Family involvement and family firm performance

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Abstract:

The families behind family firms can be involved in their firms through a number of mechanisms – ownership, board of director representation, family CEOs and family managers. This study is the first to examine all four of these mechanisms of family involvement in the same setting. Families also have a choice between using family members and family representatives in these positions. Both are expected to entrench the control of the family but we predict that family representatives are less of an agency concern to minority shareholders. Using hand-collected data from an emerging market that requires disclosure of family and representative relationships, we find that the form of family involvement is related to both firm characteristics and other family involvement measures. For example, family representatives are more likely to be used in acquired and second generation family firms. Family directors and family CEOs are complements, while family directors and family managers are substitutes. Examining the effect of family involvement on firm performance, we find negative relationships between family directors, family managers and firm performance. No relationships are found for family ownership and family CEOs. Consistent with our expectations, we find that family member directors have a greater negative effect on firm performance than family representative directors. For policymakers, our results suggest that firm performance could be improved by limiting family involvement. In particular, restricting the proportion of board seats the family can hold to their ownership position.

Keywords: Family firms, family members, family representatives, performance.

1. Introduction

Although family firms are prevalent around the world, there is no universal model of family involvement. Families can be involved in their firms through four mechanisms - ownership, board of director representation, family CEOs and family managers.[1] For example, the Heineken family have an ultimate ownership interest of 22 percent in Heineken N.V. of the Netherlands, but hold only one board seat and are not involved in management. In contrast, the Hsu family holds an ultimate ownership position of 7 percent in Far Eastern Textile Ltd of Taiwan, but controls all 14 positions on the board of directors (including the chairmanship), the CEO position and two other positions in top management. This varying family involvement in family firms has been the focus of numerous studies across the finance and management literatures. However, while some studies have examined two or three of these measures of family involvement (e.g. Villalonga and Amit, 2006; Sciascia and Mazzola, 2008; Minichilli et al., 2010), no study has examined all four measures in the same setting.

This research makes two contributions to the literature. The first contribution is to bring together the finance and management literatures to examine all aspects of family involvement in the firm in the same study. This is important as failure to control for one or more of these factors can result in omitted variable bias. Utilizing all measures of family involvement allows us to examine complementary and substitute relationships between the measures and to isolate the influence of each measure of family involvement on firm performance. This study is therefore the first to examine family ownership and voting rights, board of director representation (including the chairmanship), family CEOs and family involvement in other top management positions in the same setting.

[1] It is also possible for family members to be other employees in the firm, but the marginal impact of these positions on firm performance is expected to be negligible.

Our second contribution is to distinguish between family members and family representatives on the board of directors and in the chairman and CEO positions.[2] We define family members as blood or marital relatives, while family representatives are non-relatives that act on behalf of the family's other listed firms and unlisted entities. For example, in Far Eastern Textile Ltd of Taiwan, the Hsu family controls 14 positions on the board of directors, six by family members and eight by family representatives. The six family members include the founder's three sons and one daughter, one granddaughter and one son-in-law. The eight family representatives are non-family members that represent the interests of five other entities controlled by the Hsu family that have shareholdings in Far Eastern Textile Ltd.

Prior US studies have distinguished between family members (generally identified by a common family surname) and outsiders in these positions (Anderson and Reeb, 2003; Villalonga and Amit, 2006). International studies have followed a similar approach or included both family members and family representatives together as family affiliates (Yeh and Woidtke, 2005). We make a distinction between family members and family representatives as we believe they provide different agency costs and stewardship benefits to minority shareholders. For example, we expect that family representatives are less likely than family members to facilitate and consume private benefits of control as their personal interests are less aligned with those of the family group.

In our analysis, we examine both the choice of family involvement and the effects of family involvement on firm performance. To conduct this analysis, we utilize the disclosure environment in Taiwan, which requires listed companies to disclose family relationships between directors and top executives and details of whether directors are representing their own interests or the interests of other entities. This allows us to clearly identify family

[2] We recognize that other directors and managers who are not identified as family representatives may also have a connection to the family. However, as per previous studies, there is no way to consistently identify this link. We therefore concentrate on the family representatives that we can identify.

directors, family chairmen, family CEOs and family managers and also allows us to distinguish between family members and family representatives in these positions.

Our results indicate that the form of family involvement is related to both firm characteristics and other family involvement measures. In our initial analysis, we find that family directors are complemented by family chairmen and family CEOs but not by family managers. However, once we make a distinction between family members and family representatives, we find some polarizing examples of family involvement. Family member directors, family member chairmen, family member CEOs and family managers are complements. As are family representative directors, family representative chairman and family representative CEOs. This suggests that families tend to be involved in firms with family members or family representatives across these positions but not both. We also find differences across firms, with family members being more involved in first generation family firms (i.e. family firms with the founder still present) and less involved as the business group expands (i.e. in newly acquired firms).

Examining firm performance, we find negative relationships between family directors and firm performance, and family managers and firm performance. No relationships are found for family ownership, family chairmen and family CEOs. Consistent with our expectations, we find that family member directors have a greater negative effect on firm performance than family representative directors. For the average firm in our sample, the presence of one additional family member director on the board of directors is associated with a drop in return on assets of 0.85 percentage points (9.22 percent lower), compared to 0.55 percentage points (5.99 precent lower) for one additional family representative director. Further analysis shows that the negative relationship between family member directors and firm performance increases by the generation of family members and is most pronounced when families hold a higher proportion of board seats than their ownership position.

2. Hypothesis Development

There are two distinct strands of literature on family firms. The first strand examines large listed family firms, with data acquired from public disclosures. The second strand investigates unlisted family firms, with data acquired from surveys sent to the firm's management. Within these strands of literature, studies have examined family involvement in family firms through four mechanisms (ownership and voting rights, board of director representation, family CEOs and the familiness of the top management team). However, no study has yet examined all four areas of family involvement in the same setting. In the first strand of literature, Villalonga and Amit (2006) is the most comprehensive to date, examining ownership and voting rights, board of director representation and family CEOs. In the second strand, Minichilli et al. (2010) examine family CEOs and the familiness of the top management team, while Sciascia and Mazzola (2008) examine family ownership and the familiness of management. In this study we bring the two strands of research together to examine both the choice of family involvement and the effects of family involvement on firm performance.

2.1 Family Involvement

While there is a large body of research examining the effects of family involvement on firm performance, relatively little research has been conducted into the determinants of family involvement in family firms. With respect to ownership, families have a choice of both the size and structure of their shareholding. Prior studies examining the ownership of large, listed firms around the world have found that the ownership structures of family firms can be complex, involving dual class shares, cross-holdings and pyramid structures (La Porta et al., 1999; Claessens et al., 2000; Faccio and Lang, 2002). This often results in excess control rights, i.e. the family has greater voting or control rights than their ownership or cashflow

rights. Similar ownership structures are expected to exist in unlisted family firms, however access to ownership information has been limited.[3]

Demsetz and Lehn (1985) were the first to investigate the determinants of controlling ownership. While not all of their results are directly applicable to family firms, they highlight that controlling ownership varies across industries and is negatively related to firm size, i.e. the same amount of wealth buys a smaller percentage of ownership in larger firms. We also expect the level and structure of family ownership to be related to a number of other factors. Following, Villalonga and Amit (2010) we distinguish between founded and acquired family firms as acquired family firms are more likely to be held at lower levels of pyramid structures, which results in lower direct family ownership and greater excess control rights. As ownership practices can evolve over time, we include controls for firm age and the generation of the family firm. The use of debt financing may help families maintain a higher ownership interest or it may signal a greater need for external financing, which also results in additional equity issuances, reducing the family's ownership interest. We also control for the presence of a second large shareholder. As we expect the direction of causation to flow from ownership to the other measures of family involvement, we do not expect the level and structure of ownership to be caused by other measures of family involvement.

As illustrated in Figure 1, the family can use its ownership position to have a direct impact on the composition of the board of directors, through to the choice of CEO and other members of the top management team. We also expect the family group to have considerable ability to indirectly influence the selection of directors and managers which is illustrated by indirect (dotted) relationships in the figure. Following prior studies, such as Yeh and Woidtke (2005) and Fiegener (2010), we expect family representation on the board (including the

[3] Studies of unlisted family firms generally ask for the percentage of equity owned by the family in their surveys (e.g. Sciascia and Mazzola, 2008). Further information on ownership structures of unlisted family firms is difficult to obtain as it is not required to be disclosed to the public and asking for a full overview of the ownership structure of all entities in a family business group in a survey is impractical.

chairmanship) and in top management positions (including the CEO) to be related to the family's ownership, firm size, firm age and the generation of the firm, the presence of a second large shareholder, the size and independence of the board of directors, duality of the Chairman and CEO positions and industry effects. We also make a distinction between founded and acquired family firms (Villalonga and Amit, 2010).

In this study we add to literature by examining interactions among the mechanisms of family involvement. We are particularly interested in whether family directors, family chairmen, family CEOs and family managers are used as complementary or substitute measures of family involvement. It may be the case that families choose to be involved in a supervisory role on the board of directors and not in management. Or it is possible that families prefer to be involved in management positions and not on the board of directors. Another possibility is that families tend to be involved across all measures simultaneously.

As shown in Figure 2, we also distinguish between the use of family members and family representatives on the board of directors and in the chairman and CEO positions. Prior studies have failed to distinguish between family members and family representatives, which assumes that there are no differences in their use. We propose that there are significant differences in the choice to use family members and family representatives. For example, in practice, families have a limited number of family members of the correct age and expertise to be involved in top-level positions on the board of directors and in management. This means families are likely to use more family representatives when they have more positions to fill, i.e. when ownership is higher and in acquired firms and other firms towards the bottom of pyramid structures (e.g. indicated by a high control wedge).

We also examine complementary and substitute relationships between the use of family members and family representatives. For example, it may be the case that family members prefer to hold positions on the board of directors and appoint a family

representative CEO to handle the daily operations of the firm. Or it is possible that families choose to be all in or not in, i.e. family members are involved across all measures or family representatives are involved across all measures, and there is seldom a mix of family members and representatives.

2.2 Family Involvement and Firm Performance

To determine if the various choices of family involvement provide benefits or costs to shareholders, prior studies have related the measures of family involvement to firm performance. In the ownership literature, Anderson and Reeb (2003) find a non-linear relationship between family ownership and firm performance in their sample of S&P500 firms in the US, indicating an initial positive relationship between family ownership and firm performance that becomes negative at higher levels of ownership. Claessens et al. (2002) and Maury (2006) examine the individual relationships between ownership rights and excess control rights and firm performance in large, listed Asian and European family firms and find a positive relationship between ownership rights and firm performance and a negative relationship between excess control rights and firm performance. The results of these studies indicate that family ownership helps to align the interests of the family with other shareholders, but only up to a certain point. Beyond this point, further ownership or excess control rights help to entrench the position of the family, which is associated with deteriorating firm performance.

However, studies of unlisted family firms have not found such significant results. Westhead and Howorth (2006), Castillo and Wakefield (2006) and Sciascia and Mazzola (2008) examine relationships between family ownership and firm performance using samples of small and unlisted family firms from the UK, US and Italy, respectively. They find no significant linear or non-linear relationships between family ownership and firm performance.

This suggests that the significant relationships between ownership variables and firm performance may be limited to large, listed family firms.

With respect to family representation on the board of directors, Anderson and Reeb (2004) find that a balance of family members and independent directors is optimal in S&P500 firms in the US. They state that some family influence on the board provides benefits to minority shareholders but too much influence creates potential for moral hazard conflicts between the family and outside shareholders. Other studies have confirmed these results, with Yeh and Woidtke (2005) finding that a higher proportion of family affiliated board members is associated with weaker firm performance in family firms in Taiwan. Chen and Nowland (2010) find that too many independent directors are associated with lower firm performance in family firms in East Asia. The only study to specifically examine the effect of a family chairman is Villalonga and Amit (2006), who find a positive performance effect when a family firm board is headed by a family chairman. In additional testing, they find that performance is higher when a founder family chairman is coupled with an outside CEO and lower when the chairman is a family descendent.

The effect of having a family CEO has been investigated in both strands of the literature. Anderson and Reeb (2003), Maury (2006) and Villalonga and Amit (2006) examine the relationship between family CEOs and firm performance in listed family firms in the US and Europe and find a positive performance effect if the CEO position is held by a family member, particularly for first generation or founder CEOs. A similar positive effect on performance is found for family CEOs in unlisted family firms by Minichelli et al. (2010). However, Villalonga and Amit (2006) also find a negative performance effect for descendent family CEOs, which suggests that the benefits of family CEOs may be limited to family founders. All of these results are consistent with the broader founder-CEO literature, which

documents a positive performance effect when there is continued founder involvement in the firm (Adams et al., 2008; Fahlenbrach, 2009).

The familiness of the top management team (including the CEO and other top executives) has only been investigated in unlisted family firms. This is because studies of unlisted family firms have accessed this information by surveying management and asking for the number of family members in management. In listed family firms, identification of family members in management is difficult as family relationships are not required to be disclosed in most markets. The results of studies of unlisted family firms are somewhat inconsistent, with Sciascia and Mazzola (2008) predicting an inverse-U shaped relationship between the proportion of family managers and firm performance but finding a negative quadratic relationship. Based on the faultline approach in group dynamics, Minichilli et al. (2010) predict and find a U-shaped non-linear relationship between the proportion of family members in top management positions and firm performance. However, both studies are consistent in their conclusion that once professional executives hold top management positions in family firms, having family members involved in top management positions (excluding the CEO position) is detrimental to firm performance.

This study is the first to relate all four mechanisms of family involvement to firm performance in the same setting (see Figure 1). This reduces the possibility of omitted variable bias and allows us to isolate the influence of each measure of family involvement on firm performance. More specifically, we relate family ownership and voting rights, board of director representation (including the chairmanship), family CEOs and family involvement in other top management positions to firm performance. Ex-ante, we expect results similar to prior research but the significance of the relationships between the individual measures of family involvement and firm performance may differ once all measures are included in the same model.

We then examine performance implications of using family members and family representatives on the board of directors and in the chairman and CEO positions (see Figure 2). Based on agency and stewardship theories, prior studies have documented a number of benefits and costs of family involvement in firms. Benefits include the long-term view of wealth creation by the family group compared to the relatively short-term view of hired CEOs (James, 1999), the family's superior knowledge and ability to monitor the operations of the company (Demsetz and Lehn, 1985), the presence of the family's reputation capital that can result in a lower cost of debt (Anderson et al., 2003) and the ability of the family group to create more wealth through political connections than other owners (Faccio and Parsley, 2009). Costs include the increased incentive and opportunity of the family group to expropriate wealth from other shareholders. This can occur through excessive compensation, related party transactions, special dividends, risk avoidance and remaining active in management even when they are no longer competent to run the company (Anderson and Reeb, 2003; Anderson et al., 2003).

We make a distinction between family members and family representatives as we believe they provide different agency costs and stewardship benefits to shareholders. From an agency cost perspective, we expect family representatives to be a lower agency concern to minority shareholders than family members in two ways. First, in any decision to allow the family group to consume private benefits of control, a family member is expected to be more aligned with the interests of the family than a family representative. Family representatives, as employees of the family's listed and unlisted entities, are expected to be somewhat aligned with the interests of the family, but not to the same extent as family members. A family representative must weigh up their own potential benefits and costs for each decision. They may be allowed to participate in the consumption of private benefits but they must also contemplate the potential reputation cost if they need to seek employment outside the family

group in the future. Second, the appointment of a family representative as a director or manager means the family group has chosen to appoint a qualified professional rather than a potentially unqualified family member.

Based on stewardship theory, family members are expected to provide greater benefits to shareholders than family representatives. This is because family members are more likely to be aligned with the long-term view of the family, while the view of family representatives is likely to be limited to the duration of their own career within the family business group. Family representatives are also unlikely to fully invest their own reputation capital in the firm as is the case with family members. Whether the difference between family members and family representatives is a net benefit or cost to shareholders is largely an empirical question. It may also differ across the positions investigated in this study. On the whole, we expect family representatives to be less of an agency concern than family members. Particularly in the case of family directors, as prior studies have found greater family involvement on the board of directors is detrimental to firm performance (Anderson and Reeb, 2004; Yeh and Woidtke, 2005).

3. Data and Variables

Our sample comprises 536 family firms listed on the Taiwan Stock Exchange that could be identified as family-controlled, provided annual reports to the exchange for the year 2007 and have financial and ownership data available from the Taiwan Economic Journal (TEJ) database. Family-controlled firms are identified as those where a family group holds more board seats (including seats held directly and through representatives) than any other individual or group on the board, or if the family group that founded the firm holds the same

number of board seats as the next largest group.[4] Our sample excludes individual-controlled, government-controlled, company-controlled and widely-held firms. We manually check annual reports for all firms to identify who occupies each of the board seats, their family relationships and the entities they represent. We also find the original founders of these firms through analysing annual reports, company websites and internet searches.

Our analysis includes the following variables. Family member directors are family members (through blood or marriage) holding director or supervisor positions on the board. Family representative directors are non-family member representatives of the family's listed and unlisted entities holding director or supervisor positions on the board. Family directors include both family member and family representative directors. Family chairman and CEO are dummy variables equal to one when a family member or representative holds these positions. These variables are also split into family member chairman, family representative chairman, family member CEO and family representative CEO. Family management is a dummy variable equal to one when a family member holds a non-CEO position in top management.[5] Ownership is the cashflow rights ownership of the controlling owner. Control wedge is the ratio of control to cashflow rights of the controlling owner. A control wedge of greater than one represents excess control rights. Ownership variables are calculated following the methodology of Claessens et al. (2000).

Total assets is our measure of firm size and is in billions of NT dollars. Age is the number of years since the firm was founded. Debt is total liabilities divided by total assets. Fixed assets is the ratio of fixed assets (e.g. property, plant and equipment) to total assets. Growth is the annual percentage change in sales. Return on assets is earnings before interest

[4] We do not impose minimum ownership restrictions as Fiegener (2010) explains that what makes family firms different to non-family firms is not the existence of a substantial shareholder but the involvement of the family in business decisions that infuses the family's aspirations and values into the business.

[5] Due to variation in disclosure we are only able to use a dummy variable to represent family member involvement in non-CEO top management positions.

and tax divided by total assets. Board size is the number of directors and supervisors. Board independence is the number of independent directors and supervisors divided by board size. Chairman-CEO duality is a dummy variable equal to one if the same person holds both positions. Second largest shareholder is a dummy variable equal to one when the second largest shareholder (unrelated to the family) holds one or more positions on the board.[6]

Table 1 displays descriptive statistics of the sample firms. Panel A presents the family involvement variables and Panel B displays other firm characteristics. The average sample firm has a board that is comprised of 51.54 percent of family directors, with a range from 9.09 percent to 100 percent. On average, family members comprise 28.23 percent and family representatives comprise 23.47 percent of the board. There is a family chairman in 92 percent (81 percent family member chairman and 11 percent family representative chairman) and a family CEO in 53 percent (47 percent family member CEO and 6 percent family representative CEO) of firms. Family members are involved in non-CEO top management positions in 53 percent of firms. The average family holds ownership rights of 24.70 percent and has a control wedge of 1.36. The average firm has NT$30.27 billion (approximately US$1 billion) in total assets and an age of 28.93 years. Average debt and fixed asset ratios are 0.47 and 0.11. Average growth is 8.73 percent and return on assets is 9.19 percent. The average board comprises 9.88 directors and supervisors and board independence of 9.27 percent. Chairman-CEO duality occurs in 32 percent of firms and the second largest shareholder is present on the board in 23 percent of firms.

Table 2 displays correlations between the family involvement measures. We find that family ownership is positively correlated with family directors, family chairman, family CEO and family management. The control wedge, however, is positively related to the use of

[6] In a few cases where the controlling family group is the second largest shareholder, this variable represents the presence of the largest shareholder on the board.

family representatives and negatively related to the use of family members. Family directors are positively correlated with family chairman but have no relationship with family CEO and family management. However, these correlations are not consistent when we distinguish between family members and family representatives. Overall, there are numerous positive correlations between family member variables (e.g. family member directors and family member CEO) and between family representative variables (e.g. family representative directors and family representative Chairman) and negative correlations between the two groups (e.g. family member directors and family representative CEO). In addition, some of the correlations between variables to be used in the same model are high, e.g. family member CEO and family management (0.83), which requires us to run multiple specifications to avoid multicollinearity concerns in our subsequent analysis.

4. Empirical Results

4.1 Family Involvement

In this section we examine the determinants of family involvement with a particular interest in complementary and substitute relationships between the different measures of family involvement. We then distinguish between the choice of using family members and family representatives on the board of directors and in the chairman and CEO positions. In this analysis we use three different modelling techniques – OLS regressions for continuous variables (e.g. ownership), tobit models for truncated variables (e.g. family directors / board size) and probit models for binary variables (e.g. family management). All models include industry dummy variables and robust standard errors.

Table 3 presents the models of the determinants of ownership, board representation, family CEOs and family management. In the first two regressions, the level and structure of ownership is related to a number of firm characteristics. We find that family ownership is

negatively related to the control wedge, firm size, debt and the presence of the second largest shareholder. The control wedge is negatively related to ownership and firm age, and positively related to firm size, second generation and acquired family firms. These results are consistent with past studies and confirm that cashflow rights ownership and excess control rights are substitutes (La Porta et al., 1999; Claessens et al., 2000; Faccio and Lang, 2002), families hold lower cash flow rights ownership (supplemented by excess control rights) in larger firms (Demsetz and Lehn, 1985) and excess control rights are higher in second generation and acquired family firms (Villalonga and Amit, 2009; Villalonga and Amit, 2010).

The third regression examines family representation on the board of directors. We find that firms have a greater proportion of family directors when family ownership is higher (ownership and control wedge), when there is a family CEO but not when there are family managers. We also find that family representation on the board is greater in older and second generation family firms, and lower when board size and board independence are higher and the second largest shareholder is represented on the board. The fourth regression examines the existence of a family chairman. We find that firms are more likely to have a family chairman if family ownership and family representation on the board of directors are higher. A family chairman is also less likely to occur in second generation and acquired family firms.

In the fifth regression we find that the existence of a family CEO is positively related to family representation on the board of directors and family managers. Family CEOs are also more prevalent in acquired firms, smaller firms and firms with Chairman-CEO duality. In the sixth regression we find that family involvement in non-CEO management positions is positively related to the existence of a family CEO and negatively related to family directors and the control wedge. Family managers are also more likely to exist in larger firms, second

generation and acquired firms, firms with lower board independence and firms with Chairman-CEO duality.

In summary, these results show that there are significant interactions among family involvement measures. Family directors are complemented by family chairmen and family CEOs but not family managers. Family CEOs are also found to be complemented by family managers. This shows that families choose to be involved at the board level including the CEO position or at the management level including the CEO position, but not across all three areas simultaneously. However, this analysis assumes that the use of family members and family representatives is the same. We now extend our analysis to examine differences between the use of family members and family representatives.

Table 4 presents the analysis differentiating between family members and family representatives on the board of directors and in the chairman and CEO positions.[7] The first regression examines the proportion of family member directors on the board. We find that the proportion of family member directors is positively related to ownership, a family member CEO and family managers, and negatively related to the control wedge and a family representative CEO. There is also a higher proportion of family member directors in older firms and a lower proportion in acquired firms and firms with Chairman-CEO duality. The second regression examines the proportion of family representative directors on the board. We find that the proportion of family representative directors is positively related to ownership and the control wedge, a family representative CEO and is negatively related to family management. There is also a higher proportion of family representative directors in

[7] As reported in Table 2 there are some high correlations between individual family involvement variables. To ensure these correlations do not effect the reported results we ran a number of specifications dropping some of the variables with high correlations. The results are consistent with those reported, so for the sake of brevity we have reported the full models.

second generation and acquired family firms, and a lower proportion when board size and independence are higher and when the second largest shareholder is present on the board.

Since the choice of family member directors and family representative directors are unlikely to be independent decisions as assumed by the first two models, we repeat the analysis in regression three using the proportion of family member directors divided by all family directors as the dependent variable. We find results consistent with the first two regressions. More family member directors are used when family ownership is lower, the control wedge is lower, firms don't have a family representative CEO but have family managers. We also find positive relationships with firm age and board independence, and negative relationships with the Chairman-CEO duality, second generation and acquired family firm dummy variables.

In the fourth and fifth regressions we distinguish between a family member chairman and a family representative chairman. We find that a family member chairman is more likely when the board has a greater proportion of family member directors and when there is not a family representative CEO. A family member chairman is also more likely in big companies and in first generation family firms rather than second generation or acquired firms. A family representative chairman is more likely when there is a greater proportion of family representative directors, a lower proportion of family member directors, a family representative CEO and a higher control wedge. A family representative chairman is also more likely in smaller companies and when the second largest shareholder is represented on the board.

In the sixth and seventh regressions we differentiate between a family member CEO and a family representative CEO. We find that a family member CEO is more likely when there is also family in management. A family member CEO is also more likely in small firms and firms with Chairman-CEO duality. A family representative CEO is more likely when

there is a greater proportion of family representative directors and when there is a family representative chairman. A family representative CEO is also more likely in acquired firms and when board independence is higher.[8]

In summary, these results show that there are differences in the use of family members and family representatives. Family member directors, family member chairmen, family member CEOs and family management are found to be complements. As are family representative directors, family representative chairmen and family representative CEOs. This suggests that families either choose to be involved in firms with family members or family representatives but not both. In addition, it shows that when we focus our analysis on family members, we do find evidence that families are simultaneously involved across all measures of family involvement. We also find differences across firms, with the use of family representatives more common and family members less common in second generation firms, acquired firms and firms with a higher control wedge. This suggests that family members are more involved in first generation family firms and become less involved after the founder leaves and as the business group expands.

4.2 Family Involvement and Firm Performance

In this section we relate all four mechanisms of family involvement to firm performance. We then test for differential performance effects between family members and family representatives on the board of directors and in the chairman and CEO positions. We use return on assets (ROA) as our primary measure of performance as it is the only measure that is consistent across prior studies of both listed and unlisted firms. Results using other

[8] It is not possible to include the Family Management variable in this model due to lack of variation with the dependent variable.

performance measures are discussed in the robustness checks section. All models include industry dummy variables and robust standard errors.

Table 5 presents these results. In the first regression, we find negative relationships between the proportion of family directors on the board and firm performance, and family members in management and firm performance. We find no significant relationships for family chairman, family CEO and the two ownership variables (ownership and control wedge). These results have two important implications. First, the results indicate that family directors and non-CEO family managers are the primary means through which family involvement effects firm performance. Unfortunately, the effects are negative, which indicates that the presence of the family on the board of directors and in non-CEO management positions is associated with a net cost. This is consistent with the findings of Yeh and Woidtke (2005) and Sciascia and Mazzola (2008). Second, the results indicate that ownership has no effect on firm performance once we control for other measures of family involvement. Countless studies have found relationships between ownership variables and firm performance. Our results raise the possibility that the relationships documented by prior studies may be capturing the effects of other (omitted) measures of family involvement on firm performance.

In the second regression we test for differential performance effects between family members and family representatives on the board of directors and in the chairman and CEO positions. We separate family directors into family member directors and family representative directors, family chairman into family member chairman and family representative chairman, and family CEO into family member CEO and family representative CEO. The results show that both family member directors and family representative directors have a negative relationship with firm performance. However, the magnitude of the relationship is different. The coefficient on family representative directors is 65 percent of the

size of the coefficient on family member directors. For the average firm in our sample, the presence of one additional family member director on the board of directors is associated with a drop in return on assets of 0.85 percentage points (9.22 percent lower), compared to 0.55 percentage points (5.99 precent lower) for one additional family representative director. This supports our hypothesis that family representative directors are less of an agency concern than family member directors.

There are no significant relationships between family member chairman, family representative chairman, family member CEO, family representative CEO and firm performance. This indicates that family chairmen and family CEOs have no incremental effect on firm performance. The coefficient on family management becomes insignificant in this regression due to a high correlation (0.83) with family member CEO. Removing it has no effect on coefficient on family member CEO. Across the two regressions, the results of the control variables are consistent with prior studies.

4.3 Further Analysis

Prior studies have documented differential effects between family members of different generations, e.g. founder and family descendent CEOs, and firm performance (Villalonga and Amit, 2006; Adams et al., 2008; Fahlenbrach, 2009). To examine this in our analysis, we split family member directors by their generation relative to the original founder, and family member chairmen and family member CEOs into founder and non-founder categories. This analysis is presented in two models in Table 6. The first regression differentiates between 1st generation, 2nd generation and 3rd generation family member directors. We find that the coefficient on all three generations is negative, but the magnitude and significance of the negative coefficient increases with the number of generations. The magnitude of the coefficient on the proportion of 3rd generation family member directors is 20 percent higher

than the coefficient on the proportion of 2nd generation family member directors, which in turn is 28 percent higher than the coefficient on the proportion of 1st generation family member directors. This is consistent with prior literature which finds the effect of family members on performance is more positive in the first generation than later generations (Villalonga and Amit, 2006). In the second regression, we differentiate between founder and non-founder family chairmen and CEOs. In all cases the coefficients are insignificant and small in magnitude. We do not find evidence consistent with prior research that family founder chairmen and CEOs are associated with a positive performance effect.

A number of studies, such as Claessens et al. (2002) and Maury (2006), show that family control (voting rights) in excess of their ownership rights has a negative effect on firm performance. Villalonga and Amit (2009) extend this concept of excess family control to excess board representation. This is defined as the proportion of family representation on the board of directors above the proportion of family ownership. In essence, it means families are controlling more board seats than a fair allocation by proportional ownership would allow.

We utilize this concept to examine if the negative relationship between family directors and firm performance is due to expected or excess board representation. We also extend the concept by splitting family representation on the board of directors into three categories. Expected family directors is the proportion of family directors up to or equal to the proportion of family ownership. Excess family directors <=50% is the proportion of family directors above the proportion of family ownership and up to the threshold of 50 percent of all board seats. Excess family directors >50% is the proportion of family directors above the threshold of 50 percent of all board seats. We make a distinction between the final two categories as effective control of the board is achieved around the 50 percent mark. Holding additional board seats above this threshold is unlikely to have a significant incremental effect.

Table 7 presents this analysis. In the first regression we find a significant negative coefficient on excess family directors <=50%. The coefficients on expected family directors and excess family directors >50% are negative but not significant. In addition, the magnitude of the coefficient on excess family directors <=50% is 97 percent higher than that of expected family directors and 501 percent higher than that of excess family directors >50%. These results show that the greatest negative effect on firm performance comes when families hold more board positions than expected by their ownership position up to a controlling position of 50 percent of board seats.

We also repeat this analysis by differentiating between family member and family representative directors. This is important because another potential explanation for the weaker relationship between family representative directors and firm performance could be that family representative directors are more likely to hold positions on the board after family member directors have already obtained effective control of the board. In other words, family representative directors could hold more positions in the excess family directors >50% category and less in the excess family directors <=50% category.[9] Results for this analysis are presented in the second regression of Table 7. We find a significant negative coefficient on excess family member directors <=50%. The coefficients on the other five expected and excess family member and family representative director variables are negative but not significant.

Comparing the magnitude of the excess family director terms, we find that the effect on performance of excess family member directors <=50% is 233 percent higher than the effect of excess family representative directors <=50%. The effect on performance of excess

[9] This assumes that family members are allocated board seats first and the remaining seats are allocated to family representatives. We believe this is a reasonable assumption as families are likely to allocate board seats to suitable family members first and then to family representatives, rather than to representatives first and then family members.

family member directors >50% is 450 percent higher than the effect of excess family representative directors >50%. This shows that when directly comparing the effects of family member directors and family representative directors in the two excess director categories, family member directors have a greater negative impact on firm performance. Therefore it is not feasible that the overall weaker relationship between family representative directors and firm performance is due solely to family representative directors being employed after the family has control of the board. Comparing the expected family director terms, we find the coefficient on expected family representative directors is 539 percent higher than that of expected family member directors. This is the opposite to the excess family director categories and suggests that family firms perform poorly when they do not have enough suitable family members, i.e. need to use family representatives, to hold board seats up to their ownership position.

4.4 Robustness Checks

We undertake a number of robustness checks to validate our results. We use a 3-year average measure of return on assets (2006 to 2008) instead of the single year measure from 2007. This ensures our results are not simply due to firm performance in 2007.[10] We find results consistent with those presented. We use Tobin's Q as an alternative measure of firm performance. This reduces our sample to 498 observations. We find results consistent with those presented but the significance of some variables is slightly diminished. We undertake two stage models, where the first stage is the models in tables 3 and 4 and use the predicted values in the second stage models in table 5. The results are consistent with those reported. We also exclude supervisors from the board of director variables with consistent results.

[10] We use this approach rather than extending the sample to three years as the ownership and board variables have little variation over time, which would mean using three years of observations would improve the significance of our results, without adding additional cross-sectional variation.

Finally, we address the issue of reverse causality. Another potential explanation for our results is that performance is causing family involvement. In our results, this would mean that more family directors and family managers are appointed when the family firm suffers from poor performance. This is unlikely for two reasons. First, if there were suitably qualified family members available to fill these roles then they are more likely to be in these positions already and not take over these positions from outsiders after poor performance. Second, after poor performance there is generally more pressure from shareholders to replace family members with adequately qualified outsiders, rather than the other way around. Therefore, we are confident that our results document causation running from family involvement to firm performance.

5. Conclusion

The families behind family firms can be involved in their firms through four mechanisms - ownership, board of director representation, family CEOs and family managers. This study is the first to examine all four of these mechanisms of family involvement in the same setting. We examine both the choice of family involvement and the effects of family involvement on firm performance. This is important as utilizing all measures of family involvement allows us to examine complementary and substitute relationships between the measures and to isolate the influence of each measure of family involvement on firm performance. We then distinguish between family members and family representatives on the board of directors and in the chairman and CEO positions. We make a distinction between family members and family representatives as we believe they provide different agency costs and stewardship benefits to shareholders.

Our results indicate that the choice of family involvement is related to both firm characteristics and other family involvement measures. In our initial analysis, we find that

family directors are complemented by family chairmen and family CEOs but not family managers. However, once we make a distinction between family members and family representatives, we find some polarizing examples of family involvement. Our results indicate that families either choose to be involved in firms with family members or family representatives across these positions but not both. We also find differences across firms, indicating that family members are more involved in first generation family firms, i.e. family firms with the founder still present, and become less involved after the founder leaves and as the business group expands, i.e. in newly acquired firms.

In addition, we find negative relationships between family directors and firm performance, and family managers and firm performance. No relationships are found for family ownership, family chairman and family CEOs. Consistent with our expectations, we find that family member directors have a greater negative effect on firm performance than family representative directors. Further analysis shows that the negative relationship between family member directors and firm performance increases by the generation of family members and is most pronounced when families hold excess controlling positions on the board above their ownership rights.

These results have a number of implications. Our results show that family directors and non-CEO family managers have a negative effect on firm performance. This is particularly the case when family members hold more board positions than expected by their ownership position. These findings suggest that families are using these positions to entrench their control, which results in higher agency costs to shareholders. One potential solution for policymakers is to limit the number of board seats the family can hold to their ownership position. In addition, we find that family representatives are less of an agency concern than family members, but still have a negative relationship with firm performance. This suggests that the interests of family representatives are tied to the interests of the family, but to a lesser

degree than family members. Most importantly, allowing the family to use family representatives instead of family members on the board of directors still results in high agency costs to shareholders.

For academic research, our results raise the possibility that previously documented relationships between ownership and firm performance may be driven by other omitted measures of family involvement. Once we include all measures of family involvement, we find no relationships between ownership variables and firm performance. Furthermore, we find a number of interactions among family involvement measures. Families prefer to be involved in their firms through family members or family representatives but seldom both. Further research could examine this in more detail by studying which particular combinations of family involvement are associated with better and worse performance.

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Figure 1

Family involvement mechanisms and firm performance

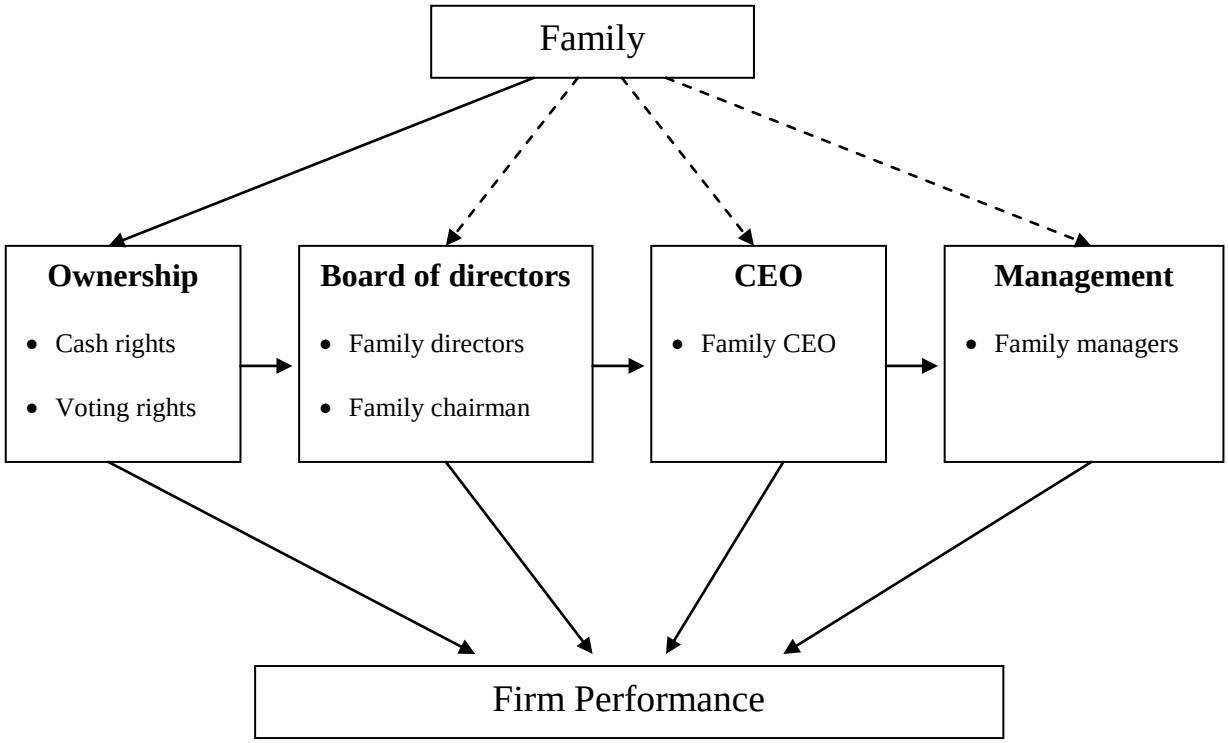

Figure 2

Family member versus representative choices and firm performance

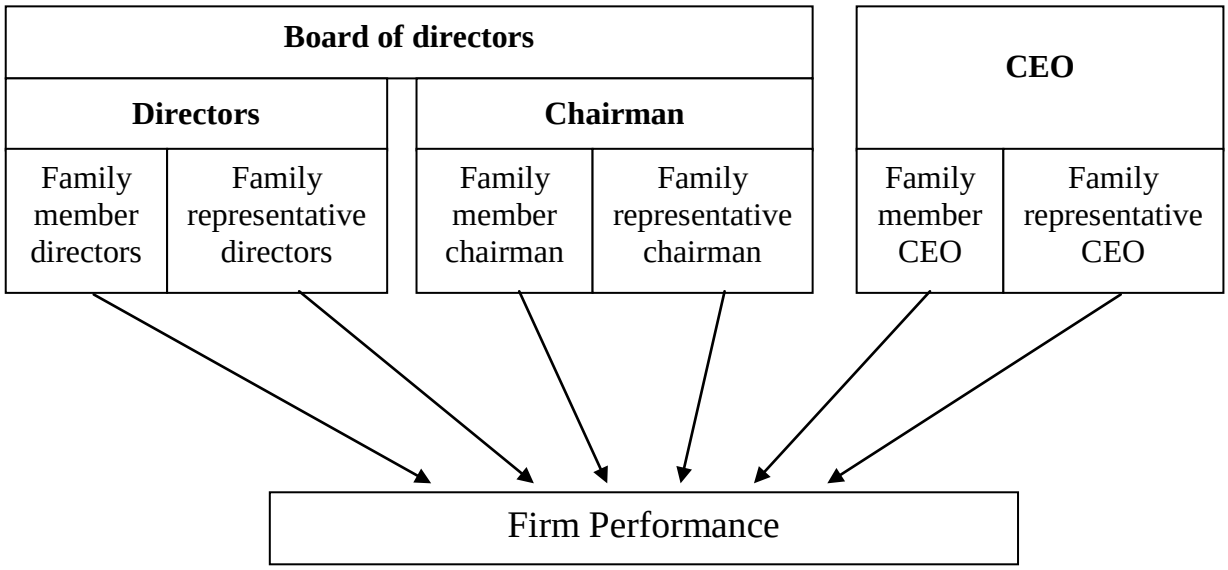

Table 1 – Descriptive Statistics

This table displays descriptive statistics of the sample firms. The sample includes 536 family-controlled firms listed on the Taiwan Stock Exchange in 2007. Family member directors are family members (through blood or marriage) holding director or supervisor positions on the board. Family representative directors are non-family member representatives of the family's listed and unlisted entities holding director or supervisor positions on the board. Family directors include both family member and family representative directors. Family Chairman and CEO are dummy variables equal to one when a family member or representative holds these positions. These variables are also split into family member chairman, family representative chairman, family member CEO and family representative CEO. Family management is a dummy variable equal to one when a family member holds a non-CEO position in top management. Ownership is the cashflow rights ownership of the controlling owner. Control wedge is the ratio of control to cashflow rights of the controlling owner. Total assets is measured in billions of NT dollars. Age is the number of years since the firm was founded. Debt is total liabilities divided by total assets. Fixed assets is the ratio of fixed assets to total assets. Growth is the percentage change in sales. Return on assets is earnings before interest and tax divided by total assets. Board size is the number of directors and supervisors. Board independence is the number of independent directors and supervisors divided by board size. Chairman-CEO duality is a dummy variable equal to one if the same person holds both positions. Second largest shareholder is a dummy variable equal to one when the second largest shareholder (unrelated to the family) holds one or more positions on the board. Financial and ownership data is from the Taiwan Economic Journal database. Asterisks denote significance of t-tests as follows: * 10% , ** 5%, *** 1%.

	Mean	Median	Min	Max	Stdev
Family Involvement Variables					
Family Directors / Board Size (%)	51.54	45.45	9.09	100.00	24.30
Family Member Directors / Board Size (%)	28.23	25.00	0.00	100.00	18.49
Family Representative Directors / Board Size (%)	23.47	14.29	0.00	100.00	25.59
Family Chairman	0.92	1.00	0.00	1.00	0.26
Family Member Chairman	0.81	1.00	0.00	1.00	0.39
Family Representative Chairman	0.11	0.00	0.00	1.00	0.32
Family CEO	0.53	1.00	0.00	1.00	0.50
Family Member CEO	0.47	0.00	0.00	1.00	0.50
Family Representative CEO	0.06	0.00	0.00	1.00	0.24
Family Management	0.53	1.00	0.00	1.00	0.50
Ownership (%)	24.79	21.54	0.66	81.43	17.06
Control Wedge	1.36	1.06	1.00	3.00	0.60
Other Firm Variables					
Total Assets (NT$ billions)	30.27	6.56	0.01	1702.66	1.05
Age (years)	28.93	29.00	2.00	62.00	13.08
Debt	0.47	0.40	0.04	1.00	0.30
Fixed Assets	0.11	0.05	0.00	1.00	0.18
Growth (%)	8.73	2.98	-100.00	629.06	54.24
Return on Assets (%)	9.19	10.05	-113.57	58.48	15.76
Board Size	9.88	9.00	6.00	25.00	2.92
Board Independence (%)	9.27	0.00	0.00	55.56	13.86
Chairman-CEO duality	0.32	0.00	0.00	1.00	0.47
2nd Largest Shareholder	0.23	0.00	0.00	1.00	0.42

Table 2 – Correlations

This table displays correlations between the family involvement variables. The sample includes 536 family-controlled firms listed on the Taiwan Stock Exchange in 2007. Family member directors are family members (through blood or marriage) holding director or supervisor positions on the board. Family representative directors are non-family member representatives of the family's listed and unlisted entities holding director or supervisor positions on the board. Family directors include both family member and family representative directors. Family Chairman and CEO are dummy variables equal to one when a family member or representative holds these positions. These variables are also split into family member chairman, family representative chairman, family member CEO and family representative CEO. Family management is a dummy variable equal to one when a family member holds a non-CEO position in top management. Ownership is the cashflow rights ownership of the controlling owner. Control wedge is the ratio of control to cashflow rights of the controlling owner. Ownership data is from the Taiwan Economic Journal database. Asterisks denote significance of the correlations as follows: * 10% , ** 5%, *** 1%.

		1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.
1.	Family Directors / Board Size	1.00											
2.	Family Member Directors / Board Size	0.32***	1.00										
3.	Family Representative Directors / Board Size	0.73***	-0.41***	1.00									
4.	Family Chairman	0.12***	0.15***	0.01	1.00								
5.	Family Member Chairman	0.01	0.43***	-0.30***	0.59***	1.00							
6.	Family Representative Chairman	0.10**	-0.39***	0.37***	0.10**	-0.73***	1.00						
7.	Family CEO	0.05	0.22***	-0.11**	0.13***	0.16***	-0.10**	1.00					
8.	Family Member CEO	-0.01	0.35***	-0.25***	0.10**	0.31***	-0.29***	0.88***	1.00				
9.	Family Representative CEO	0.13***	-0.26***	0.31***	0.07*	-0.30***	0.41***	0.23***	-0.24***	1.00			
10.	Family Management	-0.04	0.38***	-0.31***	0.13***	0.37***	-0.33***	0.70***	0.83***	-0.27***	1.00		
11.	Ownership	0.24***	0.29***	0.03	0.14***	0.13***	-0.06	0.16***	0.17***	-0.02	0.13***	1.00	
12.	Control Wedge	-0.01	-0.32***	0.22***	-0.11**	-0.28***	0.25***	-0.18***	-0.26***	0.15***	-0.28***	-0.43***	1.00

Table 3 – Family Involvement

Regressions relate family involvement measures to firm characteristics. The sample includes 536 family-controlled firms listed on the Taiwan Stock Exchange in 2007. Family member directors are family members (through blood or marriage) holding director or supervisor positions on the board. Family representative directors are non-family member representatives of the family's listed and unlisted entities holding director or supervisor positions on the board. Family directors include both family member and family representative directors. Family Chairman and CEO are dummy variables equal to one when a family member or representative holds these positions. These variables are also split into family member chairman, family representative chairman, family member CEO and family representative CEO. Family management is a dummy variable equal to one when a family member holds a non-CEO position in top management. Ownership is the cashflow rights ownership of the controlling owner. Control wedge is the ratio of control to cashflow rights of the controlling owner. Total assets is measured in billions of NT dollars. Age is the number of years since the firm was founded. Debt is total liabilities divided by total assets. Board size is the number of directors and supervisors. Board independence is the number of independent directors and supervisors divided by board size. Chairman-CEO duality is a dummy variable equal to one if the same person holds both positions. Second largest shareholder is a dummy variable equal to one when the second largest shareholder (unrelated to the family) holds one or more positions on the board. Second generation family firm is a dummy variable when the founder is not longer involved in the firm. Acquired family firm is a dummy variable equal to one when the firm has been acquired by the family. Financial and ownership data is from the Taiwan Economic Journal database. All models include robust standard errors. T-statistics and Z-statistics are show in parentheses. Asterisks denote significance as follows: * 10% , ** 5%, *** 1%.

	(1)	(2)	(3)	(4)	(5)	(6)
	Ownership	Control Wedge	Family Directors / Board Size	Family Chairman	Family CEO	Family Management
Intercept	81.8088 (8.07)***	0.8785 (1.60)	0.2198 (1.61)	0.3745 (0.30)	-0.2769 (-0.31)	-1.4746 (-1.56)
Family Directors / Board Size				1.2806 (2.75)***	0.9605 (2.30)**	-0.9259 (-2.48)**
Family Chairman					0.4906 (1.63)	0.3405 (1.27)
Family CEO			0.0774 (2.78)***	0.3589 (1.30)		2.1836 (11.29)***
Family Management			-0.0665 (-2.37)**	0.1801 (0.76)	2.1666 (11.22)***	
Ownership		-0.0204 (-8.97)***	0.0028 (4.25)***	0.0190 (2.59)***	0.0050 (0.92)	-0.0041 (-0.82)
Control Wedge	-10.3950 (-12.51)***		0.0488 (2.39)**	0.0814 (0.54)	0.1454 (0.91)	-0.4821 (-2.91)***
Ln(Total Assets)	-2.5205 (-4.80)***	0.0681 (2.43)**	0.0044 (0.59)	0.0009 (0.01)	-0.1704 (-3.29)***	0.0870 (1.69)*
Ln(Age)	-0.5846 (-0.43)	-0.1347 (-2.15)**	0.0716 (4.45)***	0.1237 (0.73)	-0.0485 (-0.34)	0.1830 (1.13)
Debt	-7.4521 (-2.66)***	0.0744 (0.53)				
Board Size			-0.0149 (-3.92)***	-0.0138 (-0.33)	0.0156 (0.55)	-0.0145 (-0.53)

Board Independence			-0.4022 (-6.56)***	0.2699 (0.30)	0.8934 (1.35)	-1.3311 (-2.01)**
Chairman-CEO duality			-0.0298 (-1.21)	-0.3213 (-1.12)	1.6632 (8.76)***	0.5152 (2.72)***
2nd Largest Shareholder	-8.1129 (-5.90)***	-0.0309 (-0.69)	-0.0798 (-3.87)***	0.1308 (0.63)	-0.0530 (-0.27)	-0.0862 (-0.45)
2nd generation family firm	2.1735 (1.39)	0.4581 (6.52)***	0.1070 (4.13)***	-0.8516 (-3.93)***	0.2394 (1.24)	-0.5322 (-2.98)***
Acquired family firm	-0.8869 (-0.46)	0.3940 (3.96)***	0.0327 (1.18)	-0.4500 (-1.71)*	0.6179 (2.72)***	-1.2876 (-5.46)***
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes
Adj R^2	0.282					
Log likelihood		-473.595	20.979			
McFadden R^2				0.160	0.543	0.531
n	536	536	536	536	536	536

Table 4 – Family Member versus Family Representative Involvement

Regressions relate family member and representative involvement measures to firm characteristics. The sample includes 536 family-controlled firms listed on the Taiwan Stock Exchange in 2007. Family member directors are family members (through blood or marriage) holding director or supervisor positions on the board. Family representative directors are non-family member representatives of the family's listed and unlisted entities holding director or supervisor positions on the board. Family directors include both family member and family representative directors. Family Chairman and CEO are dummy variables equal to one when a family member or representative holds these positions. These variables are also split into family member chairman, family representative chairman, family member CEO and family representative CEO. Family management is a dummy variable equal to one when a family member holds a non-CEO position in top management. Ownership is the cashflow rights ownership of the controlling owner. Control wedge is the ratio of control to cashflow rights of the controlling owner. Total assets is measured in billions of NT dollars. Age is the number of years since the firm was founded. Debt is total liabilities divided by total assets. Board size is the number of directors and supervisors. Board independence is the number of independent directors and supervisors divided by board size. Chairman-CEO duality is a dummy variable equal to one if the same person holds both positions. Second largest shareholder is a dummy variable equal to one when the second largest shareholder (unrelated to the family) holds one or more positions on the board. Second generation family firm is a dummy variable when the founder is not longer involved in the firm. Acquired family firm is a dummy variable equal to one when the firm has been acquired by the family. Financial and ownership data is from the Taiwan Economic Journal database. All models include robust standard errors. T-statistics and Z-statistics are show in parentheses. Asterisks denote significance as follows: * 10% , ** 5%, *** 1%.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
	Family Member Directors / Board Size	Family Representative Directors / Board Size	Family Member Directors / Family Directors	Family Member Chairman	Family Representative Chairman	Family Member CEO	Family Representative CEO
Intercept	0.0535	-0.1766	0.8995	-1.2514	1.0744	-0.0104	-2.8775
	(0.57)	(-0.95)	(3.08)***	(-1.24)	(0.87)	(-0.01)	(-2.06)**
Family Member Directors / Board Size				4.1524	-5.7211	1.1283	-1.2505
				(4.48)***	(-4.80)***	(1.54)	(-1.09)
Family Representative Directors / Board Size				0.0734	0.7962	0.0945	2.3318
				(0.20)	(1.89)*	(0.20)	(3.80)***
Family Member Chairman						-0.1722	0.6383
						(-0.43)	(1.27)
Family Representative Chairman						-0.5060	1.4880
						(-0.86)	(3.14)***
Family Member CEO	0.0445	-0.0126	0.0393	0.0701	-0.5424		
	(1.71)*	(-0.25)	(0.47)	(0.19)	(-1.10)		
Family Representative CEO	-0.1083	0.2219	-0.3426	-0.4919	0.9693		
	(-3.42)***	(4.93)***	(-4.65)***	(-1.78)*	(3.28)***		
Family Management	0.0794	-0.1648	0.2892	0.4730	-0.2390	3.0367	n/a
	(3.43)***	(-3.41)***	(3.76)***	(1.56)	(-0.52)	(10.84)***	
Ownership	0.0011	0.0030	-0.0039	0.0024	0.0112	0.0084	-0.0050
	(2.16)**	(3.20)***	(-2.83)***	(0.43)	(1.51)	(1.37)	(-0.51)
Control Wedge	-0.0378	0.1109	-0.2016	-0.1530	0.3313	0.1416	0.0874

	(-2.81)***	(4.18)***	(-4.77)***	(-1.15)	(1.92)*	(0.69)	(0.43)
Ln(Total Assets)	-0.0004	0.0153	-0.0217	0.0896	-0.1347	-0.2120	-0.0482
	(-0.09)	(1.46)	(-1.47)	(1.65)*	(-1.72)*	(-3.79)***	(-0.70)
Ln(Age)	0.0738	-0.0019	0.1274	0.0872	-0.0716	0.0368	-0.2024
	(5.78)***	(-0.08)	(2.97)***	(0.66)	(-0.42)	(0.20)	(-1.10)
Board Size	-0.0026	-0.0103	0.0104	-0.0149	0.0020	0.0173	0.0200
	(-0.87)	(-2.15)**	(1.36)	(-0.40)	(0.05)	(0.44)	(0.52)
Board Independence	0.0151	-0.6020	0.5972	0.4462	-0.8464	-0.2766	3.3122
	(0.31)	(-5.54)***	(3.48)***	(0.65)	(-0.91)	(-0.36)	(3.50)***
Chairman-CEO duality	-0.0538	0.0532	-0.1172	-0.0089	-0.4186	1.6134	0.0551
	(-2.75)***	(1.38)	(-1.99)**	(-0.03)	(-1.45)	(6.97)***	(0.24)
2^{nd} Largest Shareholder	-0.0203	-0.0717	0.0698	-0.0084	0.4205	0.3132	-0.4848
	(-1.26)	(-2.22)***	(1.32)	(-0.05)	(1.82)*	(1.13)	(-1.48)
2^{nd} generation family firm	-0.0262	0.1838	-0.3079	-0.7093	0.2591	0.0561	0.2429
	(-1.35)	(5.32)***	(-6.00)***	(-3.59)***	(0.92)	(0.24)	（0.79）
Acquired family firm	-0.1003	0.1919	-0.3921	-0.3700	-0.1026	0.3701	0.6621
	(-5.07)***	(4.76)***	(-6.02)***	(-1.67)*	(-0.35)	(1.19)	(2.09)**
Industry dummies	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Log likelihood	160.155	-207.267	-356.087				
McFadden R^2				0.351	0.498	0.713	0.430
n	536	536	536	536	536	536	536

Table 5 –Family Involvement and Firm Performance

Regressions relate return on assets to family involvement and control variables. The sample includes 536 family-controlled firms listed on the Taiwan Stock Exchange in 2007. Return on assets is earnings before interest and tax divided by total assets. Family member directors are family members (through blood or marriage) holding director or supervisor positions on the board. Family representative directors are non-family member representatives of the family's listed and unlisted entities holding director or supervisor positions on the board. Family directors include both family member and family representative directors. Family Chairman and CEO are dummy variables equal to one when a family member or representative holds these positions. These variables are also split into family member chairman, family representative chairman, family member CEO and family representative CEO. Family management is a dummy variable equal to one when a family member holds a non-CEO position in top management. Ownership is the cashflow rights ownership of the controlling owner. Control wedge is the ratio of control to cashflow rights of the controlling owner. Total assets is measured in billions of NT dollars. Age is the number of years since the firm was founded. Debt is total liabilities divided by total assets. Fixed assets is the ratio of fixed assets to total assets. Growth is the percentage change in sales. Board size is the number of directors and supervisors. Board independence is the number of independent directors and supervisors divided by board size. Chairman-CEO duality is a dummy variable equal to one if the same person holds both positions. Second largest shareholder is a dummy variable equal to one when the second largest shareholder (unrelated to the family) holds one or more positions on the board. Financial and ownership data is from the Taiwan Economic Journal database. All models include robust standard errors. T-statistics are show in parentheses. Asterisks denote significance as follows: * 10% , ** 5%, *** 1%.

	Return on Assets	
	(1)	(2)
Intercept	0.0703 (0.63)	0.0750 (0.67)
Family Directors / Board Size	-0.0660 (-2.26)**	
Family Member Directors / Board Size		-0.0837 (-1.92)*
Family Representative Directors / Board Size		-0.0544 (-1.77)*
Family Chairman	0.0104 (0.44)	
Family Member Chairman		0.0058 (0.25)
Family Representative Chairman		-0.0056 (-0.16)
Family CEO	0.0260 (1.29)	
Family Member CEO		0.0086 (0.34)
Family Representative CEO		0.0477 (1.25)
Family Management	-0.0332 (-1.75)*	-0.0155 (-0.62)
Ownership	0.0006 (0.96)	0.0006 (1.09)
Control Wedge	0.0085 (0.69)	0.0072 (0.62)
Ln(Total Assets)	0.0086 (1.30)	0.0083 (1.26)
Ln(Age)	-0.0243 (-1.53)	-0.0232 (-1.38)
Debt	-0.1290 (-3.45)***	-0.1264 (-3.20)***
Fixed Assets	-0.1094 (-2.52)**	-0.1146 (-2.64)**
Growth	0.0004 (2.80)***	0.0004 (2.74)***
Board Size	0.0018 (0.89)	0.0018 (0.91)
Board Independence	0.0452	0.0478

	(0.87)	(0.89)
Chairman-CEO duality	0.0201	0.0215
	(1.31)	(1.40)
2^{nd} Largest Shareholder	-0.0141	-0.0124
	(-0.92)	(-0.79)
Industry dummies	Yes	Yes
Adj-R^2	0.196	0.192
n	536	536

Table 6 – Generation of Family Members

Regressions relate return on assets to family involvement and control variables. The sample includes 536 family-controlled firms listed on the Taiwan Stock Exchange in 2007. Return on assets is earnings before interest and tax divided by total assets. Family member directors are family members (through blood or marriage) holding director or supervisor positions on the board. They are separated into first, second and third generation family members. Family representative directors are non-family member representatives of the family's listed and unlisted entities holding director or supervisor positions on the board. Family Chairman and CEO are dummy variables equal to one when a family member or representative holds these positions. These variables are also split into founder family chairman, non-founder family chairman, family representative chairman, family founder CEO, family non-founder CEO and family representative CEO. Family management is a dummy variable equal to one when a family member holds a non-CEO position in top management. Ownership is the cashflow rights ownership of the controlling owner. Control wedge is the ratio of control to cashflow rights of the controlling owner. Total assets is measured in billions of NT dollars. Age is the number of years since the firm was founded. Debt is total liabilities divided by total assets. Fixed assets is the ratio of fixed assets to total assets. Growth is the percentage change in sales. Board size is the number of directors and supervisors. Board independence is the number of independent directors and supervisors divided by board size. Chairman-CEO duality is a dummy variable equal to one if the same person holds both positions. Second largest shareholder is a dummy variable equal to one when the second largest shareholder (unrelated to the family) holds one or more positions on the board. Financial and ownership data is from the Taiwan Economic Journal database. All models include robust standard errors. T-statistics are show in parentheses. Asterisks denote significance as follows: * 10% , ** 5%, *** 1%.

	Return on Assets	
	(1)	(2)
Intercept	0.0645 (0.57)	0.0580 (0.51)
Family Member Directors 1st / Board Size	-0.0672 (-1.22)	
Family Member Directors 2nd / Board Size	-0.0858 (-1.66)*	
Family Member Directors 3rd / Board Size	-0.1028 (-2.25)**	
Family Member Directors / Board Size		-0.0790 (-1.76)*
Family Representative Directors / Board Size	-0.0505 (-1.63)	-0.0449 (-1.40)
Family Chairman	0.0100 (0.42)	
Family Founder Chairman		0.0152 (0.59)
Family Non-Founder Chairman		-0.0057 (-0.24)
Family Representative Chairman		-0.0086 (-0.25)
Family CEO	0.0248 (1.20)	
Family Founder CEO		0.0077 (0.28)
Family Non-Founder CEO		0.0115 (0.44)
Family Representative CEO		0.0467 (1.22)
Family Management	-0.0291 (-1.41)	-0.0185 (-0.73)
Ownership	0.0006 (0.96)	0.0007 (1.11)
Control Wedge	0.0073 (0.60)	0.0095 (0.80)
Ln(Total Assets)	0.0085 (1.29)	0.0086 (1.30)
Ln(Age)	-0.0232 (-1.39)	-0.0229 (-1.36)

Debt	-0.1283 (-3.40)***	-0.1236 (-3.13)***
Fixed Assets	-0.1124 (-2.51)**	-0.1152 (-2.64)***
Growth	0.0004 (2.76)***	0.0004 (2.68)***
Board Size	0.0019 (0.95)	0.0020 (1.03)
Board Independence	0.0498 (0.94)	0.0475 (0.88)
Chairman-CEO duality	0.0191 (1.23)	0.0219 (1.40)
2nd Largest Shareholder	-0.0141 (-0.91)	-0.0112 (-0.72)
Industry dummies	Yes	Yes
Adj-R^2	0.191	0.192
n	536	536

Table 7 – Expected versus Excess Family Directors

Regressions relate return on assets to family involvement and control variables. The sample includes 536 family-controlled firms listed on the Taiwan Stock Exchange in 2007. Return on assets is earnings before interest and tax divided by total assets. Expected family directors are the proportion of family directors up to the proportion of family ownership. Excess family directors <=50% are the proportion of family directors above the proportion of family ownership and up to 50 percent of board seats. Excess family directors >50% is the proportion of family directors above the proportion of family ownership and above 50 percent of board seats. These three variables are also split into family members and family representatives. Family member directors are family members (through blood or marriage) holding director or supervisor positions on the board. Family representative directors are non-family member representatives of the family's listed and unlisted entities holding director or supervisor positions on the board. Family Chairman and CEO are dummy variables equal to one when a family member or representative holds these positions. Family management is a dummy variable equal to one when a family member holds a non-CEO position in top management. Ownership is the cashflow rights ownership of the controlling owner. Control wedge is the ratio of control to cashflow rights of the controlling owner. Total assets is measured in billions of NT dollars. Age is the number of years since the firm was founded. Debt is total liabilities divided by total assets. Fixed assets is the ratio of fixed assets to total assets. Growth is the percentage change in sales. Board size is the number of directors and supervisors. Board independence is the number of independent directors and supervisors divided by board size. Chairman-CEO duality is a dummy variable equal to one if the same person holds both positions. Second largest shareholder is a dummy variable equal to one when the second largest shareholder (unrelated to the family) holds one or more positions on the board. Financial and ownership data is from the Taiwan Economic Journal database. All models include robust standard errors. T-statistics are show in parentheses. Asterisks denote significance as follows: * 10% , ** 5%, *** 1%.

	Return on Assets	
	(1)	(2)
Intercept	0.0759 (0.68)	0.1039 (0.97)
Expected Family Directors	-0.0719 (-0.41)	
Expected Family Member Directors		-0.0262 (-0.19)
Expected Family Representative Directors		-0.1413 (-0.55)
Excess Family Directors <=50%	-0.1418 (-2.04)**	
Excess Family Member Directors <=50%		-0.2241 (-2.36)**
Excess Family Representative Directors <=50%		-0.0959 (-1.30)
Excess Family Directors >50%	-0.0283 (-0.65)	
Excess Family Member Directors >50%		-0.0973 (-1.28)
Excess Family Representative Directors >50%		-0.0216 (-0.45)
Family Chairman	0.0105 (0.45)	0.0071 (0.30)
Family CEO	0.0259 (1.29)	0.0256 (1.21)
Family Management	-0.0330 (-1.73)*	-0.0323 (-1.47)
Ownership	0.0002 (0.18)	0.0001 (0.01)
Control Wedge	0.0104 (0.81)	0.0066 (0.51)
Ln(Total Assets)	0.0093 (1.41)	0.0089 (1.40)
Ln(Age)	-0.0244 (-1.58)	-0.0265 (-1.48)
Debt	-0.1277 (-3.34)***	-0.1285 (-3.45)***
Fixed Assets	-0.1091	-0.1104

	(-2.53)**	(-2.50)**
Growth	0.0004	0.0003
	(2.74)***	(2.65)***
Board Size	0.0017	0.0015
	(0.83)	(0.77)
Board Independence	0.0494	0.0402
	(0.94)	(0.72)
Chairman-CEO duality	0.0204	0.0189
	(1.32)	(1.22)
2nd Largest Shareholder	-0.0135	-0.0156
	(-0.87)	(-1.02)
Industry dummies	Yes	Yes
Adj-R^2	0.195	0.198
n	536	536