Equity Private Placements and Corporate Governance: A Study of Family Firms in Taiwan's Financial Landscape

Dr. Yih-Wen Shyu Department of Industrial & Business Management Chang Gung University Taoyuan, Taiwan yishyu@mail.cgu.edu.tw

> Dr. Chun-I Lee College of Business Administration Loyola Marymount University Los Angeles, CA, USA Chun.Lee@lmu.edu

Abstract

This study investigates the role of stewardship theory in explaining the performance of family firms in the context of private equity placements, with a focus on Taiwan's corporate landscape. By integrating agency and stewardship perspectives, we provide empirical evidence that stewardship behaviors significantly enhance the relationship between family involvement and firm performance, especially following equity placements. Our findings demonstrate that private placements, when aligned with stewardship principles, enable family firms to maintain control while securing capital for sustainable growth. Furthermore, stewardship moderates potential agency conflicts by fostering long-term commitment and aligning managerial incentives with shareholder interests. The study highlights Taiwan's unique institutional environment as a fertile ground for examining the interplay between governance mechanisms, family control, and the effectiveness of private equity placements. These insights extend the governance literature by illustrating the complementary roles of agency and stewardship theories in family firms, offering a nuanced framework for understanding their governance and performance dynamics.

Keywords: Stewardship theory, agency theory, equity private placement, family firms

I. Introduction

The market reacts unfavorably to public seasoned equity offerings,¹ with extensive literature suggesting that companies often experience long-term performance declines following such events.² Investors tend to view public equity offerings as signals of potential overvaluation or financial instability, which dilutes existing shares and erodes market confidence. In contrast, private placements of equity have garnered more favorable reactions from investors, often attributed to the enhanced monitoring and value certification by sophisticated investors. Wruck (1989) proposed that private placements strengthen governance by allowing closer investor oversight, while Hertzel and Smith (1993) argued that these placements signal firm value to informed, long-term investors. However, Barclay et al. (2007) challenged the broader relevance of these earlier explanations, particularly in the U.S. market context. Their study of 594 private placements revealed that 83% of the buyers were passive investors, who neither actively monitored the firm nor played a managerial role. Barclay et al. argued that many private placements in the U.S. entrench management and shield it from external pressures, raising doubts about the generalizability of the governance benefits associated with private placements in other markets.

This study seeks to address a significant gap in the corporate governance literature by examining the impact of private equity placements on family-controlled firms (family firms), a critical area that has received limited attention. Family firms, as noted by La Porta et al. (1999), often face unique governance challenges due to concentrated ownership, where founding families retain significant control through mechanisms that deviate from traditional governance models centered on dispersed ownership. Villalonga and Amit (2008) have shown that these control structures create governance dynamics that are not adequately captured by agency theory, which tends to emphasize conflicts between self-interested managers and shareholders. In contrast, stewardship theory suggests that family members, as stewards, align more closely with the firm's long-term goals, making family firms a valuable context for exploring the intersection of private placements and corporate governance.

Taiwan's corporate sector, characterized by strong family ownership and control,

¹ See, for example, Asquith and Mullins (1986), Masulis and Korwar (1986), and Mikkelson and Partch (1986).

² To name just a few, Spiess and Affleck-Graves (1995), Brav et al. (2000), and Jegadeesh (2000).

provides an ideal research setting for this exploration (Claessens, Djankov, and Lang, 2000; Filatotchev, Lien, and Piesse, 2005; Tsai et al., 2006; Chou and Shih, 2020). Family members frequently occupy executive and board roles, aligning more naturally with stewardship principles, which focus on long-term value creation rather than short-term self-interest. This contrasts with agency theory, which highlights managerial entrenchment and conflicts of interest. Taiwan's predominance of family firms, especially in high-tech sectors, and its dynamic entrepreneurial environment present a fertile ground for examining the governance effects of private placements. As Shiu and Wei (2013) documented, the Taiwanese market has demonstrated positive turnaround effects following private placements, driven by market anticipation of growth opportunities. Furthermore, Taiwan's regulatory environment, which increasingly aims to protect minority shareholders from expropriation by controlling families, further enhances its relevance as a context to explore how stewardship theory can provide fresh insights into the performance of family firms after private placements.

This study aims to provide new insights into how private placements affect governance structures, shareholder alignment, and post-placement performance in family-controlled firms by exploring the interplay between stewardship and agency theories. Taiwan's corporate environment—characterized by strong family ownership, a dynamic market, and evolving regulations—offers an ideal setting to reconcile the contrasting predictions of these governance theories within the context of private placements of equity. Our findings show that private placements involving family insiders, such as owner-managers or family board members, result in improved post-placement stock performance and operational outcomes. This underscores the crucial role of stewardship in aligning managerial incentives with longterm company goals, while also enhancing oversight. The results highlight how family involvement shapes the relationship between private placements and firm performance, offering a more nuanced view of governance in family firms. This approach not only enriches the understanding of family involvement and private placements but also expands the governance discussion, traditionally centered on agency theory, by emphasizing the importance of stewardship in fostering long-term value creation.

The remainder of the paper is organized as follows: Section II reviews the literature and develops hypotheses, Section III discusses the data and methodology, Section IV presents the results, and Section V concludes the paper.

2

II. Literature Review and Hypotheses Development

2.1 Theoretical Foundations: Stewardship Theory vs. Agency Theory

In the study of family firms, both agency and stewardship theories provide crucial yet distinct perspectives on governance and performance. Agency theory, which has long been the dominant framework in corporate governance, posits that managers act out of self-interest, which can lead to conflicts with shareholders (Jensen & Meckling, 1976). To mitigate these agency costs, governance mechanisms are designed to monitor managerial behavior and align it with shareholder interests. However, this assumption of self-interested managers is often oversimplified, particularly in family firms, where family members frequently occupy managerial roles and share long-term goals with the firm (Anderson & Reeb, 2003).

Stewardship theory offers an alternative perspective that is particularly relevant for family firms. Rooted in sociology and psychology, stewardship theory assumes that managers, especially those who are also owners, act as stewards of the firm, prioritizing its long-term success over individual gains (Davis et al., 1997). In family firms, where personal reputation and legacy are closely tied to firm performance, stewardship behaviors naturally emerge, aligning the interests of managers and owners (Miller & Le Breton-Miller, 2006; Davis et al., 2010). These pro-organizational behaviors help foster trust, reduce agency costs, and lead to competitive advantages and superior performance for the firm (Ashforth and Mael 1989; Anderson & Reeb, 2003; Gomez-Mejia et al., 2007).

Recent studies reinforce the importance of stewardship theory in modern family firms. For example, Debicki et al. (2016) argue that stewardship behaviors contribute to superior performance by encouraging long-term investments and reducing agency conflicts. This theory highlights how family members, as stewards, tend to view their involvement as a long-term commitment to the firm's success, aligning both personal and organizational goals. Moreover, Chrisman et al. (2021) emphasize the role of family influence in mitigating agency costs, particularly in situations where long-term goals, such as innovation and succession planning, are prioritized. Stewardship theory, therefore, offers a more nuanced understanding of family firms' governance structures compared to the traditional agency model, especially when family

ties are strong and leadership is viewed as a responsibility to preserve and grow the family legacy (James, 1999).

In summary, while agency theory focuses on the conflicts arising from self-interest, stewardship theory emphasizes the natural alignment of interests between owners and managers in family firms. Stewardship leads to reduced agency costs and fosters long-term value creation, making it a powerful framework for understanding governance in family firms. This combined application of agency and stewardship theories offers a more comprehensive view of family firm governance, as shown in studies by Miller & Le Breton-Miller (2006) and reinforced by recent findings from Debicki et al. (2021) and Chrisman et al. (2021).

2.2 Impact of Family Involvement on Firm Performance

Family involvement in firms can manifest through ownership, control, and management, each of which has a significant impact on firm performance (Chua et al., 1999; Chrisman et al., 2005; Villalonga & Amit, 2006). When a family holds a controlling interest and actively participates in strategic decision-making, this involvement often enhances firm performance by aligning the interests of owners and managers (Sundaramurthy & Kreiner, 2008).

From an agency theory perspective, family ownership is generally viewed favorably because families with substantial stakes in the firm have strong incentives to closely monitor management and reduce agency costs (Berle & Means, 1932; Fama & Jensen, 1983). The alignment of interests between family owners and managers—especially when family members hold both roles—helps mitigate traditional agency problems, as the family's stake in the firm's success reduces the risk of managerial opportunism. As a result, family ownership typically leads to improved firm performance. However, this involvement is not without its challenges, and its effects on performance can be complex. Some studies have shown that family firms may still suffer from agency problems, such as conflicts between family members and minority shareholders or issues of nepotism (Schulze et al., 2003; Chrisman et al., 2004). These mixed findings suggest that the relationship between family ownership and performance may vary depending on the firm's governance structure.

Family control, particularly in East Asian firms, often carries additional complexities. Family firms in this region tend to use control mechanisms such as pyramid structures or dual-class shares, allowing families to hold disproportionate control rights relative to their ownership stakes (Faccio et al., 2001; Lemmon & Lins, 2003). These mechanisms can heighten conflicts between majority and minority shareholders and may lead to the expropriation of minority interests. While these control structures can benefit the family, they may also result in poor firm performance and broader economic inefficiencies (Morck et al., 2000; Morck et al., 2005).

On the other hand, family management has been associated with reduced agency conflicts between managers and owners. Family managers, due to their investment in the firm's long-term success, are more likely to act in its best interest (Morck et al., 1988; Palia & Ravid, 2002). Empirical evidence supports this: McConaughy et al. (1998) found that firms with a CEO who is either the founder or a family member tend to have higher market-to-book ratios and market returns. Anderson and Reeb (2003) also demonstrated that family-managed firms with a family CEO exhibit higher accounting profitability. Villalonga and Amit (2006) extended these findings, showing that among Fortune 500 firms, superior performance is most pronounced when the founder serves as CEO or chairman, even with a non-family CEO in place. However, this outperformance diminishes in firms led by descendant CEOs, as Barontini and Caprio (2006) found in their study across European countries. Similarly, Andres (2008) observed that in Germany, family firms only outperform when the founding family remains actively involved in management or governance. Villalonga and Amit (2006) also found that descendant-led Fortune 500 firms tend to underperform compared to nonfamily firms. These results imply that while family management can benefit firm performance, these advantages may be offset by the costs of family management, particularly when less capable heirs take over leadership roles (Caselli & Gennaioli, 2002; Burkart et al., 2003).

2.3 Private Placements in Family Firms and the Moderating Role of Stewardship in Hypotheses

Among a multitude of sources of funding available to businesses, private placement is an important source of capital for firms in need of a cash infusion to continue to grow. As a consequence, a private placement of equity is better suited to firms that are looking for longer-term capital to fund their expansions. As noted by Miller and Le Breton-Miller (2005) and Le Breton-Miller et al. (2011), family stewards tend to invest in longer-term projects, fund such investments, and bear the associated risks. The effect of private placements on the long-term performance of family firms is therefore an issue that offers great potential for testing the stewardship theory. Because the complexity of family involvement in firm performance goes beyond agency theory's focus on economic incentives. Stewardship theory provides a broader perspective by emphasizing the family's commitment to the firm's long-term success and its stakeholders' well-being (Davis et al., 1997).

The impact of private placements in family firms offers a unique opportunity to examine the interplay between stewardship and agency theories. While agency theory would suggest that external capital could exacerbate conflicts between shareholders and entrenched managers, stewardship theory provides a more optimistic view. In family firms, where ownership, control, and management are often closely intertwined, private placements can serve as a tool to align external capital with long-term family goals, rather than as a mechanism for short-term profit maximization (Anderson & Reeb, 2003).

This alignment is particularly relevant in the context of Taiwanese family firms, where involvement often remains within the family across generations. Stewardship theory suggests that family managers, driven by long-term strategic goals, can use private placements to secure resources without sacrificing control or corporate governance quality. This view is supported by recent studies like Mazzi et al. (2018), who found that family firms can balance innovation and risk management through effective control mechanisms, thereby leveraging private placements for sustained growth and competitive advantage.

Family Ownership and Performance: The Moderating Role of Stewardship

Family ownership is a critical determinant of firm performance, particularly in firms where the alignment between ownership and control is strong. Agency theory suggests that this alignment reduces the need for external monitoring, as family owners are directly invested in the success of the firm (Fama & Jensen, 1983). Stewardship theory goes further, proposing that family members acting as stewards are more likely to prioritize long-term investments that benefit the firm as a whole (Miller & Le Breton-Miller, 2006).

Recent research by Nordqvist et al. (2019) highlights the role of stewardship in succession planning. It shows that family ownership often leads to smoother transitions and better long-term performance when stewardship behaviors are present. This reinforces the idea that

family ownership, moderated by stewardship, can lead to superior firm performance, especially following strategic decisions like private placements of equity. Thus, stewardship strengthens the positive relationship between family ownership and long-term performance by fostering commitment to the firm's longevity and stability.

Hypothesis 1: Stewardship moderates the relationship between family ownership and longterm performance in family firms after a private placement of equity, such that stewardship behavior amplifies the positive impact of family ownership on performance.

Family Control and Performance: The Role of Excess Control Rights and Stewardship

In many family firms, control rights often exceed ownership rights through mechanisms like pyramidal structures and dual-class shares. From an agency perspective, these excess control rights pose risks, such as the expropriation of minority shareholders and the entrenchment of family managers (Claessens et al., 2002). However, when viewed through the lens of stewardship theory, excess control rights can be seen as a mechanism for securing the firm's long-term strategic direction, particularly in contexts where family members are deeply committed to the firm's success (Chrisman et al., 2021).

Stewardship theory suggests that in family firms, control rights can be used to enhance firm performance by enabling family members to make long-term investments and pursue growth strategies without the pressures of short-term market expectations. This is particularly relevant in emerging markets, where family control often serves as a stabilizing force. The research of Berrone et al. (2018) supports this, showing that family control when coupled with stewardship behaviors, can lead to enhanced governance and improved firm performance.

Hypothesis 2: Stewardship enhances the relationship between family control and long-term performance in family firms following a private placement of equity, with stewardship behavior strengthening the positive link between family control and performance.

Family Management and Performance: The Impact of Stewardship on CEO and Board Involvement

Family involvement in management, particularly through the roles of CEO and board chair, is a key factor influencing firm performance. Agency theory argues that family management reduces conflicts between owners and managers, aligning their interests more closely with the firm's long-term success (Villalonga & Amit, 2006). However, stewardship theory provides a more nuanced perspective, suggesting that family managers, driven by a sense of responsibility and commitment to the firm's legacy and an increase in areas like R&D and human capital, are better positioned to foster long-term growth (Ashwin et al., 2015; Mazzi et al., 2018).

Empirical evidence supports the positive impact of family management on firm performance. Anderson and Reeb (2003) found that family CEOs are associated with higher profitability and better governance outcomes, while Nordqvist et al. (2019) demonstrated that stewardship-oriented family leaders contribute to smoother succession processes and sustained competitive advantage. Stewardship behavior mitigates the potential downsides of family management by fostering a culture of accountability and long-term value creation. Therefore, the presence of family members in key leadership roles, moderated by stewardship, strengthens the relationship between family management and firm performance.

Hypothesis 3: Stewardship moderates the relationship between family involvement in management and long-term performance after a private placement of equity, such that the positive impact of family management on performance is amplified by stewardship behavior.

III. Data and Methodology

3.1. Sample Selection

As discussed in the Introduction, private placements of equity in Taiwan provide a unique opportunity to test the validity of both agency and stewardship theories in explaining the long-term performance as well as the moderating effect of stewardship on the relationship between family involvement and performance. To perform the test, we examine the operating performance three years after a private placement of equity for firms listed on either the main exchange, Taiwan Stock Exchange (TWSE), or over-the-counter exchange. We obtain from the Market Observation Post System (MOPS) of TWSE—a centralized website where regular disclosure of financial and business conditions required of all publicly traded companies in Taiwan is available to the public—the list of private placements of equity over the period from

2002, when the rules for private placements were enacted, to 2015. To be included in the final sample, firms had to meet at least one of the following criteria of family-controlled firms similar to those employed by Cronqvist and Nilsson (2003) and Andres (2008): (1) the founder and/or family members hold the CEO or Chairman position; (2) the members of the founding-family hold more than 25% of the voting shares; (3) if the founding-family owns less than 25% of the voting rights, its members constitute at least 50% the board of directors; (4) if the founding-family owns less than 25% of the voting rights, its family members comprise at least 33% of the board of directors and/or three family members are holding the top management positions. A total of 219 private placements³ of equity met these criteria over the 14-year sample period.

Along with the list of private placements, we obtain from MOPS the announcement date, number of shares, and other relevant information related to each placement. From the Taiwan Economic Journal, which is a database with in-depth, extensive historical financial data and information on the major financial markets in Asia, we retrieve for each sample firm the necessary information on corporate governance variables, firm characteristics, stock prices, and the annual and quarterly financial statements. To identify the family members of a firm, we obtain relevant information from multiple sources, including the annual reports, the firm's website, and articles in business journals.

3.2. Methodology

As argued by Le Breton-Miller et al. (2011), stewardship and agency conflicts manifest to varying extents in three highly interdependent facets of strategic behavior: investment, funding, and risk tolerance. Concerned with the long-term success of the firm, stewardship requires farsighted investments in infrastructure as well as product and process research and development (R&D) (Miller et al. (2008)). To facilitate these long-term investments, flexibility in funding is required and augmented by retaining earnings instead of paying dividends, and by maintaining liquidity. Both investing for long-term success and restricting short-term payouts undoubtedly require the owners to have a high tolerance toward risk. At the opposite end of the spectrum, agency conflicts mean that the business is vulnerable to exploitation by its agents who tend to behave exactly the opposite of the above requirements (Bloom and Van

³ For firms that issued multiple private placements, repeated private placements within a three-year window were excluded.

Reenen 2006, Morck et al. 2005). Hence, an analysis of stewardship is an assessment of the opposite of a tendency of agency behavior.

Following Le Breton-Miller et al. (2011), we construct a composite stewardship index based on variables that capture investment, funding, and risk tolerance. For measuring investment, two ratios are used: the ratios of R&D to sales and capital expenditures to property, plant, and equipment. To measure funding flexibility, we use cash holding-calculated as the ratio of cash plus short-term investments to property, plant, and equipment-and the dividend retention ratio. Finally, the unsystematic risk is used to measure risk tolerance. All five stewardship variables are then standardized and summed to generate the composite stewardship index. The individual components of this index contribute to the overall degree of stewardship. A few values of some variables are missing, but dropping the corresponding cases does not alter the empirical results. Using this stewardship index allows us to assess the impact of stewardship on long-term performance. Similar to many earlier studies of ownership and performance in corporate governance literature,⁴ we use Tobin's Q to measure long-term performance and calculate it by dividing the sum of the market value of equity and the book value of debt by total assets over the three years after the private placement. A high Tobin's Q indicates a firm's achievement of a higher market valuation than its book value as a result of its strong competitive advantage and growth prospect.

To obtain a clearer understanding of the moderating role stewardship plays in the relationship between performance and family involvement, we employ hierarchical moderated regression analysis. This analysis enables us to determine the moderating effects of stewardship by a series of model comparisons. As a moderator, stewardship by definition changes the strength of the relationship between the long-term performance and family involvement. Based on the F-test results, we determine whether the addition of an interaction term of stewardship and a measure of family involvement to the regression equation makes a significant increase in the adjusted R² from the simpler model to the more complex model. Specifically, the control variables along with the proxy variables of family involvement are entered in the regression model first. Family involvement is then removed from the equation, while the stewardship behavior index is added in the second regression model. In the third model, all of the independent variables are included to see their direct effects. In the final full model, the

⁴ For example, Morck et al. (1988), Anderson and Reeb (2003), and Villalonga and Amit (2006).

interaction term of family involvement and stewardship is included. The full regression model takes the following form:

Tobin's $Q_i = \alpha_0 + \alpha_1 Family Involvement_i + \alpha_2 Stewardship_i$ + $\alpha_3 Stewardship_i \times Family Involvement_i + \alpha_4 Control Variables_i + \varepsilon_i$

As pointed out by Villalonga and Amit (2006), family involvement in the business takes the following three forms: ownership, control, and management. Considering their finding that these three facets have different effects on firm value, we include all of them but treat them separately in the examination since they are likely to be correlated. To measure family ownership (ownership), we calculate the percentage of equity ownership held by members of the family. To allow for a nonlinear relationship between performance and family ownership, squared family ownership²) is also included in the regression model. As noted by Jensen (1993), the board of directors is an indispensable internal control mechanism for monitoring managers to alleviate agency problems. To best achieve its purpose, board independence is essential and we use family board, calculated as the proportion of director seats held by family members, as one of the four measures of family control. The higher this ratio is, the more likely that the board is dominated by the family and the easier it is for them to expropriate wealth from minority shareholders, resulting in poorer performance. The second measure is excess control rights (RCC) which gauges the extent of family control rights over its cash flow rights. Following La Porta et al. (1999), it is calculated as the natural log of the ratio of control rights over cash flow rights. The third measure is a pyramid, used to capture family control via business group affiliation. It takes on a value of one if the controlling shareholders gain control of the firm through at least one publicly traded company, and zero otherwise. Finally, the fourth measure of control we use is cross-shareholding. It takes on a value of one if the firm holds any shares of its controlling shareholders, or other companies along the chain of control, and zero otherwise.

For family management, we also employ four measures. The first is "board chair" ("chair"), a dummy variable that indicates whether a member of the family holds the chair of the board. The second measure is "CEO duality", which has a value of one if the CEO is also the chair of the board. Based on agency theory, CEO duality is expected to lead to lower performance. On the other hand, stewardship theory values the lack of board independence due

to family boards or CEO duality and predicts their presence to be linked to higher firm performance. The third measure is "CEO", which takes on a value of one if the CEO is a member of the family. The fourth and final measure is "executive", which indicates whether any family members hold executive positions, which include senior VPs, VPs, treasurer, and chief accountant. If so, it has a value of one and is zero otherwise.

Previous studies of private placements have identified several variables that represent firm characteristics that are associated with the long-term performance following an equity placement. These must therefore be included in the model, and are discussed below:

Firm age (Age) – defined as the length of time since the inception of the firm and calculated as the difference between the year of the private placement and the firm's founding year. As argued by Villalonga and Amit (2006), firm age is expected to affect both firm conduct and performance.

Firm size (Size) – calculated as the natural log of total assets 30 days before the announcement of the private placement. As shown by Asquith and Mullins (1986), long-term abnormal returns of an equity issue are negatively related to firm size. Moreover, as information asymmetry is expected to be greater for smaller firms, the relationship is also predicted to be negative.

Financial leverage (Debt Ratio) – measured by the debt to equity ratio. As a gauge of a firm's debt financing capacity, a rising leverage ratio indicates greater pressure to repay debts and a stronger possibility of financial distress. Consequently, a larger price discount is likely to be demanded by potential investors of the equity placement.

Returns on equity (ROE) – used to measure the quality of the firm's assets and expectation of future profitability. As profitability improves with an increase in ROE, investors will likely buy more shares and push up the stock price, resulting in better long-term performance.

Relative offer size (Offer Size) - defined as the ratio of issue size relative to the total market value of the firm before the equity offering. Hertzel and Smith (1993) showed that the information effect is larger for placements with a higher potential degree of undervaluation, resulting in lower relative issue size.

Institutional investor (Institution) – measured as the percentage of shareholding by institutional investors, used to determine whether institutional investors push for better governance, leading to better performance.

IV. Results

4.1 Summary Statistics

As shown in Table 1, over the 14 years, a total of 219 private placements met the data criteria. They are distributed across many industries, with the most, 28 or 12.79% of all placements in building material & construction, followed by semiconductors with 21 (9.59%), and three industries (computer & peripheral equipment, optoelectronic, and electronic component) with 20 placements (9.13%) each. Only one (0.46%) placement was in the food industry, and two (0.91%) each were in the plastic, electrical & cable, and chemical industries. The placements in our sample spanned the 2005-2013 period, with the fewest, nine (4.1%), in 2013, and the most, 46 (21%), in 2009, immediately following the global financial crisis.

Insert Table 1 about here

Concerning statistics on the placements, Panel A of Table 2 indicates that the average (median) proceeds were NT\$ 698.33 (NT\$160) million. The offerings account for a mean of 39.04% and a median of 19.61% of all shares outstanding after the placement. Finally, the discount of the offering prices had an average of 9.63% and a median of 16.86%. Although this study focuses on operating performance, in panel B we also report the market reactions to the announcements and longer-term stock performance for a comparison with previous studies that examined these market performance measures. Over the (-1, 1) event window, the cumulative abnormal returns (CAR) had an average (median) of 4.23% (3.11%). Before the announcement, over the 10 days of (-10, 0), the average (median) CAR was 0.42% (-1.37%). After the announcement, over the 10-day post-announcement period of (0, 10), the CARs had an average (median) of 8.83% (4.16%). We also report the discount-adjusted CARs, following Hertzel et al. (2002). They had an average (median) of 14.84% (3.25%), 6.25% (-2.08%), and 32.41% (4.11%) for the periods of (-1, 1), (-10, 0), and (0, 10), respectively. All the average CARs are

statistically significant at a better than one percent level. The market reaction to the placements is positive, consistent with findings in previous studies. A comparison of CARs before and after the announcement indicates that the market does not seem to anticipate the placements.

To provide a comparison with the findings of Hertzel et al. (2002), we further look at the longer-term post-announcement stock performance. For each sample firm, a matching firm without a private placement of equity that is in the same industry and has similar market capitalization and earnings per share is identified. The CARs for three-time horizons, 30 days, 60 days, and 750 days (approximately one month, two months, and three years) are calculated. As shown in Panel B of Table 2, the average CARs for the sample firms are 10.81% for 30-day, 13.35% for 60-day, and 32.94% for 750-day horizons; the first two are statistically significant at better than one percent level, while the 750-day CAR is not statistically significant at the conventional levels. In contrast, the corresponding CARs for the matching firms are 0.72%, -0.79%, and -7.60%, all of which are small and none of which is statistically significant. Although the 750-day CAR is positive, its statistical insignificance suggests that the market does not have either a positive or a negative opinion of these firms three years after the placement.

Insert Table 2 about here

4.2 Main Results

Before presenting the regression results for the relationship between operating performance and family involvement, we see from Table 3 that the correlations between Tobin's Q and all the family involvement measures except the family board are negative. However, none of these correlations are statistically significant. In contrast, the correlation between Tobin's Q and stewardship is positive with a value of 0.169 which is statistically significant at the five percent level. As expected, the correlations between family involvement measures are all mostly significant, revealing the interdependency of these measures and justifying separating them in regressions. Among the control variables, assets and ROE are negatively correlated with Tobin's Q with a correlation of -0.310 and -0.263, respectively, all significant at the one percent level.

Insert Table 3 about here

In presenting the regression results, we highlight stewardship and family involvement by placing their coefficient estimates before those for the control variables. In Table 4, the coefficient for stewardship has a value of 0.077, which is significant at the ten percent level. Among the control variables, assets have a coefficient of -0.15, ROE -0.006, and institution 0.004; the first two are significant at the one percent level and the latter is significant at the ten percent level. These results suggest that stewardship has a positive effect on performance and that performance is better for smaller firms and firms with a negative ROE and larger institutional ownership. The last finding is consistent with the argument that the existence of institutional investors is good for firm performance, plausibly owing to their sophistication and monitoring. In contrast to the significantly positive coefficient for stewardship, the results for the family involvement measures are weak. Five of these measures are not statistically significant and only family board, executive, and CEO duality are significant. Their respective values of 0.136, -0.180, and -0.163, all significant at the ten percent level, suggest that family involvement on the board helps improve operating performance while the holding of top executive positions and duality do not.

Insert Table 4 about here

Results for regressions involving stewardship, involvement measures, and the interaction of the two are reported next. Table 5 reports the results of family ownership, the first of the three facets of family involvement. Since the results for the control variables are effectively the same as those reported in Table 4, we will omit them in the following discussion. For ownership, we see that in Model 1 its coefficient is negative but not statistically significant, whereas the coefficient for its square, ownership², is positive, but insignificant as well.

The results for Model 2, with stewardship added, are effectively the same, in both sign and significance level. With a coefficient of 0.077, which is significant at the one percent level, we see that stewardship is positively related to firm performance, offering supporting evidence that stewardship enhances firm performance. This positive effect remains significant but in Model 3, it has a higher coefficient of 0.255 after the addition of the interaction terms of stewardship and family ownership, stewardship×ownership, and stewardship and ownership squared, stewardship×ownership². The coefficient for stewardship×ownership is -0.025 and that for stewardship×ownership² is 0.0005; both are significant at the one percent level. These results suggest a moderating effect of stewardship on the relationship between performance and ownership, which is non-linear. Adding the two interaction terms together, we have the total of stewardship×ownership×(-0.025+0.0005×ownership). Since ownership has a value between 0 and 1, the value in the parentheses (-0.025+0.0005×ownership) is always negative, suggesting a negative moderating effect, which gradually declines in magnitude as ownership increases. Adding this total moderating effect to the own effect of stewardship yields a total effect associated with stewardship of stewardship×[0.255 + ownership×(-0.025 + 0.0005×ownership)]. At the highest value of ownership, with a value of one, the total value inside the bracket is a positive 0.2305. On the other hand, at the lowest level of ownership, 0, the total value is 0.255. Therefore, we find that stewardship has an overall positive effect on long-term performance. This effect is offset a little bit, at most 0.0245, by the negative moderating effect of stewardship resulting from its interaction with family ownership. Therefore, the hypothesis (H1) is supported on the basis of the above results in model 3.

Insert Table 5 about here

Table 6 presents the results for family control, the second facet of family involvement. Panel A shows that, for Model 1, where family board and RCC are the measures for family control, the coefficients for assets, ROE, and institution remain effectively the same as those in earlier tables in magnitude, with institution being significant at the five percent level. Moreover, age, with a coefficient of -0.0007, is now significant at the ten percent level. The coefficient for family board is 0.203, which is significant at the five percent level, indicating it has a positive effect on performance. At the same time, stewardship has a statistically significant, at the one percent level, coefficient of 0.079, also indicating a positive relationship with performance. Both family board and stewardship remain positive and significant, at the ten and five percent levels, respectively, after the addition of the interaction term of stewardship×family board in Model 2. With a value of 0.235, which is significant at the one percent level, stewardship clearly has a positive moderating effect that strengthens the effect of family board on firm performance. This moderating effect is also evident when excess control rights, measured by RCC, are used as a measure of family control. The coefficient for RCC in Model 3 is 0.009, which is hardly significant, while stewardship has a coefficient of 0.077, which is similar in magnitude and significance level to that in Model 1. However, in Model 4, where the interaction term of stewardship×RCC is added, the coefficient for RCC is -0.034, which is significant at the five percent level, while stewardship, with a coefficient of 0.048, is insignificant. Apparently, the effect of stewardship is reflected now in stewardship×RCC, which has a coefficient of 0.089 and is significant at the five percent level.

The results for the alternative measures of family control, pyramid, and cross shareholding, are similar. As shown in Panel B, while pyramid has a positive coefficient in Model 1, it is not statistically significant. Stewardship, however, has a coefficient which is positive and significant at the one percent level. It remains positive in Model 2 with a value of 0.05 and significant at the ten percent level after the addition of the interaction term stewardship×pyramid, which has a positive and significant, at the five percent level, coefficient of 0.148, indicating again a positive moderating effect. For cross shareholding as another measure of family control, its positive coefficient in Model 3, is insignificant. Again, stewardship, with a coefficient of 0.077, remains positive and significant at the one percent level changes when the interaction term of stewardship×cross shareholding is added in Model 4. While it remains positive, it ceases to be significant, with a p-value of 0.106. Interestingly, the coefficient for cross shareholding changes to a negative sign, but remains insignificant. The changes to insignificance seem to be the result of a positive and statistically significant, at the five percent level, coefficient of 0.161 for stewardship×cross shareholding.

Together, the results in Table 6 indicate that the effect on performance of family control is positive when family control is measured by family board, negative when measured by RCC, and insignificant when measured by both pyramid and cross shareholding. In all cases, stewardship clearly has a significant and positive effect when it appears alone in the model. When it interacts with control measures, all the resulting interaction terms are positive and significant. In models with RCC and cross shareholding as measures of family control, the effect of stewardship appears to be captured instead by the interaction terms of stewardship and these two measures. Then the hypothesis (H2) is completely confirmed.

Insert Table 6 about here

Turning to the results reported in Table 7 for the third facet of family involvement, family management. Panel A shows that the coefficients for assets and ROE in Model 1 remain negative and significant at the one percent level, while that for institution is positive but insignificant. The coefficient for chair, the first measure for family management, -0.116, is not statistically significant. However, with a coefficient of 0.074, stewardship is positive and significant at the one percent level. In Model 2, chair remains insignificant while stewardship, with a coefficient of 0.013, is positive but not significant. The interaction term of stewardship and chair, stewardship×chair, has a positive coefficient, 0.195, which is significant at the one percent level. These findings suggest that while chair by itself does not have a significant effect on family firm performance, stewardship plays a moderating role by interacting with chair to enhance long-term performance. In Model 3, CEO duality, which is used as an alternative measure for management, has a coefficient of -0.184, which is significant at the five percent level. At the same time, the coefficient for stewardship, 0.074, is similar in magnitude and significance level to that of Model 1. The significantly negative coefficient for CEO duality is consistent with the findings in the literature of agency conflicts resulting from CEO duality. Its negative effect stands in sharp contrast to the positive impact of stewardship. The presence of both effects validates our argument that both agency and stewardship theories are required to explain family firm performance. In Model 4, further supporting evidence for stewardship as a determinant of performance is found in the interaction term of stewardship and duality, stewardship×duality, which, with a positive coefficient of 0.219, is significant at the five percent level. Therefore, while duality has a negative effect on firm performance, stewardship has a positive moderating effect that offsets this negative effect. Adding the coefficients for duality and stewardship×duality, we have a net effect of -0.208+ stewardship×0.219 when duality has a value of one. This net effect turns positive if stewardship has a value greater than 0.949 (=0.208/0.219), indicating a complete offset of the negative effect of duality when stewardship is strong enough.

Panel B shows that the coefficients in Model 1 for assets and ROE remain negative and significant at the one percent level, while that for institution is positive but not significant. For CEO as a measure of family management, its coefficient of -0.147 is significant at the ten percent level, indicating a negative effect on performance. Stewardship, as before, has a positive and significant coefficient of 0.074. We next see in Model 2 that CEO remains negative, with a coefficient of -0.164, and significant at the ten percent level. On the other hand, with a

coefficient of 0.055, stewardship remains positive and significant at the one percent level, another piece of evidence supporting stewardship theory. Once again, the moderating effect of stewardship is present in Model 2, as indicated by the coefficient of 0.154 for the interaction term of stewardship×CEO, which is significant, at the 10 percent level.

In Model 3, executive, which is an alternative measure for family management, has a coefficient of -0.169, which is significant at the 10 percent level. The coefficient for stewardship is 0.072, similar in magnitude and significance level to the value of 0.074 in Model 1. The significantly negative coefficient for executive suggests that agency conflicts arise from family involvement in top management. This negative effect is partially offset by the impact of stewardship, which has a significant coefficient of 0.072. The negative agency effect of executive is further offset in Model 4 when the moderating effect of stewardship, as captured by the interaction term, stewardship×executive, is included. With a coefficient of 0.153, it is significant at the ten percent level. It is obvious that the research hypothesis (H3) is supported by our above results.

Insert Table 7 about here

4.3 Robustness Tests

4.3.1 Endogeneity

To demonstrate further the robustness of the above results, we run additional two-stage least squares (2SLS) regressions to rule out the possibility that endogeneity in the stewardship measure contributes to the reported results. The stewardship measure is first regressed on the same control variables and the family involvement variables that are included in the regressions reported in Section 4.2. The predicted value for stewardship obtained from this first stage regression is then used as an instrument for stewardship in the second stage regression of firm performance. The results for family ownership reported in Table 8 show that the coefficient for the stewardship instrument has a value of 0.221 which is significant at the five percent level, indicating again a positive relationship between performance and stewardship even if endogeneity is an issue. Results for other family involvement variables, available upon request, similarly lead to the same conclusion drawn in Section 4.2.

Insert Table 8 about here

4.3.2 Private placements of equity by Nonfamily Firms

The robust evidence above provides a strong empirical validation of stewardship as a determinant of the performance of family firms and stewardship theory as a viable alternative to agency theory. Does this conclusion extend to nonfamily firms? As far as we know, no previous study has raised this question. An attempt to answer this question is therefore warranted and doing so will provide us with evidence to contrast with that for family firms, helping to highlight the differences in characteristics between family and nonfamily firms, and the implications thereof. For a long time, agency theory has been accepted as a natural framework for studying the issues facing nonfamily firms given their characteristics of having widely dispersed share ownership with potential agency conflicts. These characteristics are clearly at odds with the premise of stewardship theory and cast doubt on the applicability of the latter to nonfamily firms. To explore whether this applicability problem indeed exists, the same examination of the long-term performance of nonfamily firms following a private placement of equity is performed herein.

Over the sample period, 138 private placements of equity are conducted by firms that do not meet the family firm criteria. A comparison of the statistics in Table 9 with those in Tables 1 and 2 reveals that in both samples more placements are made in four industries - semiconductor, electronic component, optoelectronic, and computer & peripheral equipment – and the year with the most placements is 2009, followed by 2010 and 2008. The dollar proceeds, fractions, and discounts of the placements for nonfamily firms are relatively smaller than family firms. With respect to the market reaction to the announcement of the placement, for nonfamily firms the CARs for (-10, 0) is not statistically significant and that for (0, 750) is, while the opposite is the case for family firms as their CARs is significant for (-10, 0) and for (0, 750) is not.

Insert Table 9 about here

To streamline the presentation, we omit the results for the control variables since they are

effectively the same as those reported above. The results reported in Table 10 clear show that the coefficient of stewardship is negative across all models, although none of the coefficients is statistically significant. Similarly, the coefficients of the interaction terms for stewardship and family involvement variables are negative in all models except for Models 1, 6, and 9. However, none of the negative coefficients are statistically significant.

Insert Table 10 about here

The overwhelmingly insignificant results for stewardship presented in Table 10 contrast sharply with the overwhelmingly significant and positive findings for family firms reported in Section 4.2, providing strong evidence against stewardship as a determinant of the performance of nonfamily firms. An alternative explanation for the insignificance of the results, however, is the possibility of low statistical power due to the small nonfamily sample. To examine this possibility, we combine the nonfamily sample with the family sample and rerun the regressions on the combined sample. To separate nonfamily firms from family firms, a dummy variable, called nonfamily, is introduced; it takes on a value of one for nonfamily firms and zero otherwise. Based on this dummy variable, a multiplication term, stewardship×nonfamily, is added to the regression models. As a result, the coefficient of stewardship for nonfamily firms is the sum of the coefficients of stewardship and stewardship×nonfamily. Table 11 presents the results of these regressions. In Model 1, the coefficient of stewardship is 0.214, which is statistically significant at the one percent level. Interestingly, the coefficient of stewardship×nonfamily is -0.149, which is significant at the ten percent level. The negative value of the latter reduces the coefficient of stewardship for nonfamily firms to 0.065 (= 0.214)-0.149), suggesting a much weaker relationship between stewardship and performance among nonfamily firms. In the remaining models, the coefficient for stewardship is similarly negative, but insignificant for most models except for Models 2 and 5 which have a five percent significance level, providing clear evidence that the inclusion of nonfamily sample weakened the reported relationship between stewardship and performance. The significantly negative coefficient for Models 1, 2, and 5 suggests that the relationship between stewardship and performance is actually negative when the family involvement variable in question is ownership, family board, or cross shareholding.

For the interaction terms, the results are effectively the same, in terms of both sign and

significance, as those for family firms presented in Tables 5 to 7, suggesting that the conclusion for family firms regarding the moderating role of stewardship on the relationship between performance and family involvement holds despite the inclusion of nonfamily firms in the regression.

Insert Table 11 about here

V. Conclusion

The positive market reaction to the announcement of private placements of equity stands in sharp contrast to the generally negative announcement effect of secondary equity public offering. This study sheds light on this positive market reaction and the outperformance of family firms by incorporating stewardship theory into an examination of the long-term operating performance of family firms in Taiwan following a private placement of equity. We provide evidence of the relevance of stewardship in explaining firm performance. By itself, stewardship is shown to be positively related to long-term performance. Examining its interaction with agency-based measures of family involvement (Villalonga and Amit, 2006) we further show that it has a clear and significant moderating role in the relationships between performance and these measures. In contrast to these robust results for stewardship, the results for the family involvement variables are surprisingly weak. Among measures of family involvement, only family board, which is a measure of family control, and both family executives and CEO duality, which measure family management, are related to performance; the relationship is positive for the family board but negative for both CEO duality and family executives.

More importantly, stewardship interacts with each of the three facets of family involvement to play a significant moderating role in the relationship between performance and each facet. Specifically, the interaction with family ownership yields a non-linear effect on performance that is negative at low family ownership but less so as ownership increases. The interactions with all four measures of family control result in a significant positive effect. The moderating role played by stewardship strengthens the relationship between performance and family board, which is the only measure of family control that has a significantly positive effect on performance. For the remaining three measures of family control that have

22

insignificant effects on performance, their interactions with stewardship yield a positive moderating effect on performance. A positive moderating effect of stewardship is similarly identified for all measures of family management. The difference is that for family management, this positive moderating effect helps to offset the negative effect of CEO duality and family executives, providing evidence that stewardship helps to alleviate agency conflicts.

The robust evidence of stewardship in family firms stands in even sharper contrast to the evidence of a negative, though insignificant, relationship between stewardship and the postplacement performance of nonfamily firms. Together, our results demonstrate the relevance and superiority of stewardship theory in explaining the long-term performance of family firms.

REFERENCES

Anderson, R.C. and Reeb, D.M, 2003. Founding family ownership and firm performance: Evidence from the S&P 500. *Journal of Finance*, 58, 1301-1328.

Andres, C, 2008. Large shareholders and firm performance–An empirical examination of founding-family ownership. *Journal of Corporate Finance*, 14, 431-445.

Ashforth, B. E. and Mael, F, 1989. Social identity theory and the organization. *Academy of Management Review*, 14, 20–39.

Ashwin, A.S. Krishnan, T, and George, R, 2015. Family firms in India: family involvement, innovation and agency and stewardship behaviors. *Asia Pacific Journal Management*, 32, 869-900.

Asquith, P. and Mullins, Jr. D, 1986. Equity issues and offering dilution. *Journal of Financial Economics*, 15, 61-89.

Barclay, M.J, Holderness, C.G., and Sheehan, D.P, 2007. Private placements and managerial entrenchment. *Journal of Corporate Finance*, 13, 461-484.

Barontini, R., Caprio, L., 2006. The effect of family control on firm value and performance: evidence from Continental Europe. *European Financial Management*, 12, 689–723.

Berle, A., and G. Means. 1932. *The Modern Corporation and Private Property*. New York, NY: Harcourt, Brace, & World.

Bloom, N. and Van Reenen, J. 2006. Measuring and Explaining Management Practices Across Firms and Countries, NBER Working Paper No. 12216.

Blumentritt, T., Keyt, A., and Astrachan, J, 2007). Creating an environment for successful nonfamily CEOs: An exploratory study of good principals. *Family Business Review*, 20, 321–335.

Chrisman, J. J., Chua, J.H., and Litz, R.A, 2004. Comparing the agency costs of family and non-family firms: conceptual issues and exploratory evidence. *Entrepreneurship Theory and Practice*, 28, 335-354.

Chrisman, J.J., Chua, J.H., and Sharma, P, 2005. Trends and directions in the development of a strategic management theory of the family firm. *Entrepreneurship Theory and Practice*, 29, 555-576

Chua, J. H., Chrisman, J. J., and Sharma, P, 1999. Defining the family business by behavior. *Entrepreneurship Theory and Practice*, 23, 19–39.

Claessens, S., Djankov, S., Fan, J., and Lang, L.H.P, 2002. Disentangling the incentive and entrenchment effects of large shareholdings. *Journal of Finance*, 57, 2741-2771.

Cronqvist, H. and Nilsson, M., 2003. Agency costs of controlling minority shareholders. *Journal of Financial and Quantitative Analysis*, 38, 695–719.

Davis, J. H., Allen, M. R., and Hayes, H. D, 2010. Is blood thicker than water? A study of stewardship perceptions in family business. *Entrepreneurship Theory and Practice*, 34, 1093-1116.

Davis, J.H., Schoorman, F.D., and Donaldson, L, 1997. Toward a stewardship theory of management. *Academy of Management Review*, 22, 20-47.

Donaldson, L. and Davis, J. H. 1991. Stewardship theory or agency theory: CEO governance shareholder returns. *Australian Journal of Management*, 16: 49-64.

Eddleston, K. A., Kellermanns, F. W., and Zellweger, T. M, 2012. Exploring the entrepreneurial behavior of family firms: Does the stewardship perspective explain differences? *Entrepreneurship Theory and Practice*, 36, 347–367.

Faccio, M., Lang, L.P.H., and Young, L, 2001. Dividends and expropriation. *American Economic Review*, 91, 54-78.

Fama, E. and Jensen, M, 1983. Agency problems and residual claims. Journal of Law

Economics, 26, 327–349.

Gómez-Mejía, L. R., Hynes, K. T., Núñez-Nickel, M., and Moyano-Fuentes, H, 2007. Socioemotional wealth and business risk in family-controlled firms: Evidence from Spanish olive oil mills. *Administrative Science Quarterly*, 52, 106-137.

Gomez-Mejia, L. R., Nuñez-Nickel, M., and Gutierrez, I., 2001. The role of family ties in agency contracts. *Academy of Management Journal*, 44, 81-96.

Hertzel, M. and Smith, R.L, 1993. Market discounts and shareholder gains for placing equity privately. *Journal of Finance*, 48, 459–486.

Hertzel, M., Lemmon, M., Linck, J.S., Rees, L., 2002. Long-run performance following private placements of equity. *Journal of Finance*, 57, 2595–2617.

Holderness, C. G, 2009. The myth of diffuse ownership in the United States. The Review of Financial Studies, 22, 1377–1408.

James, H. S. 1999. Owner as manager, extended horizons and the family firm. *International Journal of Economics of Business*, 6, 41-55.

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

Jensen, M.C, 1993. The Modern Industrial Revolution, Exit and the Failure of Internal Control Systems. *Journal of Finance*, 48, 831-880.

Khanna, T. and Palepu K., 2000. Is group affiliation profitable in emerging markets? An analysis of diversified Indian business groups." *Journal of Finance*, 55, 867–93.

Khanna, T. and Rivkin, J. W. 2001. Estimating the performance effects of business groups in emerging markets." *Strategic Management Journal*, 22, 45-74.

La Porta, R, Lopez-De-Silanes, F., and Shleifer, A, 1999. Corporate ownership around the world. *Journal of Finance*, 5, 471–517.

La Porta, R., Lopez-De-Silanes, F., Shleifer, A., and Vishny, R.W. 2002. Investor protection and corporate valuation," *Journal of Finance*, vol. 57, 1147–1170.

Lansberg, I, 1999. Succeeding Generations: Realizing the dream of families in business. Boston, MA: Harvard Business School Press.

Le Breton-Miller, I., Miller, D., and Lester, R.H, 2011. Stewardship or agency? A social embeddedness reconciliation of conduct and performance in public family businesses. *Organization Science*, 22, 704-721.

Lee, P. M. and O'neill, H. M, 2003. Ownership structures and R&D investments of U.S. and Japanese firms: agency and stewardship perspectives. *Academy of Managerial Journal*, 46, 212-225.

Lemmon, M.L. and Lins, K.V, 2003. Ownership structure, corporate governance, and firm value: evidence from the East Asian financial crisis. *Journal of Finance*, 58, 1445-1468.

Miller, D. and Le Breton-Miller, I, 2005. Managing for the long run: Lessons in competitive advantage from great family businesses. Boston, MA: Harvard Business School Press.

Miller, D. and Le Breton-Miller, I, 2006. Family governance and firm performance: agency, stewardship and capabilities. *Family Business Review*, 19, 73-87.

Morck, R., Shleifer, A., and Vishny, W. R. 1988. Management Ownership and Market Valuation: An Empirical Analysis. *Journal of Financial Economics*, 20, 293-315.

Morck, R., and Yeung, B, 2003. Agency problems in large family business groups. *Entrepreneurship Theory and Practices*, 27, 367–382.

Morck, R., and Yeung, B., 2004. Family Control and the Rent-Seeking Society." *Entrepreneurship Theory and Practice*, 28, 391–409.

Morck, R.K., Stangeland, D.A., and Yeung, B., 2000. Inherited wealth, corporate control, and economic growth: The Canadian disease? In Morck, R.K. (ed.), Concentrated corporate ownership, University of Chicago Press, pp. 319-369.

Morck, R, Wolfenzon, D, and Yeung, B, 2005. Corporate governance, economic entrenchment,

and growth. Journal of Economic Literature, 43, 655–720.

Schulze, W.S., Lubatkin, M.H., and Dino, R.N., 2003. Exploring the agency consequences of ownership dispersion among the directors of private family firms. *Academy of Management Journal*, 46, 179-194.

Shiu, C. and Wei, H., 2013. Do private placements turn around firms? evidence from Taiwan. *Financial Management*, 42, 875-899.

Sundaramurthy, C. and Kreiner, G, 2008. Governing by managing identity boundaries: The case of family businesses. *Entrepreneurship: Theory & Practice*, 32, 415-436.

Villalonga, B. and Amit, R, 2006. How do family ownership, control and management affect firm value? *Journal of Financial Economics*, 80, 385–417.

Villalonga, B. and Amit, R, 2009. How are U.S. family firms controlled? *Review of Financial Studies*, 22, 3047–3091.

Wasserman, N., 2006. Stewards, agents, and the founder discount: executive compensation in new ventures. *Academy of Management Journal*, 49, 960–976.

Wruck, K. H, 1989. Equity ownership concentration and firm value: Evidence from private equity financings. *Journal of Financial Economics*, 23, 3-28.

Table 1 Sample Distribution

This table shows the distribution of 219 family firms by industry—based on the classification adopted by the Taiwan Stock Exchange—and by year.

By Industry				By Year	
Industry	Number	Percentage	Year	Number	Percentage
Food	1	0.46%	2005	14	6.4%
Plastic	2	0.91%	2006	26	11.9%
Electrical & Cable	2	0.91%	2007	27	12.3%
Chemical	2	0.91%	2008	28	12.8%
Electronic Product Distribution	4	1.83%	2009	46	21.0%
Culture & Creativity	4	1.83%	2010	28	12.8%
Information Service	5	2.28%	2011	25	11.4%
Iron & Steel	6	2.74%	2012	16	7.3%
Communications & Internet	6	2.74%	2013	9	4.1%
Other Electronic	6	2.74%			
Trading & Consumer's Good	8	3.65%			
Biotechnology & Medical Care	9	4.11%			
Textile	12	5.48%			
Finance & Insurance	12	5.48%			
Electric Machinery	15	6.85%			
Other	16	7.31%			
Computer & Peripheral equipment	20	9.13%			
Optoelectronic	20	9.13%			
Electronic Component	20	9.13%			
Semiconductor	21	9.59%			
Building Material & Construction	28	12.79%			
	219	100%		219	100%

Table 2Summary Statistics of Private Equity Placements and Post-AnnouncementAbnormal Returns

Panel A reports the statistics of the equity placements, the cumulative abnormal returns (CARs) around the announcement. Panel B reports and compares the post-announcement abnormal returns for sample firms and firms that are matched by industry, market capitalization and earnings per share.

Panel A: Statistics of Equity Private Placements

	Mean	Median
Dollar proceeds (millions, Taiwan dollars)	\$698.33	\$160
Fraction placed (% of shares after private placement)	39.04%	19.61%
Discount (% of market price at month-end before event)	9.63%	16.86%
Cumulative Abnormal Returns around Announcement*		
CAR (-1, 1)	4.23%	3.11%
Discount-adjusted CAR (-1, 1)	14.84%	3.25%
CAR (-10 – 0)	0.29%	-1.37%
Discount-adjusted CAR (-10, 0)	6.25%	-2.08%
CAR (0, 10)	8.83%	4.16%
Discount-adjusted CAR (0, 10)	32.41%	4.11%

*: all CARs are statistically significant at the one percent level

Panel B: Post-Announcement Abnormal Returns - Sample Firms versus Market-Capitalization and EPS-Matched Firms (P-value in parentheses)

	Sample	Match
CAR(0, 30)	10.81***	0.72
	(0.00)	(0.60)
CAR(0,60)	13.35***	-0.79
	(0.00)	(0.69)
	32.94	-7.60
CAR(0,750)	(0.20)	(0.14)

***: Significant at the 1% level .

	Mean	Median	Maximum	Minimum	Std. Dev.
Tobin Q	1.33	1.13	7.30	0.62	0.66
Ownership	25.20	21.52	87.77	0.19	16.22
Chair	0.77	1	1	0	0.42
CEO	0.51	1	1	0	0.50
Executive	0.56	1	1	0	0.49
Family Board	0.32	0	1.60	0	0.42
RCC	0.27	0.02	4.39	0	0.58
Pyramid	0.20	0	1	0	0.40
Cross Holding	0.19	0	1	0	0.39
Stewardship	0.21	0.02	3.25	-0.33	1.50
Age	21.11	19.70	57.41	2.83	10.28
Asset	14.59	14.27	21.57	10.38	1.83
Debt Ratio	57.51	56.58	81.20	2.82	23.10
ROE	-15.03	-4.18	40.93	-158.18	31.70
Offer Size	0.38	0.19	4.08	0.01	0.58
Institution	30.61	25.33	81.67	0.13	22.66

Panel C: Statistics of Key Variables

Table 3 Correlation Coefficients

	Tobin Q	Owner- ship	Chair	CEO	Executive	Family Board	RCC	Pyramid	Cross Holding	Stewardship	Age	Asset	Debt Ratio	ROE	Offer_Size	Institution
Tobin Q	1.000															
Ownership	-0.023	1.000														
Chair	-0.109	0.156**	1.000													
CEO	-0.078	0.178***	0.457***	1.000												
Executive	-0.116	0.130*	0.511***	0.912***	1.000											
Family Board	0.049	0.010	0.276***	0.336***	0.412***	1.000										
RCC	-0.012	-0.410***	-0.335***	-0.409***	-0.392***	-0.138**	1.000									
Pyramid	-0.059	-0.171**	-0.269***	-0.384***	-0.365***	-0.219***	0.613***	1.000								
Cross Holding	-0.078	0.042	-0.148**	-0.018	0.007	-0.062	0.099	0.334***	1.000							
Stewardship	0.169**	-0.011	-0.071	-0.072	-0.089	-0.048	0.050	0.011	0.016	1.000						
Age	-0.108	0.058	-0.089	0.086	0.102	0.231***	-0.052	-0.102	0.143**	-0.016	1.000					
Asset	-0.310***	-0.051	-0.091	-0.227***	-0.196***	0.014	0.228***	0.436***	0.332***	-0.031	-0.039	1.000				
Debt Ratio	-0.073	0.122*	-0.165**	-0.068	-0.106	-0.006	0.040	0.121*	0.172**	-0.142**	0.166**	0.449***	1.000			
ROE	-0.263***	0.129*	0.308***	0.117*	0.172**	0.012	-0.101	-0.010	-0.002	0.064	-0.010	0.123*	-0.293***	1.000		
Offer Size	0.041	-0.081	-0.237***	-0.058	-0.092	-0.084	0.030	0.001	0.006	-0.008	-0.070	-0.021	0.188***	-0.234***	1.000	
Institution	-0.058	0.296***	-0.231***	-0.295***	-0.303***	-0.305***	0.267***	0.439***	0.232***	0.005	-0.092	0.443***	0.260***	0.075	0.037	1.000

Table 4 Stewardship versus Agency Theory: Regression of Performance on Independent Variables

This table reports the regression results of performance on stewardship and family involvement separately.

Independent Variable										
Stewardship	0.077^{*}									
Ownership		-0.008								
Ownership ²		< 0.001								
Family Board			0.136*							
RCC				0.002						
Pyramid					0.095					
Cross Shareholding						0.086				
CEO							-0.149			
Executive								-0.180*		
Chair									-0.122	
CEO Duality										-0.163*
AGE	-0.006	-0.007	-0.006	-0.006	-0.007	-0.006	-0.008*	-0.006	-0.006	-0.007
Asset	-0.15***	-0.13***	-0.14***	-0.13***	-0.14***	-0.14***	-0.14***	-0.13***	-0.14***	-0.14***
Debt Ratio	0.002	0.001	0.001	0.002	0.001	0.001	0.001	0.001	0.001	0.001
ROE	-0.006***	-0.006***	-0.006***	-0.005***	-0.006***	-0.006***	-0.006***	-0.006***	-0.006***	-0.006***
Offer size	-0.076	-0.082	-0.057	-0.044	-0.07	-0.073	-0.061	-0.066	-0.066	-0.066
Institution	0.004^{*}	0.003	0.003	0.004**	0.003	0.002	0.004^{*}	0.003	0.003	0.003
Adjusted R^2 (%)	19.41	19.271	20.007	20.517	19.764	20.143	19.404	18.905	19.071	19.058
F-statistic	6.967	7.654	7.971	8.034	7.866	8.031	7.711	7.469	7.568	7.563

Table 5 Relationship between Family Ownership and Performance

This table reports the regression results of performance, measured as Tobin's Q, over the three years following the equity placement. The independent variables include Firm age (Age), Firm size (Size), Financial leverage (Debt Ratio), Returns on equity (ROE), Relative offer size (Offer Size), Institutional investor (Institution), and family ownership variables, stewardship, and interaction of family ownership and stewardship.

	Mode	11	Mode	12	Mode	13
Variables	Coefficient	p-value	Coefficient	p-value	Coefficient	p-value
Panel A: Family Ownership						
С	3.386***	0.000	2.999	0.000	2.920***	0.000
AGE Asset	-0.006 -0.149***	0.165 0.000	-0.005 -0.141***	0.158 0.000	-0.006 -0.143***	0.163 0.000
Debt Ratio	0.002	0.510	0.003	0.218	0.004*	0.061
ROE	-0.006***	0.000	-0.005***	0.000	-0.005***	0.001
Offer Size	-0.076	0.351	-0.053	0.473	-0.051	0.465
Institution	0.004*	0.059	0.004**	0.041	0.004**	0.033
Ownership Ownership ² Stewardship	-0.008 0.00006	0.319 0.619	-0.0001 -0.00003 0.077***	0.986 0.736 0.005	0.001 -0.00007 0.255***	0.828 0.481 0.000
Stewardship×Ownership Stewardship×Ownership ²					-0.025*** 0.0005***	$0.000 \\ 0.000$
Observations	219		219		219	
Adjusted R^2 (%)	19.410		20.123		26.425	
F-statistic	6.995		6.453		6.239	

Table 6. Relationship between Family Control and Performance

This table reports the regression results of performance, measured as Tobin's Q, over the three years following the equity placement. The independent variables include Firm age (Age), Firm size (Size), Financial leverage (Debt Ratio), Returns on equity (ROE), Relative offer size (Offer Size), Institutional investor (Institution), and family control variables, which include Family board and Excess control right (RCC) in Panel A and Pyramid and Cross shareholding in Panel B, stewardship, and interaction of stewardship and family control variables.

Panel A: Family Control								
	Model	1	Model	2	Mode	13	Model	4
Variables	Coefficient	p-	Coefficient	p-	Coefficient	p-	Coefficient	p-
С	2.971***	0.000	2.963***	0.000	2.919***	0.000	2.867***	0.000
AGE Asset	-0.007* -0.143***	0.063 0.000	-0.008** -0.141***	0.049 0.000	-0.006 -0.135***	0.148 0.000	-0.005 -0.134***	0.189 0.000
Debt Ratio	0.002	0.281	0.002	0.302	0.002	0.299	0.003	0.239
ROE	-0.005***	0.000	-0.005***	0.000	-0.005***	0.000	-0.005***	0.000
Offer Size	-0.037	0.604	-0.035	0.622	-0.044	0.542	-0.040	0.578
Institution	0.005**	0.018	0.005**	0.017	0.003*	0.079	0.004*	0.054
Family_Board RCC Stewardship Stewardship×Family	0.203** 0.079***	0.048 0.003	0.181* 0.061** 0.235**	0.079 0.032 0.042	0.009 0.077***	0.903 0.005	-0.034** 0.048	0.651 0.112
Board Stewardship×RCC							0.089**	0.027
Observations	219		219		219		219	
Adjusted R^2 (%)	21.613		22.785		20.137		21.621	
F-statistic	7.680		7.433		7.078		6.986	

Table 6.	Continued	

Panel B: Family Control (Business Group Affiliation)												
	Mode	11	Mode	12	Mode	13	Mode	14				
Variables	Coefficient	p-	Coefficient	p-	Coefficient	p-	Coefficient	p-				
С	3.025***	0.000	2.971***	0.000	2.979***	0.000	2.931***	0.000				
AGE Asset	-0.006 -0.144***	0.161 0.000	-0.005 -0.143***	0.179 0.000	-0.006 -0.139***	0.179 0.000	-0.005 -0.140***	0.173 0.000				
Debt Ratio	0.003	0.227	0.003	0.170	0.002	0.170	0.003	0.180				
ROE	-0.005***	0.000	-0.005***	0.000	-0.005***	0.000	-0.005***	0.000				
Offer Size	-0.044	0.546	-0.041	0.573	-0.045	0.573	-0.038	0.595				
Institution	0.003	0.143	0.003	0.101	0.003*	0.101	0.004*	0.056				
Pyramid Cross Shareholding Stewardship Stewardship×Pyramid Stewardship×Cross Shareholding	0.116 0.077***	0.336 0.005	0.068 0.050* 0.148**	0.571 0.093 0.032	0.072 0.077***	0.516 0.093	-0.022 0.048 0.161**	0.843 0.106 0.022				
Observations	219		219		219		219					
Adjusted R^2 (%)	20.491		21.846		20.293		21.905					
F-statistic	7.242		7.092		7.169		7.116					

Table 7. Relationship between Family Management and Performance

This table reports the regression results of performance, measured as Tobin's Q, over the three years following the equity placement. The independent variables include Firm age (Age), Firm size (Size), Financial leverage (Debt Ratio), Returns on equity (ROE), Relative offer size (Offer Size), Institutional investor (Institution), and family management variables, which include Chair and CEO Duality in Panel A and CEO and Executive in Panel B, stewardship, and interaction of stewardship and family management variables.

Panel A: Family Management-Board												
	Model	1	Model	2	Mode	13	Model	4				
Variables	Coefficient	p-	Coefficient	p-	Coefficient	p-	Coefficient	p-				
С	3.054***	0.000	3.062***	0.000	3.313	0.000	3.287***	0.000				
AGE Asset	-0.006 -0.136***	0.115 0.000	-0.006 -0.138***	0.111 0.000	-0.007 -0.135***	0.158 0.000	-0.007* -0.133***	0.064 0.000				
Debt Ratio	0.003	0.253	0.003	0.139	0.002	0.505	0.002	0.477				
ROE	-0.005***	0.001	-0.004***	0.002	-0.005***	0.000	-0.005***	0.000				
Offer Size	-0.059	0.424	-0.051	0.479	-0.035	0.631	-0.031	0.671				
Institution	0.003	0.123	0.003*	0.097	0.002	0.283	0.002	0.292				
Chair CEO Duality Stewardship	-0.116 0.074***	0.279 0.006	-0.156 0.013	0.138 0.661	-0.184** 0.074***	0.032 0.007	-0.208** 0.054*	0.015 0.059				
Stewardship×Chair Stewardship×CEO Duality			0.195***	0.000			0.219**	0.017				
Observations	219		219		219		219					
Adjusted R^2 (%)	20.583		24.481		18.825		20.616					
F-statistic	7.278		8.068		7.317		7.291					

Table 7. Continued

Panel B: Family Manageme	Panel B: Family Management-CEO and Executives											
	Mode	11	Mode	12	Mode	13	Mode	14				
Variables	Coefficient	p-value	Coefficient	p-value	Coefficient	p-value	Coefficient	p-value				
С	3.101***	0.000	3.096***	0.000	3.106***	0.000	3.095***	0.000				
AGE Asset	-0.005 -0.143***	0.165 0.000	-0.006 -0.141***	0.138 0.000	-0.005 -0.142***	0.185 0.000	-0.006 -0.139***	0.154 0.000				
Debt Ratio	0.003	0.198	0.003	0.197	0.003	0.212	0.003	0.214				
ROE	-0.005***	0.001	-0.004***	0.001	-0.004***	0.002	-0.004***	0.001				
Offer Size	-0.048	0.506	-0.004	0.536	-0.050	0.486	-0.047	0.510				
Institution	0.003	0.150	0.003	0.149	0.003	0.175	0.002	0.173				
CEO Executive Stewardship Stewardship×CEO Stewardship×Executive	-0.147* 0.074***	0.092 0.006	-0.164* 0.055* 0.154*	0.060 0.053 0.061	-0.169* 0.072***	0.056 0.008	-0.184** 0.053* 0.153*	0.037 0.063 0.061				
Observations	219		219		219		219					
Adjusted $R^2(\%)$	21.218		22.161		21.523		22.465					
F-statistic	7.522		7.207		7.642		7.316					

_	 _	 		

Table 8. Two-Stage Least Squares Result

This table report the result of two-stage least squares (2SLS) regression. In the first stage, the stewardship measure is regressed on the same control variables included in the regressions reported in Section 4.2 as well as the variables for family involvement (ownership, management, and control.). The predicted value obtained from this stage is used as an instrument for stewardship in the second stage regression of firm performance. For ease of comparison, the OLS result reported in Table 5 is reported next to 2SLS result.

Variable	2SI	LS	OL	S
	Coefficient	p-value	Coefficient	p-value
Ownership	0.011	0.556	0.001	0.828
<i>Ownership</i> ²	-8.59E-05	0.716	-0.00007	0.481
Stewardship			0.255***	0.000
Stewardship*Ownership			-0.025***	0.000
Stewardship*Ownership ²			0.0005***	0.000
Stewardship-Instrument	0.221**	0.045		
Stewardship-Instrument *Ownership	0.067	0.285		
Stewardship-Instrument *Ownership ²	-0.002	0.209		
С	2.770***	0.001	2.920***	0.000
AGE	-0.004	0.546	-0.006	0.163
Asset	-0.131**	0.019	-0.143***	0.000
Debt Ratio	-0.0006	0.907	0.004*	0.061
ROE	-0.007**	0.023	-0.005***	0.001
Offer Size	-0.027	0.841	-0.051	0.465
Institution	0.004	0.303	0.004**	0.033
Observations	2	219	2	19
Adjusted R^2 (%)	-7	7.04	26	.425
F-statistic	2.	452	7.	524

Table 9. Summary Statistics of Equity Private Placements by Nonfamily Firms

This table reports the distribution of the nonfamily firm sample by industry and by year in Panel A. Panel B reports the statistics of the equity placements, the cumulative abnormal returns around and after the announcement.

By Industry			By Year rcentage Year Number Per 0.72% 2005 6 6 0.72% 2006 11 6 0.72% 2007 13 144% 2008 21 3.65% 2009 24 23 2010 23			
Industry	Number	Percentage	Year	Number	Percentage	
Chemical	1	0.72%	2005	6	4.30%	
Finance & Insurance	1	0.72%	2006	11	7.90%	
Electric Machinery	1	0.72%	2007	13	9.40%	
Electronic Product Distribution	2	1.44%	2008	21	15.20%	
Trading & Consumer's Good	2	3.65%	2009	24	17.30%	
Culture & Creativity	3	2.17%	2010	23	16.60%	
Biotechnology & Medical Care	3	2.17%	2011	14	10.10%	
Tourism	3	2.17%	2012	16	11.60%	
Other Electronic	5	3.62%	2013	10	7.20%	
Communications & Internet	9	6.52%				
Electronic Component	12	8.69%				
Building Material & Construction	12	8.69%				
Other	14	10.14%				
Computer & Peripheral equipment	18	13.04%				
Optoelectronic	18	13.04%				
Semiconductor	34	24.63%				
Total	138	100%		138	100%	

Panel A: Distribution by Industry and Year

Panel B: Characteristics of Equity Private Placements and Abnormal Returns

	Mean	<u>Median</u>
Dollar proceeds (millions)	\$391.42	\$101
Fraction placed (% of shares after private placement)	23.77%	14.34%
Discount (% of market price at month-end prior to event)	1.25%	18.60%
Cumulative Abnormal Returns (CAR)		
CAR (-1, 1)***	2.52%	1.44%
Discount adjusted CAR (-1, 1)***	-70.41%	1.62%
CAR (-10 – 0)	-0.32%	-0.49%
Discount adjusted CAR (0, 10)***	-188.98%	-0.56%
CAR (0, 10)***	4.05%	1.26%
Discount adjusted CAR (0, 10)***	-159.20%	0.98%
CAR(0, 30)***	9.72	
CAR(0,60)***	11.06	
CAR(0,750)***	55.31	

***: Significant at the one percent level

Table 10. Regression of Performance and Family Involvement and Stewardship for Non-Family Firms

This table reports the regression results of performance, measured as Tobin's Q, over the three years following the equity placement. The independent variables include stewardship and family involvement variable (ownership, family board, RCC, pyramid, cross shareholding, CEO duality, CEO, chair, and executive). To streamline the presentation, control variables (firm age, firm size, financial leverage, returns on equity, relative offer size, and institutional investor) are omitted

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Stewardship	-0.083	-0.01	-0.005	-0.012	-0.007	-0.406	-0.013	-0.014	-0.015
	(0.59)	(0.66)	(0.82)	(0.58)	(0.75)	(0.29)	(0.54)	(0.52)	(0.51)
Ownership	0.018								
	(0.12)								
Ownership ²	-0.0003								
	(0.12)								
Stewardship imes Ownership	0.003								
	(0.80)								
$Stewardship imes Ownership^2$	0.00006								
	(0.98)								
Family Board		-0.061							
		(0.74)							
Stewardship×Family Board		-0.082							
		(0.54)							
RCC			-0.051						
			(0.71)						
<i>Stewardship</i> × <i>RCC</i>			-0.128						
			(0.39)						
Pyramid				0.125					
				(0.55)					
Stewardship×Pyramid				-0.153					
				(0.67)					

Table 10. Continued

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Cross Shareholding					0.124				
					(0.54)				
Stewardship×Cross Shareholding					-0.092				
					(0.34)				
Chair						-0.397**			
						(0.01)			
Stewardship×Chair						0.399			
						(0.30)			
CEO Duality							-0.126		
							(0.38)		
Stewardship×CEO Duality							-0.574		
							(0.30)		
CEO								-0.135	
								(0.36)	
<i>Stewardship</i> × <i>CEO</i>								-0.064	
								(0.89)	
Executive									-0.097
~									(0.50)
Stewardship×Executive									0.136
Observations									(0.77)
Observations A directed $D^2(0($)	138	3 138	3 138	3 138	3 138	138	138	138	138
Aujusteu $K^{-}(\%)$	16.044	14.665	5 13.884	18.460) 14.513	19.935	15.367	14.292	14.516
r-statistic	2.576	5 2.546	5 2.40	7 3.037	2.527	3.240	2.634	2.507	2.681

*, **, ***: Significant at the 10%, 5%, and 1% level, respectively; P-value in parentheses.

Table 11. Regression of Performance and Family Involvement and Stewardship for the Combined Family and Nonfamily Sample

This table reports the regression results for the combined family and nonfamily sample of performance, measured as Tobin's Q, over the three years following the equity placement. The independent variables include stewardship and family involvement variable (ownership, family board, RCC, pyramid, cross shareholding, CEO duality, CEO, chair, and executive). To streamline the presentation, control variables (firm age, firm size, financial leverage, returns on equity, relative offer size, and institutional investor) are omitted for the combined sample of family and nonfamily firms.

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Stewardship	0.214***	0.005	-0.001	0.001	0.002	-0.009	0.001	0.0005	-0.0003
	(0.00)	(0.76)	(0.94)	(0.93)	(0.91)	(0.80)	(0.95)	(0.97)	(0.98)
Stewardship * Nonfamily Dummy	-0.149*	-0.226**	-0.112	-0.067	-0.204**	-0.062	-0.074	-0.071	-0.073
	(0.084)	(0.036)	(0.156)	(0.373)	(0.039)	(0.409)	(0.323)	(0.346)	(0.333)
Ownership	0.003								
	(0.611)								
Ownership ²	-0.0001								
	(0.334)								
Stewardship imes Ownership	-0.019***								
	(0.00)								
$Stewardship imes Ownership^2$	0.0004***								
	(0.00)								
Family Board		0.068							
		(0.48)							
Stewardship×Family Board		0.254**							
		(0.04)							
RCC			-0.042						
			(0.55)						
<i>Stewardship</i> × <i>RCC</i>			0.093**						
			(0.03)						

*, **, ***: Significant at the 10%, 5%, and 1% level, respectively; P-value in parentheses.

Table 11. Continued

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9
Pyramid				0.079					
				(0.44)					
Stewardship×Pyramid				0.154**					
				(0.04)					
Cross Shareholding					0.073				
					(0.49)				
Stewardship×Cross Shareholding					0.152**				
					(0.04)				
Chair						-0.320***			
						(0.00)			
Stewardship×Chair						0.023			
						(0.58)			
CEO Duality							-0.198**		
							(0.011)		
Stewardship×CEO Duality							0.196*		
							(0.06)	0 202**	
CEO								-0.202***	
Stawardshin CEO								(0.01)	
Siewarasnip×CEO								(0.06)	
								(0.00)	0 207***
Executive									-0.207
Stewardshin × Frecutive									(0.00)
Siewaraship ~ Lxecuive									(0.05)
Observations	357	357	357	357	357	357	357	357	(0.05)
Adjusted R^2 (%)	17.574	15.700	15.822	15.786	15.772	17.504	16.693	16.670	16.854
F-statistic	7.101	7.298	7.288	7.339	7.332	8.175	7.776	7.765	7.855

*, **, ***: Significant at the 10%, 5%, and 1% level, respectively; P-value in parentheses.