

Do Family Firms Use Dividend Policy as a Governance Mechanism? Evidence from the Euro zone

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ABSTRACT

Manuscript Type: Empirical

Research Question/Issue: This study investigates whether family firms use dividend policy as a corporate governance mechanism to overcome agency problems between the controlling family and minority investors. We further account for deviations between ownership and control and consider the presence and identity of other large shareholders in family companies.

Research Findings/Insights: Based on a sample of firms from nine Eurozone countries and using a panel data method, we find that family firms distribute higher and more stable dividends to alleviate expropriation concerns of minority investors. However, the higher dividend payments are mainly explained by family firms with no separation between the largest owner's voting and cash flow rights and those with non-family second blockholders.

Theoretical/Academic Implications: We contribute to the literature by shedding light on how the family business model affects companies' dividend preferences. Our research also highlights the importance of taking into account the identity of large shareholders, especially in a context in which concentrated ownership structures are commonplace. The reported differences in dividend policies between family and non-family firms help to clarify the variant performances of family businesses found in previous studies.

Practitioner/Policy Implications: Family firms should regard dividend policy as a governance tool that allows them to attract prospective investors and enlarge their shareholder base. Simultaneously, minority investors can benefit from family firms' dividend decisions. Our evidence also suggests that European policy makers should lay the necessary foundations to prevent controlling families from adopting ownership structures that serve their own personal interests.

Keywords: Corporate Governance, Family Control, Dividend Policy, Second Blockholders, Euro zone

INTRODUCTION

The current downturn in the economy has revived the importance of family firms for society as a whole because of the peculiarities associated with this type of corporation, such as owner families' concerns over the continuity of the business (see, e.g., Kanekrans, 2009; Miller, Le Breton-Miller, & Scholnick, 2008; Prencipe, Bar-Yosef, Mazzola, & Pozza, 2011). Interestingly, some anecdotal evidence suggests that family firms may have a greater commitment to distributing dividends (Hall, 2005). In addition, prior research widely accepts the view that family control

can lead to agency problems between the controlling family and minority shareholders under specific circumstances (Anderson & Reeb, 2003; Mishra, 2011; Villalonga & Amit, 2006, 2010; Wong, Chang, & Chen, 2010). However, the literature on whether family-controlled corporations use dividends as a trust-generating device to alleviate minority shareholders' concerns over wealth expropriation is scarce.

In this context, we address two main research questions: (1) Do family firms use dividend policy as a corporate governance mechanism to overcome agency problems with minority shareholders and to alleviate expropriation concerns, and (2) do family firms' dividend decisions depend on their specific ownership structures (i.e., separations between family's voting and cash flow rights, the presence of second blockholders)? Therefore, our study covers two issues that

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are of increasing interest to practitioners and scholars in the corporate finance and governance fields, namely, the family business model and dividend decisions. Examining the effects of family control on specific corporate dimensions is a matter of considerable importance because family firms account for a large percentage of the corporate sector in most geographical regions around the world (Claessens, Djankov, & Lang, 2000; Faccio & Lang, 2002; Holderness, 2009; La Porta, Lopez-de-Silanes, & Shleifer, 1999).

Family firms mainly outside Anglo-Saxon countries, in which the protection afforded to minority shareholders by the law is in general weaker, may use dividend payments as a trust-generating mechanism. In such institutional environments, family companies can relinquish the private benefits of control by distributing higher and more stable dividends relative to non-family firms. Indeed, dividends can be regarded as a costly signal for family firms because of family owners' desire to retain control (Crocì, Doukas, & Gonenc, 2011; Gomez-Mejia, Makri, & Larraza-Kintana, 2010; King & Santor, 2008; Miller, Le Breton-Miller, & Lester, 2010). In addition, paying dividends is a more credible signal of owners' commitment not to expropriate minority investors and to give up the private benefits of control compared to other corporate governance mechanisms at their disposal. For example, family firms' boards of directors are hardly independent from the controlling family (Chen & Nowland, 2010), and family companies are generally isolated from external governance mechanisms such as the market for corporate control due to their concentrated ownership structures (Yoshikawa & Rasheed, 2010).

Since the seminal work by Miller and Modigliani (1961), few studies have investigated whether family control, given its own peculiarities, affects companies' dividend decisions.¹ However, whether and, if so, how family firms differ from non-family firms in their dividend choices is an important issue. Conflicts of interest between the controlling owner and minority investors affect family firms (Chen & Nowland, 2010; Villalonga & Amit, 2006, 2010; Wong et al., 2010), and their use of dividends is likely to reflect such agency problems. In addition, whether these different governance mechanisms (corporate ownership structure and dividends) complement or substitute for each other to alleviate agency conflicts remains unclear (Miguel, Pindado, & de la Torre, 2005; Noronha, Shome, & Morgan, 1996).

To address our two research questions, we first investigate whether family firms pursue higher dividend payments and examine the differences in dividend smoothing behavior between family and non-family firms using a partial adjustment model of dividends. We find higher and more stable dividend distributions in family-controlled corporations; these results indicate that paying dividends is a corporate governance mechanism that helps to allay agency problems between the family and minority shareholders. Our findings hold even after controlling for the possibility that the higher dividend payments in family firms may be the result of fewer stock repurchases in these companies. In contrast to previous US empirical evidence, we do not find support for a substitution effect between dividends and share repurchases in the Euro zone.

Second, we differentiate between specific ownership structures. We divide the sample between family companies

with separations between voting and cash flow rights as a result of the use of disproportional ownership structures and family firms in which family ownership and control totally coincide. Interestingly, the higher dividend payments of family companies are primarily attributable to those firms in which cash flow rights and votes are not separated. We also analyze the effects of second blockholders in family firms' dividend decisions. The empirical evidence suggests that second large shareholders significantly influence the dividend choices of family businesses. Family second blockholders appear to collude with the controlling family and prefer lower dividend payments, which would allow them to have more cash at their disposal and enjoy higher private benefits of control. By contrast, non-family second shareholders act as a force that induces family companies to disgorge cash as dividends.

Therefore, family firms with better corporate governance structures (i.e., those firms in which the family's voting rights do not exceed its cash flow rights and those firms in which the controlling family's decisions are monitored by a non-family second blockholder) are the firms that use dividends as a governance tool to alleviate expropriation concerns.

This study makes several contributions to the corporate finance and governance literature. First, we show that paying dividends is a mechanism that can be used to align the interests between the controlling family and minority shareholders in the Euro zone. The payment of higher dividends by family firms serves as a commitment device not to expropriate minority investors. Additionally, supporting this interpretation of the use of dividends in the case of family firms, family companies prefer more steady dividends. Therefore, our results provide an explanation for the dividend puzzle in family corporations.

Second, we contribute to the corporate governance literature by paying special attention to the identity (i.e., family versus non-family) of the largest and second largest shareholders in the company instead of analyzing the effect of ownership concentration on dividends. Moreover, we advance previous studies by classifying family firms in different categories and showing that the higher dividends of family firms are mainly attributable to those companies in which cash flow rights and voting rights do not deviate from one another and those firms with a non-family second blockholder. Thus, our results support an outcome model of dividends within the family business category in that, among this type of corporation, better governance results in higher dividend payments.

Third, the evidence that we provide offers an additional explanation for the performance difference between family and non-family firms (Anderson & Reeb, 2003; Andres, 2008; Klein, Shapiro, & Young, 2005; Maury, 2006; Miller, Le Breton-Miller, Lester, & Cannella, 2007; Villalonga & Amit, 2006). Specifically, family firms' higher and more stable dividend payments could explain, to some extent, their higher valuations. In addition, our finding that family-controlled corporations with good governance distribute higher dividends is consistent with previous findings that family firms' better performance relative to non-family firms is mainly due to family companies with less incentive to expropriate minority investors.

Fourth, regarding the model specification, we take into account that target dividends, which cannot be observed by the researcher, depend on a firm-specific effect that does not change over time. Consequently, we use panel data methodology to estimate our dividend models because it allows us to control for this individual effect.

Finally, given that prior research that investigates the relation between corporate ownership structure and dividends has mainly focused on insider ownership and shareholdings by institutional investors, we go a step further by analyzing the effects of family control on a firm's dividend decision. As noted in recent research (Andres, Betzer, Goergen, & Renneboog, 2009), little is known about the dividend choices of continental European firms because most empirical evidence on corporate dividend decisions is based on UK and US data. Therefore, we fill this gap in the literature by providing empirical evidence for the Euro zone.

The remainder of the paper is organized as follows. The next section reviews previous literature on corporate dividend policy and presents our hypotheses. In the third section, we explain the partial adjustment model of dividends on which we base our regression analyses and detail the specific empirical models used to test our hypotheses. The fourth section describes the data and estimation method. The fifth section presents the descriptive analysis and regression results. The sixth section summarizes several robustness checks. In the last section, we discuss the main results and highlight our conclusions.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

Based on the agency theory, some studies examine the main determinants of corporate dividends and how a firm's ownership structure can affect companies' dividend payments (Barclay, Holderness, & Sheehan, 2009; Farinha, 2003; Short, Zhang, & Keasey, 2002). However, prior research has mainly focused on the classic owner–manager agency conflict, which particularly applies to an Anglo-Saxon setting. In this respect, a strand of literature investigates how managerial entrenchment is related to corporate payout policy (Hu & Kumar, 2004). In contrast, the main agency problem in countries outside the United States and the United Kingdom is expropriation of minority investors' wealth by controlling and powerful shareholders (Cronqvist & Nilsson, 2003; Shleifer & Vishny, 1997). Indeed, conflicts of interests between large and small investors are especially relevant within family firms (Maury, 2006; Villalonga & Amit, 2006). In this context, owner families can use dividends to alleviate any concerns about other shareholders' wealth expropriation. However, given that prior research associates family control of corporations with both potential benefits and costs (Anderson & Reeb, 2003; Miller et al., 2008), whether family control and dividends are positively or negatively related is not clear a priori.

On the one hand, family ownership can be regarded as an alternative corporate governance mechanism to dividends from an agency perspective due to the reputation cost concerns of controlling families (Chen, Chen, Cheng, & Shevlin, 2010), which discourage them from expropriating minority

investors' wealth. In addition, the need to pay out dividends to reduce free cash flow agency conflicts (Jensen, 1986) should be lower in family firms because the large stakes that owner families hold in their companies already serve as efficient monitoring mechanisms and assure that managers do not waste internal funds on unprofitable projects. In fact, prior studies support a substitution effect between corporate ownership structure and dividends from different perspectives (Farinha, 2003; Moh'd, Perry, & Rimbey, 1995). With respect to specific types of owners, Goergen, Renneboog, and Correia da Silva's (2005) empirical evidence within Germany suggests that banks mitigate information asymmetry and agency costs and thus reduce the need for dividends as a disciplining device. In the same vein, Gugler (2003) shows that state-controlled firms exhibit the highest dividends, whereas family firms have the lowest target dividend ratios in Austria. Gugler argues that more severe agency problems force state-controlled companies to distribute higher dividends. Conversely, in family firms, family control, which serves as an effective corporate governance mechanism, reduces the need for dividends.

On the other hand, family control may be under specific circumstances closely associated with an entrenchment effect (Anderson, Duru, & Reeb, 2009). Hu and Kumar (2004) find that in the United States dividend payout level is positively related to factors that increase executive entrenchment. Similarly, family control may exert a positive influence on dividends if family firms view dividends as a mechanism to reward minority investors and to dampen insider expropriation (Faccio, Lang, & Young, 2001; Setia-Atmaja, Tanewski, & Skully, 2009). An additional potential positive link between family ownership and dividends comes from the corporate governance literature, which suggests that internal control mechanisms may need to complement each other, especially in less protective institutional environments (Miguel et al., 2005). In the absence of strong legal protection, family firms can use dividend payments as a mechanism to establish a reputation for good treatment of minority investors (Yoshikawa & Rasheed, 2010).

Another way of distributing cash to investors closely linked to dividend payments are stock repurchases. In fact, given that share repurchases represent an alternative payout method that is becoming increasingly important (Von Eije & Megginson, 2008), the expected higher dividends of family firms as a way to avert agency problems with minority investors can be explained by a reduction in share repurchase activity. However, this substitution effect is unlikely to apply in our particular context for two reasons. First, as recently highlighted by Jansson and Larsson-Olaison (2010), hypotheses formulated within the agency-theoretical framework are generally unfit for explaining stock repurchases among European corporations. Second, dividends imply a stronger future commitment on the part of the company and thus are a more credible signal to mitigate expropriation concerns. Conversely, family firms are likely to use stock repurchases for other reasons than alleviating agency conflicts with minority investors.² These arguments cast doubt on the possibility that family firms use repurchases as substitutes for dividends in the alleviation of agency problems.

In sum, several agency and corporate governance considerations suggest that family firms distribute higher

dividends to preclude the use of excess cash for owner families' interests. Considering this line of reasoning and taking into account the findings previously discussed along with our focus on Euro zone countries, in which external control mechanisms play a less important role, we formulate the first hypothesis as follows:

Hypothesis 1. Family firms distribute a higher proportion of their earnings as dividends than non-family firms.

Prior research shows that the stability of dividend payments or dividend smoothing behavior is determined by the severity of agency conflicts associated with different ownership structures (Michaely & Roberts, 2012). Since the pioneering work by Lintner (1956), the literature has generally accepted previous dividend levels as important determinants of current dividend payments. Given the value that shareholders attribute to dividend payments, companies usually pursue a stable dividend policy, and they are reluctant to either reduce or omit dividends once they become dividend payers (Brav, Graham, Harvey, & Michaely, 2005).

As recently suggested by Leary and Michaely (2011), we expect to find a relation between agency problems and dividend smoothing. Specifically, less severe agency conflicts between owners and managers are associated with less likelihood to smooth dividends (Gugler, 2003; Michaely & Roberts, 2012). Therefore, family firms may smooth dividends to a lesser extent because in these companies the owner family is frequently involved in managerial activities either directly or indirectly, and, hence, the classic owner-manager agency problem is reduced. However, as previously mentioned, family-controlled corporations are characterized by agency conflicts between the largest owner and minority shareholders due to their divergent interests (Mishra, 2011). Indeed, the risk of minority investors' wealth expropriation is the most widely accepted potential cost attributed to family control (Shyu & Lee, 2009). Therefore, if dividends serve as a mechanism to alleviate expropriation concerns and to establish a reputation for treating minority owners fairly (Setia-Atmaja et al., 2009; Yoshikawa & Rasheed, 2010), family firms will distribute more stable dividends and, consequently, dividend smoothing will be higher in this type of company.

Recent empirical findings support the view that family firms may be more likely to smooth dividends. Specifically, Leary and Michaely (2011) find that firms with weaker governance smooth more and argue that smoothing arises as a means of controlling the agency costs of free cash flow (Jensen, 1986). In this respect, by adopting a stable dividend policy, owner families can show that they refrain from using excess cash for their own private benefits. In addition, the finding that smoothing is most prevalent among firms with the highest dividend levels (Leary & Michaely, 2011) is in line with our initial hypothesis.

To describe family firms as having a more stable dividend policy is akin to saying that they exhibit a lower speed of adjustment toward their target dividends. In fact, family firms may prefer to adjust more slowly toward their target dividends to avoid running out of capital and compromising future investments in profitable projects. Leary and Michaely (2011) note that high and stable dividends enable

mature firms to mitigate agency costs without sacrificing access to low-cost external capital. Consequently, dividend smoothing is a good solution for family firms because it allows them to reduce agency problems between the controlling family and other investors (Maury, 2006; Villalonga & Amit, 2006) and to avoid future financing constraints. Therefore, we formulate our second hypothesis as follows:

Hypothesis 2. Family firms pay more stable dividends than non-family firms.

Given that dividend payments seem to be affected by the quality of both internal and external corporate governance dimensions (Adjaoud & Ben-Amar, 2010; Chae, Kim, & Lee, 2009; La Porta, Lopez-de-Silanes, Shleifer, & Vishny, 2000), we must take into account that family firms frequently adopt complex ownership structures that might only be in the interest of the controlling family (Cronqvist & Nilsson, 2003; Villalonga & Amit, 2009). Thus, both the risk of minority shareholders' wealth expropriation and, as a result, family firms' dividend policies will depend on how families control their companies.

The potential benefits and costs related to the family business model and the corresponding agency conflicts between the controlling family and minority shareholders are a function of the corporate ownership structure chosen by the family. Specifically, the risk of expropriation of outside investors by the controlling shareholder increases as the family owns voting rights in excess of its cash flow rights. In this context, dividends play a basic role in limiting expropriation because they remove corporate wealth from insider control, thus reducing agency problems (Faccio et al., 2001; Yoshikawa & Rasheed, 2010). Faccio et al. (2001) report that within corporations that are tightly affiliated with a group, a lower ratio of ownership to control (i.e., deviations between cash flow and voting rights) leads to higher dividends to allay expropriation concerns. In a similar fashion, entrenched managers, such as family managers who cannot be easily removed from their position due to the power they have, may voluntarily commit to dividend payments as a protection against disciplinary sanctions by outsiders (Hu & Kumar, 2004). More recently, Jog, Zhu, and Dutta (2010) provide empirical evidence that supports the use of dividends to reduce the possibility of expropriation by controlling shareholders.

In general, these arguments and findings are consistent with the substitute model of dividends (Adjaoud & Ben-Amar, 2010; La Porta et al., 2000). According to this model, better-governed firms have less need for distributing dividends as a way to mitigate agency conflicts. In companies whose minority investors face higher risks of expropriation by corporate insiders, dividends can be used as a reputational mechanism (La Porta et al., 2000). In these companies, higher dividend payments reduce what is left for expropriation, hence allowing the firm to establish a reputation for moderation in expropriating shareholders.

As a result, the need to use dividends as a corporate governance mechanism to align the interests of minority investors with those of the controlling family increases as the family accumulates more power than its stake in the company justifies. Thus, the importance of dividends in

reducing expropriation concerns increases precisely when family ownership and control deviate from each other. For this reason, we propose the following hypothesis:

Hypothesis 3. The proportion of earnings paid out as dividends is higher in family firms with separation between the voting and cash flow rights of the controlling family than in family firms with no separation.

Another important governance dimension of family firms is the presence of a second large shareholder in the company. In fact, the earlier literature points out that in firms with a high level of ownership concentration, the role of second blockholders can be vital (Delgado-García, de Quevedo-Puente, & de la Fuente-Sabaté, 2010; Jara-Bertin, López-Iturriaga, & López-de-Foronda, 2008; Laeven & Levine, 2008; La Porta et al., 1999; Mishra, 2011). Faccio et al. (2001) find that the presence of multiple large shareholders, which may serve as a disciplining force, increases dividend rates in Europe. In the case of family firms, family second large shareholders are likely to collude with the controlling family to expropriate minority investors, thus hindering dividend payments. In this type of family business, powerful investors impose corporate policies (in our particular context, dividend decisions) that allow them to enjoy the private benefits of control (Mishra, 2011). By contrast, non-family second blockholders can serve as monitoring and disciplining mechanisms that force the owner family to disgorge excess cash as a way to reduce agency conflicts between the controlling family and minority investors.

The literature that focuses on the management-shareholder conflict supports this argument. This strand of research suggests that managers (in our setting, the controlling family) who are subject to more effective internal governance mechanisms and external monitoring by large shareholders (in our context, non-family second blockholders) increase the required payments (Allen, Bernardo, & Welch, 2000; Fluck, 1999). Consistent with the proposition that second blockholders can play an important monitoring role in companies with concentrated ownership, Gugler and Yurtoglu (2003) find that firms with a controlling owner and a second large investor exhibit the highest payout ratios. Nevertheless, they do not account for the identity of either of the company's large shareholders, which is likely to be very important, especially when differentiating between family and non-family firms (Maury & Pajuste, 2005; Mishra, 2011; Pindado, Requejo, & de la Torre, 2011). Consequently, we formulate the last hypothesis as follows:

Hypothesis 4. The proportion of earnings paid out as dividends is higher in family firms with a non-family second blockholder than in family firms with a family second blockholder.

THE MODELS

The General Partial Adjustment Model of Dividends

The empirical specifications proposed to test our hypotheses are based on a partial adjustment model of dividends similar to Lintner (1956). Subsequent studies that investigate

companies' dividend decisions propose similar models (Andres et al., 2009; Brav et al., 2005; Fama & French, 2002; Gugler, 2003; Michaely & Roberts, 2012). This type of empirical model is particularly suitable for our analysis because it enables us to investigate the effect of family control on corporate dividend payments as well as on companies' dividend smoothing behavior. The payment of high and smooth dividends alleviates free cash flow agency conflicts by curbing agents' propensity to undertake negative net present value projects (Jensen, 1986). Moreover, Leary and Michaely (2011) recently show that agency-based arguments are especially appropriate to explain differences in the propensity to smooth dividends. The findings obtained by these authors provide further support to the use of a partial adjustment model in our multivariate analyses.

According to Lintner (1956), a firm's target dividends, $Dividends_{it}^*$, depend on the company's earnings. That is,

$$Dividends_{it}^* = \tau Net\ Income_{it} + \pi X_{it} + \eta_i + d_t + c_i + v_{it}, \quad (1)$$

where τ is the fraction of earnings that the firm decides to distribute in the form of dividends to shareholders, and X_{it} is a vector of control variables. This vector includes several firm-level characteristics that prior research suggests are important determinants of dividends such as debt, investment, size, Tobin's q , sales, and share repurchases. Debt is considered in the model because it can substitute for dividends as a monitoring mechanism (Setia-Atmaja et al., 2009). In line with prior research (Jensen, Solberg, & Zorn, 1992), we expect that investment impacts negatively on dividends since both are alternative uses of funds. Larger firms are likely to pay out higher dividends, as previous studies suggest (Brockman & Unlu, 2009; Shao, Kwok, & Guedhami, 2010). Tobin's q , which is a measure of a firm's investment opportunities, is included in the model to control for the role of dividends as a signaling device (Bhattacharya, 1979). A positive relation between sales and dividends is expected because companies with higher revenues are likely to distribute more dividends to avoid free cash flow agency problems (Jensen, 1986). Dividends and stock repurchases are likely to be negatively related given that they could substitute for each other (Grullon & Michaely, 2002; Skinner, 2008). We also include a family variable as an explanatory factor of target dividends, which allows us to control for the direct effect of family control on dividends. We expect a positive effect of the family variable on dividends consistent with prior research (Setia-Atmaja et al., 2009).

Moreover, target dividends depend on other firm characteristics that remain constant over time and are unobservable to the researcher. This set of characteristics is captured by the firm-specific effect, η_i . In our setting, we must necessarily account for this unobservable firm heterogeneity because it captures corporate culture and management ethics (Chi, 2005), which could directly affect both the dependent as well as the explanatory variables in the empirical models that we estimate. Target dividends also depend on the stages of the economic cycle and other time-varying macroeconomic factors, which we control for using time dummy variables, d_t . Given that country-specific characteristics such as the legal protection of minority shareholders and tax incentives

are likely to be important predictors of dividends (La Porta et al., 2000), country dummy variables, c_i , enter the right-hand side of equation (1) to control for the effect of country-level dimensions on dividend payments. Finally, other factors different from those previously defined that might explain a firm's target dividends are captured by the random disturbance, v_{it} .

In line with Lintner (1956), companies approach their target dividends over time and not automatically; therefore, the partial adjustment model of dividends is

$$\text{Dividends}_{it} - \text{Dividends}_{it-1} = \beta_0 + \lambda(\text{Dividends}^*_{it} - \text{Dividends}_{it-1}), \quad (2)$$

where $0 < \lambda < 1$ is the speed of adjustment to the target dividend. Following previous studies (Fama & French, 2002; Henry, 2011; Miguel et al., 2005; Shao et al., 2010), our dividend measure is dividends scaled by total assets. We use this measure of dividends for three reasons. First and most important, scaling by assets (as opposed to earnings) is more adequate to investigate whether dividends are used as a governance mechanism that curbs an agent's opportunistic behavior (Jensen, 1986) given that earnings can be more easily manipulated by the agent. Second, with our dividend measure we avoid the influential observation problem that arises when earnings are near zero (see Fama & French, 2002). Finally, most of the variables in our empirical specifications are scaled by assets.

Extensions of the Dividend Model

To investigate how family firms differ from non-family firms relative to paying dividends, we replace Dividends^*_{it} with equation (1) in equation (2) and rearrange terms. The use of interaction effects allows us to test our propositions empirically. In particular, we test Hypothesis 1 by estimating the extended model

$$\text{Dividends}_{it} = \beta_0 + \beta_1 \text{Dividends}_{it-1} + (\beta_2 + \gamma_2 \text{FD}_{it}) \text{Net Income}_{it} + \omega X_{it} + \eta'_i + d'_t + c'_i + v'_{it}, \quad (3)$$

in which $\beta_1 = (1 - \lambda)$ and $\beta_2 = \lambda\tau$ and where FD_{it} is a dummy variable that equals 1 for family firms, and 0 otherwise. For a detailed definition of the variables used in the study, see Appendices A–C. Following previous studies, a 10 percent cutoff point is applied to determine effective control of the business (Du & Dai, 2005; Liu & Magnan, 2011; Mishra, 2011) and to define family control. In this model, the coefficients of interest are β_2 and γ_2 . β_2 captures the effect of net income on dividend levels for non-family firms, and $(\beta_2 + \gamma_2)$ measures the relation between net income and dividends in family firms. A summary of the coefficients of interest in each of the empirical specifications is provided in Appendix D. If family businesses distribute a higher fraction of their earnings in the form of dividends, consistent with Hypothesis 1, we should find a stronger positive relation between earnings and dividends in these companies, that is, $(\hat{\beta}_2 + \hat{\gamma}_2) > \hat{\beta}_2$.

To test our second hypothesis, we focus on the relation between past and current dividend levels while differenti-

ating between family and non-family firms. In this case, we interact the FD_{it} with lagged dividends instead of net income. The coefficient on the interaction term is now γ_1 . Therefore, the influence of past dividend levels on current dividend levels is captured by β_1 in non-family firms, and $(\beta_1 + \gamma_1)$ measures this influence in family firms. To confirm that family firms prefer a more stable dividend policy, in line with Hypothesis 2, we should find that $(\hat{\beta}_1 + \hat{\gamma}_1) > \hat{\beta}_1$. Note that $1 - (\hat{\beta}_1 + \hat{\gamma}_1)$ and $1 - \hat{\beta}_1$ measure the speed at which family and non-family firms adjust their dividend policies, respectively.

However, family companies with varying degrees of agency conflicts might need to adopt different dividend policies, as we posit in Hypothesis 3. To test this proposition, we extend the model in equation (3) by replacing FD_{it} with two new dummy variables that equal 1 for wedge (WEDGE FD_{it}) and non-wedge (NON-WEDGE FD_{it}) family firms, and 0 otherwise. The coefficients on the interactions between each of these two variables with net income are χ_2 and η_2 , respectively. The impact of net income on dividends for non-family firms is evaluated as before. $(\beta_2 + \chi_2)$ captures the effect in wedge family firms, and $(\beta_2 + \eta_2)$ captures the effect in family firms with no separation between ownership and control. We expect that $(\hat{\beta}_2 + \hat{\chi}_2) > (\hat{\beta}_2 + \hat{\eta}_2)$ to find support for our third hypothesis.

Finally, to examine whether second blockholders influence family firms' dividend decisions and test our fourth hypothesis, we modify equation (3) by replacing FD_{it} with three dummies that enable us to split the family firm sample into three categories: family firms with no second large shareholder (NO 2ND SH. FD_{it}), family companies with a family second blockholder (FAM. 2ND SH. FD_{it}), and family companies with a non-family second blockholder (NON-FAM. 2ND SH. FD_{it}). The three dummy variables are then interacted with net income, being the coefficients on the interaction terms δ_2 , α_2 , and θ_2 , respectively. Consequently, β_2 captures the relation between earnings and dividends in non-family firms. $(\beta_2 + \delta_2)$ measures the relation between these two variables in family firms with no second large shareholder; $(\beta_2 + \alpha_2)$ evaluates the effect in family firms with a family second blockholder; and $(\beta_2 + \theta_2)$ measures the effect in family firms with a non-family second blockholder. If non-family second blockholders – which is the type of blockholder that is more likely to perform an active monitoring and disciplining role inside family firms compared to family second large shareholders – do indeed force family firms to distribute higher dividends, as we propose in Hypothesis 4, we should find that $(\hat{\beta}_2 + \hat{\theta}_2) > \hat{\beta}_2$ and $(\hat{\beta}_2 + \hat{\theta}_2) > (\hat{\beta}_2 + \hat{\alpha}_2)$.

DATA AND ESTIMATION METHOD

Data

We need two different types of information to estimate the empirical models. First, we require financial and stock data to compute the dependent and explanatory variables of the models. Second, we need detailed information on companies' ownership structures to identify the family firms in the

sample and to define the dummy variables necessary to test our hypotheses. These data are obtained from two different sources. We extract the financial and stock information from *Worldscope* database, and we use the database developed by Faccio and Lang (2002) to obtain information on the ownership structure of companies. We also require some macroeconomic data (such as the growth of capital goods prices and the rates of interest of short- and long-term debt) to calculate the variables as detailed in the Appendices. We obtained this information from the *Main Economic Indicators* published by the Organization for Economic Cooperation and Development.

From the Western European countries represented in Faccio and Lang's (2002) database, we focus on those that are part of the Euro zone (i.e., Austria, Belgium, Germany, Spain, Finland, France, Ireland, Italy, and Portugal) for three main reasons. First, by including in the sample only Eurozone countries we can assure that the companies in our study are homogeneous in terms of firm-level characteristics. As recently noted by Bris, Koskinen, and Nilsson (2009), Eurozone companies, relative to non-Eurozone firms, are larger, more leveraged, and have fewer fixed assets. More important, Bris et al. (2009) identify significant differences in terms of corporate valuation between companies that belong to the Euro zone and those that are not part of this area. Therefore, by focusing on Eurozone corporations we avoid the risk that our results regarding different dividend preferences might be driven by differences in firm value.

Second, Trichet (2010) notes that corporate financing in the Euro zone is provided to a large extent by banks whereas the financing structure in other economies, such as the United Kingdom and the United States, is more market-based. The specific financial structure of the Euro zone is likely to influence firm valuation and in turn corporate policies, such as a firm's dividend decision. In addition, agency problems might also be affected by the structure of the market in which companies operate. Hence, we focus on Eurozone corporations, which are subject to similar market forces, to avoid obtaining biased results due to different financial market structures.

Third, Eurozone countries typically trade within this geographical area and, as a consequence, their most direct benchmarks in terms of corporate policies and strategies will also belong to this region. In addition, by paying special attention to a corporate governance tool, such as firms' dividend decisions, in the Euro zone, we complement prior research on dividend policies of UK and US corporations (Barclay et al., 2009; Short et al., 2002).

We therefore merge the ownership data of Eurozone corporations with the financial information from *Worldscope*. Following previous studies on corporate dividends (Chae et al., 2009; Hu & Kumar, 2004; Shao et al., 2010), we exclude from the final sample financial companies (SIC codes 6000–6999) and regulated utilities (SIC codes 4900–4999). Although the data set from Faccio and Lang (2002) only provides ownership information for each company for one single year, this limitation is not important because we only use this information to build dummy variables. Moreover, as highlighted in previous studies (La Porta et al., 1999; Liu & Magnan, 2011; Zhou, 2001), the ownership structure of corporations tends to be relatively stable over time and typically

changes slowly from year to year within a company.³ A noteworthy advantage of Faccio and Lang's database is that these authors provide ultimate ownership information, which enables us to identify the family-controlled corporations included in our sample. Recent studies on corporate family control also use this data set (Banalieva & Eddleston, 2011), which supports its reliability and suitability for our study.

The availability of information needed to test our hypotheses also restricts the time period of the investigation. Specifically, our study period ranges from 1996 to 2006 for two reasons. First, we take 1996 as the starting year in our sample because this year marks the first period of time for which Faccio and Lang (2002) provide information on the ownership structure of Western European companies.⁴ In so doing, we further reduce the bias that might arise as a consequence of combining corporate ownership information from one specific year with financial data from several consecutive years. Second, the final year in our sample is 2006 to avoid covering in our study the global financial turmoil that started in 2007 and that led to the financial crisis in 2008 (Trichet, 2010). Our intention is to focus on a time period of relative macroeconomic stability during which companies can determine their dividend policies freely and unencumbered by external forces. Indeed, when companies are experiencing severe tensions, such as the ones caused by the recent global financial crisis, firms' main priority is the survival of the business, thus leaving other corporate policies such as dividends unattended. Therefore, in turbulent times we should not expect that companies make dividend decisions to overcome specific agency problems or to send other signals to capital markets. By focusing on a relatively stable period of time, we can better investigate whether family firms indeed use dividends as a corporate governance mechanism that helps controlling families alleviate the expropriation risk feared by minority investors.

In addition, the estimation method that we use imposes an additional restriction to account for the unobservable heterogeneity and endogeneity problems; that is, we require information for at least four consecutive years per company to test for the absence of second-order serial correlation because our estimation method, the generalized method of moments (GMM), is based on this assumption. As a consequence, the final sample is an unbalanced panel consisting of 645 companies (5,486 firm-year observations) for which we obtain all needed information for at least four consecutive years between 1996 and 2006. However, the models are estimated using 4,841 (i.e., 5,486 – 645) observations because of the dynamic nature of the dividend decision, which requires that we include in the right-hand side of the models the lag of the dependent variable. The structure of the full and family firm samples per country is provided in Table 1. About 75 percent (482/645 ≈ 75 percent) of the companies included in the sample are family controlled. Although this percentage might initially seem large, it is quite reasonable given that we exclude financial institutions and UK companies from the sample. The main summary statistics (mean, standard deviation, minimum, median, and maximum) of the variables included in our models and the correlations between them are shown in Panels A and B of Table 2, respectively.

TABLE 1
Distribution of the Sample by Country and Ownership Structure

Panel A: Distribution of the Full Sample by Country								
Country	No. firms	% firms			No. obs.	% obs.		
Austria	30	4.65			216	3.94		
Belgium	28	4.34			198	3.61		
Germany	238	36.90			2,036	37.11		
Spain	36	5.58			324	5.91		
Finland	32	4.96			246	4.48		
France	188	29.15			1,634	29.78		
Ireland	20	3.10			151	2.75		
Italy	53	8.22			510	9.30		
Portugal	20	3.10			171	3.12		
Total	645	100.00			5,486	100.00		

Panel B: Distribution of the Sample by Ownership Structure								
Type of firm	Family				Non-family			
Country	No. firms	% firms	No obs.	% obs.	No. firms	% firms	No obs.	% obs.
Austria	16	3.32	106	2.53	14	8.59	110	8.44
Belgium	20	4.15	141	3.37	8	4.91	57	4.37
Germany	189	39.21	1,643	39.29	49	30.06	393	30.14
Spain	25	5.19	214	5.12	11	6.75	110	8.44
Finland	15	3.11	116	2.77	17	10.43	130	9.97
France	152	31.54	1,362	32.57	36	22.09	272	20.86
Ireland	6	1.24	45	1.08	14	8.59	106	8.13
Italy	45	9.34	443	10.59	8	4.91	67	5.14
Portugal	14	2.90	112	2.68	6	3.68	59	4.52
Total	482	100.00	4,182	100.00	163	100.00	1,304	100.00

This table shows the number and percentage of firms and observations by country and ownership structure. Data come from merging Faccio and Lang's (2002) data set with the Worldscope database. Nine Eurozone countries (Austria, Belgium, Germany, Spain, Finland, France, Ireland, Italy, and Portugal) are represented in the sample. The full sample consists of companies for which stock and financial information is available for at least four consecutive years between 1996 and 2006. Following Faccio and Lang, the family firm sample includes all corporations whose ultimate owner at the 10 percent threshold is an individual, a family, or an unlisted company.

Estimation Method

Given that the unobservable firm-specific effect is an important determinant of target dividends [see equation (1)] and consequently of firms' dividend payments [see equation (3)], we use panel data methodology in the estimation process. To reduce the risk of obtaining biased results, we eliminate this individual effect by taking first differences of the variables before estimating the models.⁵ This step also allows us to alleviate the omitted variable bias (Chi, 2005; Mishra, 2011).

Additionally, the use of a panel data estimation method allows us to consider a second problem that emerges when analyzing the relation between a firm's ownership structure and its dividend decisions, namely, endogeneity. This problem is common to most corporate governance studies

(Liu & Magnan, 2011; Mishra, 2011; Renders, Gaeremynck, & Sercu, 2010) and is even more severe in light of previous investigations that show that dividends affect some of the explanatory variables included in the right-hand side of our empirical specifications (Miguel et al., 2005; Pindado & de la Torre, 2006). Thus, to mitigate this problem, we estimate the models by using an instrumental variable estimator, the GMM, that allows us to control for problems of endogeneity by using the lags of the explanatory variables as instruments.⁶ Following Blundell and Bond (1998) when deriving the system estimator, we use all the right-hand side variables in the models lagged from $t-1$ to $t-4$ as instruments for the equations in differences (except for lagged dividends, whose instruments are lags from $t-2$ to $t-5$) and only one instrument, t , for the equations in levels (except for lagged dividends, whose instrument is $t-1$).

TABLE 2
Summary Statistics for the Full Sample

Panel A: Summary Statistics					
Variable	Mean	Standard deviation	Minimum	Median	Maximum
Dividends _{it}	.01	.02	.00	.01	.37
Net Income _{it}	.02	.07	-.80	.03	.49
Debt _{it}	.11	.11	.00	.08	.76
Investment _{it}	.05	.07	-.94	.04	.97
Size _{it}	13.18	1.92	7.08	12.98	19.11
Tobin's q_{it}	.77	.64	.01	.60	8.43
Sales _{it}	1.01	.56	.00	.92	5.50
Share Rep. _{it}	.01	.11	.00	.00	5.48

Panel B: Correlation Matrix									
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Dividends _{it}	(1)	1.00							
Net Income _{it}	(2)	.34	1.00						
Debt _{it}	(3)	-.25	-.26	1.00					
Investment _{it}	(4)	-.01	.09	.02	1.00				
Size _{it}	(5)	-.02	.10	.21	.02	1.00			
Tobin's q_{it}	(6)	.37	.32	-.34	.05	-.02	1.00		
Sales _{it}	(7)	.07	.08	-.18	-.03	-.19	.01	1.00	
Share Rep. _{it}	(8)	.03	.03	-.03	.01	.00	.04	-.02	1.00

This table provides the means, standard deviations, minimums, medians, and maximums of the variables as well as the correlations between them. The sample consists of 645 listed companies (5,486 observations) from Faccio and Lang's (2002) dataset and for which stock and financial data are available for at least four consecutive years between 1996 and 2006 in the Worldscope database. Nine Eurozone countries (Austria, Belgium, Germany, Spain, Finland, France, Ireland, Italy, and Portugal) are represented in the sample. All of the variables are defined in Appendices A and B.

As shown in equation (3), our model captures the dynamic nature of the dividend policy, and, consequently, we need a dynamic estimator such as the GMM. A recent study by Henry (2011) supports the use of the system GMM estimator to address the issue of potential endogeneity between ownership structure and the dividend policy. Henry notes that the system GMM is also especially suitable to investigate dividend dynamics and the partial adjustment of dividend payments.

As occurs in most corporate governance studies, most of the variables included in the right-hand side of our models might suffer from the endogeneity problem, and it is extremely complicated, if not impossible, to find enough instrumental variables that comply with the conditions that should be required to any instrument.⁷ Therefore, using the lagged values of the explanatory variables as instruments, which is the solution adopted by the system GMM estimation method, is an adequate solution because these lags are highly correlated with the regressors that they instrument.⁸ Moreover, we use the Hansen J statistic of overidentifying

restrictions to test for the absence of correlation between the instruments and the error term and find that the instruments used are valid in all models.

However, this estimation method does not solve the endogeneity problem inherent in the stand-alone family variable that enters the right-hand side of our empirical specifications because it is a firm-level characteristic that remains relatively stable over time.⁹ To assure that our GMM regression results with respect to the effect of the stand-alone family variable on dividends are not driven by the endogeneity problem, we follow the approach proposed by Pindado et al. (2011). Specifically, we run first-stage logit regressions for each year of our sample to predict the probability of being family controlled and then include the predicted probability of family control from these regressions in the right-hand side of the dividend models.¹⁰ In the first-stage logit regressions, the dependent variable is a family dummy that equals 1 for family firms, and 0 otherwise; we use the explanatory variables suggested by Pindado et al. (2011).¹¹

An additional challenge for our regression analyses is that the dependent variable in our models is a censored variable in that some firms distribute dividends and others do not. Consequently, the analysis may suffer from a censoring problem. To ensure that such a problem does not bias our results, we follow the same two-stage strategy proposed by Hillier, Pindado, de Queiroz, and de la Torre (2011) in the context of R&D investment. First, we predict a new dividend variable for each year of our sample from 1996 to 2006 by estimating equation (1) using a Tobit estimator. Second, we estimate the empirical specifications developed to test our hypotheses by using the fitted dividend variable in our GMM regressions.

Given that we use the system GMM to estimate our empirical specifications, we perform several tests to check for the potential misspecification of the models. Specifically, apart from the Hansen J statistic of overidentifying restric-

tions previously discussed, we use the m_2 statistic developed by Arellano and Bond (1991) to test for the lack of second-order serial correlation in the first-difference residual and find no such problem in our models. Finally, to check the goodness-of-fit of the model, we use a Wald test of the joint significance of the reported coefficients, z_1 .

RESULTS

Descriptive Analysis

As a preliminary analysis of the differences that exist between family and non-family corporations, we conduct several difference of means tests for the variables that we then use in the regressions. Table 3 presents the results of these univariate tests, which, although not conclusive, highlight some interesting features of the data. Panel A compares

TABLE 3
Firm-Level Characteristics by Ownership Structure

Panel A: Family Firms versus Non-family Firms							
	All (1)	Family (2)	Non-family (3)	<i>t</i> -statistic (2)–(3)			
No. obs.	5,486	4,182	1,304				
Dividends _{it}	.013	.013	.014	–1.45†			
Net Income _{it}	.022	.022	.023	–.54			
Debt _{it}	.107	.103	.118	–4.16**			
Investment _{it}	.049	.048	.051	–1.30†			
Size _{it}	13.176	12.922	13.989	–18.08**			
Tobin's q_{it}	.774	.788	.729	2.92**			
Sales _{it}	1.006	1.044	.884	9.06**			
Share Rep. _{it}	.005	.006	.003	.81			
Panel B: Accounting for Different Family Firm Categories							
	All (1)	Wedge family (2)	Non-wedge family (3)	Non-family (4)	<i>t</i> -statistic (2)–(4)	<i>t</i> -statistic (3)–(4)	<i>t</i> -statistic (2)–(3)
No. obs.	5,486	1,169	3,013	1,304			
Dividends _{it}	.013	.012	.013	.014	–2.12*	–.94	–1.41†
Net Income _{it}	.022	.025	.021	.023	.75	–.99	1.77*
Debt _{it}	.107	.113	.099	.118	–1.06	–5.08**	3.56**
Investment _{it}	.049	.048	.049	.051	–1.21	–1.15	–.36
Size _{it}	13.176	13.569	12.671	13.989	–5.30**	–21.66**	15.06**
Tobin's q_{it}	.774	.716	.817	.729	–.62	4.01**	–4.43**
Sales _{it}	1.006	.956	1.078	.884	3.57**	10.56**	–6.06**
Share Rep. _{it}	.005	.005	.006	.003	.56	.88	–.43

This table shows the difference of means tests between family and non-family firms in their financial characteristics. The sample consists of 645 listed companies (5,486 observations) from Faccio and Lang's (2002) dataset and for which stock and financial data are available for at least four consecutive years between 1996 and 2006 in the Worldscope database. Nine Eurozone countries (Austria, Belgium, Germany, Spain, Finland, France, Ireland, Italy, and Portugal) are represented in the sample. All of the variables are defined in Appendices A and B. The firms are classified either as family or non-family according to the family firm definition proposed by Faccio and Lang (2002).

**, *, and † indicate significance at the 1, 5, and 10 percent level, respectively.

family to non-family businesses, and Panel B accounts for possible differences within the family firm sample. Panel A shows that dividend payments are, on average, lower in family than in non-family companies but only at the 10 percent level of significance [see column (2)–(3) *t*-statistics]. However, given that family firms also differ from their non-family counterparts along several other dimensions for which a univariate analysis does not control, we cannot rule out the possibility that the differences in dividend ratios are due to differences in other firm-level characteristics.

Panel B of Table 3 shows that wedge and non-wedge family companies differ from each other. An interesting result is the difference between the two family firm categories and non-family corporations in their dividend ratios. Specifically, the lower dividends by family firms found in Panel A are entirely driven by family-controlled firms in which minority shareholder expropriation is more likely [i.e., wedge family firms; see columns (2)–(4) and (2)–(3) *t*-statistics]. This finding does not support the idea that family firms that make use of control-enhancing mechanisms should pay more dividends than better governed family companies. However, we must be very cautious when interpreting the results of the univariate analyses because, as previously noted, we do not control for other factors previously identified as relevant predictors of dividend decisions. Moreover, as Panel A highlights, family and non-family firms differ from each other in several aspects, and these differences could, in turn, explain their different dividend policy behaviors.

Regression Results

The empirical evidence provided in Table 4 supports a positive direct effect of family control on a firm's dividend payments. Interestingly, this positive relation remains even after controlling for the endogeneity problem of the family variable as previously explained. Turning now to the estimated coefficients that allow us to test Hypothesis 1, the results (see Table 4, column 1) show that the positive effect of net income on dividends is stronger in family firms ($\hat{\beta}_2 + \hat{\gamma}_2 = .062 + .047 = .109$, statistically significant, see t_1 , $p < .01$) than in non-family firms ($\hat{\beta}_2 = .062$, $p < .01$). This result indicates that the former distribute a higher percentage of their earnings in the form of dividends.

In addition, the results presented in Table 4 (column 2) that enable us to test our second hypothesis suggest a stronger positive relation between past and current dividend levels in family firms ($\hat{\beta}_1 + \hat{\gamma}_1 = .146 + .102 = .248$, statistically significant, see t_2 , $p < .01$) than in non-family firms ($\hat{\beta}_1 = .146$, $p < .01$). Therefore, if we now compute a firm's speed of adjustment toward its target dividend ratio as previously explained for family and non-family firms, we obtain $SOA_{DIV}^F = 1 - (\hat{\beta}_1 + \hat{\gamma}_1) = 1 - (.146 + .102) = .752$ and $SOA_{DIV}^{NF} = 1 - \hat{\beta}_1 = 1 - .146 = .854$, where superscripts *F* and *NF* denote family and non-family, respectively. Consequently, family firms' adjustment speed is lower. This result confirms that family-controlled corporations prefer more stable dividends and are more likely to smooth their dividend payments as compared to non-family corporations, thus lending support to Hypothesis 2.

These results confirm our line of reasoning and contradict previous works that find a substitution effect between a firm's ownership structure and its dividend policy in relation to alleviating agency conflicts (Goergen et al., 2005; Moh'd et al., 1995). Our findings are also at odds with the empirical evidence provided by Gugler (2003) on the relation between family control and a company's payout ratio. However, Gugler's sample consisted mainly of unlisted firms, and unlisted family companies are likely to differ significantly from listed family corporations (Wong et al., 2010; Yoshikawa & Rasheed, 2010). That is, in unlisted family businesses, the classic agency problem between owners and managers is resolved because ownership is concentrated in the hands of the family; at the same time, agency conflicts between large and minority investors are less severe because in this type of family business other shareholders usually have a close relationship with the owner family.

In contrast, in large listed family corporations, which are represented in our sample, the interests of the controlling family and those of minority investors are not as closely aligned (Villalonga & Amit, 2006). In these firms, dividends serve as a disciplining mechanism to hinder the controlling family from expropriating wealth from minority shareholders (Faccio et al., 2001; Setia-Atmaja et al., 2009). In addition, listed family firms – given their large size and long existence – are likely in the hands of several family generations. In these firms, one way to reward passive family members whose only link to the corporation are their shares is by paying out steady dividends (Yoshikawa & Rasheed, 2010). By distributing a higher proportion of their earnings as dividends, these family firms avoid the risk of disputes between active and passive family members. Also, by simultaneously adopting a dividend smoothing policy, family companies can alleviate transaction cost concerns and avoid the risk that the business runs out of liquidity and compromises the investment in future value-creating projects. More important, the finding that family firms smooth dividends more is in line with the argument that companies can adopt a stable dividend policy to alleviate agency costs (Leary & Michaely, 2011).

Our findings can also be explained in light of the outcome model of dividends (La Porta et al., 2000). In this sense, family control serves as a corporate governance mechanism that triggers higher and more stable dividend payments to minimize agency problems between the controlling owner and minority shareholders in the Euro zone, thus precluding the use of retained earnings for insiders' benefit. The regression results of our first empirical model complement Setia-Atmaja et al.'s (2009) findings. Setia-Atmaja et al. conclude that family firms in Australia pay more dividends as a way to mitigate minority investors' concerns about wealth expropriation by the owner family. We show that family control is associated with higher dividend distributions in the Euro zone, where minority shareholder protection afforded by the law is, in general, weaker than in an Anglo-Saxon setting such as Australia.

Although overall family firms distribute higher dividends, the estimated coefficients presented in Table 4 (columns 3 and 4) show that this finding is mainly due to certain family companies, as we posited in Hypotheses 3 and 4. Specifically, the results in Table 4 (column 3) show that

TABLE 4
Effects of Family Control on Dividends

Dep. var.: Dividends _{it}	(1)	(2)	(3)	(4)
β_0 Constant	-.005** (.001)	-.003** (.001)	-.004** (.001)	-.005** (.001)
β_1 Dividends _{it-1}	.192** (.002)	.146** (.001)	.190** (.001)	.197** (.001)
γ_1 FD _{it} Dividends _{it-1}		.102** (.002)		
β_2 Net Income _{it}	.062** (.001)	.100** (.001)	.063** (.001)	.064** (.001)
γ_2 FD _{it} Net Income _{it}	.047** (.002)			
χ_2 WEDGE FD _{it} Net Income _{it}			.002 (.002)	
η_2 NON-WEDGE FD _{it} Net Income _{it}			.057** (.001)	
α_2 FAM. 2ND SH. FD _{it} Net Income _{it}				.017** (.002)
θ_2 NON-FAM. 2ND SH. FD _{it} Net Income _{it}				.036** (.001)
δ_2 NO 2ND SH. FD _{it} Net Income _{it}				.053** (.001)
ω_1 Family Variable _{it}	.002** (.001)	.001** (.001)	.001* (.000)	.002** (.000)
ω_2 Debt _{it}	-.018** (.001)	-.018** (.001)	-.018** (.000)	-.019** (.000)
ω_3 Investment _{it}	-.008** (.000)	-.009** (.000)	-.008** (.000)	-.008** (.000)
ω_4 Size _{it}	.000** (.000)	.000** (.000)	.000** (.000)	.000** (.000)
ω_5 Tobin's q_{it}	.005** (.000)	.005** (.000)	.005** (.000)	.005** (.000)
ω_6 Sales _{it}	.004** (.000)	.002** (.000)	.004** (.000)	.003** (.000)
ω_7 Share Rep. _{it}	.008** (.001)	.005** (.000)	.007** (.001)	.008** (.000)
ω_8 FD _{it} Share Rep. _{it}	-.005** (.001)	-.002** (.001)	-.004** (.001)	-.005** (.000)
t_1	86.81			
t_2		109.71		
t_3			121.02	
t_4				53.31
t_5				215.29
t_6				142.82
t_7	11.50	11.78	13.26	19.19
z_1	4,839.15 (11)	9,323.77 (11)	7,447.64 (12)	19,249.45 (13)
m_2	1.23	1.29	1.23	1.23
Hansen	529.19 (467)	516.71 (463)	557.82 (509)	580.61 (551)

Generalized method of moments regression results of the empirical models of dividends. All of the variables are defined in Appendices A–C. The results are based on the 10 percent cutoff point definition of family firm proposed by Faccio and Lang (2002). The sample comprises 645 listed companies (5,486 observations) that are present in Faccio and Lang's dataset and for which stock and financial data are available for at least four consecutive years between 1996 and 2006 in the Worldscope database. Nine Eurozone countries (Austria, Belgium, Germany, Spain, Finland, France, Ireland, Italy, and Portugal) are represented in the sample. Heteroskedasticity consistent asymptotic standard error is in parentheses. t_1 is the t -statistic for the linear restriction test under the null hypothesis $H_0: \beta_2 + \gamma_2 = 0$; t_2 is the t -statistic for the linear restriction test under the null hypothesis $H_0: \beta_1 + \gamma_1 = 0$; t_3 is the t -statistic for the linear restriction test under the null hypothesis $H_0: \beta_2 + \eta_2 = 0$; t_4 is the t -statistic for the linear restriction test under the null hypothesis $H_0: \beta_2 + \alpha_2 = 0$; t_5 is the t -statistic for the linear restriction test under the null hypothesis $H_0: \beta_2 + \theta_2 = 0$; t_6 is the t -statistic for the linear restriction test under the null hypothesis $H_0: \beta_2 + \delta_2 = 0$; and t_7 is the t -statistic for the linear restriction test under the null hypothesis $H_0: \omega_7 + \omega_8 = 0$. z_1 is a Wald test of the joint significance of the reported coefficients, asymptotically distributed as χ^2 under the null of no relation, and the degrees of freedom are in parentheses. m_2 is a serial correlation test of second order using residuals in first differences, asymptotically distributed as $N(0,1)$ under the null of no serial correlation. Hansen is a test of the overidentifying restrictions, asymptotically distributed as χ^2 under the null of no correlation between the instruments and the error term; the degrees of freedom are in parentheses. All regressions include time and country dummies, but the estimated coefficients on these variables are not reported in the table to save space.

** and * indicate significance at the 1 and 5 percent level, respectively.

family firms with no wedge between ownership and control ($\hat{\beta}_2 + \hat{\eta}_2 = .063 + .057 = .120$, statistically significant, see t_3 , $p < .01$) exhibit a stronger positive relation between net income and dividends than all other family firms ($\hat{\beta}_2 + \hat{\chi}_2 = \hat{\beta}_2 = .063$, $p < .01$; $\hat{\chi}_2$ statistically non-significant). Therefore, our results do not support Hypothesis 3. Contrary to this hypothesis, we find that family firms' higher

dividend payments are mainly due to those family companies in which the controlling family's interests are more closely aligned with those of minority shareholders, that is, family firms in which the controlling family's cash flow and voting rights coincide with each other. This finding indicates that family firms that make use of control-enhancing mechanisms that lead to deviations between cash flow and voting

rights suffer from a self-control problem that results in the distribution of fewer dividends. Conversely, better governance structures within family companies lead to higher dividend payments, consistent with an outcome model of dividends (Adjaoud & Ben-Amar, 2010; Chae et al., 2009; La Porta et al., 2000).

Additionally, in light of the regression results presented in Table 4 (column 4) we find that the presence and identity of second large shareholders in companies with concentrated ownership structures, such as family companies, are very important in determining their dividend policies. More precisely, the estimated coefficients in this column show that the presence of a non-family second large shareholder in family firms leads to a stronger positive impact of net income on dividends ($\hat{\beta}_2 + \hat{\theta}_2 = .064 + .036 = .100$, statistically significant, see t_5 , $p < .01$) as compared to family businesses with family second blockholders ($\hat{\beta}_2 + \hat{\alpha}_2 = .064 + .017 = .081$, statistically significant, see t_4 , $p < .01$). We also find that family companies with no second large shareholder distribute a higher proportion of their earnings as dividends ($\hat{\beta}_2 + \hat{\delta}_2 = .064 + .053 = .117$, statistically significant, see t_6 , $p < .01$) as compared to non-family corporations ($\hat{\beta}_2 = .064$, $p < .01$). These results support Hypothesis 4 and suggest that second blockholders in family firms affect dividend choices significantly. Specifically, we conclude that non-family second blockholders in family firms are effective in monitoring the controlling family and family firm's dividend decision-making processes. Conversely, family second large shareholders appear to collude with the owner family to adopt policies that allow them to enjoy the private benefits of control at the expense of minority investors. Given these results, we argue that family firms use dividends to mitigate expropriation concerns when non-colluding second blockholders serve as a disciplining force within the company.

Regarding the control variables, the negative relation between debt and dividends confirms that both governance mechanisms substitute for each other. As expected, investment has a negative effect on dividends and we find a positive relation between dividends and size. The role of dividends as a signaling device explains the positive coefficient of Tobin's q . The positive association between sales and dividends suggests that companies with higher net sales pay more dividends. Finally, with respect to the influence of share repurchases on dividend payments, our findings contradict our expectations and suggest that stock repurchases complement dividend distributions and consequently do not substitute for them. This empirical evidence is in line with recent research that confirms that stock repurchases are made in addition to dividends among Swedish firms (Jansson & Larsson-Olaison, 2010). To further control for the possibility that family and non-family firms differ from each other in their use of stock repurchases, we include in all regressions an interaction term between stock repurchase activity and the family dummy. The estimated coefficient on the interaction term is negative in most regressions. However, the overall impact of share repurchases on dividends continues to be positive for family firms, which rules out the possibility that family firms distribute higher dividends, as previously reported, at the expense of fewer share repurchases.

ROBUSTNESS CHECKS

We conduct a series of robustness tests to check whether our findings regarding the differences between family and non-family corporations relative to dividend payments are robust to alternative specifications. First, Panel A of Table 5 presents the results of estimating the empirical specifications that enable us to test our hypotheses using Faccio and Lang's (2002) family firm definition that relies on a 20 percent threshold of control rights. The percentage of family businesses decreases to 66.05 percent when we use the 20 percent cutoff point of control rights to identify the family firms in the sample. The results confirm our previous findings.¹² That is, family firms distribute a higher proportion of their earnings as dividends and prefer a dividend smoothing policy. We also confirm these higher dividends are mainly driven by family firms with better governance structures (i.e., with no deviations between ownership and control and with a non-family second blockholder). Therefore, our hypotheses hold even after using a more restrictive family firm definition, which allows us to alleviate any concerns with respect to the measure of family control.

Second, we consider the possibility of misclassifications when dividing the sample into family and non-family companies. Although Faccio and Lang (2002) provide ultimate ownership data for the majority of the firms represented in their sample, these authors do not investigate the complete chain of control when a company is ultimately controlled by an unlisted company. Therefore, their family firm definition relies on the assumption that all corporations that are in the hands of an unlisted company are family controlled. According to recent research, this assumption may be incorrect in some cases (Franks, Mayer, Volpin, & Wagner, 2012). Therefore, to mitigate concerns that our results are driven by possible misclassifications of family firms whose ultimate owner is an unlisted company, we drop from the sample this category of family businesses. After excluding from the full sample family firms whose ultimate owner is a family unlisted company, we end up with a reduced sample of 371 companies (3,237 firm-year observations). Panel B of Table 5 provides the results for this smaller sample and corroborate that our findings are not driven by family companies whose ultimate owner is an unlisted firm.

The purpose of these additional analyses is to check that our empirical findings are not affected by our definition of family firms. In both cases we corroborate that family control leads to higher dividends and that family firms prefer a stable dividend policy and smooth dividends more as compared to non-family companies, thus supporting the view that family businesses regard dividends as a mechanism to mitigate expropriation concerns. Consistent with our previous results, this role of dividends is mainly attributable to family firms with better corporate governance structures (i.e., with no deviations between family ownership and control and with a non-family second blockholder).

DISCUSSION AND CONCLUSIONS

We investigate whether family firms use dividends as a governance mechanism to overcome the agency conflict between the controlling family and minority investors in the

TABLE 5
Effects of Family Control on Dividends: Robustness Checks

Panel A: 20 Percent Threshold Family Firm Definition				
Dep. var.: Dividends _{it}	(1)	(2)	(3)	(4)
β_0 Constant	-.002** (.001)	-.001 (.001)	-.004** (.001)	-.001** (.000)
β_1 Dividends _{it-1}	.186** (.002)	.139** (.001)	.182** (.001)	.192** (.001)
γ_1 FD _{it} Dividends _{it-1}		.114** (.002)		
β_2 Net Income _{it}	.073** (.001)	.098** (.001)	.073** (.001)	.075** (.001)
γ_2 FD _{it} Net Income _{it}	.033** (.002)			
χ_2 WEDGE FD _{it} Net Income _{it}			-.030** (.001)	
η_2 NON-WEDGE FD _{it} Net Income _{it}			.048** (.001)	
α_2 FAM. 2ND SH. FD _{it} Net Income _{it}				.014** (.001)
θ_2 NON-FAM. 2ND SH. FD _{it} Net Income _{it}				.025** (.001)
δ_2 NO 2ND SH. FD _{it} Net Income _{it}				.037** (.001)
z_1	6,428.75 (11)	6,948.55 (11)	8,039.68 (12)	33,524.33 (13)
m_2	1.23	1.28	1.22	1.23
Hansen	529.68 (468)	503.29 (464)	566.81 (510)	580.15 (552)
Panel B: Reduced Sample				
β_0 Constant	-.009** (.001)	-.008** (.001)	-.008** (.001)	-.011** (.001)
β_1 Dividends _{it-1}	.182** (.002)	.159** (.001)	.181** (.002)	.146** (.001)
γ_1 FD _{it} Dividends _{it-1}		.102** (.002)		
β_2 Net Income _{it}	.070** (.001)	.095** (.000)	.070** (.001)	.064** (.001)
γ_2 FD _{it} Net Income _{it}	.043** (.001)			
χ_2 WEDGE FD _{it} Net Income _{it}			.007** (.002)	
η_2 NON-WEDGE FD _{it} Net Income _{it}			.057** (.002)	
α_2 FAM. 2ND SH. FD _{it} Net Income _{it}				.013** (.002)
θ_2 NON-FAM. 2ND SH. FD _{it} Net Income _{it}				.057** (.004)
δ_2 NO 2ND SH. FD _{it} Net Income _{it}				.046** (.001)
z_1	15,421.00 (11)	25,307.23 (11)	17,975.54 (12)	27,766.01 (13)
m_2	1.11	1.16	1.11	1.07
Hansen	351.08 (468)	353.94 (464)	350.19 (510)	350.07 (359)

Generalized method of moments regression results of the empirical models of dividends. All of the variables are defined in Appendices A–C. The results in Panel A (B) are based on the 20 (10) percent cutoff point definition of family firm proposed by Faccio and Lang (2002). The sample in Panel A (B) comprises 645 (371) listed companies – 5,486 (3,237) observations – that are present in Faccio and Lang's dataset and for which stock and financial data are available for at least four consecutive years between 1996 and 2006 in the Worldscope database. Nine Eurozone countries (Austria, Belgium, Germany, Spain, Finland, France, Ireland, Italy, and Portugal) are represented in the sample. Heteroskedasticity consistent asymptotic standard error is in parentheses. z_1 is a Wald test of the joint significance of the coefficients on the explanatory variables, asymptotically distributed as χ^2 under the null of no relation, and the degrees of freedom are in parentheses. m_2 is a serial correlation test of second order using residuals in first differences, asymptotically distributed as $N(0, 1)$ under the null of no serial correlation. Hansen is a test of the overidentifying restrictions, asymptotically distributed as χ^2 under the null of no correlation between the instruments and the error term; the degrees of freedom are in parentheses. All regressions include a set of control variables (see Table 4), time and country dummies, but the estimated coefficients on these variables are not reported in the table to save space.

** indicates significance at the 1 percent level.

context of the Euro zone, where family firms play a very important role. To this end, we use a partial adjustment model of dividends and consider previous agency explanations for firms' dividend preferences. We find that family firms in our sample adopt higher dividend payments. Consequently, we argue that dividends can be used to alleviate concerns about minority shareholders' wealth expro-

priation in Eurozone family firms. Going a step further, we use a dynamic dividend model to show that family-controlled corporations prefer more stable dividend payments and approach their target dividend ratios at a lower speed. This more stable dividend policy supports the view that family firms regard this corporate decision as a governance mechanism to reduce their main agency problem

(i.e., the conflict between the controlling family and minority shareholders).

Contrary to our expectations, the higher dividend payments of family firms are primarily explained by firms in which no separation exists between the voting and cash flow rights of the controlling family. This unexpected result is consistent with the previous literature that hints at the idea that those corporate governance structures that are more likely to create agency conflicts lead to reductions in dividend payments (Gugler & Yurtoglu, 2003). Thus, the use of control-enhancing mechanisms in family firms that allow controlling families to increase their control of the company above their ownership stakes can lead to financial policies that only benefit the family (Liu & Magnan, 2011; Wong et al., 2010). Our results are also in line with an outcome model of dividends, according to which better corporate governance structures should be associated with higher dividend payments (Adjaoud & Ben-Amar, 2010; Chae et al., 2009; La Porta et al., 2000). We conclude that family firms with more room for expropriation due to the adoption of control-enhancing mechanisms prefer to retain earnings. By contrast, family firms with more transparent ownership structures and no deviations between ownership and control distribute more dividends.

Further, we find that the interaction between multiple large shareholders in family companies influences dividend policies in these firms. Specifically, on the one hand, non-family second blockholders induce family companies to adopt higher dividend payments, which is consistent with the monitoring role of this type of investor. On the other hand, family second large shareholders prefer lower dividend payments. In this case, controlling owners and family second blockholders appear to collude to pursue dividend policies that increase the cash flow at their disposal, which they use for their own best interest. Consequently, in the same way that strong minority shareholder protection at a country level leads to higher dividend payments (La Porta et al., 2000), our study confirms that those second blockholders that are more likely to monitor the controlling family induce family firms to distribute more dividends.

Our article leaves some questions unanswered, which suggest avenues for future research. For instance, it may be interesting to analyze how external governance mechanisms (e.g., protection afforded to minority investors by the law) influence family firms' dividend decisions. It would be useful to consider emerging countries in such analysis given that family businesses typically constitute the backbone in these economies. Another research question that remains unanswered is how the global financial crisis that began in 2007 affected family firms' commitment to pay out dividends. We will need to wait until financial markets calm down to examine this issue.

This study provides new insights in the corporate governance literature by showing that the unique attributes of family firms influence corporate policies of these companies, such as the dividend decision. These differences in corporate decision making between family and non-family companies could in turn provide additional explanations for the different performance between both firm categories. Furthermore, we show that not only the presence but also the identity (family versus non-family) of multiple large shareholders in

corporations with concentrated ownership structures must be considered in future research.

An additional insight of this study regards the institutional setting. Specifically, we provide new evidence that applies to the Euro zone, which has implications in at least two respects. First, most research that investigates the Euro zone focuses mainly on financial market issues; management and finance literature on corporate governance and finance issues in Eurozone countries is scarce. Therefore, we add to this stream of research by analyzing how family control affects a specific corporate policy, such as a firm's dividend decision, in this area. To the best of our knowledge, we are among the first to examine family business governance paying special attention to Eurozone economies. Second, the current economic landscape of Eurozone countries is increasingly attracting investors' attention due to the turbulence that this region is experiencing. In this regard, our results show that family firms in the Euro zone can play an important role in overcoming these difficult economic conditions. Indeed, family firms are important drivers of economic growth all over the world. Given the peculiarities of family businesses (Miller et al., 2008), they are well positioned to help the weakest Eurozone countries achieve economic and financial stability in the long run.

Similarly, our findings have useful implications for practitioners and policy makers. Our results indicate that investors can benefit from the presence of a controlling family in the companies in which they invest because this type of control leads to higher and more stable dividend payments. However, minority shareholders that invest in family companies should take into account whether, apart from the controlling family, other large family owners are involved in the business. As our results show, these circumstances expose minority investors to a higher risk of being expropriated. For policy makers, the evidence that the higher dividends of family companies are primarily attributable to those firms with no wedge between the family's voting and cash flow rights suggests that governments and regulators should put in place the necessary measures to prohibit owner families from adopting control-enhancing mechanisms that lead to deviations between ownership and control. In addition to these measures, European supranational institutions should foster the creation of family firms as a way to achieve the much needed economic growth. Finally, for family firms themselves, the empirical evidence that we provide suggests that they should pay out dividends as a way to alleviate minority shareholder expropriation and also to reduce the potential for disputes between family members with different interests within the company. In so doing, controlling families can attract more investors to their firms and increase their shareholder base as well as act in the best interest of the long-term survival of the firm. Furthermore, owner families with large stakes in the same company must avoid colluding with each other because such behavior damages credibility and weakens the viability of the business.

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NOTES

1. Studies that investigate this issue include Gugler (2003), Setia-Atmaja et al. (2009), and Yoshikawa and Rasheed (2010), who focus on the Austrian, Australian, and Japanese economies, respectively.
2. For instance, when one family branch leaves the company, family firms may be inclined to repurchase its own shares to avoid losing control of the company.
3. Fan and Wong (2002) also merge ownership data from one single year (1996) with stock return and financial data from several years (1991–1995). Similarly, Attig, Guedhami, and Mishra (2008) match ownership information from one year (data from one year between 1996 and 1999) with data from several years (1995–1997).
4. Although Faccio and Lang (2002) only provide ownership information for each company for a single year, the information does not come from the same year for all companies. Depending on the country in which the company is based, the data can come from 1996, 1997, 1998, or 1999.
5. Recent finance literature also highlights the importance of controlling for unobserved firm-specific effects when analyzing the dividend policy of corporations because the potential correlation of these effects with the observed explanatory variables will cause the ordinary least squares estimator to be biased and inconsistent (Andres et al., 2009).
6. The best alternative to control for the possible endogeneity of our explanatory variables is a GMM estimator because it embeds all other instrumental variable methods as special cases (Ogaki, 1993).
7. As Larcker and Rusticus (2010) explain, any instrumental variable should be correlated with the endogenous regressor but uncorrelated with the error in the structural equation.
8. The use of lagged variables as instruments is a solution to the endogeneity problem adopted in prior research (Almeida, Campello, & Galvao, 2010; Andres, 2008).
9. Given that owner families could decide to invest only in those corporations that adopt certain dividend policies, the

relation between family control and dividends can go in both directions.

10. The results of the logit regressions are not reported but are available from the authors on request.
11. For a detailed explanation on the arguments for the selection of instruments and on the expected relations between the instruments and the probability of being family controlled, see Pindado et al. (2011).
12. To save space and for ease of interpretation, Panels A and B of Table 5 do not report the estimated coefficients on the control variables and the linear restriction tests. The complete tables are available from the authors on request.

APPENDIX A

Dependent and Independent Variables

A.1. Dividends

Dividends are the dependent variable in the empirical models. They are calculated as $DIV_{it} = CDIV_{it}/K_{it}$, where $CDIV_{it}$ and K_{it} denote the total common dividends paid by the firm (extracted from the company's funds flow statement) and the replacement value of total assets in year t , respectively. The replacement value of total assets is computed as in Hillier et al. (2011).

Previous studies on corporate dividend policy use similar dividend measures, namely, dividends scaled by total assets, as a dependent variable (Fama & French, 2002; Henry, 2011; Miguel et al., 2005; Shao et al., 2010).

A.2. Net income

Net income is the main independent variable and is defined as $NI_{it} = NIAPD_{it}/K_{it}$, where $NIAPD_{it}$ stands for net income after preferred dividends of the firm corresponding to year t .

APPENDIX B

Control Variables

B.1. Debt ratio

Following Miguel and Pindado (2001), we compute debt ratio as $DEBT_{it} = MVLTD_{it}/(MVE_{it} + MVD_{it})$, where MVE_{it} is the market value of equity and $MVD_{it} = MVLTD_{it} + BVSTD_{it}$ is the market value of debt; $MVLTD_{it}$ and $BVSTD_{it}$ stand for the market value of long-term debt and the book value of short-term debt, respectively.

B.2. Investment

Investment is defined as $INV_{it} = (NF_{it} - NF_{it-1} + BD_{it})/K_{it}$, where NF_{it} denotes net fixed assets and BD_{it} is the book depreciation expense of the firm corresponding to year t .

B.3. Size

Firm size is calculated as the natural logarithm of the replacement value of total assets.

B.4. Tobin's q

Tobin's q is computed as $Q_{it} = (MVE_{it} + MVD_{it})/K_{it}$.

B.5. Sales

Sales are $SALES_{it} = REV_{it}/K_{it}$, where REV_{it} is the firm's net sales or revenues in the corresponding period of time.

B.6. Share repurchases

Share repurchases are measured as $SHARE\ REP_{it} = [(SHO_{it-1} - SHO_{it}) * MPYE_{it}]/K_{it}$, where SHO_{it} is the number of outstanding shares in the corresponding period of time and $MPYE_{it}$ stands for the stock market price at the end of the year.

B.7. Family variable

The FAMILY VARIABLE_{it} allows us to control for the direct effect of family control on dividends. The construction of this variable is explained in detail in the estimation method section.

APPENDIX C

Dummy Variables Used to Split the Sample

C.1. Family dummy

The FD_{it} is a dummy variable that equals 1 for family firms, and 0 otherwise.

C.2. Wedge family dummy

The WEDGE FD_{it} is a dummy variable that equals 1 for family firms in which a wedge exists between the voting and the cash flow rights owned by the controlling family, and 0 otherwise.

C.3. Non-wedge family dummy

The NON-WEDGE FD_{it} is a dummy variable that equals 1 for family firms in which no deviation between the voting and the cash flow rights owned by the controlling family exists, and 0 otherwise.

C.4. Family second shareholder present family dummy

The FAM. 2ND SH. FD_{it} is a dummy variable that equals 1 for family firms with a family second blockholder, and 0 otherwise.

C.5. Non-family second shareholder present family dummy

The NON-FAM. 2ND SH. FD_{it} is a dummy variable that equals 1 for family firms with a non-family second blockholder, and 0 otherwise.

C.6. No second shareholder present family dummy

The NO. 2ND SH. FD_{it} is a dummy variable that equals 1 for family firms with no second large shareholder, and 0 otherwise.

APPENDIX D

Coefficients of Interest in the Dividend Models

This appendix presents a summary of the coefficients that capture the effect of net income on dividends for each

hypothesis and type of corporation; except in Hypothesis 2, in which the coefficients evaluate the relation between past and current dividend levels. The sums of coefficients in bold are those for which a linear restriction test is performed. The *t*-statistics of the linear restriction tests are reported in Table 4.

Hypothesis	(1)	(2)	(3)	(4)
Subsample				
NON-FAMILY _{it}	β_2	β_1	β_2	β_2
FAMILY DUMMY _{it}	$\beta_2 + \gamma_2$	$\beta_1 + \gamma_1$		
WEDGE FD_{it}			$\beta_2 + \chi_2$	
NON-WEDGE FD_{it}			$\beta_2 + \eta_2$	
FAM. 2ND SH. FD_{it}				$\beta_2 + \alpha_2$
NON-FAM. 2ND SH. FD_{it}				$\beta_2 + \theta_2$
NO 2ND SH. FD_{it}				$\beta_2 + \delta_2$

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