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# Filling or Abusing the Institutional Void?
# Ownership and Management Control of Public Family Businesses in an Emerging Market

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# ABSTRACT

Despite increased attention given to family firms in the theory of organization and management, the value of family governance in emerging markets is not clearly understood. We draw insights from agency and institutional economics perspectives to address the debate on whether family governance fills or abuses the void left by weaker market and legal institutions. We propose a dual focus on the pattern of family control and weak institutions to reconcile these opposed assessments. We analyze how various combinations of family control over ownership, strategy, and operations yield different benefits and costs for the operational performance of firms in the absence of strong market and legal institutions. The uneven development of market institutions across industries and the impact of independent directors reinforce the importance of separating different patterns of family control. We find support for our hypotheses when tested on a data set consisting of all publicly listed firms in Taiwan between 1996 and 2005. Our study contributes to a deeper understanding of family businesses in emerging markets, highlights the importance of weak institutions in shaping relative agency costs, and illuminates the differential effects of independent directors.

The past decade has witnessed a rapid growth in research on family firms (e.g., Berrone et al. 2010, Gómez-Mejía et al. 2007, Greenwood et al. 2009, Le Breton-Miller et al. 2011, Schulze et al. 2001, and the *Journal of Management Studies* 2010 special issue on family business). This research has noted that the involvement of family in business can both benefit and harm firm performance (see Gomez-Mejia, et al. 2011 for a review). While much of this research investigates family firms in mature markets, a small but burgeoning literature has examined the role of family businesses in emerging markets characterized by an institutional void—defined as the lack of market-supporting institutions such as market intermediaries and legal protection of shareholders (Khanna and Palepu 1997, Peng and Jiang 2010). This literature suggests that the benefits and costs of family involvement may both be magnified under weak institutions (Liu et al. forthcoming). However, assessment of the role of family business in emerging markets tends to focus on either the benefits or the costs, and has led to a key debate: is family control beneficial because it *fills* the institutional void (Miller et al. 2009), or is it harmful because it *abuses* that void (Faccio et al. 2001, Morck et al. 2005)? This debate is of critical importance owing to the prevalence of family firms in emerging markets (Lins 2003). Our study aims to shed light on this debate.

The two sides of the debate focus on different types of agency costs. Agency costs can arise either from principal-agent (PA) conflicts (Jensen and Meckling 1976) or from principal-principal (PP) conflicts (Shleifer and Vishny 1997). One side of the debate holds that informal family norms, such as trust and obligation, substitute for weak formal institutions and hence reduce agency costs that stem from owner-management conflicts (Khanna and Palepu 2000, Luo and Chung 2005). The other side of the debate argues that the lack of legal protection for minority shareholders gives the family more incentive and leverage to expropriate minority shareholder wealth (Chang 2003, M. Young et al. 2008), which can lead to increased agency costs from conflicts between family owners and minority owners. International organizations (e.g., the IMF and World Bank) and emerging market governments tend to favor the latter view and have advocated or even mandated the appointment of independent directors in order to provide checks and balances between family and minority shareholders (World Bank 2002).

In this study, we propose to reconcile these different assessments of family firms by developing a framework on how the agency costs incurred in family firms are shaped by two contingencies: the pattern of family control and weak market institutions. Our framework draws from the institutional economics perspective in order to inform agency theory (Jensen and Meckling 1976, North 1990, M. Young et al. 2008). The institutional economics perspective highlights the importance of external institutions in providing rules of the game, which can shape the incentive and power of organizational actors and alter the costs and benefits of internal governance arrangements (North 1990, Williamson 1991). Studies of family firms in mature markets have found that the pattern of family control (e.g., ownership control alone versus combined ownership and management control) is associated with different agency costs and firm performance (Le Breton-Miller et al. 2011, Villalonga and Amit 2006). However, we lack a theory addressing whether and how the pattern of family control affects agency dynamics in the midst of weak market institutions. And though some studies on family firms in emerging markets (e.g., Peng and Jiang 2010) have suggested the importance of weak institutions in shaping the functioning and outcomes of family governance, different patterns of family control have not been explicitly compared. Our framework explicitly compares the agency dynamics of the different patterns of family control under weak market institutions, and we suggest that whether family control fills or abuses the institutional void is contingent on the pattern of family control.

Specifically, we separate the following patterns of family control: (1) family ownership control alone; (2) family ownership control plus control over strategy but not operation;[1] (3) family control in ownership, strategy, and operation; and we consider how these different types of family firms compare to nonfamily firms, defined as firms over which the family does not have ownership control.[2] The distinction between ownership and management control has been made in prior family business research (e.g., Villalonga and Amit 2006), and is particularly important in emerging markets

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[1] Among publicly listed firms in Taiwan, family-owned firms where a family member is in charge of operation but not strategy are much less common than family-owned firms with strategic but not operational control. Nonetheless, both categories are examined in our empirical analysis.
[2] Research on family firms has often used ownership to define family firms, but differs in the cutoff point of family ownership (e.g., Barth et al. 2005; Berrone et al. 2010). In this study, we define family firms as those where the family is the largest shareholder.

given the prevalence of the overlap between family ownership and management among publicly listed firms as compared with in mature markets (Claessens et al. 2000, Globerman et al. 2011). We argue that family owners that have only ownership control may incur substantial agency costs because they cannot rely on market-based information and market discipline to monitor outside professional management. Our study is unique in separating strategic and operational control within management control. We make this distionction for two reasons. First, the distinction has been emphasized in the leadership literature: the former crafts core strategies to achieve the organization's goals, whereas the latter concerns the implementation of such strategies (Selznick 1957). Second and more important, under weak market institutions, family-owned firms with strategic control (i.e., operational control held by an outsider) may be the most advantageous in reducing agency costs from both PA and PP conflicts and in turn generate a premium in firms' operational performance, but family-owned firms with both strategic and operational control may be the most vulnerable to heightened PP conflicts, which can offset the gains from combined family ownership and management.

To further understand the different patterns of family control under weak institutions, we also explore the role of family business in industries with varying strength of market institutions and the impact of independent directors in family firms. The uneven development of market institutions across industries is a prominent feature of emerging markets, partly due to the uneven presence of foreign investment from mature markets (Khanna et al. 2004). Our framework would suggest that the performance premium of the combined family ownership and strategic control will be even more salient in industries with weaker market institutions. The appointment of independent directors is one of the most important trends in emerging market corporate governance, driven by globalization of capital markets (Sachs and Warner 1995; Davis 2009). Given the traditional dominance of family members and other affiliated insiders on corporate boards in emerging markets (C. Young et al. 2008), appointing independent directors dilutes family control and is a "contested" practice in family firms (Fiss and Zajac 2004). Our theory would suggest that, paradoxically, even though independent directors may be the most useful to counterbalance family power in firms with complete family control, they may add the least benefit to this type of family firms because such directors are afforded

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the least structural autonomy to play their monitoring role. But independent directors are able to add value when the family does not dominate management control.

We test our arguments over all publicly listed firms in Taiwan between 1996 and 2005. During this period, state enterprises and key industries became privatized and deregulated, market competition intensified, and the practice of appointing independent directors was introduced (but not yet mandated) by the government. As is typical of emerging markets, family firms are an integral part of Taiwan's economy (Chung and Luo 2008, Hamilton and Biggart 1988). While Taiwan featured relatively stronger market and legal institutions as compared with other emerging markets (Peng and Jiang 2010), the establishment of market-oriented institutions has been gradual and fragmented, and the institutional voids in the markets for labor, products, and capital were conspicuous during this period. The first professional job hunter, 104 Job Bank, was not established until 1996. Taiwan Rating—the first independent credit rating agency in Taiwan—was not launched until 1997, and by 2004 only 72 financial institutions and 28 companies had been rated. Because there were so few qualified security analysts, Moody's and Fitch Ratings had to bring their own analysts from Hong Kong and Singapore to Taiwan when starting their credit assessment businesses there in 2002. The market for corporate control was weak: there was limited capital and there were only a few professional services available to impose external market discipline. Legal frameworks for mergers and acquisitions were not enacted until 2002 (Tsai 2002). At the end of 2003 there were only two investment banks. Hostile takeovers were rare, limiting the market for corporate control as a discipline factor for weak corporate governance and performance.

Our study makes a number of contributions. First, we develop a framework to unpack the role of family business under weak market institutions. By proposing a dual focus on the pattern of family control and the institutional void, this paper helps to reconcile the different assessments of the role of family governance in emerging markets. On family control, we suggest how the configuration of family governance can shape the balance of benefits and costs of family control. On institutional void, we suggest how industries with greater institutional void can alter the comparative advantage of different patterns of family control. We obtain empirical support for this framework. Second, our study helps contextualize agency theory by showing the dependence of agency theory predictions on

institutions. Third, our study enhances family business research in general by considering the contingencies of family control patterns and institutions concurrently, thus adding key predictive factors to the field. As Schulze and Gedajlovic summarize this field (2010, p. 196): "The benefits of family, it appears, are conditional on a variety of factors that researchers are still striving to identify."

**Theory and Hypotheses**

Comparative research on corporate governance has suggested the importance of considering national institutions when engaging agency theory. Agency theory focuses on the dyadic relationship (PA or PP) between organizational *actors* but not on the role of institutional *contexts* in which the actors are embedded (Aguilera et al. 2008, p. 478). It explains how the goal conflicts between these actors can lead to high monitoring costs and how corporate governance arrangements can reduce such costs. But agency costs are also affected by institutions that can alter the use and effectiveness of governance mechanisms. For example, La Porta et al. (1998, p. 1145) argue that ownership concentration is higher in countries with weaker legal protection of shareholders because, "with poor investor protection, ownership concentration becomes a substitute for legal protection." Heugens et al. (2009) find that ownership concentration does not contribute to firm financial performance in countries with strong legal institutions.

In this study we further combine insights from agency and institutional economics perspectives to understand the role of family governance in weak market institutions. According to agency theory, a core function of governance mechanisms is to provide information that helps the principal to verify what the agent is actually doing (Eisenhardt 1989). For example, Fama and Jensen (1983) view the board of directors as an information system that shareholders can use to evaluate management and curb opportunism. However, the availability and cost of information depend not only on the internal governance arrangement but also on external institutions. The institutional economics perspective highlights the important role of institutions in providing credible information and reducing transaction costs (North 1990). Indeed, many specific arguments derived within agency theory presuppose the existence of well-established market institutions (e.g., Fama and Jensen 1983).

In many emerging economies, the market intermediaries that provide credible information are either missing or underdeveloped (Leff 1978). The resulting severe information asymmetry can strongly affect the agency costs involved in various governance mechanisms. Khanna and Palepu (2000) highlight the monitoring difficulties in emerging economies. In mature markets, by contrast, security analysts constitute a key intermediary supplying information to shareholders on the performance of listed firms and their top executives. Valuers and investment banks are essential for identification and assessment of targets in the market for corporate control, and high-end headhunters serve as a third-party intermediary providing information about the track record of top executives. In the *absence* of such strong market institutions, it is considerably more costly for controlling shareholders (such as the family) to gather reliable and objective information to assess top management opportunism and also for minority shareholders to monitor controlling shareholders (Shleifer and Vishny 1997).

We suggest that weak market institutions can shape the relative agency costs in different patterns of family control and in turn firm performance in two important ways. First, the lack of formal market-based institutions can increase the role of informal norms in firm operation and performance. Informal relationships and norms serve as substitutes for market intermediaries in emerging markets by providing quality and timely information and by facilitating transactions (Chang and Choi 1988, Khanna and Palepu 1997, Peng 2003). Family norms of trust and authority hence become more salient in reducing information asymmetry between owners and management from the same family and curbing managerial misbehavior. Second, weak market institutions can affect the incentive and power of actors. Because "actors pursue their interests within institutional constraints" (Ingram and Silverman 2002, p. 1), the limited availability of information for outside investors gives the family less incentive to mind external shareholders' interests and more power to pursue private goals (M. Young et al. 2008). Internal monitoring mechanisms that counterbalance the family interests therefore become especially important to restrain the family's self-dealing. These two ways thus suggest that in the weak external monitoring environment, different configurations of internal firm control vary in their agency conflicts depending on whether they utilize the family norms and allow large family owners to exercise unconstrained power. In turn, those firms with fewer agency

conflicts (PA and PP) have less opportunistic behavior from managers and owners and are more capable of making efficient resource allocations and pursuing competitive strategies, which lead to improved firm performance (Cuervo-Cazurra and Dau 2009).

**Performance of Nonfamily Firms and Different Types of Family Firms under Weak Market Institutions**

We start with the type of family firms that we argue to be advantageous in reducing PA conflicts, firms with combined family ownership and strategic control. In emerging markets, owners of firms in general face significant difficulties in monitoring management because of the lack of market intermediaries, poor market discipline, and heightened uncertainties. In lack of quality information, owners cannot effectively compare their firms with industry peers to verify and assess how top management is doing. Rapid and simultaneous changes in government regulations and markets also make it difficult to attribute cause and effect and hence to evaluate managerial efforts (Newman 2000). Even though agency theory suggests that the principal can use monetary incentives, such as performance-based pay, as a substitute for monitoring, the heightened uncertainties in emerging markets can make this approach less effective.[3]

Compared with nonfamily firms, family firms with combined ownership and strategic control suffer less from the monitoring difficulties and managerial opportunism, due to the customary shareholding of the top family executive, and, more important, the common family identity and family norms. The trust, goal alignment, and informal channels of communication based on family ties allow for transmission of timely and high-quality information between family owners and top management. Such information exchange can lead to better identification of opportunities, efficient resource commitment and allocation, and more informed decision making, resulting in improved firm performance (Khanna and Rivkin 2001, Miller et al. 2009). The resolution of conflicts between family owners and top executives can be further aided by the preexisting family authority, which is replicated

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[3] Walsh and Seward (1990: 428) argue that performance-based pay can "err by tying rewards to a performance measure that is subject to too many forces beyond a manager's control." Eisenhardt (1988, p. 495) finds that performance-based pay is not attractive to agents and is less likely to be used if uncertainties about firm performance are high. Such limitation of performance-based pay is likely to be even more salient in emerging markets given the rapid changes and high uncertainties.

in family business practices (Silin 1976). Eisenhardt (1989b) shows that, in times of uncertainty and change, the ability to resolve conflicts quickly is crucial to firm performance. We hence propose:

HYPOTHESIS 1 (H1): *Firms in which family has ownership and strategic control perform better than nonfamily firms.*

Compared with family firms with ownership control alone, firms where family members hold both ownership and strategic control also enjoy reduced PA conflicts and improved profitability. Although family owners are viewed as being more motivated to monitor management because the family's undiversified assets are concentrated in the firm (Jensen and Meckling 1976), their ability to monitor management is severely constrained in emerging markets if family members do not participate in top management. Whereas owners and top management from the same family can share information, the weak external monitoring environment makes it possible for outside professional management to delay, distort, or conceal critical information (especially tacit information) from nonmanagement family owners. The information asymmetry between family owners and outside executives can lead to managerial misbehavior and hurt firm performance. A case in point in Taiwan is Puteng Electronics: the nonfamily top executive pursued cost cutting without the owners' knowledge, damaging the product quality and brand image that the family owners had built over five decades. When the family took back the leadership, it spent seven years restructuring the product lines to repair the damage (*Business Weekly* 2005).

Although family owners can resort to other means of scrutinizing outside leaders, such as dismissal (Chang and Shin 2006), these means are not without costs. Given the lack in emerging economies of quality management education and headhunters for top executives, top managerial talent is in short supply and costly to obtain (Ready et al. 2008), increasing the relative power of executives. In emerging markets, then, the monitoring costs due to managerial opportunism may be higher if family owners do not participate in top management than if they do. Firms with family ownership and strategic control hence enjoy a performance premium over firms with family ownership control alone due to reduced managerial misbehavior. Similarly, this suggests that firms with family ownership alone may not enjoy a premium over nonfamily firms, as family owners still encounter difficulties and

high costs in monitoring outside top executives in firms with family ownership control alone as do nonfamily owners.

HYPOTHESIS 2 (H2): *Firms in which family has ownership and strategic control perform better than firms in which family has only ownership control.*

However, family firms with ownership control and complete managerial control (of strategy and operations both) are likely to suffer from heightened PP conflict that may well offset the gains from reduced PA conflict. Cross-country comparative studies show that the extent of minority shareholder expropriation is systematically related to the differences in minority shareholder protection provided by regulatory institutions (La Porta et al. 2002). We argue that, under conditions of weak external governance, the presence of an outside executive as the chief operating officer (and often the second highest decision maker) inside the firm can serve as an important information mechanism to curtail the family's self-dealing. Absent such a monitoring mechanism, the combination of family ownership and complete managerial control is the most vulnerable to family misbehavior due to the temptation for family members to collude, a lack of resistance at the execution stage, and the severe information constraint for outside investors. The PP conflict and family misbehavior can derail firm performance, as family members seek their private benefits at the expense of the firm and minority investors or the family is not scrutinized to seek improvement in firm efficiency.

The heightened PP conflicts include those between family and minority owners and those among family owners. With respect to the former, dominant family owners in emerging markets have been found to expropriate minority shareholder value by excessive diversification and by the transfer of profits and resources across firms (called "tunneling"), among other means (Bertrand et al. 2008, Claessens et al. 2000, Faccio et al. 2001). Claessens et al. (2000) find that family-owned firms with family members in top management are more likely to experience severe conflicts with minority shareholders in East Asia. However, an outside executive in operational control can expose and challenge problematic decisions, which may reduce or deter the self-serving behavior of family owners. Although they may have social connections with the family, outside professional executives tend to remain distinct in their interests and perspectives because they can rarely become controlling shareholders or reach the topmost executive position in the family firm.

For example, one of the largest tunneling crimes in Taiwan's recent history was committed by Rebar company, in which the family held 48.3% of all shares in 2005 and for which the top decision makers were the founder, Youzeng Wang, and his son. Not until 2001 had outside investors gained the legal right to demand information about publicly listed firms' investments in unlisted firms in Taiwan, and corporate accountability to minority shareholders was not regularly enforced. Rebar was brought to court in 2007, where it was discovered to have illegally transferred 26.96 billion Taiwanese dollars (about US$900 million) of public shareholders' money to the family's pockets through faked long-term investments in unlisted firms (some of which existed in name only) over the period 1999 through 2006. The inspection officers particularly noted the lack of resistance inside the firm and from the board over such a long period during the family's manipulation of public shareholders (*China Times* 2007). In fact, the investigation of Rebar was initiated only after an outside professional joined the top leadership of a firm controlled by Rebar (*Business Weekly* 2007b).

Even if the family does not deliberately expropriate other shareholders, the absence of monitoring by an outside top executive—when coupled with weak market discipline—means that the family may not be curbed when pursuing strategic actions that harm firm performance. Family executives have been found less likely to use formal control mechanisms (e.g., strategic plans) because such mechanisms may constrain their discretion and produce conflict among family members (Schulze et al. 2001). The family top executive may be even less effective in strategic planning and in the utilization of other formal control tools when the second most powerful executive is also a family member. One example is the Taiwanese firm Zhuang Tou Bei, a renowned 80-year-old manufacturer of heating systems. When it fell into heavy debt and the court auctioned its trademark, the company's chief executive for operation, Haoren Zhuang, commented: "The biggest mistake in the whole process is with us family members. Companies operating in our ways cannot survive easily in today's society" (*Business Weekly* 2008). Strategic decision making in this firm consisted of several family members sitting down at the dinner table and often giving approval without so much as looking at any reports or figures. Zhuang observed: "The process of making judgment and decisions is messy. The average education of us family executives is very high. But when we *sit together*, we are like elementary school graduates. Who is talking about what we learned in MBA?"

As for PP conflict among family members, family executives are usually committed to the firm's long-term well-being but are also likely to view the firm as a personal fiefdom and to lack self-control (Ward 2004). Schulze et al. (2001) emphasize that, for private family firms, family executives who indulge in power struggles usually cannot be disciplined or checked. Given the weak external governance in emerging markets, power games between family executives in public firms may be even harder to expose or constrain. When two family members have been installed in top leadership positions, business policies are more likely to be influenced by power struggles and emotional conflicts between family members (Bertrand et al. 2008, Claessens et al. 2002). Such PP conflict can significantly drain firm resources and damage firm profitability. Hence weak market and regulatory institutions magnify the monitoring benefit of an outside top executive in the family-owned and -managed firm. Despite the gains from incentive alignment in firms with family ownership and complete leadership control, this setup in a context of weak external governance makes firms the most susceptible to PP conflicts, and can hurt firm performance and offset the gains from combined family ownership and management.

HYPOTHESIS 3 (H3): *Firms in which family has ownership and strategic control perform better than firms in which family has all three types of control.*

**Different Types of Firms in Industries with Varying Strengths of Market Institutions**

The hypotheses above suggest that weak institutions accentuate the performance premium of firms with family ownership and strategic control. While an emerging market is characterized by a general institutional void, it also features uneven development in market institutions (e.g., Park et al. 2006). Such different strengths of institutions may affect the comparative strength of the combined family ownership and strategic control.

The uneven development of market institutions is related to the inflow of foreign investment from mature markets. The varying demand for capital in different industries (Rajan and Zingales 1998) and the government's designation of strategic industries for priority development (Amsden 2001, Wade 1990) led to the uneven presence of foreign investment. Investors from mature markets not only bring with them capital and teachnology but also demand better legal protection and corporate governance practices. They can bring institutions from mature markets or access to such institutions to

strengthen host-country institutions, and local market intermediaries are more likely to rise up to fill such a demand. Also, local firms are more motivated to adopt mature market-based practices, such as accounting disclosure and independent directorship, to attract foreign investment (Khanna et al. 2004). Foreign investment thus can contribute to a faster development of market institutions in industries where it is more present. In our research context, Taiwan, the government picked certain industries as priorities for development, and, together with the migration of talents, facilitated foreign investment in these industries. The high-tech industries in South Korea and the Bangalore area of India are other examples of industrial sectors with relatively stronger market institutions than the rest of the economy (Saxenian 2006).

In industries where market institutions are more developed, these institutions can serve as an information mechanism to assist owners to monitor management, reducing the importance of the combined family ownership and strategic control in mitigating PA conflict. Cuervo-Cazurra and Dau (2009) argue that strengthened external monitoring provided by market institutions can curb managerial opportunism and improve firm profitability. For instance, more coverage of firms by analysts reduces the information asymmetry between owners and managers and helps to deter managerial misbehavior. As such industries typically attract talented managers, the more competitive labor market serves as a control on managerial opportunism (Fama 1980). Poorly performing executives not only face the pressure of replacement but also the difficulty to land on good posts subsequently if dismissed for misbehavior. Furthermore, the competitive product market can pressure executives to improve firm performance, hence limiting managerial opportunism. As the strengthened institutions in the capital, labor, and product markets in more developed industries can partially substitute the role of the family norm of trust in reducing managerial opportunism, we argue that,

HYPOTHESIS 4a (H4a): *The performance premium of firms in which family has ownership and strategic control over nonfamily firms is more prominent in industries with weaker market institutions than in industries with stronger market institutions.*

Similarly, the stronger market institutions also enable family owners who do not participate in management to better monitor outside executives, as compared with in industries with weaker market institutions. Such family owners can compare their firms with industry peers with the aid of quality

information provided by market intermediaries, and outside executives can be deterred from misbehavior because of the information availability and competitive labor and product markets. This can lead to reduced performance premium of firms with combined family ownership and strategic control over firms with family ownership alone.

HYPOTHESIS 4b (H4b): *The performance premium of firms in which family has ownership and strategic control over family firms with ownership control alone is more prominent in industries with weaker market institutions than in industries with stronger market institutions.*

In addition, stronger market discipline and investor protection can help outside investors to monitor the controlling family, reducing the importance of an outside top executive in family-owned and managed firms in mitigating PP conflict. Development of market and regulatory institutions reduces the risks of minority shareholder expropriation by family (Jiang and Peng 2011, Peng and Jiang 2010). In industries with stronger market-based institutions, analyst coverage and corporate disclosure allow outside investors to gain information about firm performance. The high risks and costs of being caught for minority shareholder expropriation thus give the family less incentive, including in firms with complete family control, to engage in such expropriation (La Porta et al., 2002). The more competitive markets also serve as an external control and can force the family to focus on firm profitability. We thus argue that in industries with stronger market institutions, these institutions can partially substitute the role of the outside top executive in monitoring the controlling family and restraining family opportunism, lowering the performance premium of firms with combined family ownership and strategic control over firms with complete family control.

HYPOTHESIS 4c (H4c): *The performance premium of firms in which family has ownership and strategic control over family firms with all three types of control is more prominent in industries with weaker market institutions than in industries with stronger market institutions.*

**Independent Directors in Different Types of Firms of Emerging Markets**

Research on family firms in mature markets suggests that independent directors are a valuable monitoring mechanism in family firms, mitigating the conflicts between family and minority shareholders (Anderson and Reeb 2004). Independent directors are members of the board who are brought in from outside the company and whose only tie to the company is their directorship (Coles

and Hesterly 2000). Even in mature markets such as the United States, where the legal safeguards of investors are strong, the security of minority shareholders' interests is not guaranteed (as demonstrated by the cases of Tyco and Royal Ahold). The monitoring role of independent directors is more beneficial for family firms than for nonfamily firms for three reasons. First, the goal divergence between controlling family shareholders and outside minority shareholders is likely to be greater than the divergence between a large nonfamily shareholder and other minority shareholders, as family owners tend to prioritize their socio-emotional wealth even at the cost of business profitability (Gómez-Mejía et al. 2007, Miller et al. 2010). Second, family firms usually have relatively fewer governance mechanisms in place, such as incentive-based compensation, so independent directors are more important for limiting family opportunism (Gómez-Mejía et al. 2003, Kole 1997). Third, because they are based on repeated interactions since childhood, family relationships are strong ties that can influence family owners and executives to "favor a self-serving family agenda over a business agenda" (Le Breton-Miller et al. 2011, p. 707). The presence of independent directors is therefore crucial for balancing the strong family influence.

Given the weak external governance in emerging markets, independent directors can be a valuable monitoring device in family-controlled firms, too, but the weak institutions make it challenging for them to play their monitoring role. Much as in the case of nonfamily operational control, independent directors can strengthen the internal governance of family firms by providing information to outside investors and limiting the family's self-serving actions. However, the lack of information provided by market intermediaries means that independent directors must rely more on internal sources of the firm to play their monitoring role. Unlike the nonfamily executive who holds operational control, independent directors have no managerial authority and relatively less influence given the newness of this practice and the tradition in emerging markets that leadership roles are much more important than supervisory roles (Hu et al. 2010).

The limited influence of independent directors is well illustrated in the famous case of Yixin. The firm's independent director, Ko Chen En (a renowned accounting professor), resigned before the firm's illegal tunneling was brought to court. Ko was not able to stop the leaders from expropriating outside shareholders and did not want to continue his appointment (*Business Weekly* 2007a). Given

the power of family owners and executives, media reports in Taiwan have expressed grave concerns over whether independent directors can add value to family-controlled firms (*Tsai Hsun Magazine* 2002).

We propose that the pattern of family control may affect the structural autonomy and information access given to independent directors for their monitoring roles. Independent directors carry out their functions in the midst of family control, and potential resistance or co-optation by family members may prevent the benefits of independent directors from being realized. In light of our preceding arguments, having family members in both strategic and operational control is likely to generate the greatest owner-owner conflict. When confronted with overwhelming family power, independent directors are less likely to counterbalance the family's interests. In response to the government's increasing advocacy of publicly listed firms appointing independent directors, powerful family executives may bring in independent directors simply for purposes of legitimacy (Peng 2004). When independent directors seek to act in the interests of minority shareholders, family executives may guard against these directors or fight against them to pursue family goals. Such conflicts can distract firms from the productive use of resources. Although such family firms are the most in need of the power balance that independent directors can provide, their structural configuration is not amenable to independent directors playing an effective role.

In contrast, family firms with only ownership control may afford independent directors more structural autonomy to play their monitoring roles. Top executives from outside the family have less incentive to constrain independent directors when they act on behalf of minority shareholders. Hence we expect that the greater monitoring benefits of independent directors in family firms versus nonfamily firms that are found in mature markets are more likely to be realized in the type of family firm with only ownership control in emerging markets.

HYPOTHESIS 5 (H5): *Independent directors contribute more to the performance of family firms with only ownership control than to the performance of nonfamily firms.*

In addition, given that firms with complete family control are most likely to limit independent directors' autonomy and information access, we expect a greater performance contribution from independent directors in firms with family ownership alone than in firms with complete family control.

HYPOTHESIS 6 (H6): *Independent directors contribute more to the performance of family firms with only ownership control than to the performance of family firms with all three types of control.*

Similarly, given the presence of an outside top executive in a family-owned firm with only strategic control, independent directors are likely to have more room to exert their influence than in firms with all three types of family control. The family executive may still limit the counterbalance that the independent directors can provide in family firms with strategic control, but if the top executive over operational control is from outside the family then the family executive/owners are less likely to become mired in family interests. In this case, independent directors have a better chance of accessing information and playing their monitoring role.

HYPOTHESIS 7 (H7): *Independent directors contribute more to the performance of family firms with ownership control and strategic control than to the performance of family firms with all three types of control.*

## Methods

### Sample and Data Source

Our sample consists of all Taiwanese listed companies between 1996 and 2005. We end our observations in 2005, one year before independent directorships were mandated by the government, in order to have some variation in firms' appointment of independent directors.[4] Because firms in the financial sector (e.g., banking) are subject to different and specific regulations on corporate governance practices, such firms are excluded. There are a total of 5,057 firm-year observations pertaining to 737 unique firms. For 88% of these observations the firm had existed for less than 40 years, which suggests that they were probably still in the hands of first-generation leaders (Fiss and Zajac 2004). The composition of listed firms changed over the years, so the structure of our data is that of an unbalanced panel (Sayrs 1989). After we exclude missing information (e.g., on lagged performance), our final sample is reduced to 4,482 firm-year observations pertaining to 631 unique firms.

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[4] The state administration set up a task force for corporate governance reform in 2002 and pushed for a series of regulatory changes; the task force strongly advocated the appointment of independent directors. In 2006, the revision of company laws in Taiwan made appointment of independent directors a legal requirement for all listed companies.

We collect data on firm performance and other firm characteristics from the *Taiwan Economic Journal* (TEJ) electronic database, which is the most comprehensive database covering listed companies in the Asia Pacific region. We examine the family relationship between top executives and the controlling owner as disclosed in each firm's annual report.

**Dependent Variable**

We use industry-adjusted return on assets (ROA)—that is, the difference between the firm's ROA and the median ROA of its main industry (two-digit SIC)—as the dependent variable for firm performance because (i) ROA takes into account the efficiency of using the firm's resources and thus reflects a firm's profitability, and (ii) our argument concerns how family control affects the efficiency of a firm's internal operations. For robustness check, we also examine other performance measures, such as unadjusted ROA, return on equity, employment growth, sales growth, and Tobin's Q (Khanna and Palepu 2000).[5]

**Independent Variables**

We operationalize the three dimensions of family control as follows. *Family ownership control* is measured by whether the family is the largest shareholder of the firm (total family ownership is calculated as the percentage of shares owned by individual family members and other firms controlled by family members).[6] Among firms where the family is the largest shareholder, the average ownership share held by the family is 30.12%. As in some other emerging economies, in Taiwan the most powerful executive position in the firm is the chairman of the board (*tung shih chang* in Mandarin), which is equivalent to the chairman/CEO position in the United States and is charged with overall goal setting and strategic decision making (Bruton et al. 2003). The second most powerful position is the general manager (*tsung ching li*), which is equivalent to the U.S. chief operating officer (COO) and is responsible for managing day-to-day business operations and administration. *Family strategic*

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[5] Accounting-based measures are appropriate given that the operational performance of firms is of interest in this study. We also examined Tobin's Q since the stock market may reflect and reward good operational performance if it is efficient. However, compared with mature markets, the capital market in emerging markets may not be efficient enough to reflect accurately the firm value given the lack of information disclosure. Khanna and Palepu (2000, p. 872) note the limitation of using Tobin's Q in India as the Q "makes the problematic assumption" about the capital market efficiency.

[6] The data source lists family shareholding as a separate category, defined as owners with family relationships (as opposed to such other categories as nonfamily individual shareholding).

*control* is thus measured by whether a family member (i.e., a member of the controlling owner's family) serves as chairman of the board. *Family operational control* is measured by whether a family member serves as the general manager. We then group the sample into five types of firms: family firms with ownership control alone (Type 1), family firms with strategic control but not operational control (Type 2a), family firms with operational control but not strategic control (Type 2b), family firms with complete management control (Type 3), and nonfamily firms (Type 4). Table 1 lists these types and their distribution over the years of our study. Firms with only family ownership control are treated as the omitted category in the statistical models.

[TABLE 1 ABOUT HERE]

To compare performance of family firms in industries with varying strength of market institutions, we classify industries based on foreign investment, analyst following, and appointment of independent directors. As argued above, foreign investment is a key source of the uneven development of market institutions across industries in emerging markets (Khanna et al. 2004). Analysts are key market intermediaries, and appointment of independent directors indicates the adoption of mature market-based governance practices (Davis and Useem 2002). Based on the three indicators,[7] we code electronics and computer, electric machinery, petrochemical, and auto industries as those with relatively strong market institutional development. Industries coded as having relatively weak institutions include cement, food, textile, glass, paper and pulp, steel and iron, transportation, and retail. To test the effect of independent directors in the different types of firms, we create interaction terms by multiplying the types of firms by the percentage of independent directors. Given that 85% of the cases in our sample have no independent directors, we also try replacing the percentage with a dummy variable for having independent directors; our results are largely unchanged. Following Aiken and West (1991), we center and standardize the percentage of independent directors in the interaction terms.

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[7] Foreign investment is measured as the average percentage of shares of firms in the industry owned by foreign investors, analyst following is measured by the percentage of firms in the industry that are covered by at least one analyst, and appointment of independent directors is measured by the percentage of firms in the industry that have at least one independent director on the board. Correlations between the three indicators are between .31 and .40. We coded industries that scored above median on all three indicators as industries with relatively strong market institutions.

**Control Variables**

We control for other factors that may also affect firm ROA.[8] Firm age and size affect survival and growth prospects (Hannan and Freeman 1989); firm size is measured by annual sales in December, adjusted according to the Consumer Price Index. Product diversification has a significant impact on firm performance (Palepu 1985), and we measure firm diversification by the number of four-digit product lines in which a firm participates. The resource-based view of the firm holds that firm resources, both tangible and intangible, influence firm profitability (Barney 1991). Following Chatterjee and Wernerfelt (1991), we use the ratio of debt to equity as a proxy for tangible resources and use the R&D ratio and the advertising ratio (where such expenditures are divided by total sales) as a proxy for intangible resources. We also control for other ownership and governance effects, such as institutional ownership (percentage of shares owned by institutional investors) and ownership concentration (percentage of shares owned by the largest shareholder). In addition, we control for the percentage of independent directors on the board.[9] The deviation between cash flow rights and voting rights is an important property of the pyramid ownership structure typical of firms affiliated with a business group; this deviation has been found to influence the incentives for and extent of tunneling, which in turns affects firm performance (Morck et al. 2005). We control for this property following La Porta et al.'s (1999) measure, the share of voting rights minus the share of cash flow rights. Finally, we include dummy variables for each year to take the temporal effect into account.[10]

**Correction for Endogeneity**

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[8] We do not control for the previous year's ROA because estimation of fixed effects with a lagged dependent variable may yield biased results if the number of years is relatively small (Beck and Katz 1995); however, controlling for this variable induces no substantive changes in our results. We do include the previous year's ROA in the first-stage models to correct for endogeneity (see Appendix Table I).

[9] The legal definition of an "independent director" involves special educational and professional qualifications for potential candidates; in addition, there are negative listings of candidates (i.e., candidates the company should *not* hire). In fact, Taiwan is one of only a few Asian countries that provide a robust definition of independent directors (see the commentary in the November 2004 issue of *International Financial Law Review*). For example, the candidates for independent directors should have a master's degree (or above) in the field of business, finance, accounting, or law and have at least five years of working experience in related fields. Candidates are not considered to be independent if they are employees of the company (or of the company's other businesses); own more than 1% of the company's (or related businesses') shares; are a spouse or close relative of the directors and shareholders of the company; or already provide legal, financial, or accounting services to the company. In addition, independent directors cannot sit on the board of more than five companies (see the related provisions at http://www.tse.com.tw/ch/listed/governance/cg_02.php).

[10] We also tried controlling for the ratio of exports to total sales and investment in mainland China, and our results remained.

We further control for the endogeneity of the family firm type, since firm performance or other nonrandom factors may lead to changes in family ownership and management (Villalonga and Amit 2006). For instance, poor firm performance may lead to the replacement of family executives by professional managers, changing the pattern of family control. However, research on Chinese family firms indicates that family hierarchy and values reduce the likelihood that firms will replace leaders solely based on competencies and performance (Fukuyama 1995, Redding 1990). Gibson (2003) finds that, in eight emerging economies (including Taiwan), poor firm performance is less likely to trigger CEO replacement when a large domestic shareholder (such as a family) is involved. Moreover, even when underperforming family members were removed, they were often replaced by other family members (Greenhalgh 1988). Therefore, the impact of performance on having family management is likely to be limited in the context of this study. The other source of endogeneity for our analysis is the appointment of independent directors, which may be affected by—among other factors—the pattern of family control and firm performance (Anderson and Reeb 2004, Peng 2004).

To correct for potential endogeneity, we use a two-stage Heckman selection procedure (Heckman 1979). In the first stage, we generate two separate inverse Mills ratios. The first ratio estimates the probability of the family firm type. For this we use a unique data source that contains detailed family tree information for some group-affiliated firms: *Directory of the Top 100 Business Groups in Taiwan* (CCIS 2002).[11] We use the percentage of males in the family as an instrument.[12] Although the family demography information is available only for a subsample of group-affiliated firms, using this instrument allowed us to gauge the severity of the endogeneity of the family firm type. For the whole sample, we use as an instrument the average tenure of board directors. The family

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[11] Comparing the CCIS volumes from various years, we found that the 2002 directory (data year is 2000) provides more complete information on family trees. We obtained such data for 64% of the publicly listed group-affiliated firms and then assumed that the family demography did not change during our 10-year research period. These affiliated firms include nonfamily firms as well.

[12] The directory reports the family tree of the key leader of the business group (typically the founder or the son of the founder) (Luo and Chung 2005). The founder's family is involved in many of the business groups, but not in all (e.g., the Acer group is not a family business group). The instrument is measured as the number of males out of all direct family members of the key leader (brothers, sisters, spouse, children, and grandchildren). This is a plausible instrument because if the group key leader's family has a higher percentage of males, the affiliated firm is more likely to have both leadership positions occupied by the key leader's family members, i.e., the type of family firms with complete control (given the tradition of male leadership) (the correlation is .20). However, the percentage of males is not related to the affiliated firm's performance (the correlation is -.04 and insignificant).

firm with complete control is strongly associated with longer-tenured directors, but tenure is not significantly related to firm performance.[13]

The second inverse Mills ratio estimates the probability of appointing independent directors; for this we use as an instrument the percentage of firms that appointed at least one independent director out of the firms that had interlocking directorate ties with the focal firm (lagged for one year). Prior research has shown that corporate governance mechanisms are influenced by those in peer firms, especially from interlocked directorate networks (Davis 1991), but this network characteristic is unlikely to affect the focal firm's performance.[14]

The first-stage selection models suggest the importance of our instruments in predicting the family firm type and the appointment of independent directors (see Appendix Table I). We then use the inverse Mills ratio to transform the index function from the probit model to a hazard rate before including the estimated rate ($\lambda$) in the second-stage regression models (Van De Ven and Van Praag 1981).

**Model**

The fixed-effects model is suitable for the analysis reported here because our cases do not constitute a random sample of a population (Hsiao 1985). We apply a Hausman test, which also indicates that the fixed-effects model is the appropriate choice ($p < .001$). The fixed-effects model focuses on within-firm variation over time, so the coefficients are not biased by time-invariant firm heterogeneity (Greene 2003).

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[13] Longer-tenured directors are likely to have developed strong relationships with the family owners and executives, and thus may be less likely to object to complete family control. The correlation between the average director tenure and family firm with complete control is .17, and the correlation between the average director tenure and firm performance is -.0005 and insignificant. The background information on directors (e.g., their tenure with the firm) did not become available until 2006, so we can trace the tenure only of those directors who were on boards in that year. On average we obtained the tenure information for 60% of the board members. We addressed the potential bias this could introduce to our results in two ways. We first created a variable, *percentage of directors on board with available information*, to indicate the percentage of such directors who were included to calculate the mean of board member tenure. We then ran the first-stage model with and without this control (and included the inverse Mills ratio in the second-stage equation accordingly); the results differed little. Second, we ran a subsample analysis for 2001–2005 (years for which we have more cases with complete board member tenure) with the first stage including the average board tenure variable. Again, our hypotheses remained supported.

[14] The correlation between the instrument and appointment of independent directors is .32, and the correlation between the instrument and firm performance is .02 and insignificant.

# Results

Table 1 (above) shows that the prevalence of different types of family firms changed over time and that the entire study period is characterized by the coexistence of multiple types of family businesses. Table 2 presents the means, standard deviations, and correlations among the variables, and Table 3 presents findings related to the effects of various types of family firms on financial performance.

[TABLE 2 ABOUT HERE]

[TABLE 3 ABOUT HERE]

**Assessment of Endogeneity**

In Models 1 and 2 of Table 4a we present the regression results with and without the inverse Mills ratio for family firms with complete control for a subsample of group-affiliated firms. This ratio was computed using the percentage of males in the family as the instrumental variable. The inverse Mills ratio is not significant, and its inclusion does not substantially change the effects of the different types of family firms. This suggests that the endogeneity problem for analyzing family firm performance in Taiwan may not be severe. For the whole sample, the inverse Mills ratio for family firms with complete control (computed using the average board member tenure as instrument) is negative ($p < .001$) in the models of Table 3; thus, the unobserved factors that may lead firms to choose complete family control may be negatively correlated with firm performance. Still, compared with the results from models not including the inverse Mills ratio (available from authors), our adjusted results did not change materially.[15] The inverse Mills ratio for having independent directors is not significant. Yet given the nonrandomness of appointing independent directors, we report results with the control for the inverse Mills ratio for independent directors.[16]

[TABLE 4a ABOUT HERE]

**Performance of Nonfamily and Different Types of Family Firms**

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[15] We also tried using alternative indicators of family firm types—family firms with strategic control and firms with family ownership control alone—with the two respective instrumental variables. The second-stage results differed little when using these indicators of the family firm types to generate the inverse Mills ratio, so we report results with the inverse Mills ratio for complete family control.

[16] Results were similar and our hypotheses remained supported when not including the inverse Mills ratio for independent directors.

In Table 3, Model 1 includes control variables as well as one variable measuring family ownership control. Many studies in family business research have used family ownership control to define family firms, so we estimate this model as a comparison with our approach of separating different types of family firms. Family ownership control has a positive effect on firm ROA ($p < .05$). In Model 2, in place of the dummy variable for family ownership control we use four dummy variables indicating the *types* of the firms. The omitted category is family firms with ownership control alone, or Type 1, so the coefficient for the type variable indicates the difference in performance impact between the specific type and Type 1 firms. To test H1, which posits a performance premium of firms with combined family ownership and strategic control (Type 2a) over nonfamily firms (Type 4), we test the equality constraint for the coefficients for the two types. The coefficient for the former category is significantly larger than that for the latter ($p < .001$, Model 2), supporting H1. The coefficient for Type 4 is negative and insignificant (Model 2), suggesting that there is no significant performance difference between Type 1 and Type 4 firms.

H2 posits a performance premium of Type 2a over Type 1, and is supported by the strong positive coefficient of Type 2a ($p < .01$). This means that Type 2a has a higher ROA than Type 1 firms.

In accordance with H3, which suggests a performance premium of Type 2a over Type 3 firms (complete family control), the size of the coefficient for Type 3 is considerably less than the coefficient for Type 2a. For a formal test, we test the equality constraint for their coefficients. The coefficient for Type 2a is larger than for Type 3 ($p < .01$), so H3 is supported.

To test H4a through H4c, which argue that Type 2a is associated with an even higher performance premium in industries with weaker market institutions, we compare results in Models 3a (industries with weaker institutions) and 3b (industries with stronger institutions). H4a argues that the performance premium of Type 2a over Type 4 is greater in industries with weaker institutions. However, the performance premium of Type 2a over Type 4 is significant in both Models 3a and 3b. H4a is not supported. One potential explanation is that, in comparison with nonfamily firms, while the monitoring advantage of the combined family ownership and strategic control may diminish in industries with stronger institutions, other advantages of family firms such as resource acquisition

capabilities (which are based on external social relationships brought by family ties) may not (Acquaah 2007, Peng and Jiang 2010). H4b suggests a greater performance premium of Type 2a over Type 1 in industries with weaker institutions. In Model 3a, the coefficient of Type 2a is significant, suggesting the performance premium of Type 2a over Type 1, but this coefficient is not significant in Model 3b. The size of this coefficient is also smaller in Model 3b than in Model 3a. H4b receives support. In addition, H4c posits that Type 2a outperforms Type 3 more in industries with weaker institutions. The difference between the coefficient of Type 2a and that of Type 3 is significant in Model 3a, but not in Model 3b, supporting H4c. These results are consistent with our argument for the importance of weak institutions in magnifying the monitoring benefits of Type 2a over other types of family firms.

H5 through H7 posit differential impact of independent directors in different types of family firms. We first estimated Model 4, which includes the interaction between independent directors and family firms, defined as those in which family is the largest shareholder. The main effect of the percentage of independent directors is insignificant (Model 1). Consistent with Anderson and Reeb (2004), the interaction between family firms so defined and independent directors is positive ($p < .05$), suggesting that independent directors contribute more to firm performance in such family firms than in nonfamily firms. We then estimated Model 5, which includes the interactions between independent directors and the different types of firms (where Type 1 firms are still treated as the omitted category). In accordance with H5, which suggests that independent directors contribute less to Type 4 than to Type 1 firms, the interaction between independent directors and Type 4 is negative (p<.01). H6, which argues that independent directors contribute less to Type 3 than to Type 1 firms, is also supported, as the interaction between independent directors and Type 3 is negative ($p < .05$). This negative effect is consistent with our argument that the PP conflict is most severe in firms with complete family control, since otherwise these firms would also have benefited from the counterbalance provided by independent directors—as do family firms with ownership control alone.

Hypothesis 7 predicts that independent directors contribute less to the performance of Type 3 firms than to that of Type 2a firms. The interaction between independent directors and Type 2a firms is negative but not significant, and it is less negative than the interaction involving Type 3. Using the

equality constraint, we find that the two coefficients are significantly different at the $p < .10$ level (two-tailed tests). Thus, H7 receives moderate support.

With regard to other control variables, we find that higher performance tends to be associated with larger and younger firms as well as with firms having a lower debt-to-equity ratio, a lower R&D expenditure, a lower advertising expenditure, a higher percentage of institutional ownership, and less deviation between voting and cash flow rights in ownership structure ($p < .05$ or $p < .01$).

Figure 1 illustrates performance effects of the different types of family firms and nonfamily firms (sample mean values are used for the other variables). The comparison offered by the left-hand columns shows a rather notable difference—namely, Type 2a firms perform the best. The difference between the left and right columns is the contribution of independent directors for the specific types of firm: the left columns report values for firms without independent directors; the right columns report values for firms with one standard deviation above the mean of the percentage of independent directors (14%; given the sample's average board size of seven members, this corresponds to one independent director). Independent directors contribute most in Type 1 firms, followed by Type 2a firms. However, having independent directors makes little difference in Type 3 firms. Overall, the best-performing governance structure is the combination of family ownership control, a family executive in charge of strategic control, an outside executive in charge of operational control, and independent directors.

[FIGURE 1 ABOUT HERE]

**Further Analysis**

We have focused on the agency costs from heightened PP conflict to explain the lower performance of firms with complete family control. In other words, we have emphasized the monitoring benefit of the outside executive. An alternative explanation is that the outside executive can bring more competence and diverse perspectives and information, all of which improve the quality of decision-making and in turn enhance firm performance (Bennedsen et al. 2007). While acknowledging this possibility, we further ascertain the increased conflict between owners in firms with complete family control by conducting a subsample analysis of firms with high (i.e., above median) versus low deviation.

Previous research suggests that deviation between voting rights and cash flow rights can give family owners the incentive to exploit minority shareholders and thus may generate more conflicts between these owners (La Porta et al. 1999). If increased PP conflict drives the reduced performance of firms with complete family control, we should observe a large performance difference between Type 2a and Type 3 firms for high-deviation firms but only a small difference for low-deviation firms. But if competence and diverse perspectives from the outside executive (rather than monitoring) is the main explanation, then difference between the two types of family control may still be found regardless of deviation in the ownership structure. Consistent with our prediction based on a monitoring mechanism, the performance of high-deviation Type 3 firms is negative and lower than that of Type 2a firms ($p < .001$; see Model 3 of Table 4a); for low-deviation firms, there is no significant difference (Model 4).[17]

Similarly, the weak institutional context led us to focus on the monitoring benefit of independent directors. Research suggests that independent directors can also provide information and expertise in addition to balancing the power between family owners and outside investors (Dalton et al. 1998). To establish the importance of a monitoring mechanism, we further examined the background of independent directors and compared two types of independent directors: those who are more versus less likely to be beholden to the family owners (i.e., less versus more independent in reality).[18] If the monitoring role is more prominent than the counseling role, there may be even greater conflict between the more independent directors and family owners in firms with complete family control, to the extent that the monitoring benefits of these independent directors are even less likely to be realized in such firms. However, if the provision of expertise and information is more important, we should not observe a significant difference between the two types of independent directors.

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[17] We also conducted the same subsample analysis for firms in industries that experienced more turbulence, where there might be a stronger demand for human capital and diverse information (Bennedsen et al. 2007). We found the same pattern: Type 3 firms perform more poorly only if they are high-deviation firms.

[18] We view independent directors with a greater stake in their own professional career or social status to be less subservient to family interests. Such directors were of the following five types: academics, foreign executives of multinational corporations, industry leaders, social/political leaders, and executives of state-owned enterprises. We consider independent directors not from the five types of backgrounds to be relatively less independent (they were typically executives and directors of other companies and may have been more embedded in the business community networks).We were able to gather background information for about 60% of the independent directors in our sample (TEJ 2006). We also created a category to comprise independent directors for whom we did not find background information, adding this variable as a control (Table 4b, Model 5).

Consistent with the monitoring role of independent directors, our hypotheses hold for the more independent directors but not for the less independent directors (Models 5 and 6 of Table 4b).

[TABLE 4b ABOUT HERE]

Recent family business research has pointed out that some earlier studies (e.g., Anderson and Reeb 2003) miscategorized founder-operated firms where other family members are not involved as family firms (Mehrotra et al. 2011, Miller et al. 2007). To ensure that we did not include such firms as family firms, we checked founder-operated firms case by case and classified those where the founder is the only member from the controlling family involved in top and senior management (such as vice general manager and department head) as "lone founder" cases. We separated these "lone founder" cases from family firms, and all our hypotheses remained supported (Models 7 through 9 of Table 4b). [19] In particularly, H4a was now supported – Type 2a significantly outperformed nonfamily firms in industries with weak institutions, but such a performance premium was not significant in industries with strong institutions (Models 8a and 8b, Table 4b). This is probably due to the relatively good performance of "lone founder" firms in industries with strong institituions. Hence removing those cases lowered the performance premium of Type 2a over Type 4. But, consistent with our argument, in industries with weak institutions the performance premium of Type 2a is so salient that removing the "lone founder" cases did not reduce its premium over Type 4.

To further verify the effects of different types of family control, we compared the different types of family firms with nonfamily firms that had similar control patterns. [20] The comparison of family and nonfamily firms with corresponding control patterns further supports our hypotheses on

[19] Due to lack of information prior to 1991, we considered firms that did not experience leadership change since 1991 as headed by the founder. Given the argument that founders may have unique human capital, we tested models with and without the control variable for the presence of the founder. Our results remained. In addition, given the ambiguity about whether family-owned firms where the family did not participate in management or board can be considered family firms (Miller et al. 2007), we checked the robustness of our results by examining firms with family ownership control alone. For these firms we collected information on whether more than two family members served in senior management positions (other than the top two) or on the board, and we found that about 31% of firms of this type involved family members in these roles. We treated these family firms as the omitted category, and our hypotheses remained supported.
[20] We collected information on whether the chair and the general manager of the nonfamily firms were legal representatives of the largest shareholder (such as a bank, an institutional investor, or the state); we then classified these nonfamily firms as those where the largest shareholder has only ownership control, those where that shareholder also has strategic control, those where it also has operational control, and those where it has complete control.

the performance effects of various types of family control and suggests the unique influence of family presence in such control patterns (Models 10 and 11 of Table 4b).

We examined the performance effects of the different types of family firms using other performance measures (Models 12-16, Table 4c). Our hypotheses were supported over the accounting measures of profitability (i.e., ROA and ROE) and growth (change in sales and employment), but not fully over Tobin's Q. For Tobin's Q, Type 2a surpassed Type 3 and Type 4 (H2 and H3 are supported); however, no significant difference was observed between Type 2a and Type 1.[21]

[TABLE 4c ABOUT HERE]

## Discussion and Conclusion

### Contributions

Our study contributes to a better understanding of the role of family business under weak market institutions by proposing a dual focus on the pattern of family control and the weak institutions in shaping the agency costs incurred in family firms. Our framework helps to reconcile the different assessments of the performance consequence of family control (cf. Carney 2007, Khanna and Palepu 2000, Miller et al. 2009, Morck et al. 2005). Prior empirical studies have yielded mixed results in part by failing to separate different patterns of family control (e.g., Chu 2011, Jiang and Peng 2011, Peng and Jiang 2010, Tsao, et al. 2009). We establish that performance is enhanced (relative to nonfamily firms) under the combination of family ownership and strategic control but not under other patterns. In other words, combined family ownership and strategic control fills the institutional void yet avoids abusing it, thus generating the best performance. In addition, through an analysis of industries with varying levels of market institutional development, we show that the performance premium of the combined family ownership and strategic control over the other patterns of family control is even more prominent in industries with weaker institutions.

The institutional contingency we have identified has important implications for the generalizability of our findings to other emerging markets. In cross-country comparative studies,

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[21] Given the relative lack of information disclosure in the capital market of emerging economies such as Taiwan during our research period, we suspect that the stock market may not accurately reflect the operational benefits of firm governance (Khanna and Palepu 2000). More research is needed to understand the difference between accounting- and stock market-based performance measures.

Taiwan is regarded as a relatively advanced emerging market (La Porta et al. 1998, Peng and Jiang 2010). Nevertheless, as we described, the Taiwanese economy between 1996 and 2005 was characterized by an important institutional void, which shaped the value of family governance. Our finding of the institutional contingency indicates that, in emerging markets with even less developed market intermediaries and poorer protection of investors, we may see a larger performance premium for family firms with strategic control in comparison to other types of family firms. In this particular context, then, strategic control by family is even more important for reducing expropriation risks by outside management, and the presence of an outside executive in operational control is even more instrumental to enhancing monitoring over family owners. Our argument and results indicate similarly that, in markets with more advanced institutional development than Taiwan, we may not observe a significant performance advantage of family firms with strategic control over other types of family control.

Our study contributes to agency theory by highlighting the importance of contextualizing agency costs. The monitoring vacuum in emerging markets helps to explain why the combination of family control over ownership and strategy, coupled with the presence of an external top decision maker and independent directors, best supplies the information needed by the family and investors to monitor and keep the firm on track. Our analysis of industries with varying levels of institutional void shows that institutions are an important boundary condition for the predictions based on agency theory. Weak institutions not only shape agency costs, but also accentuate the differences in various patterns of family control regarding agency conflicts and performance consequences. Our study thus reinforces the importance of considering the institutional contexts for agency relationships when seeking a more complete understanding of the consequences of corporate governance mechanisms (Aguilera et al. 2008, Hoskisson et al. 2000).

Furthermore, our study enhances the family business research in general by demonstrating the importance of considering two contingency factors concurrently: the pattern of family control and the strength of market institutions. The context of emerging markets, with their significant difference from mature markets and their heterogeneous development of market institutions within, offers an opportunity to extend our understanding of the contingencies for family business. While the field of

family business research has demonstrated the distinctiveness of family business as compared with nonfamily business such as the preservation of socioemotional wealth, it has also observed that such distinctiveness can affect firm performance both positively and negatively (Gomez-Mejia, et al. 2011). Given the mixed findings on the performance of family firms, there has been a strong call in this field for theorizing on the contingencies for the effects of family involvement on performance (Schulze and Gedajlovic 2010). Our study answers this call with the framework of dual contingencies, which helps to clarify the link between some distinctive aspects of family business and their performance consequences. Specifically, family control gives rise to varying levels of agency costs and performance depending on the pattern of family control and the strength of market institutions. This framework helps explain the difference between our findings and those based on mature markets.

For example, our results suggest how the severity of PP conflict varies with the pattern of family control of firms in emerging markets. This is consistent with Le Breton-Miller et al. (2011), who show that, in mature markets, the involvement of multiple family members in business enhances agency costs from PP conflicts. However, our results suggest an important difference that reflects the influence of emerging markets. Given the important benefit (i.e., reduced PA conflicts) of combining family ownership and management control in emerging markets, the higher agency costs stemming from PP conflicts do not make the operational efficiency of family firms any worse than nonfamily firms.

Finally, our study contributes to a better understanding of a key corporate governance issue worldwide: the performance effects of independent directors (Davis 2009). Research findings on their effectiveness are mixed (cf. Anderson and Reeb 2004, Peng 2004, Westphal and Graebner 2010). This paper demonstrates an important contingency factor: the pattern of family governance in which independent directors operate. Independent directors contribute most to firm performance in family firms with ownership control alone, and they are less likely to provide a counterbalance when family power dominates. In other words, the various family control patterns shape the effectiveness of independent directors. This implies that the push by many governments in emerging markets for adopting independent directors is unlikely to improve governance unless it affects the top family decision makers in firms with complete family control.

**Limitations and Future Directions**

This study has some limitations. First, although the three dimensions of family control are clearly important, there may be others that should be taken into account to better understand the pattern of family control. Future research can examine how and why configurations of the family business vary between emerging and mature markets, and how these configurations differ in their performance implications.

Second, given our goal to draw from institutional perspective to inform agency theory, we focused on agency conflicts to understand performance difference and did not give due attention to other factors that may differentiate family firms, such as external social ties based on family relationships, which can facilitate resource acquisition and enhance firm performance (Khanna and Palepu 1997, Acquaah 2007, Miller et al. 2009). Third, future studies can test our argument on the institutional contingency of agency costs by employing a consistent research design across countries with different levels of market institutional development as well as different cultures. The governance advantages of family business are not only influenced by market and legal institutions, which we focus on in this study, but can also be shaped by national cultures. Future research can explore how the various dimensions of institutional settings affect the governance dynamics in family business.

**Conclusion**

In conclusion, our study has demonstrated that whether family governance fills or abuses the institutional void depends on the particular firm's pattern of family control. This contingency is important because whether the family is in control of ownership, strategy, and/or operations can affect the extent of incentive alignment between owners and management and also the extent of conflicts among owners operating under weak market institutions. Our approach underscores the importance of unpacking the heterogeneity within family firms, and of examining the performance implications of the heterogeneous types within different institutional contexts, in order to further open the "black box" of family business.

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**Figure 1: Industry-Adjusted ROA of Different Types of Family Firms and Nonfamily Firms with and without Independent Directors**

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37
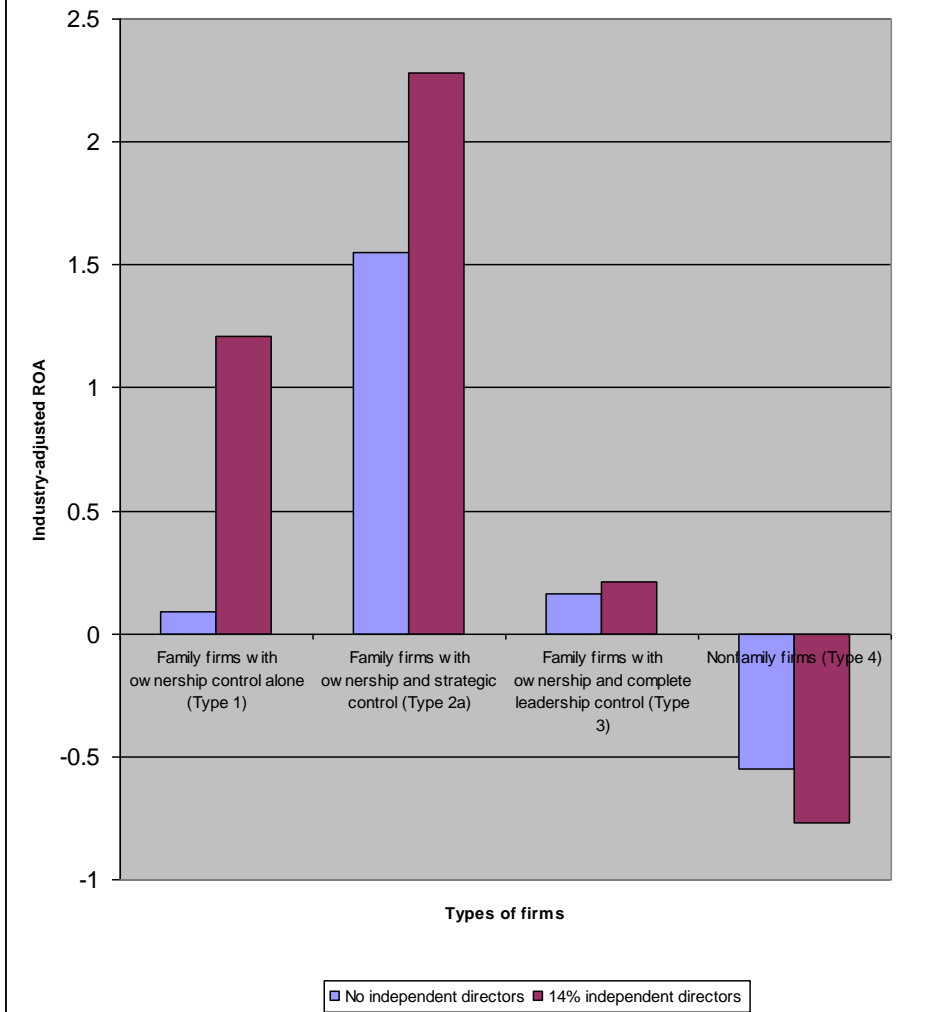
**Table 1: Distribution of Sample Firms with Different Patterns of Ownership and Leadership Control over Time, 1996-2005**

| Types of Firms | 1996 | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 |
|---|---|---|---|---|---|---|---|---|---|---|
| Type 1: Family Firms with Ownership Control alone | 73 | 73 | 77 | 84 | 83 | 105 | 125 | 115 | 132 | 103 |
| Type 2a: Family Firms with Ownership and Strategic Control | 70 | 74 | 80 | 96 | 106 | 113 | 113 | 118 | 120 | 103 |
| Type 2b: Family Firms with Ownership and Operational Control | 7 | 5 | 7 | 8 | 14 | 14 | 15 | 16 | 20 | 12 |
| Type 3: Family Firms with Ownership, Strategic, and Operational Control | 84 | 86 | 98 | 98 | 148 | 171 | 186 | 174 | 173 | 163 |
| Type 4: Nonfamily Firms | 35 | 53 | 53 | 56 | 64 | 77 | 114 | 170 | 186 | 212 |
| TOTAL | 269 | 291 | 315 | 342 | 415 | 480 | 553 | 593 | 631 | 593 |

**Table 2: Means, Standard Deviations, and Correlations**

| Variables | Mean | S.D. | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) | (9) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| (1) Industry-adjusted ROA | 0.04 | 8.51 | | | | | | | | | |
| (2) Total sales (ln) | 15.18 | 1.30 | 0.21 * | | | | | | | | |
| (3) Firm age (ln) | 3.15 | 0.53 | -0.07 * | -0.04 * | | | | | | | |
| (4) Diversification | 4.21 | 2.51 | -0.04 * | 0.08 * | 0.19 * | | | | | | |
| (5) Debt-to-equity ratio | 0.98 | 2.54 | -0.03 * | -0.05 * | 0.02 | 0.03 * | | | | | |
| (6) R&D/sales (%) | 1.96 | 4.28 | -0.01 | -0.05 * | -0.27 * | -0.04 | -0.02 | | | | |
| (7) Advertising/sales(%) | 0.65 | 1.68 | -0.004 | -0.09 * | 0.03 * | 0.08 * | 0.01 | 0.01 | | | |
| (8) Institutional investment(%) | 35.42 | 21.47 | 0.20 * | 0.28 * | -0.08 * | 0.03 * | -0.02 | -0.05 * | -0.04 * | | |
| (9) Ownership concentration(%) | 14.44 | 11.41 | 0.03 | -0.08 * | 0.05 * | 0.03 * | -0.002 | 0.01 | -0.003 | 0.21 * | |
| (10) Independent directors | 0.04 | 0.10 | 0.12 * | 0.03 * | -0.24 * | -0.12 * | -0.01 | 0.18 * | -0.06 * | 0.05 * | 0.11 * |
| (11) Deviation | 5.31 | 9.66 | 0.06 * | 0.16 * | -0.13 * | 0.06 * | -0.01 | 0.02 | -0.09 * | 0.41 * | -0.04 * |
| (12) Family ownership control | 0.77 | 0.42 | 0.08 * | -0.01 | 0.09 * | 0.01 | 0.01 | -0.07 * | 0.05 * | 0.01 | -0.29 * |
| (13) Family strategic control | 0.65 | 0.48 | 0.06 * | 0.04 * | 0.21 * | 0.08 * | -0.03 | -0.06 * | 0.04 * | -0.17 * | 0.06 * |
| (14) Family operational control | 0.41 | 0.49 | -0.01 | -0.12 * | 0.13 * | 0.06 * | -0.02 | -0.02 | 0.06 * | -0.21 * | 0.05 * |
| (15) Type 1 firms | 0.22 | 0.41 | 0.01 | 0.001 | -0.13 * | -0.05 * | 0.03 * | -0.02 | -0.02 | 0.22 * | -0.18 * |
| (16) Type 2a firms | 0.22 | 0.42 | 0.07 * | 0.12 * | 0.07 * | -0.01 | -0.004 | -0.04 * | -0.02 | 0.02 | -0.09 * |
| (17) Type 2b firms | 0.03 | 0.16 | -0.03 * | -0.08 * | 0.02 | -0.01 | -0.003 | 0.03 * | -0.03 * | -0.04 * | -0.06 * |
| (18) Type 3 firms | 0.31 | 0.46 | 0.01 | -0.08 * | 0.13 * | 0.07 * | -0.02 | -0.02 | 0.09 * | -0.19 * | -0.004 |
| (19) Type 4 firms | 0.23 | 0.42 | -0.08 * | 0.01 | -0.09 * | -0.01 | -0.01 | 0.07 * | -0.05 * | -0.01 | 0.29 * |
| (20) Likelihood of Type 3 family firms | 1.20 | 0.33 | 0.04 * | 0.31 * | -0.46 * | -0.23 * | 0.07 * | 0.04 * | -0.05 * | 0.68 * | -0.05 * |
| (21) Likelihood of independent directors | 1.81 | 0.59 | -0.15 * | -0.04 * | 0.54 * | 0.30 * | 0.04 * | -0.22 * | 0.03 * | -0.09 * | -0.29 * |

| Variables | (10) | (11) | (12) | (13) | (14) | (15) | (16) | (17) | (18) | (19) | (20) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| (11) Deviation | 0.06 * | | | | | | | | | | |
| (12) Family ownership control | -0.05 * | 0.14 * | | | | | | | | | |
| (13) Family strategic control | -0.03 * | -0.15 * | 0.14 * | | | | | | | | |
| (14) Family operational control | 0.003 | -0.15 * | 0.11 * | 0.48 * | | | | | | | |
| (15) Type 1 firms | -0.004 | 0.21 * | 0.29 * | -0.71 * | -0.44 * | | | | | | |
| (16) Type 2a firms | -0.04 * | 0.05 * | 0.28 * | 0.39 * | -0.43 * | -0.28 * | | | | | |
| (17) Type 2b firms | -0.01 | 0.06 * | 0.09 * | -0.23 * | 0.21 * | -0.09 * | -0.09 * | | | | |
| (18) Type 3 firms | 0.001 | -0.13 * | 0.36 * | 0.50 * | 0.81 * | -0.36 * | -0.35 * | -0.11 * | | | |
| (19) Type 4 firms | 0.05 * | -0.14 * | -1.00 * | -0.14 * | -0.11 * | -0.29 * | -0.28 * | -0.09 * | -0.36 * | | |
| (20) Likelihood of Type 3 family firms | 0.20 * | 0.33 * | -0.06 * | -0.33 * | -0.30 * | 0.30 * | -0.03 | -0.03 | -0.29 * | 0.06 * | |
| (21) Likelihood of independent directors | -0.43 * | -0.10 * | 0.16 * | 0.07 * | -0.01 | 0.03 | 0.11 * | 0.04 * | 0.01 | -0.16 * | -0.41 * |

*Notes:* Number of observations = 4,482; number of firms = 631.

\* Correlation is significant at the .05 level.

**Table 3: Fixed-Effects Models Predicting Industry-Adjusted ROA of Nonfamily and Different Types of Family Firms in Taiwan, 1996-2005**

| | Model 1 | | Model 2 | | Model 3a | | Model 3b | | Model 4 | | Model 5 | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Total sales (ln) | 2.24 *** | (0.23) | 2.22 *** | (0.23) | 2.16 *** | (0.26) | 2.97 *** | (0.40) | 2.23 *** | (0.23) | 2.22 *** | (0.23) |
| Firm age (ln) | -15.58 *** | (1.60) | -15.56 *** | (1.60) | -7.95 ** | (2.61) | -13.01 *** | (2.25) | -15.18 *** | (1.61) | -15.31 *** | (1.61) |
| Diversification | -0.17 | (0.10) | -0.16 | (0.10) | -0.30 ** | (0.11) | -0.03 | (0.16) | -0.17 | (0.10) | -0.17 | (0.10) |
| Debt-to-equity ratio | -0.23 *** | (0.05) | -0.23 *** | (0.05) | -0.19 *** | (0.04) | -1.21 *** | (0.21) | -0.24 *** | (0.05) | -0.24 *** | (0.05) |
| R&D expenditure | -0.16 *** | (0.04) | -0.16 *** | (0.04) | 0.05 | (0.03) | -0.82 *** | (0.08) | -0.16 *** | (0.04) | -0.15 *** | (0.04) |
| Advertising expenditure | -0.38 ** | (0.12) | -0.37 ** | (0.12) | -0.07 | (0.11) | -1.88 *** | (0.43) | -0.38 ** | (0.12) | -0.38 ** | (0.12) |
| Institutional investment | 0.12 *** | (0.01) | 0.12 *** | (0.01) | 0.04 * | (0.02) | 0.15 *** | (0.02) | 0.12 *** | (0.01) | 0.12 *** | (0.01) |
| Ownership concentration | -0.01 | (0.02) | -0.01 | (0.02) | -0.01 | (0.02) | -0.01 | (0.03) | -0.01 | (0.02) | -0.01 | (0.02) |
| % independent directors on board | -0.61 | (1.82) | -0.88 | (1.82) | 0.53 | (3.00) | -0.23 | (2.36) | -5.27 * | (2.69) | 8.11 * | (3.87) |
| Deviation in ownership structure | -0.12 ** | (0.04) | -0.12 ** | (0.04) | -0.19 *** | (0.04) | -0.004 | (0.07) | -0.11 ** | (0.04) | -0.11 ** | (0.04) |
| Family ownership control | 1.08 ** | (0.36) | | | | | | | 1.12 ** | (0.36) | | |
| Independent directors * Family ownership control | | | | | | | | | 0.70 * | (0.29) | | |
| Year dummies included | | | | | | | | | | | | |
| *Independent variables* | | | | | | | | | | | | |
| Type 2a firms | | | 1.55 ** | (0.48) | 1.62 ** | (0.56) | 1.24 | (0.76) | | | 1.44 ** | (0.48) |
| Type 2b firms | | | 0.43 | (0.90) | 0.96 | (1.04) | -0.43 | (1.47) | | | 0.26 | (0.91) |
| Type 3 firms | | | 0.34 | (0.49) | 0.15 | (0.58) | 0.91 | (0.79) | | | 0.08 | (0.50) |
| Type 4 firms | | | -0.47 | (0.46) | -0.08 | (0.57) | -0.67 | (0.70) | | | -0.68 | (0.47) |
| Type 2a firms * % independent directors | | | | | | | | | | | -0.40 | (0.48) |
| Type 2b firms * % independent directors | | | | | | | | | | | -0.71 | (0.75) |
| Type 3 firms * % independent directors | | | | | | | | | | | -1.09 * | (0.45) |
| Type 4 firms * % independent directors | | | | | | | | | | | -1.35 ** | (0.43) |
| *Mills ratio correction* | | | | | | | | | | | | |
| Likelihood of being Type 3 family firms | -4.70 *** | (1.06) | -4.66 *** | (1.06) | -4.66 *** | (1.34) | -2.72 | (1.59) | -4.69 *** | (1.06) | -4.63 *** | (1.06) |
| Likelihood of appointing indep directors | -0.10 | (0.34) | -0.17 | (0.35) | -0.99 * | (0.42) | 0.82 | (0.54) | -0.10 | (0.34) | -0.17 | (0.35) |
| Constant | 19.10 ** | (6.18) | 19.90 ** | (6.15) | 2.84 | (10.34) | -7.12 | (8.96) | 17.98 ** | (6.19) | 18.85 ** | (6.18) |
| $R^2$ (within) | 0.1159 | | 0.1191 | | 0.0900 | | 0.2483 | | 0.1172 | | 0.1219 | |
| Likelihood-ratio test[a] | | | | | | | | | 6.52 ** | | 14.17 ** | |
| Degrees of freedom | | | | | | | | | 1 | | 4 | |

*Notes:* SE in parentheses; Models 1, 2, 4, 5: $N = 4{,}482$ cases (631 firms). Model 3a (industries with weaker institutions): N = 2,368 (278 firms); Model 3b (industries with stronger institutions): N = 2,114 (353 firms)

$*p < .05$, $**p < .01$, $***p < .001$ (two-tailed tests)

[a] Likelihood ratio test of Model 4 is against Model 1, and that of Model 5 is against Model 2.

Type 2a: Family Firms with Ownership and Strategic Control

Type 2b: Family Firms with Ownership and Operational Control

Type 3: Family Firms with Ownership, Strategic, and Operational Control

Type 4: Nonfamily Firms

Type 1: Family Firms with Ownership Control alone (omitted category)

**Table 4a: Further Analysis: Fixed-Effects Models Predicting Industry-Adjusted ROA of Nonfamily and Different Types of Family Firms in Taiwan, 1996-2005**

| | Model 1 | Model 2 | Model 3 | Model 4 |
|---|---|---|---|---|
| Type 2a firms | 1.39 * | 1.39 * | 1.86 ** | 1.62 * |
| Type 2b firms | -2.10 | -2.11 | 0.30 | 2.73 |
| Type 3 firms | 0.35 | 0.36 | -0.37 | 1.49 * |
| Type 4 firms | -0.20 | -0.20 | -0.83 | 0.24 |
| *Mills ratio correction* | | | | |
| Likelihood of being Type 3 firms | | 0.19 | -6.91 *** | 1.10 |
| Likelihood of appointing independent directors | 1.10 | 1.14 | 0.16 | 0.06 |

*Notes*: Models 1 & 2 are based on a subsample of group-affiliated firms (N=868 cases with 151 unique firms). Mills ratio for Type 3 firms in

Model 2 was computed with the instrument of % males in family (see Model 3 in Appendix Table I).

Models 3 & 4 are for high- and low- deviation firms respectively. High-deviation firms are defined as firms with deviation (i.e., voting rights minus cash flow rights,

see La Porta et al. 1999) above the median, and low-deviation firms as those below the median. (Model 3: N=2,238 cases with 409 firms; Model 4: N=2,234 cases with 371 firms)

* p < .05, ** p < .01, *** p < .001, two-tailed tests.

**Table 4b: Further Analysis: Fixed-Effects Models Predicting Industry-Adjusted ROA of Nonfamily and Different Types of Family Firms in Taiwan, 1996-2005**

| | Model 5 | Model 6 | Model 7 | Model 8a | Model 8b | Model 9 | Model 10 | Model 11 |
|---|---|---|---|---|---|---|---|---|
| Lone-founder firms | | | 0.38 | 0.48 | 0.36 | 0.24 | | |
| Type 2a firms | 1.42 ** | 1.54 ** | 1.53 ** | 2.04 ** | 0.87 | 1.48 * | 1.57 ** | 1.48 ** |
| Type 2b firms | 0.26 | 0.57 | 0.51 | 1.13 | -0.46 | 0.34 | 0.51 | 0.32 |
| Type 3 firms | 0.39 | 0.17 | 0.44 | 0.73 | 0.22 | 0.22 | 0.34 | 0.13 |
| Type 4 firms | -0.33 | -0.45 | -0.43 | -0.04 | -0.67 | -0.62 | | |
| % more-independent directors | | 9.96 | | | | | | |
| Having more-independent directors | 1.44 | | | | | | | |
| Having less-independent directors | -0.30 | | | | | | | |
| Having independent directors background not sure | 0.28 | | | | | | | |
| Type 2a firms * Having more-independent directors | -2.61 | | | | | | | |
| Type 2b firms * Having more-independent directors | 1.57 | | | | | | | |
| Type 3 firms * Having more-independent directors | -4.80 * | | | | | | | |
| Type 4 firms * Having more-independent directors | -6.31 *** | | | | | | | |
| Type 2a firms * Having less-independent directors | 3.29 | | | | | | | |
| Type 2b firms * Having less-independent directors | 8.44 | | | | | | | |
| Type 3 firms * Having less-independent directors | 0.44 | | | | | | | |
| Type 4 firms * Having less-independent directors | 0.95 | | | | | | | |
| Type 2a firms * % more-independent directors | | -1.07 * | | | | | | |
| Type 2b firms * % more-independent directors | | 0.34 | | | | | | |
| Type 3 firms * % more-independent directors | | -1.26 ** | | | | | | |
| Type 4 firms * % more-independent directors | | -1.59 *** | | | | | | |
| Nonfamily Type 1 firms | | | | | | | -0.41 | -0.57 |
| Nonfamily Type 2a firms | | | | | | | -1.68 * | -2.23 ** |
| Nonfamily Type 2b firms | | | | | | | 1.49 | 1.36 |
| Nonfamily Type 3 firms | | | | | | | -0.05 | -0.44 |
| Lone-founder firms * % independent directors | | | | | | -0.93 | | |
| Type 2a firms * % independent directors | | | | | | -0.11 | | -0.32 |
| Type 2b firms * % independent directors | | | | | | -0.69 | | -0.71 |
| Type 3 firms * % independent directors | | | | | | -1.05 * | | -0.95 * |
| Type 4 firms * % independent directors | | | | | | -1.29 ** | | |
| Nonfamily Type 1 firms * % independent directors | | | | | | | | -1.13 * |
| Nonfamily Type 2a firms* % independent directors | | | | | | | | -2.39 ** |
| Nonfamily Type 2b firms* % independent directors | | | | | | | | -0.29 |
| Nonfamily Type 3 firms* % independent directors | | | | | | | | -1.52 |
| *Mills ratio correction* | | | | | | | | |
| Likelihood of being Type 3 family firms | -4.31 *** | -3.55 ** | -4.63 *** | -4.49 *** | -2.73 | -4.60 *** | -4.61 *** | -4.48 *** |
| Likelihood of appointing independent directors | -0.20 | -0.24 | -0.10 | -0.91 * | 0.85 | -0.09 | -0.17 | -0.15 |

*Notes*: N=4,482 cases with 631 unique firms except for Models 6, 8a, and 8b. In Model 6, N=4,262 cases with 609 firms (cases were excluded where there were independent directors but the background information of these independent directors was not available). Model 8a is for the subsample of industries with weak institutions (N=2,368 with 278 firms), and Model 8b is for industries with strong institutions (N=2,114 with 353 firms). In Model 5, having more-independent directors is a dummy indicating that at least one of the independent directors had one of the five types of background (see Footnote 18) that we view as making independent directors more independent from corporate owners and leadership; having less-independent directors is a dummy indicating that none of the independent directors had any of the five types of background. Having independent directors background not sure is a dummy indicating that information on the background of the independent directors was not available.

In Models 7, 8a, 8b, and 9, lone-founder firms are firms where the largest shareholder is the family, the chair is the only member from the family participating in top or senior management, and the chair has not changed since 1991 (when data on sample firms became available). Type 2a, 2b, and 3 firms for these models excluded such lone-founder cases. These four models also included the control variable for whether the founder was present (not including this control did not change the results substantively).

In Models 10 and 11, Nonfamily Type 1 firms are firms where the largest shareholder, which is not a family, does not have its legal representative in strategic or operational control; Nonfamily Type 2a firms are firms where the largest shareholder, which is not a family, has its legal person as Chair but not as General Manager; Nonfamily Type 2b firms are firms where the largest shareholder, which is not a family, has its legal person as General Manager but not Chair; Nonfamily Type 3 firms are firms where the largest shareholder, which is not a family, has its legal representatives as both Chair and General Manager.

* p < .05, ** p < .01, *** p < .001, two-tailed tests.

**Table 4c: Further Analysis: Fixed-Effects Models Predicting Performance of Nonfamily and Different Types of Family Firms in Taiwan, 1996-2005, Other Performance Measures**

| | Model 12 | Model 13 | Model 14 | Model 15 | Model 16 |
|---|---|---|---|---|---|
| | ROA | ROE | Employment Growth | Sales Growth | Tobin's Q |
| Type 2a firms | 1.59 ** | 4.22 *** | 0.04 * | 0.06 * | -0.02 |
| Type 2b firms | 0.60 | 1.92 | -0.05 | -0.03 | -0.01 |
| Type 3 firms | 0.34 | 1.46 | 0.00 | 0.04 | -0.11 * |
| Type 4 firms | -0.33 | -0.45 | -0.02 | 0.02 | -0.10 * |
| *Mills ratio correction* | | | | | |
| Likelihood of being Type 3 firms | -4.71 *** | -16.47 *** | -0.12 ** | 0.44 *** | -0.60 *** |
| Likelihood of appointing independent directors | -0.03 | -0.86 | 0.01 | 0.03 | 0.01 |
| Number of observations | 4,482 | 4,480 | 4,132 | 4,130 | 4,123 |
| Number of firms | 631 | 631 | 631 | 631 | 582 |

*Notes*: Employment growth is measured as the logarithm of the firm's current year number of employees less the logarithm of the number

of its employees one year before. Sales growth is measured as the logarithm of the firm's current year sales less the logarithm of its sales

one year before. Tobin's Q is measured as in Khanna and Palepu (2000).

* $p < .05$, ** $p < .01$, *** $p < .001$, two-tailed tests.


**Appendix Table I: First-Stage Selection Models for the Likelihood of Being Family Firms with Ownership and Complete Management Control and for the Likelihood of Appointment of Independent Directors**

| | Type 3 Family Firms | | Independent Directors | | Type 3 Family Firms (affiliates) | |
|---|---|---|---|---|---|---|
| Industry-adjusted ROA (t-1) | 0.01 ** | (0.004) | 0.01 * | (0.01) | -0.00 | (0.01) |
| Total sales (ln) | -0.08 * | (0.04) | 0.04 | (0.03) | 0.06 | (0.09) |
| Firm age (ln) | 0.18 | (0.11) | -0.51 *** | (0.08) | 0.41 | (0.26) |
| Diversification | 0.03 | (0.02) | -0.04 * | (0.02) | 0.03 | (0.04) |
| Institutional investment | -0.01 *** | (0.002) | -0.004 | (0.002) | -0.01 | (0.01) |
| Ownership concentration | 0.01 | (0.004) | 0.02 *** | (0.004) | 0.02 | (0.01) |
| % family members on board | 0.01 ** | (0.002) | -0.02 *** | (0.002) | 0.01 | (0.01) |
| Industries with strong institutions | 0.14 | (0.11) | | | 0.07 | (0.30) |
| Industries with medium-strong institutions | 0.10 | (0.17) | | | -0.17 | (0.41) |
| Average board tenure | 0.03 ** | (0.01) | | | | |
| Deviation | | | 0.01 * | (0.005) | | |
| Type 2a firms | | | 0.10 | (0.13) | | |
| Type 2b firms | | | 0.01 | (0.28) | | |
| Type 3 firms | | | 0.20 | (0.13) | | |
| Type 4 firms | | | -0.05 | (0.12) | | |
| Combined position for Chair and General Manager | | | 0.13 | (0.11) | | |
| % firms with indep directors out of interlocked firms (t-1) | | | 1.54 *** | (0.13) | | |
| % males in family | | | | | 0.63 * | (0.27) |
| Constant | -0.59 | (0.66) | 0.88 | (0.56) | -4.39 * | (1.83) |
| Number of cases | 4498 | | 4498 | | 873 | |
| Wald chi-square | 127.00 *** | | 334.46 *** | | 37.40 ** | |

*Notes:* industries with strong institutions are electronics and computers; industries with medium-strong institutions are electric machinery,

petrochemical, and auto. The coding is based on the average percentage of shares of firms in the industry owned by foreign investors, the percentage of firms

in the industry that are covered by at least one analyst, and the percentage of firms in the industry that have at least one independent director on the board.

* $p < .05$, ** $p < .01$, *** $p < .001$, two-tailed tests.

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