The effect of creditor rights on dividend payout with changes in the information environment

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Abstract

Using a panel of data in excess of 240,000 firm-year observations covering 42 countries, we investigate the relationship between creditor legal rights at the country level and payment behavior of firms. We focus on how this relationship is affected by changes in the information environment following a specific exogenous shock (the adoption of International Financial Reporting Standards). This change should lead to a variation in the degree of information asymmetry prevailing in capital markets and affect the behavior of creditors. Average marginal effects from tobit and logit methodologies strongly suggest a positive relationship between the level of creditors' legal protection and the volume and likelihood of dividend payouts, which is consistent with the substitute theory. However, this positive effect is crucially weakened following the specific exogenous shock in our models.

1. Introduction

Dividend payout polices have been the focus on numerous research works over the past half century. Since the seminal works of Modigliani & Miller (1959, 1961) and Black (1976) the subject of the payment of dividends has been the object of vivid debates among academics. The observed influence of dividends on the valuation of companies, outlined by the dividend "puzzle" (Black 1976), is just an example of the difficulties encountered in reaching a consensus on the determinants of a firm's dividend policy. Yet, dividend theories focusing on shedding light on the rationales explaining the choice of different payout policies remain crucial to the research in corporate finance. A large proportion of studies have focused on the importance of investors' legal protection in the development of capital markets, investment, and dividend policies. The substitute theory and the outcome model (advanced by La Porta et al., 2000a) are two of the most prominent approaches that contribute to explaining the dividend policy-setting behavior of managers as a strategy to alleviate (provide a solution) to the agency cost of equity from a free cash-flow perspective. These theories predict opposite effects in the relationship between the level of shareholders' legal rights, which varies significantly, and the volume (likelihood) of dividend payments. While the outcome model indicates that strong legal rights increase minority shareholders' legal powers and thus their probability of success in extracting higher dividend payouts (positive relationship), the substitute theory predicts that weaker legal protection of investors should result in higher dividend payouts since dividends are considered as a substitute for weak investor protection (negative relationship), all else being equal.

Nevertheless, depending upon geographical areas and time periods, empirical research has found irregular and even opposing results when both theories are tested. For instance, while La Porta et al., (2000a) find empirical results consistent with the outcome hypothesis and dismissive of the substitute model, Allen et al. (2000), on the other hand, present

evidence suggesting a weaker link between dividend policies and firm value in capital markets (countries) characterized by a substantial level of investor protection, which is compatible with both the substitute and outcome models. Similar to these last two examples, a large number of works have been dedicated to investigate the interactions among dividend policy, investor protection and the agency costs of equity. More recent studies such as Brockman & Unlu (2009, p.277) have nevertheless shown that the agency costs of debt "play a more pervasive role in dividend policies around the world than the agency costs of equity." Our paper is built upon the hypothesis that the strength of the relation between creditors protection and the volume (and likelihood) of dividend payouts is dependent on the premise that capital markets comprise a number of frictions, such as asymmetric information between principal and agent (debtholders and managers), which is highly likely to alter the dynamics of the agency costs of debt. We posit that changes in the information environment caused by an exogenous shock are relevant since a decline (increase) in the level of information asymmetry should result in a lower (higher) urgency for managers to convey quality and commitment (to avoid overinvestment) by means of distribution of cash to investors in the form of dividends.

The underlying dynamics explaining this result are consistent with the literature on the economic consequences of disclosure: if the information environment is improved (information asymmetry declines), a decrease in the informational content of dividends is expected, and if dividends convey less useful information to capital markets, managers' incentives to use them as communication devices are greatly reduced, therefore, a reduction in the magnitude and likelihood of dividend payouts is predicted. Moreover, the effect of a change in the degree of information asymmetry could also have its origins in the rational behavior of *debtholders*, that is, a reduction in information asymmetry enhances their monitoring capacities, which can have two different effects: on the one hand, creditors with

increased monitoring abilities could result in them being less concerned about any potential expropriation of funds to the shareholders' advantage (since any expropriation attempt would be quickly detected), thus the positive relationship predicted by the substitute theory should be weakened (as debtholders would be less willing require a low dividend payout policy as compensation for weak legal protection). On the other hand, it could be the case that the negative relationship predicted by the outcome model is also diminished: debtholders' pressure on managers to subscribe to a low dividend policy would recede, that is, in a strong protection environment, creditors are less prone to use their substantial power to force managers to decrease the volume (likelihood) of dividends following a reduction in information asymmetry, resulting in less negative relationship between creditors rights and dividends.

We contribute thus to the literature by investigating, on a global setting, the dividend payment behavior of firms and how it is affected by given modifications to the information environment following a specific exogenous shock (the voluntary or involuntary adoption of IFRS) that has the ability to recast the degree of information asymmetry prevailing in capital markets while controlling for the legal protection of creditors at the country level. After testing the two main theories on dividend policy behavior, we find evidence consistent with a positive relationship between the level of creditors' legal protection and the volume and likelihood of dividend payouts, which, crucially, is weakened when incorporating the specific exogenous shock in our models.

2. Hypotheses development and related literature

Dividend policy has received considerable attention from academics and researchers over the past half century. Given its pivotal importance in corporate finance research, a number or theories have been put forward that try to explain the different dividend payment

behavior of firms. In their seminal paper, Modigliani & Miller (1961) presented a model whereby, assuming frictionless and complete capital markets, a firm's dividend payout policy should have no effect on its value; in other words, holding its investment policy fixed, a firm's choice of dividend payout policy is irrelevant and has no effect on the price of its stock. Dividend policy, on the other hand, can influence the value of a company when market imperfections, such as the existence of taxes, transaction costs, asymmetric information and incomplete contracts, are present.

This study investigates the dividend payment behavior of firms and how it is affected by changes in the information environment following a specific exogenous shock (the voluntary or involuntary adoption of IFRS) that has the capacity to modify the degree of information asymmetry prevailing in capital markets while controlling for the legal protection of creditors at the country level. Thus, we build our hypotheses upon two main theoretical grounds: free-cash flow (FCF) centric theories of dividend policy (in line with Allen & Michaely, 2003; De Angelo et al., 2008; and Hail et al., 2014), and the effects of exogenous shocks to the level of information asymmetry in capital markets on the choice of the dividend payout policy of firms (following Leuz & Wysocky, 2016). The former serves as background to examine the relationship between creditor rights and dividend policy and the latter as a framework to hypothesize ex ante the likely outcome resulting from the interaction effect of the level of legal protection of creditors and the adoption of IFRS at the country level.

2.1. Alternative theories of dividend payout policy

Dividend policies are chosen to determine the amount and pattern of cash payouts to investors in the form of dividends. This choice is important to managers and investors given that, in the presence of market frictions, the dividend payout has an effect on the value of the firm. According to the FCF view, and in line with the pecking order theory, the use of

internally generated cash flow has seniority (over other types of financing such as debt or equity, which are more costly in nature) in the preference of managers in need of funds to finance positive net present value projects (Myers & Majluf, 1984). Under the assumption that the pecking order hypotheses hold[1], managers' preference for holding cash as retained earnings in the firm would have a negative impact on the level of dividends paid to shareholders. In this case, the life cycle of the firm as well as their investment policy should determine the dividend policy. Changes in the volume and patterns of dividends typically depend upon the maturity or age of the firm (Fama & French, 2001; Grullon et al., 2002, Brockman & Unlu, 2011). Young growth firms with substantial positive net present value investment opportunities are less able and/or willing to use free-cash flow to pay dividends, while mature and more established firms with higher levels of retained earnings can afford to make regular cash transfers to shareholders. Grullon et al. (2002) offer empirical evidence in favor of the life cycle theory and show that dividend payouts increase with profitability and firm size, but decrease with the rate of growth. Furthermore, DeAngelo et al. (2006) present evidence suggesting that, in line with the life cycle theory, firms are more willing to distribute cash in the form of dividends when retained earnings represent a high proportion of total equity. Thus, firms have a higher propensity to retain cash in their early stages, when their growth rate and investment opportunities are high, and start paying dividends when they are mature and well-established.

A substantial amount of free cash flow gives rise to misalignment of interests between managers and shareholders, as the former have been shown to have a penchant for putting these funds to use into negative net present value projects (Jensen, 1986), which can have a negative impact on the wealth of shareholders (Jensen & Meckling, 1976). One solution to the overinvestment problem is for minority shareholders to decrease the volume of cash

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[1] Frank & Goyal (2003) empirically test the pecking order theory and find results that go against its main hypotheses.

under management control by demanding the payment of dividends (either as an initiation or an increase in the magnitude of dividend payouts). Dividends can thus help solve agency costs of equity by preventing managers from pursuing individual objectives or undertaking unprofitable projects. Therefore, firms can use dividend payouts to mitigate or overcome agency problems, or the misalignment of interests between corporate insiders and outside minority shareholders (Jensen, 1986; La Porta et al., 2000a). Easterbrook (1984) and La Porta et al. (2000a) show that dividend payout policies do help alleviate the agency costs of equity. The result from, on the one hand, the tendency of managers to overinvest, and, on the other, the efforts of minority shareholders to benefit from a redistribution of free cash flow available to the firm gives rise to an intertemporal tradeoff between firm cash retention and redistribution in the form of dividends (Hail et al., 2014). Two general hypotheses have been advanced to explain the resulting effects of this opposing view of managers and minority shareholders: the outcome model and the signaling theory.

The outcome model hypothesizes that the dividend payout is the result of a power contest between managers and shareholders, whereby the latter try to avert overinvestment and misappropriation by forcing the former to transfer wealth (to their credit) in the form of dividends (La Porta et al., 2000a). Using Schleifer & Wolfenson (2002) framework it is posited that firms will pay more dividends whenever the bargaining power shifts to the agents' advantage. In other words, a shift of power on the investors' side would decrease the likelihood of dividend payouts or decrease the volume of dividends payed. However, there are instances when investors do not oppose the transfer of free cash flow in the form of dividends to investors. Instead, they use dividend policy to convey information of quality to the capital markets to get future access to funds at an advantageous price relative to those firms that do not convey information through dividend payouts. Specifically, firms paying dividends send a signal to the markets that management is committed to avoiding

overinvestment and misappropriation of free cash flow (Allen et al., 2000). Moreover, given investors' dislike for a high variability of cash flows, a constant stream of payments increases trust from investors in the quality of the firm's management.

2.2. Agency theory, creditor rights and dividend payout

A large proportion of the literature is focused on the agency costs of equity, the relationship between corporate insiders and minority shareholders. More recently, there has been an increasing number of academic research papers whose focus lies on the agency problem between corporate insiders and stakeholders in general (Bøhren et al., 2012), and between managers and debtholders, in particular. Employing the theoretical framework developed by La Porta et al. (2000a), Brockman & Unlu (2009) show that managers employ dividend policies to mitigate the agency costs of debt. They postulate that the outcome hypothesis as well as the substitute hypothesis can explain the use of dividends as a means to solve the misalignment of interests between managers and debtholders. In an imperfect capital market, and contrary to shareholders, creditors have an interest in increasing the future likelihood of repayment of principal and interest by forcing managers to either decrease or interrupt any dividend payments. This power contest is consistent with the outcome hypothesis from the debt holders' perspective. On the other hand, it is clear this power contest will be largely determined by the legal protection of creditors in a specific capital market. La Porta et al. (2000b) argue that, by providing funds to firms, creditors acquire certain rights that are protected by regulation and laws. For instance, mandatory extensive disclosure laws and procedures allow a cheap and easy recovery of damages by creditors in case of losses caused by a firm's omission or non-disclosure of financial details, or the provision of incorrect information (La Porta et al., 2006). Creditor rights, however, vary considerably among countries. It is thus expected that, in countries with weak legal

protection, bondholders have difficulties in recovering damages from bankruptcy or financial distress, and that they are, therefore, more prone to demand additional control rights[2]. Therefore, it can be inferred that creditor protection is an important determinant of dividend policy.

It is expected that in a capital market with weak creditors rights, bondholders will be unwilling to lend because of the risk of a small recovery of funds in case of bankruptcy or financial distress. Therefore, in order to provide funds, creditors demand companies assurances that increase the likelihood of repayment. One solution would be a decrease in or an interruption of dividends paid by the firm. Under the assumption that strong creditor protection stimulates the development of capital markets by increasing the ability and willingness of creditors to provide credit at more favourable terms (Cho et al. 2014), and in line with the substitute theory of La Porta et al. (2000a), it can be argued that restrictive dividend policies can act as a substitute for a weak level of legal protection of investors. Brockman & Unlu (2009, p. 277) hypothesize and show that the weaker the creditors rights variable, the lower the probability of a firm paying dividends: "weak (strong) creditors rights diminish (enhance) the manager's ability to pay out dividends, all else equal." Moreover, they found a positive relationship between the level of creditors' rights and the amount of dividends payed. Brockman & Unlu (2009) find thus evidence in favour of the substitute hypothesis of dividend payouts.

Contrary to the substitute hypothesis, it can also be argued that the degree of legal protection of creditors is negatively related to the volume of dividends payed. Top management of companies oversees the creation of value for shareholders. Managers can thus increase their wealth either by paying out the earnings of the company as dividends or by capturing borrowed funds form debtholders and directing it to shareholders (Jensen &

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[2] In countries with weak creditors rights, private credit agreements, such as debt covenants, are rather common. Debt covenants trigger the allocation of decision rights whenever managers fail to act in their debt holders' best interest.

Meckling, 1976). Clearly, shareholders benefit from projects that may transfer wealth from creditors to shareholders, creating thus conflicts of interest between creditors and shareholders. As Black (1976, p. 10) puts it: "…there is no easier way for a company to escape the burden of a debt than to pay out all of its assets in the form of a dividends, and leave the creditors holding an empty shell." Debt holder protection in the form of creditors' legal rights is intended to prevent the expropriation of funds by shareholders. Recognizing the threat of expropriation, rational creditors have interest in using any powers granted by laws and regulations to prevent top management from reallocating funds from creditors to shareholders by means of a high dividend payout policy. Consequently, it is posited that creditors in countries with strong creditor rights would use their legal capabilities to actively inhibit high dividend payout policies. Thus, while the substitute theory predicts a lower amount of dividends in countries with weak creditor protection (positive relationship), the outcome model hypothesizes a lower volume of dividends in countries with strong creditor legal rights (negative relationship). In other words, the outcome model argues that strong creditors' rights may alter the power contest in favour debtholders (against shareholders) by increasing their chances of succeeding in their efforts to actively restrict the payment of dividends to prevent managers from transferring wealth to shareholders through the adoption of high dividend payout policies.

Furthermore, strong legal rights result in creditors having considerable leverage to influence corporate policies in case of bankruptcy and financial distress. It has been shown that debt holders may curtail management decision-making abilities, mandate their dismissal under bankruptcy, and impose private costs them depending upon their level of legal protection (Nini et al., 2009). Therefore, strong creditor rights can result in firms conducting less investment and providing smaller dividend payouts, given creditors' preference for low-varying cash flows (Acharya et al., 2011). The catering theory suggests that investor investors

pay attention to and consider investors' demands in the formulation of their strategic corporate decisions, and, given that strong creditors rights lead to high costs in case of bankruptcy and financial distress, they rationally cater to creditor's demands. Thus, the stronger the legal protection of debtholders, the higher the likelihood of managers catering to their demands, and consequently the lower the volume of dividend payouts, all else being equal. Just as the output theory would suggest, a negative relationship between creditors rights and dividends payments is posited by the catering theory. Summarizing, two opposing outcomes can be hypothesized regarding the relationship between creditors rights and the firm's dividend payout policy: while the substitute theory predicts a positive relationship (the strongest the level of legal protection to creditors, the higher the magnitude of distribution of free-cash flow in the form of dividends and the higher the likelihood of dividends being paid out, all else being equal), the outcome model and the catering theory would suggest otherwise (the strongest the level of legal protection to debt holders, the lower the amount of dividends paid out and the lower the probability of dividends being paid out, all else being equal). The first objective of this paper is to test, empirically, which one of these opposing outcomes prevails.

2.3. The effect of creditor rights with exogenous shock to the information environment

The second objective of the paper is to test whether there are any changes in the relationship between creditors rights and dividend payout policy when all else is *not* equal. Specifically, it is investigated whether any changes in the degree of information asymmetry caused by an exogenous shock to the information environment, lead to a change in the influence of creditors' rights and the dividend policy of firms. To test this interaction effect, and given that the inclusion of frictions such as the asymmetry in the information environment modifies the results of Modigliani & Miller (1961) by creating tensions about the cash flows of the firm (Hail et al., 2014), we employ the literature on the economic

consequences of disclosure and the theories of information asymmetry as foundations to build upon (Leuz & Wysocki, 2008). In other words, it is investigated whether and changes in the information asymmetry (following an exogenous shock to the information environment) between managers and debtholders has any influence on the link between the legal protection of creditors and the volume of dividends paid out to investors (as well as the likelihood of any dividend being paid). We posit that this is indeed the case. Nevertheless, similar to the initial link of study, arguments for both negative and positive effects can be put forward. First, Allen et al. (2000) suggest that, in order to get future advantageous funding costs, firms have interest in clearly communicating to investors in capital markets, their commitment to avert overinvestment. Dividends act as a means of guaranteeing the credibility of this commitment. Moreover, given the aversion of investors in the market for highly volatile streams flows of cash, a predictable and regular flow of dividends helps the firm to establish a solid reputation among investors in capital markets (Allen et al., 2000).

It becomes clear, in this scenario, that the informational content of dividends (their effectiveness in signalling quality and commitment) is dependent upon the degree of information asymmetry prevailing between firms and investors. It is expected that, whenever an exogenous shock resulting in a decrease in this informational asymmetry takes place, the need for dividends as a commitment- and reputation-signalling mechanism also decreases. In this specific case, it is posited that any change in the volume of dividends would not add considerably useful additional information to investors, causing the disposition of firms to pay dividends to decline. La Porta et al. (2000a) advance the argument that these effects should be more substantial in countries with weak investor protection. According to La Porta et al. (2000a) and Shleifer & Wolfenson (2002), an argument supporting the opposite effect can be derived from the outcome model, which is based on the previously discussed contest of power between shareholders and managers. Investors can force managers to pay dividends

so as to avoid any potential overinvestment by making use of their legal rights or market powers. Assuming any decrease in the degree of information asymmetry that enhances their monitoring abilities, investors should be able to successfully exert further pressure on managers to get a higher volume of cash in the form of dividends or to get the firm to initiate dividend payments in case they are not yet doing so. This result should be more prominent in markets/countries with weak investors' legal rights. The opposite effect should be expected from the creditors' viewpoint.

In what follows, we hypothesize the two opposing effects predicted by the substitute theory and the outcome model between creditors and managers when including an exogenous shock that results in a modification in the information environment. In this paper, the exogenous shock is represented by the mandatory IFRS adoption, which has been shown to have a positive influence on the quality of financial statement information[3], corporate transparency, and crucially for our study, in the decrease of information asymmetry (Horton et al., 2013; Hail et al., 2014; Houqe et al., 2014). Other studies present evidence suggesting that financial report information plays a role in the decline of the agency costs of debt (Armstrong et al., 2010; Dhaliwal et al., 2011; Florou & Kosi, 2015). Moreover, the findings of Graham et al. (2008) indicate that more restrictive debt covenants are the consequence of a high degree of information asymmetry between creditors and managers. As discussed, the substitute theory from the creditor's perspective predicts that debtholders demand more restrictive dividend policies from managers so as to compensate for weaker legal protection to creditors. However, as the mandatory adoption of IFRS is assumed to decrease information asymmetry between creditors and managers, it would make harder for the latter to expropriate debtholders' funds due to an increase in their monitoring abilities. In this scenario, the need for restrictive dividend polices to substitute for weak creditors' legal rights should decline.

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[3] Jiao et al. (2012), indicate that after the transition leading to the adoption of IFRS, financial information showed significant improvements in quantitative and qualitative terms (especially the information that is directly relevant to debtholders).

Thus, according to the substitute theory, it is expected that the mandatory adoption of IFRS (the exogenous shock to the information environment) will decrease the positive influence of the level of creditor protection on the dividend payout policy of the firm.

On the other hand, the outcome model would suggest a similar interaction effect when the exogenous information's shock is considered but in the opposite direction. Anticipating any potential possibility of expropriation of funds by management in favour of shareholders (Smith & Warner, 1979), creditors enjoying strong legal rights (that enhance their leverage or bargaining power), protect themselves by forcing managers to adopt low dividend payout policies. The mandatory adoption of IFRS should lead, from its part, to substantial changes in accounting rules and thus in the transparency and information content of financial reports[4]. As a result, its influence on the financing decisions of debtholders is expected to be stronger. This argument implies that creditors are more willing to supply funds and less worried about expropriation by shareholders (through managements' high dividend payout policies) following the mandatory adoption of IFR reporting. Again, the decrease of information asymmetry between creditors and managers would result in increased debtholders' monitoring abilities, leading them to be less concerned about agency problems and therefore less likely to apply pressure on managers to obtain restrictive dividend policies. That is, an increase in the quality of and access to financial report information would lead to a reduction in the degree of information asymmetry, which would, in turn, result in debtholders making informed and unbiased judgements on the (lower) likelihood of expropriation (Iatridis, 2010). Additionally, increased monitoring abilities would make managers less likely to expropriate creditors' funds, since they are aware that any attempt in this direction would be quickly detected. It can be argued that the implementation of IFRS should decrease creditors' reliance on restrictive dividend payout policies as a disciplinary mechanism. It is therefore expected

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[4] The findings of Florou & Kosi (2015) suggest that the mandatory adoption of IFRS is positively related to the availability of funds in capital markets.

that the mandatory adoption of IFRS (the exogenous shock to the information environment) mitigates the negative effect predicted by the outcome theory, that is, IFRS decreases the negative effect of the legal protection of creditors on the dividend policy of the firm.

3. Data and Methodology

3.1. Data

The main focus of this paper is to investigate if the effect of creditor rights on dividend payout policy would be moderated by the nationwide mandatory adoption of IFRS accounting regulation. For the nature of this investigation, we use a large international sample of firms for the period 1991-2013. We collect firm level financial and accounting items from Thomson Reuters Worldscope/Datastream. We select our sample countries containing at least 100 firm-year observations in Datastream. We include industrial firms only in this selection criteria of our sample and exclude financial firms (SIC 6000-6999) and utilities (SIC 4900-4999) because of the regulatory influences and operational differences. Due to possible mistakes/outliers on Datastream, we winsorize all financial continues variables at bottom and top one percentile levels. Our final sample covers more than 240,000 firm-year observations including little more than 81,000 U.S. firms, which corresponds to the half of the sample for the rest of sample countries with 163,186 firm-year observations from 41 countries. The sample obtains an unbalanced pooled cross sectional data covering 22 years.

Country level creditor rights indices are values for 2003 used in the study by Djankov et al. (2007). This index is obtained from ratings of the powers of secured lenders during bankruptcy based on four items: "(1) whether there are restrictions, such as creditor consent, when a debtor files for reorganization; (2) whether secured creditors are able to seize their collateral after the petition for reorganization is approved, that is, whether there is no automatic stay or asset freeze imposed by the court; (3) whether secured creditors are paid

first out of the proceeds of the liquidating bankrupt firm; and (4) whether an administrator, and not management, is responsible for running the business during reorganization" (Djankov et al., 2007: 302).

We determine the year of the mandatory adoption of IFRS accounting standards from the study by Hail et al. (2014). Datastream provides the firm-level information about the accounting standards applied annually. Therefore, this data item also allows us to determine firms that have already voluntarily switched to IFRS reporting before it was mandated and to repeat our analyses at the firm-level rather than country-level. Today, IFRS have become the dominant reporting standard worldwide, with approximately 90 nations and territories fully conforming with IFRS.

3.2. Methodology

We measure dividend payout policy with two variables. The first variable is the ratio of dividends to earnings and measures dividend payout amounts. Since this variable is censored to zero, the following tobit model is employed to estimate linear relationship between dividend payout amounts and its determinants:

$\text{DIVIDEND\_EARNINGS}_{it} = b_0 + b_1 \text{ SALES\_GROWTH}_{it} + b_2 \text{ PROFITABILITY}_{it}$

$+ b_3 \text{ SIZE}_{it} + b_4 \text{ RETAIRNED\_EARNINGS}_{it} + b_5 \text{ SHARE\_REPURCHASES}_{it}$

$+ b_6 \text{ CASH\_HOLDINGS}_{it} + b_7 \text{ LEVERAGE}_{it} + b_8 \text{ CASH FLOW VOLATILITY}_{it}$

$+ b_9 \text{ CREDITOR RIGHTS}_{jt} + b_{10} \text{ IFRS\_DUMMY}_{jt}$

$+ b_{14} \text{ CREDITOR RIGHTS}_{jt}*\text{IFRS\_DUMMY}_{jt} + \sum b_t \text{ Year}_t + \sum b_k \text{ Industry}_k + e_i$ (1)

The second variable to measure dividend payout policy is Payer, which equals to one if the total cash dividend paid is positive in a particular year, and zero otherwise. In this case, we perform the logistic regression, which is non-linear in nature. In those regressions, we use partial derivatives of the response variable with respect to the predictor of interest to calculate

average marginal effects. In this case, given that we have a response variable 1 or 0, and that marginal effects reflect the changes in probabilities of the response being 1. Our model is as follows:

Prob (Payer $_{it}$) = b_0 + b_1 SALES_GROWTH$_{it}$ + b_2 PROFITABILITY$_{it}$ + b_3 SIZE$_{it}$

+ b_4 RETAIRNED_EARNINGS$_{it}$ + b_5 SHARE_REPURCHASES$_{it}$

+ b_6 CASH_HOLDINGS$_{it}$ + b_7 LEVERAGE$_{it}$ + b_8 CASH FLOW VOLATILITY$_{it}$

+ b_9 CREDITOR RIGHTS$_{jt}$ + b_{10} IFRS_DUMMY$_{jt}$

+ b_{14} CREDITOR RIGHTS$_{jt}$*IFRS_DUMMY$_{jt}$ + $\sum b_t$ Year$_t$ + $\sum b_k$ Industry$_k$ + e_i (2)

In equations 1 and 2, when we measure adoption of the IFRS standards by firms voluntarily, we replace IFRS_DUMMY$_{jt}$ with a dummy variable FIRM_IFRS$_{it}$. The definitions of all variables are given in Table 1.

[Insert Table 1 about here]

We include commonly used determinants of dividend payout I the previous studies. We include sales growth, profitability, firm size, and retained earnings to correspond to the lifecycle theory. The relationship between sales growth rate and dividend policies is ambiguous. On the one hand, firms with good investment opportunities and growth prospects have less incentives to pay out dividends, because they need internally generated funds for their profitable projects. Meanwhile, these firms may have potential need for external funds, so they choose low dividend payouts to establish a reputation among investors. Profitability is expected to be positively associated with the likelihood of payout (Mitton, 2004; Brockman & Unlu, 2009; O'Connor, 2013). Due to the fact that profitable firms generate more internal funds, they have sufficient cash available for dividends. Firm size is expected to be positively related with dividend payout (Shao, Kwok, & Guedhami, 2013, Ashraf & Zheng, 2015). Large firms tend to have better access to capital markets, which lead them easier to raise

funds on attractive terms such as low costs and few constraints. Thus, large firms are more likely to pay dividends. Retained earnings is also expected to be positively related with dividend payout as firms with high retained earnings have are more likely to afford paying dividends.

Share repurchases play an increasingly essential role in corporate payout policies in countries permitting stock buybacks (Hail et al., 2014, Brav et al., 2005) because share repurchases show more flexibility than dividend payouts and become growingly popular around the world and thus they are considered as a complement of dividend payouts that could be distributed to shareholders. With respect to the corporate cash holding, on the one hand, firms with high cash holding have sufficient funds to afford dividend payouts when they have no need for external financing. On the other hand, when firms have profitable projects or future growth opportunities, they need to finance them by their cash holding. This result may contribute to low dividend payouts. The effects of leverage and cash flow volatility is expected to be negatively associated with dividend payouts as firms tend to maintain internal cash flow to meet their obligations.

4. Results

4.1 Sample summary statistics

Table 2 provides sample summary statistics in three panels: Panel A reports mean, median, and standard deviation (StdDev) for all of our variables used in the analyses for all countries and the united states separately. Panel B presents number of observations and means of selected firm-level variables and also creditor rights indices and year of the IFRS adoption.

In Panel A, the mean and median values of the ratio of cash dividend amount to total assets are 27.66% and 16.4% and 8.67% and 0% for our sample countries excluding the US

and the US only, respectively. The same values are very low for the ratio of dividend to sales for both sub samples, and the firms outside of the US pays higher dividend as proportions of their earnings and of their sales than the US firms do. The same view is also true when we look at the percentage of firms paying dividend. Outside of the US, the percentage of positive divided based on firms/year is 63% and 24% in other countries and the US, respectively. On average, 15% of total assets are held in cash and short-term investments in outside of the US, and this percentage is 19% for the US firms, which also use higher percentage of share repurchases than firms in other countries. All those summary statics are in line with the characteristics of samples used in other studies on the US firm only or international sample of firms.

Panel B shows that the US firms has, on average, the lowest dividend payment among 42 sample countries. Overall, dividend earnings ratio shows that there are certain differences across countries, and firms in countries such as Chile, Colombia, Finland, New Zealand, and Turkey pay more than 40%, and those are in Canada, India, Indonesia, Ireland, Korea Rep., Mexico, Philippines, and Poland less than 20% of their earnings as cash dividends. Share repurchases, on average, are less than 1% of assets in all countries except the US, which has 1.5% average value. Creditor rights indices range between 0 and 4 across countries as tis index is a combination of four items as it is explained in the beginning of this section. Colombia, France, Mexico and Peru have the score of zero while Hong Kong, New Zealand and the U.K. have the highest score of four. The U.S. has a score of one as in some other emerging and developed countries. The common year for the adoption is 2005 when all firms in the European Union countries were required to report their consolidated financial statements under IFRS along with some other countries, such as Australia, Hong Kong, Norway, the Philippines, South Africa and Switzerland. The first country to adopt IFRS as mandatory accounting standard was Singapore in 2003. From our sample countries, the

adoption year for Turkey is 2006, and it is 2007 for New Zealand and Pakistan, and 2008 for Israel.

[Insert Table 2 about here]

4.2. Preliminary regression analyses

Table 3 presents pooled fixed effects Tobit regression results for two samples: including and excluding the United States. When including the United States in the sample and controlling for the main regressors known to influence the continuous response variable DIVIDEND_EARNINGS (Model 1), it can be observed that the incorporation of the variability of legal protection to creditors in Model 2 results in a positive relationship between the level creditors rights and the volume of dividends paid: the average marginal effect is positive and statistically significant at the 1 percent level. This result is consistent with the substitute theory of dividend policy behavior which predicts that a restrictive dividend policy should be adopted as a substitute for weak creditors rights. Model 3 identifies the effect of the change in the information environment on dividend payouts. Crucial to our study is the output from Model 4, which incorporates the interaction term CREDITOR RIGHTS*IFRS_DUMMY. The statistically significant (at the 1 percent level) negative sign strongly supports our hypothesis dealing with the effects of an exogenous shock (that modifies the level of information asymmetry) on the dividend payout policy of the firm. Specifically, the negative sign is consistent with our prediction that following a decrease in the level of asymmetric information (due to an exogenous information shock), the positive relationship between creditors rights and dividend payouts would be weakened. The logic is that, a decrease in asymmetric information leads to an increase in the monitoring ability of creditors (who are now less concerned about the possibility of being expropriated in favor of shareholders since any attempt in this direction would be quickly detected), therefore, they

would still have a preference for restrictive policies, but they would now demand less restrictive ones on a relative basis, as substitutes for weak creditor protection, that is, the positive effect of country-level creditor rights on corporate dividend policies decreases following the mandatory adoption of IFRS.

The analysis of results from the tobit regressions on the sample excluding the United States yields consistent conclusions. The only between-sample exception is the sign of the IFRS_DUMMY, which is positive in the regressions that include the United States and negative in those excluding them. The positive (negative) and statistically significant sign corresponding to the dummy variable reflecting the mandatory adoption of IFRS (Model 3) indicates that countries having subscribed to them observe higher (lower) dividend payout policies. This difference is not unexpected, as the United States displays a very low dividend payout ratio in relative terms as reported in Table 2, and has not adopted IFRS. However, the conclusions on our main hypothesis remain unchanged. Furthermore, this analysis remains robust to different time periods.

[Insert Table 3 about here]

Table 4 present pooled fixed effects Logit regression results for two samples: including and excluding the United States. The objective of our choice in performing logit regressions is to test whether the incorporation of the specific exogenous shock in our models has an effect on the likelihood of dividends being paid. To this effect, the regressor is now a categorical variable that takes the value of one if the firm pays dividends and zero otherwise. Again, we find support for a positive relationship between creditors' legal rights and the dividends paid (Model 2): a statically significant (at the 1 per cent level) positive sign suggests that a high level of the creditors' rights indicator increases the probability of a firm paying dividends. The implication is that creditors would be less likely to use restrictive

policies as a substitute for weak creditor protection on a relative basis The interaction term is also consistent with the interpretation favoring the substitute theory derived from the tobit regression results: the positive effect of country-level creditor rights on corporate dividend policies decreases following the mandatory adoption of IFRS. This result is robust to between-sample variation (including or excluding the United States) and to different time periods.

[Insert Table 4 about here]

In every country, there are firms that are voluntarily adopted IFRS accounting regulations before it became mandatory at the nationwide. In Table 5, we replace the country level IFRS_DUMMY with FIRM_IFRS_DUMMY, which controls the post IFRS adoption year at the firm level to identify the changes in information environment as well. We report both the tobit and logit regressions in this table. The results are consistent with those reported in Tables 3 and 4.

[Insert Table 5 about here]

5. Conclusions

In this study, we examine the relationship between creditor rights at the country level and dividend payout policy around the world. We specifically focus on how this relationship would be modified by the adoption of International Financial Reporting Standards, which changes the information environment creating a specific exogenous shock. We use both the amount of dividend payment and being likelihood of dividend payer, which are analysed by tobit and logit analyses, respectively. We also employ longer and narrower sample periods surrounding the adoption period to robust our man findings.

We find that creditor rights is positively associated with dividend payout. This result is consistent with the evidence provided by Brockman and Unlu (2009) and indicates that in countries with weaker creditor rights creditors force managers to restrict dividend payments to prevent any potential expropriation of funds to the shareholders' benefit. However, this behavior of creditors is affected by decline in the level of information asymmetry resulting in quality of information provided by managers and thus enhancing the monitoring capacities of creditors on managers. In a better information environment, creditors are less concerned about the possibility of being expropriated in favor of shareholders, therefore, they demand less restrictive on dividend payments to shareholders.

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Table 1: Definitions of variables

Variables	Definitions
DIVIDEND_EARNINGS	The ratio of common dividends (cash) to profit after tax and minority interest before transfers to equity reserves
DIVIDEND_SALES	The ratio of common dividends (cash) to net sales
PAYER%	The dummy variable representing firms that pay common dividends (cash) in a particular year
SALES_GROWTH	Percentage change in net sales from t-1 to t.
PROFITABILITY	The ratio of earnings before interest and taxes to book value of total assets
SIZE (LN_ASSESTS)	The natural logarithm of book value of assets in USD
RETAIRNED_EARNINGS	The ratio of retained earnings to book value of total assets
SHARE_REPURCHASES	The ratio of stocks repurchased, retired, converted, redeemed to book value of total assets
CASH_HOLDINGS	The ratio of cash and short-term investments to book value of total assets
LEVERAGE	The ratio of (book value of total long-term debt + short-term debt) to book value of total assets
C.FLOW_VOLATILITY	Standard deviation of cash flows, which is the ratio of (net income + depreciation) to book value of total assets, over the last three years
CREDITOR RIGHTS	Creditor Protection Index (Djankov et al., 2007)
IFRS_DUMMY	The dummy variable representing years after IFRS adaptation
FIRM_IFRS_DUMMY	The dummy variable representing firms voluntarily adopted IFRS

Table 2: Sample statistics

This table reports the mean, median and standard deviation of variables used in the analyses (Panel A), mean values of dividend payout and country level variables by country (Panel B), and mean values of selected variables by year (Panel C). The sample period is from 1991 to 2013. Definitions of the variables are given in Table 1.

Panel A: Descriptive statistics

Variable	N	Mean	Median	StdDev
COUNTRIES WITHOUT UNITED STATES				
DIVIDEND_EARNINGS	163186	0.2766	0.1640	0.4894
DIVIDEND_SALES	159862	0.0199	0.0063	0.0388
PAYER%	163186	0.6287	1.0000	0.4832
SALES_GROWTH	163186	0.1913	0.0629	0.7646
PROFITABILITY	163186	0.0121	0.0587	0.3333
SIZE (LN_ASSESTS)	163186	12.2242	12.1645	2.0076
RETAIRNED_EARNINGS	163186	-0.0756	0.2952	3.7258
SHARE_REPURCHASES	163186	0.0026	0.0000	0.0132
CASH_HOLDINGS	163186	0.1503	0.0987	0.1610
LEVERAGE	163186	0.3242	0.2959	0.2643
C.FLOW_VOLATILITY	163186	0.0769	0.0249	0.2075
UNITED STATES				
DIVIDEND_EARNINGS	81094	0.0867	0.0000	0.3232
DIVIDEND_SALES	80150	0.0079	0.0000	0.0254
PAYER%	81094	0.2426	0.0000	0.4287
SALES_GROWTH	81094	0.2867	0.0819	1.0102
PROFITABILITY	81094	-0.1833	0.0530	0.8310
SIZE (LN_ASSESTS)	81094	11.7559	11.8637	2.5614
RETAIRNED_EARNINGS	81094	-0.2016	0.3430	6.9914
SHARE_REPURCHASES	81094	0.0115	0.0000	0.0293
CASH_HOLDINGS	81094	0.1914	0.0937	0.2286
LEVERAGE	81094	0.3164	0.2571	0.3050
C.FLOW_VOLATILITY	81094	0.1870	0.0439	0.4131

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Panel B: Sample countries and selected variables

Country	N	DIV_E	DIV_S	PAYER%	SHARE_REPUR	CREDITOR RIGHTS	IFRS_YEAR
Argentina	620	0.2093	0.0199	0.4323	0.0010	1	
Australia	9393	0.3106	0.0287	0.4807	0.0031	3	2005
Austria	700	0.2897	0.0145	0.7200	0.0018	3	2005
Belgium	737	0.2898	0.0240	0.6296	0.0058	2	2005
Brazil	1266	0.3049	0.0307	0.6611	0.0017	1	
Canada	11078	0.1899	0.0203	0.3613	0.0044	1	
Chile	1479	0.4331	0.0550	0.8066	0.0001	2	
China	5572	0.2613	0.0374	0.5677	0.0004	2	
Colombia	277	0.5251	0.0520	0.7437	0.0012	0	
Denmark	1683	0.2407	0.0189	0.6334	0.0059	3	2005
Finland	1826	0.4511	0.0250	0.7738	0.0024	1	2005
France	7601	0.2624	0.0138	0.6258	0.0019	0	2005
Germany	6269	0.3081	0.0137	0.5736	0.0018	3	2005
Greece	992	0.2968	0.0235	0.5696	0.0020	1	2005
Hong Kong	7969	0.2266	0.0302	0.4983	0.0010	4	2005
Hungary	290	0.2419	0.0176	0.3759	0.0047	1	2005
India	2327	0.1467	0.0132	0.5651	0.0015	2	
Indonesia	2938	0.1997	0.0185	0.4677	0.0005	2	
Ireland	888	0.1981	0.0138	0.6036	0.0026	1	2005
Israel	1086	0.2875	0.0266	0.4125	0.0032	3	2008
Italy	2903	0.3142	0.0207	0.6235	0.0011	2	2005
Japan	31604	0.2989	0.0084	0.8489	0.0025	2	
Korea, Rep.	5786	0.1780	0.0083	0.6450	0.0036	3	
Malaysia	7924	0.2449	0.0245	0.5846	0.0008	3	
Mexico	1397	0.1979	0.0189	0.4681	0.0048	0	
Netherlands	1111	0.3025	0.0162	0.6274	0.0066	3	2005
New Zealand	1010	0.5133	0.0462	0.7257	0.0030	4	2007
Norway	1205	0.2305	0.0234	0.4780	0.0035	2	2005
Pakistan	872	0.2979	0.0234	0.5333	0.0000	1	2007
Peru	602	0.3342	0.0392	0.5066	0.0012	0	
Philippines	1380	0.1570	0.0221	0.3406	0.0032	1	2005
Poland	1189	0.1923	0.0120	0.3549	0.0030	1	2005
Portugal	691	0.3053	0.0210	0.5673	0.0026	1	2005
Singapore	4644	0.2775	0.0271	0.6279	0.0011	3	2003
South Africa	3264	0.2856	0.0285	0.7028	0.0037	3	2005
Spain	1213	0.3398	0.0343	0.6760	0.0041	2	2005
Sweden	3592	0.3060	0.0197	0.5999	0.0033	1	2005
Switzerland	2603	0.2745	0.0192	0.7130	0.0075	1	2005
Thailand	1353	0.3554	0.0356	0.6386	0.0003	2	
Turkey	1135	0.4218	0.0284	0.4828	0.0003	2	2006
United Kingdom	22717	0.3053	0.0209	0.6657	0.0034	4	2005
United States	81094	0.0867	0.0079	0.2426	0.0115	1	
Total	244280	0.2766	0.0199	0.6287	0.0026	2.3567	

Table 3: Tobit regressions on dividend payout for creditor rights and post IFRS period

This table reports pooled time-series cross-sectional estimates for the DIVIDEND_EARNINGS. The sample period is different in each panel. All regressions include year and industry fixed effects. Standard errors reported in brackets are clustered at the firm-level. Definitions of all variables are given in Table 1. The symbols ***, **, * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A: 1991 - 2013

	OBSERVATIONS INCLUDING UNITED STATES				OBSERVATIONS EXCLUDING UNITED STATES			
SALES_GROWTH	-0.076***	-0.084***	-0.083***	-0.082***	-0.051***	-0.059***	-0.059***	-0.058***
	[0.005]	[0.005]	[0.005]	[0.005]	[0.004]	[0.005]	[0.005]	[0.005]
PROFITABILITY	2.242***	2.184***	2.229***	2.176***	2.341***	2.269***	2.290***	2.277***
	[0.031]	[0.030]	[0.031]	[0.030]	[0.033]	[0.032]	[0.032]	[0.032]
SIZE (LN_ASSESTS)	0.088***	0.087***	0.078***	0.088***	0.070***	0.074***	0.071***	0.074***
	[0.002]	[0.002]	[0.002]	[0.002]	[0.002]	[0.002]	[0.002]	[0.002]
RETAIRNED_EARNINGS	0.025***	0.022***	0.022***	0.022***	0.023***	0.023***	0.024***	0.023***
	[0.001]	[0.001]	[0.001]	[0.001]	[0.002]	[0.002]	[0.002]	[0.002]
SHARE_REPURCHASES	-0.397***	-2.474***	-3.322***	-2.323***	-0.475***	-0.626***	-0.594***	-0.598***
	[0.117]	[0.121]	[0.124]	[0.120]	[0.167]	[0.172]	[0.173]	[0.172]
CASH_HOLDINGS	-0.376***	-0.308***	-0.320***	-0.298***	-0.306***	-0.272***	-0.282***	-0.270***
	[0.024]	[0.023]	[0.024]	[0.023]	[0.024]	[0.023]	[0.024]	[0.024]
LEVERAGE	-0.438***	-0.415***	-0.454***	-0.416***	-0.436***	-0.441***	-0.456***	-0.440***
	[0.014]	[0.014]	[0.014]	[0.014]	[0.014]	[0.014]	[0.014]	[0.014]
C.FLOW_VOLATILITY	-2.485***	-2.878***	-2.881***	-2.845***	-2.368***	-2.478***	-2.420***	-2.460***
	[0.170]	[0.189]	[0.190]	[0.187]	[0.178]	[0.183]	[0.180]	[0.182]
CREDITOR RIGHTS		0.137***		0.161***		0.041***		0.050***
		[0.003]		[0.003]		[0.003]		[0.003]
IFRS_DUMMY			0.101***	0.329***			-0.029***	0.031**
			[0.008]	[0.016]			[0.008]	[0.015]
CREDITOR RIGHTS* IFRS_DUMMY				-0.135***				-0.033***
				[0.005]				[0.005]
Constant	-0.945***	-1.083***	-0.655***	-1.142***	-0.826***	-0.675***	-0.531***	-0.710***
	[0.086]	[0.064]	[0.059]	[0.065]	[0.082]	[0.060]	[0.057]	[0.060]
Sigma	0.653***	0.670***	0.680***	0.669***	0.630***	0.636***	0.637***	0.636***
	[0.004]	[0.004]	[0.004]	[0.004]	[0.004]	[0.004]	[0.004]	[0.004]
Adjusted R-sq	0.248	0.214	0.196	0.217	0.183	0.172	0.170	0.173
Observations	244280	244280	244280	244280	163186	163186	163186	163186

Panel B: 1993 - 2008

	OBSERVATIONS INCLUDING US			OBSERVATIONS EXCLUDING US		
CREDITOR RIGHTS	0.147***		0.164***	0.047***		0.053***
	[0.003]		[0.004]	[0.003]		[0.003]
IFRS_DUMMY		0.119***	0.317***		-0.025***	0.009
		[0.010]	[0.018]		[0.009]	[0.017]
CREDITOR RIGHTS* IFRS_DUMMY			-0.125***			-0.024***
			[0.006]			[0.006]
Adjusted R-sq	0.225	0.203	0.227	0.176	0.173	0.176
Observations	197769	197769	197769	128282	128282	128282

Panel C: 2001 - 2008

	OBSERVATIONS INCLUDING US			OBSERVATIONS EXCLUDING US		
CREDITOR RIGHTS	0.129***		0.158***	0.039***		0.047***
	[0.004]		[0.005]	[0.004]		[0.005]
IFRS_DUMMY		0.116***	0.308***		-0.025***	-0.006
		[0.010]	[0.018]		[0.010]	[0.018]
CREDITOR RIGHTS* IFRS_DUMMY			-0.122***			-0.017***
			[0.006]			[0.006]
Adjusted R-sq	0.228	0.213	0.230	0.188	0.187	0.188
Observations	127822	127822	127822	90809	90809	90809

Panel D: 2003 - 2008

	OBSERVATIONS INCLUDING US			OBSERVATIONS EXCLUDING US		
CREDITOR RIGHTS	0.118***		0.155***	0.035***		0.044***
	[0.004]		[0.005]	[0.004]		[0.005]
IFRS_DUMMY		0.113***	0.303***		-0.026***	-0.012
		[0.009]	[0.018]		[0.009]	[0.018]
CREDITOR RIGHTS* IFRS_DUMMY			-0.121***			-0.015**
			[0.006]			[0.006]
Adjusted R-sq	0.220	0.208	0.223	0.187	0.185	0.187
Observations	98602	98602	98602	72082	72082	72082

Table 4: Logit regressions on dividend payer for creditor rights and post IFRS period

This table reports marginal effects form logit regressions to determine the likelihood of being PAYER. The sample period is different in each panel. All regressions include year and industry fixed effects. Standard errors reported in brackets are clustered at the firm-level. Definitions of all variables are given in Table 1. The symbols ***, **, * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel A: 1991 - 2013

	OBSERVATIONS INCLUDING UNITED STATES				OBSERVATIONS EXCLUDING UNITED STATES			
SALES_GROWTH	-0.034***	-0.046***	-0.046***	-0.044***	-0.022***	-0.032***	-0.030***	-0.030***
	[0.002]	[0.002]	[0.002]	[0.002]	[0.002]	[0.002]	[0.002]	[0.002]
PROFITABILITY	0.939***	0.926***	0.956***	0.928***	1.226***	1.189***	1.199***	1.200***
	[0.015]	[0.015]	[0.015]	[0.015]	[0.019]	[0.019]	[0.019]	[0.019]
SIZE (LN_ASSESTS)	0.062***	0.063***	0.057***	0.063***	0.059***	0.062***	0.060***	0.062***
	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]
RETAIRNED_EARNINGS	0.013***	0.012***	0.013***	0.012***	0.013***	0.015***	0.015***	0.015***
	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]	[0.001]
SHARE_REPURCHASES	-0.111*	-1.088***	-1.628***	-1.029***	0.078	-0.025	0.001	0.016
	[0.062]	[0.068]	[0.072]	[0.067]	[0.116]	[0.124]	[0.124]	[0.123]
CASH_HOLDINGS	-0.174***	-0.123***	-0.139***	-0.120***	-0.131***	-0.068***	-0.075***	-0.073***
	[0.011]	[0.011]	[0.012]	[0.011]	[0.012]	[0.012]	[0.013]	[0.012]
LEVERAGE	-0.276***	-0.247***	-0.274***	-0.249***	-0.322***	-0.298***	-0.315***	-0.300***
	[0.007]	[0.007]	[0.007]	[0.007]	[0.007]	[0.007]	[0.007]	[0.007]
C.FLOW_VOLATILITY	-1.025***	-1.458***	-1.520***	-1.409***	-1.102***	-1.401***	-1.306***	-1.352***
	[0.037]	[0.043]	[0.045]	[0.042]	[0.045]	[0.051]	[0.050]	[0.050]
CREDITOR RIGHTS		0.089***		0.108***		0.035***		0.045***
		[0.002]		[0.002]		[0.002]		[0.002]
IFRS_DUMMY			0.017***	0.151***			-0.082***	-0.031***
			[0.004]	[0.008]			[0.004]	[0.008]
CREDITOR RIGHTS* IFRS_DUMMY				-0.086***				-0.028***
				[0.003]				[0.003]
Adjusted R-sq	0.446	0.371	0.326	0.379	0.417	0.369	0.365	0.376
Observations	244275	244275	244275	244275	163168	163168	163168	163168

Panel B: 1993 - 2008

	OBSERVATIONS INCLUDING US			OBSERVATIONS EXCLUDING US		
CREDITOR RIGHTS	0.093***		0.105***	0.039***		0.046***
	[0.002]		[0.002]	[0.002]		[0.002]
IFRS_DUMMY		0.042***	0.153***		-0.064***	-0.028***
		[0.005]	[0.009]		[0.005]	[0.009]
CREDITOR RIGHTS* IFRS_DUMMY			-0.077***			-0.023***
			[0.003]			[0.003]
Adjusted R-sq	0.385	0.334	0.390	0.379	0.370	0.383
Observations	197761	197761	197761	128269	128269	128269

Panel C: 2001 - 2008

	OBSERVATIONS INCLUDING US			OBSERVATIONS EXCLUDING US		
CREDITOR RIGHTS	0.079***		0.098***	0.030***		0.037***
	[0.002]		[0.002]	[0.002]		[0.003]
IFRS_DUMMY		0.040***	0.141***		-0.062***	-0.049***
		[0.005]	[0.009]		[0.005]	[0.009]
CREDITOR RIGHTS* IFRS_DUMMY			-0.071***			-0.012***
			[0.003]			[0.003]
Adjusted R-sq	0.385	0.351	0.390	0.385	0.381	0.388
Observations	127817	127817	127817	90796	90796	90796

Panel D: 2003 - 2008

	OBSERVATIONS INCLUDING US			OBSERVATIONS EXCLUDING US		
CREDITOR RIGHTS	0.075***		0.101***	0.027***		0.036***
	[0.002]		[0.002]	[0.002]		[0.003]
IFRS_DUMMY		0.040***	0.146***		-0.061***	-0.053***
		[0.005]	[0.009]		[0.005]	[0.010]
CREDITOR RIGHTS* IFRS_DUMMY			-0.074***			-0.010***
			[0.003]			[0.003]
Adjusted R-sq	0.379	0.349	0.385	0.385	0.384	0.390
Observations	98586	98586	98586	72065	72065	72065

Table 5: Regressions on dividend payout and the firm-level IFRS adoption

All results based on observations excluding US firms. The sample period is different in each panel. All regressions include year and industry fixed effects. Standard errors reported in brackets are clustered at the firm-level. Definitions of all variables are given in Table 1. The symbols ***, **, * denote statistical significance at the 1%, 5%, and 10% levels, respectively.

Panel B: 1991 - 2013

	Tobit on DIVIDEND_EARNINGS			Logit on PAYER%		
CREDITOR RIGHTS	0.041***		0.047***	0.034***		0.038***
	[0.003]		[0.003]	[0.002]		[0.002]
FIRM_IFRS_DUMMY		-0.042***	0.022		-0.075***	-0.035***
		[0.008]	[0.014]		[0.004]	[0.007]
CREDITOR RIGHTS* FIRM_IFRS_DUMMY			-0.029***			-0.017***
			[0.005]			[0.003]
Adjusted R-sq	0.172	0.170	0.172	0.369	0.365	0.373
Observations	162459	162459	162459	162441	162441	162441

Panel B: 1993 - 2008

	Tobit on DIVIDEND_EARNINGS			Logit on PAYER%		
CREDITOR RIGHTS	0.047***		0.050***	0.039***		0.042***
	[0.003]		[0.003]	[0.002]		[0.002]
FIRM_IFRS_DUMMY		-0.043***	0.009		-0.072***	-0.020**
		[0.009]	[0.016]		[0.005]	[0.009]
CREDITOR RIGHTS* FIRM_IFRS_DUMMY			-0.022***			-0.022***
			[0.006]			[0.003]
Adjusted R-sq	0.176	0.173	0.176	0.379	0.371	0.382
Observations	127594	127594	127594	127581	127581	127581

Panel C: 2001 - 2008

	Tobit on DIVIDEND_EARNINGS			Logit on PAYER%		
CREDITOR RIGHTS	0.039***		0.043***	0.029***		0.031***
	[0.004]		[0.005]	[0.002]		[0.003]
FIRM_IFRS_DUMMY		-0.046***	-0.011		-0.074***	-0.050***
		[0.009]	[0.018]		[0.005]	[0.009]
CREDITOR RIGHTS* FIRM_IFRS_DUMMY			-0.015**			-0.009**
			[0.006]			[0.004]
Adjusted R-sq	0.188	0.187	0.188	0.385	0.383	0.388
Observations	90499	90499	90499	90486	90486	90486

Panel D: 2003 - 2008

	Tobit on DIVIDEND_EARNINGS			Logit on PAYER%		
CREDITOR RIGHTS	0.035***		0.038***	0.027***		0.027***
	[0.004]		[0.005]	[0.002]		[0.003]
FIRM_IFRS_DUMMY		-0.044***	-0.019		-0.074***	-0.059***
		[0.009]	[0.018]		[0.005]	[0.010]
CREDITOR RIGHTS* FIRM_IFRS_DUMMY			-0.010			-0.005
			[0.007]			[0.004]
Adjusted R-sq	0.187	0.186	0.187	0.386	0.386	0.390
Observations	71944	71944	71944	71927	71927	71927