing dividends as the form of payout. The relationship between the identity of this ultimate owner and the payout choice is however flatter in low protection countries. While governance quality is not significant, its interaction with the low protection dummy is, suggesting that better governed firms in low protection countries are significantly more likely to choose dividends as a form of payout than their counterparts in high protection countries.

The results for these firm level agency costs are thus more in line with the pre-commitment explanation of payout policy design (John and Knyazeva (2006)). The absence of a strong monitoring structure exacerbates the agency conflict and increases the demand for dividend pre-commitment so that firms with higher agency costs are more likely to choose the more costly method of cash distribution, i.e. dividends, as the form of payout.

The above results are robust in the presence of other determinants of payout choice. Differences in tax rates between dividend income and capital gains have been suggested as a determinant of a firm's choice between distributing funds as dividends or repurchasing shares (Moser, 2005). This is supported by our results, which show a positive marginal effect of the dividend tax advantage variable (TaxAdvantage)

on the probability of the payment of dividends. The marginal effect of earnings volatility (Volatility), measured by the standard deviation of earnings over the past five years divided by its average over the same period, is significantly negative. This is consistent with repurchases being the preferred instrument for the distribution of temporary, unsustainable cash flows (Jagannathan, Stephens and Weisbach (2000); Guay and Harford (2000)).

The existence of managerial stock options is likely to have an effect on the payout choice since managers who own stock options that are not dividend protected favor repurchases over dividends. Further, repurchases are often used to avoid increasing the number of shares on issue when executive stock options are exercised (Fenn and Liang (2001); Kahle (2002)). We proxy for the likelihood that employee stock options are exercised by a dummy (Options) that takes a value of one if either positive amounts of stock options are sold to employees or if employee stock option plans exist, and zero otherwise (*Fields: 03496, 03449*). Our results show that firms with stock options are less likely to have dividends as the sole means of payment, decreasing the average probability by about 10%. High growth firms (Growth) also have a higher marginal propensity of using committed dividends as the sole payout method.

E. Further Robustness Tests

We address a number of additional robustness issues in this section. The results are reported in Table IX. First, we note that the United States constitutes a relatively large proportion of the sample, as shown in Appendix I. To ensure our results are not driven by this country, we exclude it from the tests but find the results in Specification (1) for total payouts and Specification (6) for the choice of the form of payout do not change the conclusions in any material way.

<Table IX>

We also test the robustness of our findings to altenative variable specifications. For example, in Specification (2), we subtract the industry median from the dependent variable but find the adjustment does not change the thrust of our results. We construct an index of corporate governance practices based on the 44 governance factors produced by ISS[17] and use this to proxy firm level agency costs in Specification (3). It is highly correlated with the governance index we use in the paper (the correlation coefficient is 0.64). Not surprisingly, qualitatively similar results are obtained using this broader based governance index. Specifications (4) and (5) show qualitatively similar results are obtained when we cluster the standard errors by firm and when we use a tobit regression, respectively.

IV. Conclusions

Using a comprehensive data set covering 43 countries between 2000 and 2006, we find support for the outcome model of total payouts (dividends and repurchases). Shareholder protection, as a country level measure of agency conflicts, is important in determining total payouts. In particular, firms in countries with a weaker system of shareholder protection distribute consistently less cash, whether as dividends or repurchases. This is consistent with shareholders in countries with an efficient legal system being able to pressure firms to distribute the free cash flow instead of using it for the private benefit of insiders. We investigate a number of alternative methods used to calibrate investor protection and find the corrected antidirector rights index by Spamann (2010) yields the strongest and most consistent results. We therefore add the outcome model of corporate payouts to the list of tests that survive the corrections to the antidirector rights index (Spamann (2010)).

While the extent of legal protection of outside shareholders differs substantially across countries, our results show firm level proxies of agency conflicts are also important in explaining corporate payouts. Although investors have the legal power to extract cash in the form of dividends or share repurchases from

[17] For a description of these governance factors, refer to Aggarwal, Erel, Stulz and Williamson (2007).

firms in high protection countries, their ability to do so can be substantially hindered by agency costs at the firm level. In poor protection countries, investors can seek refuge in firm level governance mechanisms to curb agency conflicts, suggesting a substitution between country and firm level investor protection. Also consistent with the outcome model, we find that investment opportunities are negatively related to total payouts, and that this relationship is stronger in high protection countries. Taken together, our results show firm level agency conflicts and growth opportunities are important in determining payouts in high protection countries, but often less so in low protection countries. More importantly, the results suggest that having investor protection at both firm and country levels yields the most effective outcome, when assessed in terms of the extent to which investors can extract surplus cash from firms.

We extend the test of the outcome model to consider the form of corporate payout. Our results show that, apart from their ability to extract cash from firms, investors in high protection countries are better able to dictate a more durable form of cash distribution, i.e. committed dividend payments. At the firm level, support for the outcome model of payout choice is found only when the extent to which the shares are closely held is used to proxy agency conflict.

In sum, our findings are consistent with DeAngelo, DeAngelo and Skinner's (2008) conclusion that a simple asymmetric information framework that emphasizes the need to distribute free cash flows and that embeds agency costs (as in Jensen (1986)) and security valuation problems (as in Myers and Majluf (1984)) does a reasonable job of explaining the size and timing of observed payout policies and, to a lesser degree, their form (dividend versus stock repurchase).

Appendix I: Sample Coverage by Country and Year

This table reports the number of observations of the sample by country and year.

Countries	2001	2002	2003	2004	2005	2006	Number of Firm-Years
Argentina	26	19	39	45	49	50	228
Australia	372	385	436	497	494	503	2,687
Austria	54	49	44	47	56	56	306
Belgium	65	58	64	68	72	65	392
Canada	450	493	510	565	551	502	3,071
China	626	634	562	570	225	218	2,835
Czech Republic	29	23	23	20	10	6	111
Denmark	89	93	88	91	99	96	556
Finland	96	85	81	84	87	79	512
France	526	448	400	430	455	435	2,694
Germany	396	340	348	410	422	407	2,323
Hong Kong	415	461	506	561	534	539	3,016
Hungary	18	19	16	19	18	16	106
India	294	258	304	436	472	904	2,668
Indonesia	132	167	147	134	144	93	817
Ireland	34	26	36	34	34	37	201
Israel	37	42	52	88	93	66	378
Italy	142	126	117	128	147	147	807
Japan	2,301	2,165	2,494	2,844	2,830	2,647	15,281
Korea	438	497	496	555	567	527	3,080
Luxembourg	11	10	16	19	21	19	96
Malaysia	440	483	565	655	635	622	3,400
Mexico	88	76	80	82	79	84	489
Netherlands	120	104	102	115	116	98	655
New Zealand	55	59	69	67	67	62	379
Norway	79	69	85	93	105	79	510
Pakistan	61	71	70	82	85	82	451
Peru	35	44	42	49	54	55	279
Philippines	67	68	73	87	100	113	508
Poland	36	52	68	101	91	70	418
Portugal	36	33	31	39	40	32	211
Russia	19	28	23	35	38	20	163
Singapore	277	343	387	416	407	402	2,232
South Africa	217	204	198	190	189	184	1,182
Spain	107	99	90	90	99	97	582
Sri Lanka	14	10	8	15	17	19	83
Sweden	139	137	137	178	177	126	894
Switzerland	139	127	137	151	178	172	904
Taiwan	764	896	1,032	984	902	963	5,541
Thailand	216	243	293	331	309	310	1,702
Turkey	77	118	134	131	127	74	661
United Kingdom	761	700	738	811	827	803	4,640
United States	3,037	3,082	3,127	3,241	3,094	3,583	19,164
All countries	**13,335**	**13,444**	**14,268**	**15,588**	**15,116**	**15,462**	**87,213**

Appendix II: Variable Definitions

This table summarises the test variables and how they are defined. Panel A contains all payout variables, Panel B firm and country level measures of agency costs, and Panel C other firm characteristics. All variables are trimmed at the 1st and the 99th percentile. Field numbers are from Worldscope.

Variable	Definition
Panel A: Payouts	
Dividend payout	The sum of common and preferred dividends (Field: 04551).
Share repurchases	Funds used to decrease outstanding common or preferred stock (Field: 04751).
Total payout	Dividend plus share repurchases.
Dividend/Earnings	Dividend divided by net income (Field: 01751).
Dividend/Cash Flow	Dividend divided by net cash flow from operations (Field: 04201).
Dividend/Sales	Dividend divided by revenues or net sales (Field: 07241).
Payout/Earnings	Total payout divided by net income (Field: 01751).
Payout/Cash Flow	Total payout divided by net cash flow from operations (Field: 04201).
Payout/Sales	Total payout divided by or net sales (Field: 07240).
Panel B: Agency Costs	
CloselyHeld	A measure of ownership concentration based on the fraction of shares that are closely held (Field: 08021).
Independence	An indicator of the extent to which firms are independent from its shareholders. Obtained from Bureau van Dijk's Osiris data base, which we convert into a score of 1 to 10 with a score of 10 indicating the highest degree of independence.
Governance	An equally weighted score of seven governance factors from Institutional Shareholder Services: (i) no unauthorized poison pills; (ii) no staggered board; (iii) option re-pricing did not occur within the last three years; (iv) average options granted in the past three years as a percentage of basic shares outstanding did not exceed 3%; (v) all directors attended at least 75% of board meetings or had a valid excuse for non-attendance; (vi) board guidelines are in each proxy statement; and (vii) directors are subject to stock ownership guidelines.
Insider	A dummy variable that takes a value of one if the ultimate shareholder comprises individuals, families, managers and employees.
LowProtection	A dummy indicating low investor protection, proxied by (i) legal regime, where it takes a value of one if the firm is domiciled in a civil law country and zero in a common law country; (ii) the anti director rights index; and (iii) the anti self-dealing index. In (ii) and (iii), LowProtection takes a value of one if the firm is headquartered in a country whose index value is below the median shareholder protection index at the country level and zero otherwise. The anti director rights index is based on the original LLSV, the revised (Djankov, La Porta, Lopez-De-Silanes and Shleifer, 2008), and the corrected (Spamann, 2010) measures.
Panel C: Other Firm Characteristics	
TaxAdvantage	The after-tax value of one dollar paid out in dividends over the after-tax value of one dollar paid out in capital gains.
Ultimate	The percentage shareholding of the ultimate shareholder, defined as the largest shareholder with a direct and indirect holding greater than 25% of outstanding shares.
State	A dummy variable that takes a value of one if the ultimate shareholder is state or public authorities.
FinInstitutions	A dummy variable that takes a value of one if the ultimate shareholder is financial institutions, comprising banks, insurance companies, mutual and pension funds, and financial companies.
Growth	Industry-adjusted (relative to the worldwide median for that industry in that year) measure of sales growth rate, where the growth rate is the average percentage change in the last five years' annual sales.
Volatility	The standard deviation of earnings over the past five years divided by its average over the same period.
Options	A dummy that takes a value of one if either positive amounts of stock options are sold to employees (Field: 03496) or if employee stock option plans exist (Field: 03449), and zero otherwise
MarketToBook	Market to book value equity

Appendix III: Correlations of Variables

This table shows the Pearson cross-correlations between the constructed variables used in the study. Growth is the decile rank of historical annual sales growth rates. CloselyHeld is the fraction of shares that are closely held in a firm. Independence indicates the degree of independence of the firm from its shareholders. Governance is the firm's corporate governance index constructed from ISS data. TaxAdvantage is dividend tax disadvantage. Options is a dummy variable indicating the presence of employee stock options. Volatility is the standard deviation of annual income for the last 5 years divided by the average income.

	CloselyHeld	Growth	Independence	Governance	Tax Advantage	Options
Growth	-0.04					
Independence	-0.59	-0.06				
Governance	-0.27	0.03	0.16			
Tax Advantage	0.10	-0.06	0.01	-0.12		
Options	-0.13	0.01	0.07	0.14	0.04	
Volatility	0.07	0.07	-0.02	-0.09	-0.01	-0.06

Appendix IV: Regulations on Share Repurchases Across Countries

This table summarises the regulations on share repurchases across countries.

Country	Regulations
Argentina	Allowed. Source: Lasfer (2000).
Australia	Legal since 1989, but heavily restricted. Relaxed in December 1995. Source: Asjeet and Ramsay (2000).
Austria	Prohibited. Only to fulfill obligations under employee stock option plans. Source: Lasfer (2000).
Belgium	Legal at least since 2005. Share repurchases should be tendered to all shareholders on the same terms by prospectus under the supervision of the Belgian Banking and Finance Commission. Source: Lasfer (2000).
Canada	At least since 1989. Source: Ginglinger and Hamon(2009). Paper link: http://www.sciencedirect.com/science?_ob=ArticleURL&_udi=B6V7M-4V7MSHB1&_user=62921&_coverDate=06%2F30%2F2009&_rdoc=1&_fmt=high&_orig=search&_sort=d&_docanchor=&view=c&_searchStrId=1358399371&_rerunOrigin=google&_acct=C000005418&_version=1&_u
China	Allowed. In September 2008, the China Securities Regulatory Commission (CSRC) announced that firms would no longer require approval for share repurchase plans. Source: http://www.chinadaily.com.cn/china/2008-09/21/content_7044996.htm
Czech Republic	Allowed with restriction that it cannot be more than 50% of equity shares. Source: Weblink: http://en.wikipedia.org/wiki/Preferred_stock
Denmark	Legal since 1995. Companies can only use capital that may be distributed as dividends to repurchase shares and shareholders' authorization must specify the maximum number of shares to be repurchased and the minimum and maximum price the company may pay for the share. Source: Lasfer (2000).
Finland	Legal since 1997. The maximum amount of shares that can be repurchased is limited to 5% of the total share capital. Source: Liljeblom, Eva and Pasternack, Daniel (2002).
France	Legal since July 1998 but must be accompanied by capital reductions (art. L. 223-34 Cod. Com.). According to the Economist (August 15, 1998), France is trying to liberalize the rules on share buybacks, but had not achieved that goal by 1998.
Germany	Effective since 1999. Even though companies were allowed to repurchases their shares since March 1998, uncertainty about the taxation of capital gains due to repurchases has led to the postponement of buyback schemes at companies such as BASF. Source: http://opus.zbw-kiel.de/volltexte/2004/1660/
Hong Kong	Legal since 1991. The maximum number of shares an issuer can repurchase is 10% of the existing issued share capital during the effective period of the mandate. Such mandate must be renewed by shareholders in a general meeting or the next AGM; otherwise it will expire at the next AGM (Main Board Rule 10.06). Source: http://www.nomura.com/research/pub/Gmg2007210548.pdf
Hungary	Allowed. Source: Andras Kisfaludi (2004). http://papers.ssrn.com/sol3/papers.cfm?abstract_id=699101
India	Legal since 1998. Circulars of many firms prohibit share reduction unless approved by High Court. The buyback can be made by a board resolution if the quantity of buyback is or less than 10% of the paid up capital and free reserves; the buy-back is of less than 25% of the total paid-up capital and fee reserves; and that the buy-back of equity shares in any financial year shall not exceed 25% of its total paid-up equity capital in that financial year. Source: http://ideas.repec.org/p/wpa/wuwpfi/0507001.html
Indonesia	Allowed. The transaction shall be performed subject to prevailing laws including, in the case of ordinary shares listed on the Jakarta and Surabaya Stock Exchanges, the decision of the Head of the Capital Market Supervisory Board (Bapepam Regulation Number XI.B.2). Source: http://www.bapepam.go.id/old/old/e_legal/rules/index.htm
Ireland	Allowed. After 1990 law amended in Companies Act of Ireland. Source: Cox (2009) http://www.lexmundi.com/images/lexmundi/PDF/Employee_Benefits/Stock_Option_Jurisdictions/Ireland_Global_Stock_Option.pdf
Israel	Allowed. Under the Israeli law, the repurchase is subject to the company obtaining an approval from the Court in Israel. Purchases shall be made in compliance with the applicable provisions of Section 302 of the Israeli Companies Law, 1999, the applicable provisions of Rule 10b-18 of the Securities Exchange Act of 1934, as amended (the “Exchange Act”), and Regulation M promulgated under the Exchange Act. Source: http://www.lexdon.com/article/ECtels_Board_of_Directors_Approves/42304.html

(continued)

Appendix IV: Regulations on Share Repurchases Across Countries (continued)

Country	Regulations
Italy	Legal since before 1997. Authorized by meeting of shareholders. Maximum of up to 10% of shares. Formalized by regulatory changes in 2003, firms can repeatedly purchase and sell their shares. Off-market and over the counter share repurchases are not permitted. Sources: http://www.iosco.org/library/pubdocs/pdf/IOSCOPD161.pdf; Kim et al. (2005); Survey of share repurchases; http://www.efmaefm.org/0EFMAMEETINGS/EFMA%20ANNUAL%20MEETINGS/2007-Vienna/Papers/0483.pdf.
Japan	Effective since 1995. Source: Zhang (2002).
Korea	Legal since 1994. In 1998, the Securities and Exchange Act was revised to abolish the 10% limit on share repurchases. Sources: Survey of share repurchases http://www.adb.org/Documents/Books/Corporate_Governance/Vol2/vol2.pdf
Luxembourg	Legal at least since 2005. A company is permitted to repurchase up to 10% of its share capital if this repurchase is specifically authorized by the company's shareholders. Source: http://www.scribd.com/doc/11502697/Luxembourg-Investment-Funds-Guide-UCITS-SIF-UCI
Malaysia	Legal since 1997. Companies (Amendment) Act 1997 introduced section 67A allowing public companies to purchase their own shares or give financial assistance to any person for the purpose of purchasing their shares. Source: Low (2001).
Mexico	In 2003, CNBV issued new regulations for new issues and buybacks. Source: http://www.iflr.com/Article/1984906/Mexico-updates-securities-regulation.html
Netherlands	Effective since 2001. Subject to punitive taxes. Firms have to pay 33.3% withholding tax on the difference between repurchase price and average paid up capital per share. Sources: Lasfer (2000); Survey of share repurchases.
New Zealand	Legal at least since 2005. A company is permitted to repurchase up to 10% of its share capital if this repurchase is specifically authorized by the company's shareholders. Source: http://www.scribd.com/doc/11502697/Luxembourg-Investment-Funds-Guide-UCITS-
Norway	Legal since January 1999. Firm are not allowed to hold more than 10% of their own shares at any point in time. Requires 2/3 of the voting shares presented at the shareholder meeting. Source: Skjeltorp (2004).
Pakistan	Allowed. The share repurchase process is governed by by Section 95A of the Companies Ordinance, from 1984 and the Companies (Buy-back of shares) Rules, from 1999. Companies intending to repurchase shares should comply with: (a) debt-equity ratio of 60:40; (b) current ratio of 1:1; (c) financing by cash and distributable profit. Source: http://thefinancialdaily.com/NewsDetail/65378.aspx
Peru	Allowed. Source: Nidal Rashid Sabri (2003). http://papers.ssrn.com/sol3/papers.cfm?abstract_id=450042
Philippines	Allowed. Source: http://papers.ssrn.com/sol3/papers.cfm?abstract_id=450042
Poland	Legal since 1997. Source: Nidal Rashid Sabri (2003). http://papers.ssrn.com/sol3/papers.cfm?abstract_id=450042
Portugal	Allowed. Source: Nidal Rashid Sabri (2003). http://papers.ssrn.com/sol3/papers.cfm?abstract_id=450042
Russia	Allowed. See description of some share buybacks in source: http://www.asia.ru/russia/news/document23123.shtml; Roosenboom and Arno van den Beemt (2001) http://rof.oxfordjournals.org/cgi/content/abstract/11/2/253
Singapore	The Companies (Amendment) Act of 2005, which took effect on 30 January 2006, allows share repurchases to be funded by profits and can be held as treasury shares. Source: http://www.bowman.co.za/LawArticles/Law-Article.asp?id=-639353216
South Africa	Legal since 1999. Section 85(1) of the Companies Act 1973, as amended by the Companies Amendment Act 37 of 1999, enables a company to acquire its own shares provided that it is authorized to do so by its articles of association and the share repurchases has been approved by a special resolution passed by the members of the company. There are no restrictions on the source of the funds utilized to acquire the company's shares. Source: Nidal Rashid Sabri (2003). http://papers.ssrn.com/sol3/papers.cfm?abstract_id=450042
Spain	Allowed since at least 1990. Article 75 of the Spanish Law of Public Limited Companies states that the nominal value of acquired shares shall not exceed 10% of equity capital (reduced to 5% when shares are traded in the secondary official stock market). That is, a maximum of 5% of common stock may be bought back and kept as treasury stocks. Must be authorized by General Assembly. Source: González and González (2004).
Sri Lanka	Allowed. See an announcement of a recent repurchase plan in http://www.dailymirror.lk/DM_BLOG/Sections/frmNewsDetailView.aspx?ARTID=62970
Sweden	Legal since March 2000. Maximum of 10% of shares outstanding (SFS, 2000:66). Approval by AGM and must come from distributable profit. Source: http://www.fma.org/Stockholm/Papers/Repurchase.pdf
Switzerland	Legal since 1992. Subject to punitive taxes. Sources: Survey of share repurchases. http://papers.ssrn.com/sol3/papers.cfm?abstract_id=450042

(continued)

Appendix IV: Regulations on Share Repurchases Across Countries (continued)

Country	Regulations
Taiwan	Allowed. Sources: http://www.ifc.org/searchresults.html?cx=009183910618791464029%3Aik2jtgcdpms&cof=FORID%3A11&ie=UTF-8&q=buyback&sa=go#1059
Thailand	Allowed since 1995. Added in March 2002: the repurchase of shares of a listed company shall require an approval of its shareholders, except where the amount of repurchase of those shares is not in excess of 10 per cent of the paid-up capital, a listed company may prescribe in the regulation of the listed company that it shall be the authority of the board of directors of the listed company to approve such repurchase of shares. In case that the amount of shares repurchased by a listed company is in excess of 10per cent of its paid-up capital, the listed company shall repurchase those shares within 1 year from the date of approval of its shareholders. Source: http://www.legalserviceindia.com/articles/shares.htm; http://72.14.253.104/search?q=cache:_u47yJTvwnkJ:www.set.or.th/en/regulations/rules/disclosure_files_n/BorJorPor1104_EN.pdf+repurchases&hl=en&ct=clnk&cd=9
Turkey	According to the Capital Markets Board Corporate Governance Principles (CMB Principles), from 1959, share buybacks are not permitted, save for certain limited exceptions; Source: https://research.sabanciuniv.edu/801/1/stvkaf07a67.pdf
United Kingdom	Legal since 1981. SEC adopted safe-harbor rule (10b-18) in 1982. Before executing a repurchase transaction, a UK firm must have articles of association permitting repurchases and a special resolution conferring repurchase authority. A special resolution requires a firm to send a meeting notice to shareholders and to obtain a 75% majority of shares voting at the meeting. Sections 160(1) and (2) of the Companies Act 1985 require shares to be repurchased either out of distributable profits or out of the proceeds of a fresh issue of shares made specifically for that purpose. Before 1 December 2003, firms had to cancel repurchased shares and could not hold them as treasury stock for re-sale. Source: http://www.mbs.ac.uk/research /accounting finance/documents/Repurchases.doc
United States	Legal since 1983. A firm's board of directors can authorize repurchases. Regular share repurchases may lead the Internal Revenue Service to treat repurchases as dividends. Source: Survey of share repurchases. http://www.ifc.org/searchresults.html?cx=009183910618791464029%3Aik2jtgcdpms&cof=FORID%3A11&ie=UTF-8&q=buyback&sa=go#1059

References

Aggarwal, Reena, Isil Erel, Rene M. Stulz, and Rohan G. Williamson, 2007, Do U.S. firms have the best corporate governance? A cross-country examination of the relation between corporate governance and shareholder wealth, Working Paper, European Corporate Governance Institute.

Allen, Franklin, and Roni Michaely, 2003, Payout policy, in George Constantinides, Milton Harris, and René Stulz, eds.: *Handbook of Economics of Finance*. (North-Holland)

Ai, Chunrong and Edward C. Norton, 2003, Interaction terms in logit and probit models, *Economics Letters*, 80, 123-129.

Ramasastry, Ambarish, John Kose, and Joseph Williams, 1987, Efficient signaling with dividends and investments, *Journal of Finance* 42, 321-343.

Bagwell, Laurie Simon, 1991, Share repurchases and takeover deterrence, *RAND Journal of Economics* 22, 72–88.

Barclay, Michael J., and Clifford W. Smith, 1988, Corporate payout policy: Cash dividends versus open market repurchases, *Journal of Financial Economics* 22, 61–82.

Barclay, Michael J., Clifford G. Holderness, and Dennis P. Sheehan, 2009, Dividends and corporate shareholders, *Review of Financial Studies* 22, 2423-2455.

Benartzi, Shlomo, Roni Michaely, and Richard Thaler (1997), Do changes in dividends signal the future or the past?,*Journal of Finance* 52, 1007–1043.

Berle, Adolph, and Gardiner Means, 1932, eds.: *The Modern Corporation and Private Property* (Mac-Millan, New York, N.Y.).

Bhattacharya, Sudipto, 1979, Imperfect Information, Dividend policy, and the 'bird in the hand fallacy', *Bell Journal of Economics and Management Science* 10, 259–270.

Brennan, Michael J., and Anjan V. Thakor, 1990, Shareholder preferences and dividend policy, *Journal of Finance* 45, 993–1018.

Brennan, Michael J., 1970, Taxes, market valuation, and corporation financial policy, *National Tax Journal* 23, 417–427.

Brown, Lawrence, and Marcus Caylor, 2006, Corporate governance and firm valuation, *Journal of Accounting and Public Policy* 25, 409-434.

Brown, Philip, Janice How, and Peter Verhoeven, 2008, The accuracy of analysts' dividend forecasts around the world, *Pacific-Basin Finance Journal* 16, 411-435.

Bruno, Valentina Giulia, and Stijn Claessens, 2007, Corporate governance and regulation: Can there be too much of a good thing?, Working Paper, World Bank.

Chen, Donghua, Ming Jian, and Ming Xu, 2009, Dividends for tunneling in a regulated economy: The case of China, *Pacific-Basin Finance Journal* 17, 209-223.

Claessens, Stijn, Simeon Djankov, and Larry H.P. Lang, 2000, The separation of ownership and control in East Asian corporation, *Journal of Financial Economics* 58, 81-112.

Dahya, Jay, Orlin Dimitrov, and John McConnell, 2008, Dominant shareholders, corporate boards, and corporate value: A cross-country analysis, *Journalof Financial Economics* 87, 73–100.

Daniel, Naveen D., David J. Denis, and Lalitha Naveen, 2008, Dividends, investment, and financial flexibility, Working paper, Drexel University and Purdue University.

DeAngelo, Harry, Linda DeAngelo, and Douglas Skinner, 2008, Corporate payout policy, *Foundations and Trends in Finance* 3, 95-287.

Del Guercio, Diane, 1996, The distorting effect of the prudent-man laws on institutional equity investments, *Journal of Financial Economics* 40, 31-62.

Desai, Mihir, and Li Jin, 2008, Institutional tax clienteles and payout policy, Working Paper, National Bureau of Economic Research.

Djankov, Simeon, Rafael La Porta, Florencio Lopez-De-Silanes, and Andrei Shleifer, 2008, The law and economics of self-dealing, *Journal of Financial Economics* 88, 430-465.

Doidge, Craig, Andrew Karolyi, and Rene Stulz, 2007, Why do countries matter so much for corporate governance?, *Journal of Financial Economics* 86, 1-39.

Durnev, Art, and Han Kim, 2005, To steal or not to steal: Firm attributes, legal environment and valuation, *Journal of Finance* 60, 1461-1493.

Easterbrook, F., 1984, Two agency cost explanations of dividends, *American Economic Review* 74, 650–659.

Elton, Edwin, and Martin J. Gruber, 1970, Marginal stockholders' tax rates and the clientele effect, *Review of Economics and Statistics* 52, 68–74.

Faccio, Mara, Larry Lang, and Leslie Young, 2001, Dividends and expropriation, *American Economic Review* 91, 54-78.

Fama, Eugene, and Kenneth French, 2001, Disappearing dividends: Changing firms characteristics or lower propensity to pay?, *Journal of Financial Economics* 60, 3-43.

Fan, Joseph, and T.J. Wong, 2002, Corporate ownership structure and the informativeness of accounting earnings in East Asia, *Journal of Accounting and Economics* 33, 401-425.

Fenn, George, and Nellie Liang, 2001, Corporate payout policy and managerial stock incentives, *Journal of Financial Economics* 60, 45-72.

Gilson, Ronald, 2005, Controlling shareholders and corporate governance: Complicating the comparative taxonomy, *Columbia University Center for Law and Economics Research Paper Series* 281.

Grinstein, Yaniv, and Roni Michaely, 2005, Institutional holdings and payout policy, *Journal of Finance* 50, 1139-1426.

Grossman, Sanford J., and Oliver D. Hart, 1980, Takeover bids, the free-rider problem, and the theory of the corporation, *Bell Journal of Economics* 11, 42-64.

Grossman, Stanford, and Oliver Hart, 1988, One share/one vote and the market for corporate control, *Journal of Financial Economics* 20, 175-202.

Grullon, Gustavo, Bradley Paye, Shane Underwood, and James Weston, 2008, Has the propensity to pay out declined?, Working paper, Rice University.

Grullon, Gustavo, and Roni Michaely, 2002, Dividends, share repurchases, and the substitution hypothesis, *Journal of Finance* 57, 1649–1684.

Guay, Wayne, and Jarrad Harford, 2000, The cash-flow permanence and information of dividend increases versus repurchases, *The Journal of Financial Economics* 57, 385-415.

Gugler, Klaus, Dennis Mueller, and Burcin Yurtoglu, 2003, Corporate governance and return on investment, Working Paper, European Corporate Governance Institute.

Harford, Jarrad, Sattar Mansi, and William Maxwell, 2008, Corporate governance and firm cash holdings in the US, *Journal of Financial Economics* 87, 535-555.

Hope, Kristian, 2003, Disclosure practices, enforcement of accounting standards and analysts' forecast accuracy: An international study, *Journal of Accounting Research*, 41, 235-272.

Jagannathan, Murali, Clifford Stephens, and Michael Weisbach, 2000, Financial flexibility and the choice between dividends and stock repurchases, *Journal of Financial Economics* 57, 355-384.

Jensen, Michael, and William Meckling, 1976, Theory of the firm: Managerial behavior, agency costs, and ownership structure, *Journal of Financial Economics* 3, 305–360.

Jensen, Michael, 1986, Agency costs of free cash flow, corporate finance and takeovers, *American Economic Review* 76, 323-339.

John, Kose, and Joseph Williams, 1985, Dividends, dilution, and taxes: A signaling equilibrium, *Journal of Finance* 49, 1053–1070.

John, Kose, and Anzhela Knyazeva, 2006, Payout policy, agency conflicts and corporate governance, Working Paper, New York University.

Kahle, Kathleen, 2002, When a buyback isn't a buyback: Open-market repurchases and employee options, *Journal of Financial Economics* 63, 235-261.

Kalay, Avner, 1982, The ex-dividend day behavior of stock prices: A re-examination of the clientele effect, *Journal of Finance* 37, 1059–1070.

Klapper, Leora, and Inessa Love, 2004, Corporate governance, investor protection and performance in emerging markets, *Journal of Corporate Finance* 10, 703-728.

Krivogorsky, Victoria, and Gary Grudnitski, 2008, Dominant owner and financial performance of continental European firms, Working Paper (http://ssrn.com/author=111657).

La Porta, Rafael, Florencio Lopez-De-Silanes, Andrei Shleifer, and Robert Vishny, 1999, Corporate ownership around the world, *Journal of Finance* 54, 471-517.

La Porta, Rafael, Florencio Lopez-de-Silanes, Andrei Shleifer and Robert Vishny, 2000, Agency problems and dividend policy around the world, *Journal of Finance* 55, 1-33.

La Porta, Rafael, Florencio Lopez-de-Silanes, Andrei Shleifer, and Robert Vishny, 1997, Legal determinants of external capital, *Journal of Finance* 52, 1131-1150.

Lang, Larry H. P., and Robert H. Litzenberger, 1989, Dividend announcements: Cash flow signaling vs. free cash flow hypothesis, *Journal of Financial Economics* 24, 181–192.

Leuz, Christian, Dhananjav Nanda, and Peter Wysocki, 2003, Earnings management and investor protection: An international comparison, *Journal of Financial Economics* 69, 505-527.

Lie, Erik, 2000, Excess funds and agency problems: An empirical study of incremental cash disbursements, *Review of Financial Studies* 13, 219-248.

Lintner, John, 1956, Distribution of incomes of corporations among dividends, retained earnings and taxes, *AmericanEconomic Review* 46, 97–113.

Miller, Darius, and Natalia Reisel, 2009, Do country level investor protections impact security level contract design? Evidence from foreign bond covenants, Working Paper, Southern Methodist University.

Miller, Merton, and Myron Scholes, 1978, Dividends and taxes, *Journal of Financial Economics* 6, 333–364.

Miller, Merton, and Franco Modigliani, 1961, Dividend policy, growth and the valuation of shares, *Journal of Business* 32, 411-433.

Miller, Merton, and Kevin Rock, 1985, Dividend policy under asymmetric information, *Journal of Finance* 40, 1031–1051.

Moser, William, 2005, The effect of shareholder taxes on corporate payout choice, Unpublished PhD Thesis, University of Arizona.

Myers, Stewart, and Nicholas Majluf, 1984, Corporate financing and investment decisions when firms have information that investors do not have, *Journal of Financial Economics* 13, 187-221.

Oded, Jacob, 2008, Payout policy, financial flexibility, and agency costs of free cash flow, Working Paper, Boston University School of Management.

Rossi, Junior, and Juliana L. Laham, 2008, The impact of hedging on firm value: Evidence from Brazil, *Journal of International Finance and Economics* 8, 76-91.

Shleifer, Andrei, and Robert W. Vishny, 1997, A survey of corporate governance, *Journal of Finance* 52, 737-783.

Spamann, Holger, 2010, The "antidirector rights index" revisited, *The Review of Financial Studies* 23, 467-486.

Stulz, Rene M., 1988, Managerial control of voting rights: Financing policies and the market for corporate control, *Journal of Financial Economics* 20, 25–54.

Thaler, Richard, and Hersh Shefrin, 1981, An economic theory of self-control, *Journal of Political Economy* 89, 392-406.

Vermaelen, Theo, 1984, Repurchase tender offers, signaling, and managerial incentives, *Journal of Financial and Quantitative Analysis* 19, 163-181.

Williams Joseph, 1988, Efficient signaling with dividends, investment, and stock repurchases, *Journal of Finance* 43, 737–747.

Table I: Descriptive Statistics

This table reports the country medians of firm specific variables for 43 countries from 2001 to 2006. Only firms with positive net earnings, net cash flows and net sales are included. Dividend/Earnings, Dividend/Cash Flow and Dividend/Sales are dividends divided by net income, cash flows and sales, respectively. Payout/Earnings, Payout/Cash Flow and Payout/Sales are total payout (dividends plus share repurchase) divided by net income, cash flows and sales, respectively. Growth is the growth decile in industry-adjusted annual sales. CloselyHeld is the percentage of closely held shares in a firm. Independence indicates the degree of independence of the company from its shareholders. Governance is the firm's corporate governance index constructed from ISS data. TaxAdvantage is a proxy for the dividend tax advantage. Insider, State and FinInstitutions, respectively, take a value of one for firms with insiders, states or financial institutions as the ultimate owner and zero otherwise. *p*-values from *t*-test and Kruskal-Wallis (country level) are reported at the bottom of the table.

Country	Dividend/ Earnings	Dividend/ Cash Flow	Dividend/ Sales	Payout/ Earnings	Payout / CashFlow	Payout/ Sales	Growth	Closely-Held	Indepen-dence	Gover-nance	Tax Advantage	Insider	State	Fin-Institutions
Australia	33.0	20.1	1.8	35.7	21.6	1.9	8.0	46.6	10.0	4.4	0.8	6.6	0.6	1.9
Canada	0.0	0.0	0.0	0.0	0.0	0.0	7.0	18.9	10.0	4.4	0.8	5.8	0.1	2.0
Hong Kong	17.9	12.0	1.1	19.1	12.8	1.2	6.0	63.5	7.0	2.4	1.0	38.5	1.6	4.9
India	18.0	10.9	1.3	19.1	11.7	1.4	7.0	52.3	9.0	2.7	0.7	6.9	1.0	0.0
Ireland	17.2	11.5	0.9	19.2	13.2	1.0	7.0	30.6	10.0	4.4	0.6	13.6	0.0	6.1
Israel	0.0	0.0	0.0	0.0	0.0	0.0	6.0	61.1	8.0	3.0	0.8	5.0	1.0	4.0
Malaysia	19.5	11.8	1.2	20.6	12.2	1.2	6.0	53.4	8.0		1.0	12.4	3.4	1.8
New Zealand	53.9	32.7	3.0	55.1	34.2	3.1	7.0	53.3	8.0	3.7	1.0	6.7	4.7	8.4
Pakistan	34.8	22.1	2.2	34.8	22.1	2.2	6.0	60.5	7.0		0.9	0.5	6.4	0.5
Singapore	20.0	12.0	1.1	20.4	12.3	1.1	7.0	61.6	7.0	2.7	1.0	18.7	3.9	3.9
South Africa	18.5	12.4	0.9	20.3	13.3	1.0	7.0	52.0	8.0	3.5	1.1	12.0	0.3	2.8
Sri Lanka	24.9	16.0	2.2	24.9	16.1	2.2	6.0	56.4	8.0		1.0	0.0	2.6	1.3
Thailand	33.4	20.4	2.1	33.6	20.6	2.1	7.0	58.9	8.0		1.0	2.0	3.4	0.8
United Kingdom	28.8	17.4	1.4	31.2	18.4	1.5	6.0	29.7	10.0	5.0	0.9	10.8	0.2	3.1
United States	0.0	0.0	0.0	11.7	6.1	0.5	6.0	24.8	10.0	3.8	0.9	12.2	0.0	1.3
Common Law Median	**19.5**	**12.0**	**1.2**	**20.4**	**13.2**	**1.2**	**7.0**	**53.3**	**8.0**	**3.7**	**0.9**	**6.9**	**1.0**	**2.0**
Common Law Mean	**21.3**	**13.3**	**1.3**	**23.1**	**14.3**	**1.4**	**6.6**	**48.2**	**8.5**	**3.6**	**0.9**	**10.1**	**1.9**	**2.8**
Argentina	0.0	0.0	0.0	0.0	0.0	0.0	4.0	70.0	1.0		1.0	0.0	3.5	4.5
Austria	24.1	11.7	1.0	24.7	11.8	1.1	6.0	63.3	7.0	2.8	0.8	16.7	7.8	8.5
Belgium	30.3	12.7	1.1	33.0	14.3	1.3	7.0	56.9	7.0	2.7	0.9	14.5	5.1	5.4
China	33.2	19.4	2.2	33.4	19.5	2.2	8.0	59.9	7.0	3.5	0.8	26.2	0.0	0.0
Czech Republic	17.6	7.7	1.0	17.6	7.7	1.0	6.0	91.4	1.0	4.0	0.9	0.0	12.8	4.3
Denmark	19.6	9.7	0.8	23.1	11.5	1.0	6.0	48.9	7.0	3.8	0.6	9.8	0.0	2.4
Finland	45.5	24.1	2.3	48.2	25.2	2.4	6.0	35.1	10.0	4.4	1.1	9.8	4.6	2.2
France	21.4	10.4	0.8	22.3	11.0	0.9	6.0	62.4	7.0	3.7	0.7	38.7	2.8	5.7
Germany	15.4	6.5	0.5	17.4	7.3	0.5	6.0	61.1	7.0	3.2	0.6	31.0	2.2	3.4
Hungary	3.2	1.6	0.2	7.3	4.8	0.6	7.0	69.6	7.0		0.7	0.0	0.0	0.0

(continued)

Table I: Descriptive Statistics (continued)

Country	Dividend/ Earnings	Dividend/ Cash Flow	Dividend/ Sales	Payout/ Earnings	Payout / CashFlow	Payout/ Sales	Growth	Closely-Held	Indepen-dence	Gover-nance	Tax Advantage	Insider	State	Fin-Institutions
Indonesia	7.5	4.1	0.3	7.7	4.1	0.3	7.0	71.4	7.0		0.7	2.1	0.7	1.2
Italy	30.9	14.6	1.5	31.7	14.7	1.6	7.0	56.7	1.0	3.4	0.6	15.8	4.5	6.6
Japan	20.7	10.0	0.5	22.4	10.7	0.5	4.0	42.9	10.0	3.3	0.9	0.6	0.1	0.4
Korea	12.8	7.1	0.6	15.5	8.7	0.7	7.0	37.4	9.0	4.3	0.7	24.1	1.1	1.7
Luxembourg	22.2	11.9	1.8	25.5	13.2	2.0	7.0	41.7	7.0	3.3	0.7	4.4	8.8	1.5
Mexico	6.8	4.0	0.4	13.3	7.7	0.6	6.0	79.0	8.0	2.3	1.0	5.7	0.3	3.4
Netherlands	24.3	11.8	0.8	28.7	14.4	1.0	6.0	43.7	8.0	2.8	0.7	7.1	0.5	3.3
Norway	18.0	9.4	0.7	20.2	11.3	1.0	7.0	47.7	7.0	3.4	1.1	14.7	9.1	1.6
Peru	5.7	3.2	0.3	5.8	3.2	0.4	5.0	74.0	3.0		1.0	11.6	0.0	7.2
Philippines	0.0	0.0	0.0	0.0	0.0	0.0	5.0	80.0	7.0		0.9	0.9	0.0	1.6
Poland	0.0	0.0	0.0	0.0	0.0	0.0	6.0	60.2	7.0		0.9	19.1	7.2	6.4
Portugal	20.4	7.7	0.7	27.1	11.0	0.8	6.0	65.3	7.0	2.2	0.6	18.9	0.0	4.1
Russia	9.6	4.6	0.9	12.9	5.6	1.0	9.0	76.3	7.0		1.0	7.5	0.0	3.4
Spain	25.6	13.9	1.6	29.1	15.5	1.7	6.0	53.5	7.0	2.3	0.9	15.5	0.0	6.2
Sweden	27.3	15.6	1.4	28.4	16.4	1.4	6.0	36.2	9.0	4.2	0.8	10.1	0.7	7.4
Switzerland	24.1	12.7	1.2	28.9	14.9	1.4	6.0	47.4	7.0	4.4	0.6	18.7	7.2	2.6
Taiwan	9.7	6.6	0.5	12.3	8.3	0.7	8.0	24.9	10.0		1.2	1.4	0.1	0.0
Turkey	0.0	0.0	0.0	0.0	0.0	0.0	8.0	65.8	8.0		0.6	18.8	2.2	1.0
Civil Law Median	**18.8**	**8.6**	**0.8**	**21.3**	**10.9**	**0.9**	**6.0**	**60.0**	**7.0**	**3.4**	**0.8**	**10.8**	**0.9**	**3.3**
Civil Law Mean	**17.0**	**8.6**	**0.8**	**19.2**	**9.7**	**0.9**	**6.4**	**57.9**	**6.8**	**3.4**	**0.8**	**12.3**	**2.9**	**3.4**
All Median	**19.5**	**11.5**	**0.9**	**20.4**	**11.8**	**1.0**	**6.0**	**56.4**	**7.0**	**3.5**	**0.9**	**10.1**	**1.0**	**2.8**
All Mean	**18.6**	**10.4**	**1.0**	**20.6**	**11.4**	**1.1**	**6.5**	**54.4**	**7.4**	**3.5**	**0.8**	**11.4**	**2.5**	**3.2**
Common vs Civil Law														
Difference in Medians	**0.72**	**3.48**	**0.43**	**-0.86**	**2.34**	**0.32**	**1.00**	**-6.70**	**1.00**	**0.33**	**0.10**	**-3.90**	**0.06**	**-1.37**
p-value (KW)	*0.42*	*0.05*	*0.07*	*0.40*	*0.05*	*0.07*	*0.37*	*0.07*	*0.00*	*0.34*	*0.12*	*0.39*	*0.95*	*0.45*
Difference in Means	**4.32**	**4.68**	**0.45**	**3.89**	**4.56**	**0.44**	**0.24**	**-9.70**	**1.75**	**0.27**	**0.09**	**-2.16**	**-0.96**	**-0.59**
p-value (t-statistic)	*0.30*	*0.05*	*0.06*	*0.35*	*0.05*	*0.07*	*0.45*	*0.06*	*0.01*	*0.37*	*0.14*	*0.50*	*0.35*	*0.46*

Table II: Percentage Payers by Country

This table shows the percentage of firms per country with non-zero dividends or repurchases from 2001 to 2006. Only firms with positive net earnings, net cash flows and net sales are included. *p*-values from *t*-test and Kruskal-Wallis (country level) are reported at the bottom of the table.

	Dividend payers							Repurchasers						
Country	ALL	2001	2002	2003	2004	2005	2006	ALL	2001	2002	2003	2004	2005	2006
Australia	78.6	83.7	82.5	82.9	82.5	56.9	53.7	11.2	11.7	8.3	11.1	9.8	11.9	13.8
Canada	85.8	86.7	85.1	82.4	83.2	87.0	90.1	1.0	0.0	0.0	0.0	1.5	2.7	1.5
Hong Kong	91.6	85.7	100.0	100.0	86.7	88.2	94.7	8.9	15.9	9.9	7.8	7.2	5.9	8.0
India	70.0	59.7	63.0	67.6	69.2	77.3	78.4	9.4	14.8	14.5	13.7	9.9	7.8	5.5
Ireland	76.3	80.0	79.3	71.9	70.6	77.8	78.5	60.3	41.3	50.7	62.4	62.8	68.0	68.4
Israel	63.1	55.2	60.9	65.2	65.0	70.0	83.3	32.9	33.9	33.7	36.8	34.1	28.2	31.5
Malaysia	51.9	55.6	57.9	31.3	52.6	50.0	62.5	8.9	4.3	4.6	7.0	6.9	12.8	17.4
New Zealand	55.6	53.8	48.5	53.7	59.7	60.4	60.2	11.7	10.0	17.5	13.0	11.6	10.6	7.5
Pakistan	57.8	48.1	50.7	61.2	55.9	62.9	65.8	0.4	0.0	0.0	2.5	0.0	0.0	0.0
Sweden	41.9	36.4	36.1	39.8	41.6	46.8	49.8	14.3	21.7	16.7	22.2	10.0	11.0	9.9
Thailand	53.8	57.1	52.3	52.4	46.9	50.0	63.6	4.5	8.2	3.5	4.1	3.5	3.7	4.6
United Kingdom	73.0	69.4	75.8	80.6	66.7	75.0	71.9	5.3	0.0	0.0	12.5	6.7	5.9	5.6
United States	65.7	55.3	59.3	66.7	71.1	70.9	72.8	19.0	24.8	14.4	16.7	24.0	14.3	20.4
Common Law Median	**65.7**	**57.1**	**60.9**	**66.7**	**66.7**	**70.0**	**71.9**	**9.4**	**11.7**	**9.9**	**12.5**	**9.8**	**10.6**	**8.0**
Common Law Mean	**66.5**	**63.6**	**65.5**	**65.8**	**65.5**	**67.2**	**71.2**	**14.4**	**14.3**	**13.4**	**16.1**	**14.5**	**14.1**	**14.9**
Argentina	66.9	68.3	68.6	64.7	63.8	68.4	68.2	1.5	0.5	2.2	2.4	1.5	1.6	0.8
Austria	62.4	59.8	56.4	59.5	60.6	67.6	69.2	15.0	16.7	17.5	17.6	12.9	12.8	12.5
Belgium	81.8	87.4	89.9	86.2	84.2	84.1	73.9	29.6	5.7	13.3	10.3	30.2	44.2	56.3
China	69.2	63.5	60.8	66.7	69.7	73.4	79.1	6.8	7.7	5.6	0.0	7.7	12.5	16.7
Czech Republic	68.4	74.8	70.8	66.0	61.4	68.7	71.1	34.5	20.8	35.8	31.8	34.8	36.1	45.2
Denmark	78.4	81.8	67.8	75.4	76.1	85.1	83.9	15.5	21.7	12.3	5.4	11.8	21.2	19.3
Finland	80.7	73.8	81.7	81.4	84.1	78.8	82.9	20.5	8.7	9.7	13.2	15.2	29.9	42.9
France	43.1	37.3	38.2	46.6	36.8	46.0	49.6	13.6	11.6	13.2	13.1	12.7	12.4	18.4
Germany	67.1	69.3	63.0	64.3	62.5	70.5	73.1	23.5	5.6	29.4	12.5	33.3	29.4	31.3
Hungary	54.1	35.3	35.7	42.0	62.2	75.3	70.8	17.3	21.2	19.2	5.6	5.9	21.2	31.4

(continued)

Table II: Percentage Payers by Country (continued)

	Dividend payers							Repurchasers						
Country	ALL	2001	2002	2003	2004	2005	2006	ALL	2001	2002	2003	2004	2005	2006
Indonesia	73.9	74.1	69.4	72.7	72.3	75.0	78.6	10.2	8.7	6.4	6.1	2.7	15.1	19.5
Italy	72.5	77.5	62.4	71.6	71.4	73.7	78.1	2.6	4.1	2.5	0.7	2.5	2.3	4.7
Japan	86.9	88.5	92.9	81.5	84.5	83.9	89.9	24.4	17.9	30.4	28.9	20.2	23.0	27.2
Korea	70.2	70.0	69.6	75.0	67.0	68.4	72.0	32.2	39.2	38.1	30.6	17.7	23.9	47.5
Luxembourg	58.3	65.2	64.4	56.3	50.7	54.0	60.2	13.0	6.3	13.0	16.1	16.1	10.9	12.2
Mexico	67.7	82.4	73.1	63.9	58.8	64.7	64.9	24.4	0.0	0.0	16.7	10.0	35.7	36.4
Netherlands	78.2	73.2	71.4	73.5	78.9	83.0	87.1	26.4	30.8	12.5	15.0	21.4	38.5	44.4
Norway	71.8	75.0	70.2	69.6	68.7	71.6	75.5	40.9	38.5	39.0	42.1	39.5	41.9	44.0
Peru	40.2	22.2	28.8	38.2	39.6	44.0	55.7	17.3	17.1	26.0	21.5	13.2	14.6	13.8
Philippines	69.8	81.8	70.0	56.3	57.9	81.0	73.7	37.1	30.7	34.9	20.0	33.3	43.9	53.8
Poland	77.3	73.7	75.0	82.6	80.0	73.7	80.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Portugal	76.6	74.8	70.7	73.3	74.4	83.8	82.5	16.6	11.6	12.2	13.6	15.0	20.2	26.2
Sri Lanka	44.0	40.4	38.7	40.8	42.7	45.2	54.7	40.1	42.1	38.5	38.7	35.5	39.4	45.9
Switzerland	36.0	76.9	31.6	20.5	22.2	34.7	42.0	28.0	33.8	26.4	29.6	25.1	26.5	27.5
Taiwan	53.8	51.1	51.3	53.8	48.8	54.4	63.1	4.6	11.8	14.3	0.0	6.9	0.0	3.0
Turkey	43.1	43.2	54.8	44.2	37.5	43.0	42.4	38.2	46.4	46.8	38.8	29.7	32.8	34.4
Russia	66.3	69.1	61.3	66.4	63.5	64.4	75.4	7.3	6.7	5.0	5.3	18.2	9.1	0.0
Singapore	76.0	82.0	74.0	69.3	74.2	73.0	82.6	19.9	24.0	41.9	24.4	14.5	14.1	16.0
South Africa	41.3	61.0	27.1	24.6	26.7	53.5	78.4	44.3	40.0	52.4	52.4	34.6	48.1	40.0
Spain	72.5	78.7	75.0	73.2	68.6	69.9	70.4	30.6	17.8	28.0	28.6	29.1	35.2	42.9
Civil Law Median	**68.8**	**73.5**	**68.2**	**66.2**	**63.6**	**70.2**	**73.4**	**20.2**	**16.9**	**15.9**	**15.6**	**15.6**	**22.1**	**27.4**
Civil Law Mean	**64.9**	**67.1**	**62.2**	**62.0**	**61.7**	**67.1**	**71.0**	**21.2**	**18.2**	**20.9**	**18.0**	**18.4**	**23.2**	**27.1**
All Median	**68.4**	**69.4**	**64.4**	**66.4**	**65.0**	**70.0**	**72.8**	**16.6**	**14.8**	**14.3**	**13.6**	**13.2**	**14.6**	**19.3**
All Mean	**65.4**	**66.0**	**63.2**	**63.2**	**62.8**	**67.1**	**71.0**	**19.2**	**17.1**	**18.6**	**17.5**	**17.2**	**20.5**	**23.4**
Common vs Civil Law														
Difference in Medians	**-3.12**	**-16.32**	**-7.31**	**0.45**	**3.03**	**-0.20**	**-1.53**	**-10.80**	**-5.17**	**-5.98**	**-3.06**	**-5.79**	**-11.47**	**-19.36**
p-value (KW)	*0.95*	*0.61*	*0.99*	*0.99*	*0.82*	*0.83*	*0.67*	*0.94*	*0.28*	*0.84*	*0.44*	*0.53*	*0.60*	*0.60*
Difference in Means	**1.58**	**-3.47**	**3.33**	**3.81**	**3.84**	**0.08**	**0.22**	**-6.76**	**-3.91**	**-7.53**	**-1.88**	**-3.91**	**-9.16**	**-12.20**
p-value (t-statistic)	*0.95*	*0.75*	*0.89*	*0.95*	*0.82*	*0.84*	*0.52*	*0.43*	*0.73*	*0.66*	*0.76*	*0.18*	*0.23*	*0.26*

Table III: Dividends and Total Payouts over Net Income by Country

This table shows the country averages of dividends and total payout per firm scaled by net earnings. Only firms with positive net earnings, net cash flows and net sales are included. *p*-values from *t*-test and Kruskal-Wallis are reported at the bottom of the table.

	Dividend/Earnings						Total Payout/Earnings					
Country	2001	2002	2003	2004	2005	2006	2001	2002	2003	2004	2005	2006
Australia	42.5	37.4	36.2	33.0	40.2	41.1	45.9	39.7	39.6	36.3	44.5	44.5
Canada	18.0	19.6	23.5	25.9	29.5	31.4	24.1	23.8	28.5	29.9	33.9	36.5
Hong Kong	31.2	27.8	26.4	24.9	27.9	30.6	33.2	29.5	27.6	25.9	28.7	31.5
India	30.8	33.3	25.9	22.9	22.5	20.6	35.2	35.7	29.4	24.9	24.4	21.9
Ireland	31.4	19.7	24.2	18.2	20.3	21.5	35.2	25.3	26.4	23.8	24.4	28.7
Israel	22.9	28.6	29.1	25.8	28.6	29.2	26.2	32.8	29.5	28.3	32.7	34.4
Malaysia	30.5	30.1	27.6	25.9	31.2	30.6	31.7	30.6	28.4	26.6	33.2	32.8
New Zealand	57.2	49.8	48.1	49.8	57.9	61.1	57.8	55.6	51.3	52.0	60.1	62.6
Pakistan	42.1	44.8	41.5	39.0	33.0	34.3	42.1	44.8	41.6	39.0	33.0	34.3
Singapore	30.1	27.4	28.6	27.2	32.8	30.7	31.5	28.3	29.2	27.8	34.2	31.2
South Africa	19.0	19.5	24.7	28.0	28.7	29.1	22.0	23.4	28.0	30.2	35.1	36.4
Sri Lanka	29.5	46.9	43.0	21.9	22.6	27.5	29.5	46.9	48.2	23.0	22.9	30.0
Thailand	28.6	34.5	40.0	39.9	44.1	46.2	28.6	34.9	40.6	40.8	44.4	46.5
United Kingdom	39.9	38.2	38.6	34.4	31.5	29.7	43.9	42.0	43.2	38.6	37.1	36.5
United States	16.9	16.6	16.6	16.0	17.2	21.5	30.7	30.4	30.5	30.0	35.1	41.9
Common Law Median	**30.5**	**30.1**	**28.6**	**25.9**	**29.5**	**30.6**	**31.7**	**32.8**	**29.5**	**29.9**	**33.9**	**34.4**
Common Law Mean	**31.4**	**31.6**	**31.6**	**28.9**	**31.2**	**32.3**	**34.5**	**34.9**	**34.8**	**31.8**	**34.9**	**36.6**
Argentina	68.0	16.8	6.5	9.8	20.3	16.2	70.4	17.8	6.5	11.9	20.3	16.2
Austria	31.1	32.9	37.1	30.6	21.0	23.1	33.4	34.1	38.8	32.4	22.6	24.9
Belgium	34.4	42.8	37.4	33.0	35.7	31.6	34.9	45.4	38.2	39.8	43.0	39.9
China	50.6	45.0	41.2	39.8	25.1	20.6	50.6	45.0	41.2	40.0	26.1	21.4
Czech Republic	18.2	24.5	24.0	25.5	44.3	75.1	18.3	24.5	24.0	25.5	44.8	75.8
Denmark	29.1	23.4	31.3	23.7	25.5	23.7	31.5	30.5	37.4	34.3	36.2	36.3
Finland	49.7	61.4	58.6	64.9	45.3	54.6	52.8	62.5	59.7	67.0	48.9	58.3
France	28.4	28.0	30.5	27.3	24.6	25.4	29.6	29.8	32.9	30.2	29.1	29.3
Germany	36.9	35.7	30.1	21.3	24.2	21.8	38.7	36.9	33.3	23.3	26.0	25.0
Hungary	30.2	31.7	25.9	19.0	16.7	22.0	30.3	37.1	25.9	25.7	19.5	27.1

(continued)

Table III: Dividends and Total Payouts over Net Income by Country (continued)

	Dividend/Earnings						Total Payout/Earnings					
Country	2001	2002	2003	2004	2005	2006	2001	2002	2003	2004	2005	2006
Indonesia	20.5	19.8	22.4	26.2	23.0	25.1	21.7	21.2	22.4	26.6	23.6	25.3
Italy	38.9	37.3	38.0	38.3	36.2	40.9	40.2	38.6	38.9	39.4	38.1	44.0
Japan	29.5	33.3	28.8	25.7	26.0	28.0	32.4	37.4	34.6	30.7	29.2	32.0
Korea	16.5	15.1	20.5	18.3	19.6	23.8	23.6	19.6	25.6	23.6	24.1	30.1
Luxembourg	49.8	43.9	45.2	22.5	33.2	25.1	49.8	43.9	52.3	22.7	48.8	34.8
Mexico	22.8	19.8	20.4	13.8	17.5	22.9	29.6	29.1	30.4	20.9	24.6	32.3
Netherlands	32.6	30.5	32.5	32.5	27.0	30.0	38.0	37.3	37.7	37.1	33.0	37.6
Norway	28.3	19.6	36.7	27.3	31.6	24.4	36.1	22.9	40.5	31.0	36.5	32.4
Peru	41.3	34.0	30.3	25.5	27.8	33.5	42.5	35.3	32.2	30.0	29.5	33.5
Philippines	18.8	18.4	17.4	17.0	22.0	19.7	22.8	24.1	20.9	19.5	25.4	21.1
Poland	7.4	7.5	17.8	15.7	19.3	27.7	7.4	13.3	19.7	17.9	21.1	30.6
Portugal	38.0	34.2	35.3	23.4	25.0	27.3	42.5	40.3	41.0	28.8	30.2	33.7
Russia	12.1	20.5	18.6	13.5	18.5	15.0	13.2	22.9	22.4	16.7	22.8	25.2
Spain	31.6	25.5	28.7	32.0	33.8	32.5	35.2	27.8	31.2	35.1	40.7	39.6
Sweden	39.3	32.7	34.7	31.0	27.2	34.9	42.9	36.8	38.2	33.1	31.7	40.7
Switzerland	36.8	31.2	28.1	22.3	23.1	27.4	42.1	39.1	33.2	32.5	33.5	42.4
Taiwan	14.8	14.7	18.4	27.8	39.3	38.3	18.6	16.4	20.6	30.8	41.0	40.6
Turkey	22.4	10.8	12.8	9.7	23.2	30.1	22.4	10.8	12.8	9.7	23.2	30.1
Civil Law Median	**30.7**	**29.3**	**29.5**	**25.5**	**25.1**	**26.4**	**34.1**	**32.3**	**33.0**	**30.1**	**29.4**	**32.4**
Civil Law Mean	**31.4**	**28.2**	**28.9**	**25.6**	**27.0**	**29.3**	**34.0**	**31.4**	**31.9**	**29.2**	**31.2**	**34.3**
All Median	**30.5**	**30.1**	**28.8**	**25.8**	**27.0**	**28.0**	**33.2**	**32.8**	**32.2**	**30.0**	**32.7**	**33.5**
All Mean	**31.4**	**29.4**	**29.8**	**26.8**	**28.5**	**30.4**	**34.2**	**32.7**	**32.9**	**30.1**	**32.5**	**35.1**
Common vs Civil Law												
Difference in Medians	**-0.17**	**0.84**	**-0.86**	**0.45**	**4.40**	**4.23**	**-2.47**	**0.49**	**-3.53**	**-0.19**	**4.48**	**1.99**
p-value (KW)	*0.89*	*0.35*	*0.45*	*0.22*	*0.17*	*0.17*	*0.98*	*0.35*	*0.42*	*0.48*	*0.20*	*0.27*
Difference in Means	**0.02**	**3.37**	**2.70**	**3.23**	**4.19**	**3.02**	**0.54**	**3.48**	**2.94**	**2.65**	**3.70**	**2.35**
p-value (t-statistic)	*1.00*	*0.36*	*0.41*	*0.33*	*0.14*	*0.42*	*0.89*	*0.32*	*0.38*	*0.41*	*0.20*	*0.51*

Table IV: Regressions for Total Payouts, Investor Protection and Investment Opportunities

This table shows the results for the cross-section of 43 countries for 2001-2006 from generalized least squares (GLS) random effects panel regressions with robust standard errors. The dependent variable (total payout) is dividends plus share repurchases divided by net income. Investor Protection is measured as either a binary variable (LowProtection), which takes a value of one for low protection countries (Index<sample median) and zero otherwise, or a continuous variable. Growth is the decile rank of industry-adjusted historical annual sales growth rates. *p*-values are reported in parentheses. Industry dummies and market capitalization are included but not reported.

	Binary Measure of Investor Protection (<Median)					Continuous Measure of Investor Potection			
	Legal Regime	LLSV Anti Director Rights Index	Revised Anti Director Rights Index	Anti Self-Dealing Index	Spamann's Measure	LLSV Anti Director Rights Index	Revised Anti Director Rights Index	Anti Self-Dealing Index	Spamann's Measure
Investor Protection	0.38	-7.93	-0.18	-6.42	-3.01	-0.33	-2.23	10.49	2.20
	(0.65)	(0.00)	(0.83)	(0.00)	(0.00)	(0.17)	(0.00)	(0.00)	(0.00)
Growth	-1.61	-1.83	-1.50	-1.70	-1.94	-1.67	-1.31	-1.69	-2.03
	(0.00)	(0.00)	(0.00)	(0.00)	(0.10)	(0.00)	(0.00)	(0.00)	(0.00)
LowProtection×Growth	-0.03	0.95	-0.27	0.46	0.29	-0.16	-0.78	0.12	0.38
	(0.78)	(0.00)	(0.03)	(0.01)	(0.03)	(0.16)	(0.00)	(0.19)	(0.00)
Constant	28.83	30.82	29.03	29.93	30.69	30.67	37.38	22.18	20.63
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Number of Observations	78,570	75,538	78,570	78,570	71,796	75,538	78,570	78,570	71,796
Number of Firms	23,900	22,701	23,900	23,900	21,569	22,701	23,900	23,900	21,569
Wald Statistic	2,106	2,169	2,145	2,135	2,175	2,136	2,150	2,171	2,353

Table V: Regressions for Total Payouts, Investor Protection, Firm Level Agency Costs and Investment Opportunities

This table shows the results for the cross-section of 43 countries for 2001-2006 from generalized least squares random effects panel regressions with robust standard errors. The dependent variable (total payout) is dividends plus share repurchases divided by net income. Investor Protection is the Spamann's measure of antidirector rights index. LowProtection takes a value of one if Spamann's antidirector index<sample median, and zero otherwise. Growth is the decile rank of industry-adjusted historical annual sales growth rates. The proxy used for firm level agency costs is shown in the heading of columns (1)-(4). Independence is the degree of firms' independence from shareholders. CloselyHeld is the fraction of shares closely held in a firm. Governance is the ISS corporate governance index. Insider, State and FinInstitutions, respectively, take the value of one for firms with insiders, states, or financial institutions as the ultimate owner, and zero otherwise. Ultimate is the percentage shareholding of the ultimate shareholder. *p*-values are reported in parentheses. All independent variables are lagged by one period. Industry dummies and market capitalization are included but not reported.

	(1) CloselyHeld	(2) Independence	(3) Governance	(4) Insider
Investor Protection	3.06	0.33	2.63	1.73
	(0.00)	(0.35)	(0.00)	(0.00)
Growth	-2.09	-1.81	-1.73	-1.99
	(0.00)	(0.00)	(0.00)	(0.00)
LowProtection×Growth	0.44	0.05	-1.03	0.28
	(0.00)	(0.18)	(0.03)	(0.00)
Agency Cost	-0.10	0.19	1.71	-3.56
	(0.00)	(0.08)	(0.02)	(0.02)
LowProtection×Agency Cost	0.02	0.09	3.44	1.97
	(0.14)	(0.45)	(0.00)	(0.23)
FinInstitutions				0.91
				(0.77)
LowProtection×FinInstitutions				-2.46
				(0.51)
State				-5.15
				(0.42)
LowProtection×State				3.09
				(0.64)
Ultimate				0.00
				(0.86)
Constant	19.45	29.34	-14.83	24.11
	(0.00)	(0.00)	(0.00)	(0.00)
Number of Observations	52,249	52,261	10,364	57,830
Number of Firms	16,249	13,281	4,763	16,031
Wald Statistic	2,159	1,306	1,326	1,689

Table VI: Univariate Tests for Total Payouts

Total payout is measured as dividends plus share repurchases divided by net income. High (low) investor protection is proxied by the Spamann's corrected measure of antidirector rights index using the sample median as the cutoffHigh growth firms have a decile rank of industry-adjusted historical annual sales growth rates greater than 5. Firms are considered to have high agency costs if they have a value greater (or smaller, depending on the proxy of firm level agency cost) than the sample median for a given proxy of agency costs used. CloselyHeld is the fraction of shares that are closely held in a firm. Independence indicates the degree of independence of the firm from its shareholders. Governance is the firm's corporate governance index constructed from ISS data. Insider takes the value of one for firms with insiders as the ultimate owner and zero otherwise. Median values are in italics.

	Low Growth			High Growth			High vs. Low Growth	
	High Agency Cost	Low Agency Cost	*p-value*	High Agency Cost	Low Agency Cost	*p-value*	High Agency Cost	Low Agency Cost
				High protection countries				
CloselyHeld	38.6	42.1	0.00	30.8	35.3	0.00	0.00	0.00
	28.3	*30.8*	*0.00*	*21.6*	*26.2*	*0.00*	*0.00*	*0.00*
Independence	35.8	38.2	0.01	30.8	28.6	0.00	0.00	0.00
	25.6	*27.1*	*0.00*	*21.9*	*18.8*	*0.05*	*0.00*	*0.00*
Governance	44.6	45.4	0.72	38.8	42.9	0.10	0.03	0.25
	34.2	*35.9*	*0.44*	*26.8*	*35.6*	*0.00*	*0.01*	*0.60*
Insider	32.8	37.4	0.01	26.1	28.7	0.02	0.00	0.00
	24.4	*26.8*	*0.00*	*18.2*	*18.9*	*0.01*	*0.00*	*0.00*
				Low protection countries				
CloselyHeld	36.2	43.0	0.00	29.6	32.5	0.00	0.00	0.00
	23.8	*32.4*	*0.00*	*19.2*	*16.7*	*0.97*	*0.00*	*0.00*
Independence	37.9	42.9	0.00	31.8	31.6	0.71	0.00	0.00
	27.3	*32.4*	*0.00*	*22.9*	*18.5*	*0.00*	*0.00*	*0.00*
Governance	35.2	53.5	0.00	25.1	43.7	0.00	0.00	0.00
	18.2	*45.0*	*0.00*	*4.7*	*31.9*	*0.00*	*0.00*	*0.00*
Insider	*34.3*	*40.1*	0.00	*27.6*	*30.6*	0.00	0.00	0.00
	20.2	*28.8*	*0.00*	*17.4*	*17.1*	*0.18*	*0.00*	*0.00*

Table VII: Interaction of Country and Firm Level Agency Costs and Investment Opportunities on Total Payouts

This table shows the results for the cross-section of 43 countries for 2001-2006 from generalized least squares (GLS) random effects panel regressions with robust standard errors. The dependent variable (total payout) is dividends plus share repurchases divided by net income. Investor Protection is the Spamann's corrected antidirector rights index. LowProtection takes a value of one if Spamann's antidirector index<sample median, and zero otherwise. Growth is the decile rank of industry-adjusted historical annual sales growth rates. The proxy used for firm level agency costs is shown in the heading of columns (1)-(4). Companies have a low degree of independence from shareholders if Independence $\leq$8 and are considered to have high agency cost. For the remaining firm-level agency cost measures, "Low" and "High", respectively, take a value of one for values lower or higher than the sample median, and zero otherwise. CloselyHeld is the fraction of shares closely held in a firm. Governance is the ISS corporate governance index. Insider, State and FinInstitutions, respectively, take the value of one for firms with insiders, states, or financial institutions as the ultimate owner, and zero otherwise. Ultimate is the percentage shareholding of the ultimate shareholder. *p*-values are reported in parentheses. All independent variables are lagged by one period. Industry dummies and market capitalization are included but not reported.

	(1) CloselyHeld	(2) Independence	(3) Governance	(4) Insider
LowProtection (β_1)	-1.58	-4.24	-2.94	-2.40
	(0.31)	(0.00)	(0.00)	(0.02)
High Agency Cost (β_2)	0.53	-9.37	-2.36	-9.53
	(0.76)	(0.00)	(0.54)	(0.01)
LowProtection × High Agency Cost (β_3)	-3.45	7.59	0.94	5.14
	(0.09)	(0.00)	(0.82)	(0.19)
Growth (γ_1)	-1.54	-2.20	-1.95	-1.99
	(0.00)	(0.00)	(0.00)	(0.00)
LowProtection × Growth (γ_2)	-0.37	0.45	0.33	0.22
	(0.10)	(0.00)	(0.01)	(0.16)
High Agency Cost × Growth (γ_3)	-0.24	1.37	0.76	0.95
	(0.36)	(0.00)	(0.26)	(0.04)
LowProtection × High Agency Cost × Growth (γ_4)	-0.56	-0.93	-1.23	-0.47
	(0.07)	(0.00)	(0.09)	(0.38)
Ultimate				-0.01
				(0.87)
State				-1.56
				(0.49)
FinInstitutions				-0.38
				(0.83)
Intercept (β_0)	25.45	32.34	30.59	32.37
	(0.00)	(0.00)	(0.00)	(0.00)
Number of Observations	52,269	71,796	71,796	57,830
Number of Firms	16,261	21,569	21,569	16,031
Wald Statistic	1,839	2,230	2,233	1,600

Table VIII: Logistic Regressions for Payout Choice

This table shows the random effects panel logit regression results for the cross-section of 43 countries for 2001-2006. The dependent variable takes a value of one for firms with an increase in dividends (as their sole method of payments) and zero for firms with share repurchases. Investor Protection is the Spamann's corrected antidirector rights index. LowProtection takes a value of one if the Spamann's measure<sample median, and zero otherwise. The proxy used for firm level agency costs is shown in the heading of columns (1)-(4). CloselyHeld is the percentage of shares that are closely held in a firm. Independence indicates the degree of independence of the firm from its shareholders. Governance is the firm's corporate governance index constructed from ISS data. Insider, State and FinInstitutions respectively take the value of one for firms with insiders, states or financial institutions as the ultimate owner and zero otherwise. Ultimate is the percentage shareholding by the ultimate largest shareholder. Growth is the decile rank of industry-adjusted historical annual sales growth rates. Volatility is the standard deviation of annual income for the last 5 years divided by the average income. TaxAdvantage is dividend tax disadvantage. Options is a dummy variable indicating the presence of employee stock options. Country and industry dummies, and market capitalization are included in the regressions but not reported. The marginal effects, calculated at the mean value of the continuous variables, are reported in the table. *p*-values are in parentheses. All independent variables are lagged by one period.

	(1) CloselyHeld	(2) Independence	(3) Governance	(4) Insider
Investor Protection	0.83	1.22	0.05	0.11
	(0.00)	(0.00)	(0.69)	(0.01)
Agency Cost	-0.02	-0.38	-0.12	0.75
	(0.00)	(0.00)	(0.14)	(0.02)
LowProtection × Agency Cost	0.05	0.34	0.25	-0.25
	(0.00)	(0.00)	(0.00)	(0.46)
Ultimate				0.01
				(0.04)
State				1.49
				(0.16)
LowProtection × State				-0.23
				(0.84)
FinInstitutions				-0.93
				(0.17)
LowProtection × FinInstitutions				1.88
				(0.01)
Growth	0.14	0.15	0.04	0.17
	(0.00)	(0.00)	(0.17)	(0.00)
Volatility	-0.01	-0.01	-0.01	-0.01
	(0.00)	(0.00)	(0.04)	(0.00)
TaxAdvantage	5.16	3.43	13.20	8.67
	(0.00)	(0.00)	(0.00)	(0.00)
Options	-0.57	-0.58	-0.81	-0.81
	(0.00)	(0.00)	(0.00)	(0.00)
Constant	-9.71	-7.91	-12.09	-9.31
	(0.00)	(0.00)	(0.00)	(0.00)
Number of Firms	27,927	23,197	7,129	23,068
Number of Observations	9,501	7,096	3,178	7,360
Wald Statistic	1,819	1,407	403	1,099

Table IX: Additional Robustness Tests for Total Payouts, Agency Conflicts and Investment Opportunities

This table shows the results for the cross-section of 43 countries for 2001-2006 from generalized least squares (GLS) random effects panel regressions with robust standard errors. The dependent variable is total payouts (dividends plus share repurchases) divided by earnings in all regressions except for (2) where it is the industry-adjusted ratio of total payouts to earnings and for (6) where it takes a value of one for firms with an increase in dividends (as their sole method of payments) and zero for firms with share repurchases. Investor Protection is the Spamann's measure of antidirector rights index. LowProtection takes a value of one if Spamann's antidirector index<sample median, and zero otherwise. The proxy used for firm level agency costs is Independence except for (3) which uses a governance score based on the 44 factors from ISS. Companies have a low degree of independence from shareholders if Independence $\leq$8 and are considered to have high agency cost. For governance quality, "Low" and "High", respectively, take a value of one for values lower or higher than the sample median, and zero otherwise. Growth is the decile rank of industry-adjusted historical annual sales growth rates. Volatility is the standard deviation of annual income for the last 5 years divided by the average income. TaxAdvantage is dividend tax disadvantage. Options is a dummy variable indicating the presence of employee stock options. In (4), standard errors are clustered at the firm value, and (5) reports results from tobit regression. *p*-values are reported in parentheses. All independent variables are lagged by one period. Country and industry dummies and firm size are included but not reported.

	(1)	(2)	(3)	(4)	(5)	(6)
	Without USA	Dependent: Industry-adjusted Payout/Earnings	Governance Quality: 44 factors	Standard Errors Clustered at Firm Level	Tobit	Logit Without USA
LowProtection (β_1)	-4.02	-4.52	-2.70	-3.26	-12.64	
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	
Investor Protection						0.19
						(0.07)
High Agency Cost (β_2)	-8.72	-8.14	1.08	-6.86	-16.25	-0.29
	(0.00)	(0.00)	(0.29)	(0.00)	(0.00)	(0.00)
LowProtection × High Agency Cost (β_3)	7.31	6.20	-4.90	5.29	15.02	0.25
	(0.00)	(0.01)	(0.01)	(0.03)	(0.00)	(0.00)
Growth (γ_1)	-2.10	-2.14	-1.94	-2.46	-2.89	0.19
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
LowProtection × Growth (γ_2)	0.83	0.35	0.28	0.33	0.45	
	(0.00)	(0.02)	(0.03)	(0.04)	(0.02)	
High Agency Cost × Growth (γ_3)	1.34	1.22	0.13	0.98	2.02	
	(0.00)	(0.00)	(0.58)	(0.00)	(0.00)	
LowProtection × High Agency Cost × Growth (γ_4)	-1.27	-0.78		-0.50	-1.10	
	(0.00)	(0.02)		(0.15)	(0.01)	
Volatility						-0.01
						(0.00)
TaxAdvantage						1.84
						(0.00)
Options						-0.25
						(0.03)
Intercept (β_0)	38.39	8.99	30.55	31.33	20.15	-3.08
	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)	(0.00)
Number of Observations	54,594	71,796	71,796	71,796	71,796	17,846
Number of Firms	15,816	21,569	21,569	21,569	21,569	5,676
Wald (F) Statistic	1,075	2,535	2,203	(205)	3,053	935