

## Corporate Governance Provisions, Family Involvement, and Firm Performance in Publicly Traded Family Firms

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### Abstract:

This study examines the moderation effects of corporate governance provisions on the link between family involvement (*i.e.*, family ownership and family management) in publicly-traded firms and firm performance by drawing upon agency theory, with a focus on principal-principal agency issues, and the extant family governance literature. We develop and test the hypotheses on 386 of the S&P 500 firms longitudinally. Findings support the hypotheses suggesting the moderation effects of the use of provisions (a) protecting controlling owners in terms of their sustainability of controlling status, and (b) protecting management legally on the inverted U-shaped relationship between family ownership and firm performance. We also found support for the moderation effects of provisions (c) protecting controlling owners in terms of their voting rights, (d) protecting noncontrolling owners, and (e) protecting management monetarily on the inverted U-shaped relationship between family management and firm performance. By this, our study provides empirical support for the principal-principal agency perspective on the corporate governance in publicly-traded family firms. As such, it suggests new avenues of research for both the corporate governance literature, as well as for the theory of the family firm. Our study also offers insights to policy directed toward monitoring the actions of large shareholders such as family and enhancing the overall shareholder value in publicly-traded family firms.

**Keywords:** corporate governance | principal-principal agency theory | governance provisions | family firms | firm performance

### Article:

\*\*\*Note: Full text of article below

Article

## Corporate Governance Provisions, Family Involvement, and Firm Performance in Publicly Traded Family Firms

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**JEL Classification:** G32

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## 1. Introduction

Many corporations in the U.S. and around the world exhibit family involvement (Aguilera *et al.* [1], Villalonga and Amit [2,3]). The involvement of family in the firm is usually through ownership and management (Chrisman *et al.* [4], Neubauer *et al.* [5], Siebels *et al.* [6]). Since these can lead to the pursuit of family-centered goals and associated strategies (Carney [7]), family firm behavior and performance tend to differ from not only those in nonfamily firms, but also other family firms (Miller *et al.* [8]). Examining the use of corporate governance provisions can improve our understanding of the relationship between family involvement and firm performance in publicly-traded family firms. Research generally draws attention to principal-principal agency problems between controlling and noncontrolling shareholders in corporate family enterprises. This is because of families' stock ownership being relatively more than that of minority shareholders and control over the business through involvement in management and board of directors. By this, families are able to pursue family-centered goals (e.g., behaving altruistically toward family members) which may not be beneficial for noncontrolling owners (Ali *et al.* [9], Maury [10]). The use of control enhancing corporate governance provisions, such as unequal voting rights in favor of the controlling family, can further enhance the family's ability to pursue noneconomic and economic goals primarily benefiting the family, if they intend to do so. Gompers and colleagues [11] show that governance provisions (*i.e.*, provisions allowing management to resist shareholder activism, and prevent or delay takeovers) can lead to higher agency costs (Daily *et al.* [12], Daily *et al.* [13]). They also suggest the use of such provisions can be related to performance differences among firms. However, the authors do not distinguish between family and nonfamily firms. A recent work by Memili, Misra, and Chrisman [14] classifies these governance provisions by considering family firm idiosyncrasies. There has been a stream of research investigating whether family firms outperform nonfamily firms. There seems to be mixed findings and performance differences tend to be a function of the type of family involvement (e.g., founder control) (e.g., Anderson and Reeb [15–17], Miller *et al.* [18], Villalonga and Amit [2,3]). For instance, Villalonga and Amit [19] found that the impact of control enhancing mechanisms on firm performance depends on the mechanism used. Nevertheless, only a few of the governance provisions such as voting agreements, dual-class stock, cross-holdings, pyramids<sup>1</sup>, and their impact on firm performance have been investigated in publicly traded family firms (e.g., Villalonga and Amit [2,3]). These provisions generally elevate voting rights of the families even at low levels of equity ownership

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<sup>1</sup> According to Morck and Steier [20], a pyramid is a structure prevalent around the world except in the U.S. and U.K. in which a shareholder, usually a family, controls a single company and this company then holds control blocks in other companies and each of these companies holds control blocks in even more companies, which is rare in the U.S.

(Villalonga and Amit [3]). Hence, more research is needed concerning governance provisions in order to better understand corporate governance in publicly-traded family firms.

There has been a call for studies examining family firm performance and its antecedents, owing to the critical role of firm value in buy out decisions, tax payments, executive compensation, capital raising strategies, and selling the company (Villalonga [21]). Family ownership and management can enhance firm value since the controlling family can provide superior oversight through lengthy tenure, invest in long-term projects, or exhibit reputation concerns that diminish the possibility of questionable or irresponsible business practices (Anderson and Reeb [17], Dyer and Whetten [22]). However, the use of control enhancing mechanisms, which may be driven by intentions to maintain family control to preserve socioemotional wealth (Chrisman *et al.* [23], Gomez-Mejia *et al.* [24]), may also negatively influence the effects of family ownership and management on firm performance. To date, the interaction effects of family involvement and control enhancing governance provisions on firm performance have not been fully investigated. Instead, the focus has been mostly on the direct effects of some of the governance mechanisms on firm performance (Daily *et al.* [12]). Control enhancing mechanisms within the context of publicly traded family firms require more research attention, since some of them may be associated with principal-principal agency costs (Chrisman *et al.* [25], Crutchley *et al.* [26], Morck *et al.* [27]) through enhancing the power, authority, and legitimacy of the family. However, we do not know enough about the factors that enhance or mitigate controlling owners' ability and willingness to pursue policies that lead to the expropriation of minority shareholder wealth and entrenchment in family firms (Chrisman *et al.* [25]).

In an attempt to fill these gaps, this paper<sup>2</sup> applies agency theory (Fama and Jensen [29], Jensen and Meckling [30]) and the extant family governance literature to develop and test the model in this paper. The model in this paper addresses the research question: "How do governance provisions affect the link between family involvement (*i.e.*, family ownership and family management) and firm performance?" and hence demonstrates how the use of these provisions moderates the relationships between family involvement (*i.e.*, family ownership and management) and firm performance.

This paper contributes to the literature in several ways. First, the model in this paper illustrates the interplay between family involvement and corporate governance provisions in influencing firm performance when studies mostly focus on the direct effects of family involvement components or governance provisions on firm performance. Indeed, both family involvement and the use of governance provisions are likely to be influential on firm performance in publicly-traded firms. Hence, the model reflects the reality better. Second, this paper contributes to a better understanding of the differences among family firms, shedding light on to the heterogeneity among family firms. Third, findings of this paper inform us about the principal-principal agency costs since some of the provisions may be associated with agency problems in publicly-traded family firms by elevating the power of the controlling family which can enable the family to act opportunistically, if they intend to. Fourth, we test our hypotheses longitudinally, allowing stronger causal inference and increased statistical power over cross sectional design.

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<sup>2</sup> Has been originally developed as part (*i.e.*, Essay 2) of a dissertation (Memili [28]) by one of the co-authors of this manuscript.

In the remainder of this paper, a theoretical overview is provided and hypotheses are developed. Then, the hypotheses are tested. Finally, results, future research opportunities, and implications for practice are discussed.

## 2. Theoretical Overview

### 2.1. Principal-Principal Problems in Publicly Traded Family Firms

Principal-principal agency problems in publicly traded family firms are different from principal-agent problems in privately held family firms, owing to the co-existence of controlling and minority shareholders (Gomez-Mejia *et al.* [31]). Unlike minority shareholders, family not only has relatively higher levels of equity ownership, but also often has management and board representation as well. Thereby, interests of owners and managers are more aligned than those in nonfamily publicly-traded firms. Nevertheless, controlling family owners and managers tend to hold family-centered interests which may not benefit minority shareholders (Morck and Yeung [32]). Principal-principal agency problems are in the forms of expropriation of noncontrolling shareholder wealth and entrenchment of controlling family.

Concentrated control can be beneficial in monitoring agents (who may also be owners), but can enable expropriation of minority shareholder wealth (Anderson and Reeb [15,33], Andres [34], Johnson *et al.* [35], La Porta *et al.* [36]). Expropriation within the weak governance context appears when majority owners control the firm and restrict noncontrolling owners' rights to appropriate returns on their investments (Dharwadkar *et al.* [37], Young *et al.* [38]). This can be through tunneling with non-arm's-length and related-party transactions (Johnson *et al.* [35], Shleifer and Vishny [39], Young *et al.* [38]), transfer pricing (*i.e.*, a related-party transaction) which can occur by managers forming independent companies that they own personally and selling the products of the main company they manage to the independent firms at below market prices or *vice versa*, misallocation of company funds which can be through self-dealing transactions such as exclusive dividends, high compensation, loan guarantees using the firm's assets as collateral, or sub-optimal investment decisions that create empire building opportunities for family members (*i.e.*, excessive expansion). These consequently can lower shareholder value. The management can also prefer excessive cash holdings rather than investing or distributing dividends (Shleifer and Vishny [39]).

In addition, managerial resistance to takeovers in order to protect the private benefits of family control can lower shareholder wealth (Mahoney and Mahoney [40], Mahoney *et al.* [41,42], Cremers and Nair [43]). Shareholders usually can gain from above average returns from corporate takeovers owing to the economies of scale and synergies attained from combining corporate resources (Jensen and Ruback [44], Berkovitch and Narayanan [45], Bechuk [46]). Takeovers can also enhance cash flows, market power in product markets, tax advantages, and avoidance of bankruptcy (Jensen and Ruback [44], Jensen [47]). However, transfer of control may not be favorable for the controlling family owing to self- and family-interest at the expense of shareholders (Jensen and Ruback [44]). Consistent with this, Gompers *et al.* [11] show that the provisions in the U.S. are associated with lower firm value.

The expropriation can be even more problematic, if the controlling owners are wealthy enough and they simply prefer to maximize private benefits of control rather than shareholder wealth. Even when a legal system, such as that in the U.S., provides investor protection, the controlling owners may still treat family members exclusively, limit innovation, avoid diversification, restrict dividends, and refrain from expansion through raising capital (Anderson and Reeb [15,16], Gomez-Mejia *et al.* [48], La Porta *et al.* [49], Young *et al.* [38]).

Aside from the expropriation problem, managerial entrenchment (*i.e.*, a manager remains active in management and resists transfer of control even though he/she is no longer competent or qualified to run the firm of family members) is likely to occur in family firms (Anderson *et al.* [50], Anderson and Reeb [15], Claessens *et al.* [51], Crutchley [26], Gomez-Mejia *et al.* [31], Morck and Yeung [32], Shleifer and Vishny [39], Walsh and Seward [52], Westhead *et al.* [53]).

Gomez-Mejia *et al.* [31] argue that family firms may be more prone to managerial entrenchment because family ties and emotions may be influential in appointment and tenure of executives, lowering the effectiveness of monitoring and resulting in biased judgments of executive performance. For example, Miller and Le Breton-Miller [54] also draw attention to long-term CEO tenures in family firms.

The variant equity levels of the controlling family and minority shareholders can result in conflicts (Gilson and Gordon [55], Villalonga and Amit [2]). In large US corporations, founding families tend to be the only blockholders whose control rights exceed their cash-flow rights (Villalonga and Amit [56]). The discrepancy between family's control rights and ownership tends to exacerbate the agency problem of the expropriation of noncontrolling owners since families bear only a fraction of the costs associated with the private benefits they reap (Ang *et al.* [57], Claessens *et al.* [51], Jensen and Meckling [30], Miller and Le Breton-Miller [54], Villalonga and Amit [3]). Moreover, family owners may be driven by the noneconomic benefits of control rather than wealth. Family-oriented noneconomic goals can be the preservation of family harmony, identity, dynasty, social capital, reputation, and ability to be altruistic toward family members (Berrone *et al.* [58], Chrisman *et al.* [25], Gomez-Mejia *et al.* [24,48]). The achievement of these goals creates socioemotional wealth for the family and elevates their intention to sustain family control (Chua *et al.* [59], Gomez-Mejia *et al.* [24]). The loss of socioemotional wealth, however, can result in diminished intimacy, lowered status, and inability to meet family's expectations (Gomez-Mejia *et al.* [24]). Hence, family firms could be willing to accept greater performance hazard in order to preserve socioemotional wealth rooted in noneconomic goals (Chrisman *et al.* [60], Gomez-Mejia *et al.* [24]). Gomez-Mejia *et al.* [24] show that family firms may be willing to accept risk to their performance to avoid the loss of socioemotional wealth, but at the same time be risk averse in making other business decisions. Hence, family-centered noneconomic goals may not be beneficial for nonfamily stakeholders (Chrisman *et al.* [23]).

Additionally, family firm leaders often desire to pass on a sustainable legacy to future generations of the family (Dyer and Whetten [22]), which leads to parsimony in resource conservation and allocation (Carney [7]), particularly when a family's equity ownership constitutes a significant portion of the family's wealth (Wright *et al.* [61]). In these cases, family owners and/or managers may be reluctant to support innovation or other risky investments necessary to maximize firm performance and growth (Morck and Yeung [32], Wright *et al.* [61]). Accordingly, researchers (e.g., Daily *et al.* [12], Mishra and McConaughy [62]) suggest that the risk aversion of family owners may cause them to

forego profitable growth opportunities, limiting the growth of the firm. Family's reducing risk exposure at the expense of other shareholders' potential higher returns may consequently create conflict of interests.

Furthermore, controlling shareholders either actively participate in management or are positioned to assure that management and even the board serves their interests (Brecht *et al.* [63], Combs [64], Demsetz and Lehn [65], Herman [66], Jones *et al.* [67]). This is in line with family owner and managers' particularistic tendencies with regard to whom they personally choose to work within their organizations (Carney [7]). In addition, there may be generational differences in the agency costs between family and nonfamily firms (Villalonga and Amit [2,19]). While founding families may be concerned with value for all shareholders, the descendants may be shifting their focus toward engaging in power struggles, which can foster relational conflict and harm performance (Kellermanns and Eddleston [68], Kellermanns and Eddleston [69]).

Hence, principal-principal agency problems arising between controlling and noncontrolling shareholders can result in more detrimental effects than the principal-agent agency problems in publicly traded family firms (Ali *et al.* [9]).

## 2.2. Corporate Governance Provisions

Governance provisions are an important part of corporate governance in today's corporate environment in the U.S. and many other countries around the world. In the 1980s, hostile takeovers started in the U.S. (Holstrom and Kaplan [70]). Hostile takeovers are orchestrated by an outside entity by making a tender offer (*i.e.*, a price for their stock, which is higher than the current market price) to shareholders of a target firm without involving the target's management and board (Davis [71]). When the raider firm acquires a substantial ownership position to exercise control, it may merge with the target firm, liquidate its assets to finance the takeover, replace top management and board, or sell off some of the divisions (Davis [71]). Takeover threats constitute an external governance provided by the market for corporate control and discipline corporate management (Davis [71], Sundaramurthy [72], Cremers and Nair [43]). Consequently, takeovers generally benefit shareholders of target and acquiring companies through facilitating constructive organizational restructuring and generating substantial gains (Jensen [47], Berkovitch and Narayanan [45], Cremers and Nair [43]). Then, hostile takeovers declined substantially, while at the same time executive stock options and the greater involvement of boards of directors and shareholders took place in the corporate world. Through these changes, corporate governance mechanisms became more important than ever (Holstrom and Kaplan [70]). Gompers *et al.* [11] suggest that governance provisions generally allow management to resist shareholder activism, and prevent or delay takeovers. The activist shareholders pressure the management of the poorly performing firms in their portfolio for improvement of performance and shareholder value (Gillan and Starks [73]). However, families, who control publicly traded firms and are expected to be unwilling to let go of control and utilize control enhancing governance provisions in order to enhance and sustain their power.

Gompers *et al.* [11] identify 24 governance provisions used in corporations in the U.S. The authors divide governance provisions into five groups based upon the purpose of their usage: tactics for delaying takeovers (delay), director/officer protection (protection), voting rights (voting), state laws

(state), and other takeover defenses (other). However, the authors do not differentiate between family and nonfamily firms nor consider the differences between controlling family and noncontrolling owner groups and their distinct characteristics, interests, and rights within the context of family firms. In this paper, we use Memili and colleagues' [14] classification of governance provisions based on the purpose of usage and the existence of different interest groups (*i.e.*, controlling owners, noncontrolling owners, and management and board) within the context of family firms, as can be seen in Table 1.

**Table 1.** Corporate Governance Provision Definitions. (Gillan *et al.* [74], Gompers *et al.* [11], Mahoney *et al.* [42], Memili *et al.* [14]).

<b>Provisions protecting controlling owners through enhancing voting rights</b>	
<b>Provisions</b>	<b>Definitions</b>
<b>Unequal Voting Rights</b>	To limit voting rights of some shareholders and expand those of others.
<b>Cumulative Voting</b>	Allows shareholders to concentrate their votes and helps minority shareholders to elect directors.
<b>Supermajority</b>	Voting requirements for approval of mergers.
<b>Provisions protecting controlling owners through sustaining controlling status</b>	
<b>Provisions</b>	<b>Definitions</b>
<b>Blank Check</b>	A preferred stock over which the BOD has broad authority to determine voting, dividend, conversion, and other rights. It is used to prevent takeover by placing this stock with certain friendly investors.
<b>Business Combination Law</b>	Requires a waiting period for transactions such as mergers, unless the transaction is approved by the BOD.
<b>Poison Pills</b>	Give the holders of the target firm's stocks the right to purchase stocks in the target at a discount and to sell shares at a premium if ownership changes. This makes the target unattractive.
<b>Bylaw</b>	Amendment limitations limit shareholders' ability to amend the governing documents of the company.
<b>Charter</b>	Limitations to change the governing documents of the company.
<b>Fair Price</b>	Requires a bidder to pay to all shareholders the highest price paid to any during a period of time before the commencement of an offer. This makes an acquisition more expensive.
<b>Anti-greenmail</b>	Prohibits a firm's controlling owners/managers from paying a raider "greenmail", which involves the repurchase of blocks of company stock, at a premium above market price, in exchange for an agreement by the raider not to acquire the firm. Eliminating greenmail may discourage potential bidders from considering the target firm for a takeover. Hence, it can be used as an antitakeover device.
<b>Provisions protecting noncontrolling owners</b>	
<b>Provisions</b>	<b>Definitions</b>
<b>Cash-out Laws</b>	Shareholders can sell their stakes to a controlling shareholder at a price based on the highest price of recently acquired shares. It works as fair-price provisions extended to nontakeover situations.
<b>Secret Ballot</b>	Confidential voting. Either an independent third party or employees sworn to secrecy count proxy votes and management does not look at proxy cards.



Table 1. Cont.

<b>Provisions protecting management and directors' positions</b>	
<b>Provisions</b>	<b>Definitions</b>
<b>Classified Board</b>	The board is split into different classes, with only one class up for election in a given year. Hence, an outsider who gains control of a corporation may need to wait a few years in order to be able to gain control of the board.
<b>Special Meeting Limitations</b>	Bidders must wait until the regularly scheduled annual meeting to replace BOD or dismantle takeover defenses.
<b>Written Consent Limitations</b>	Bidders must wait until the regularly scheduled annual meeting to replace BOD or to dismantle takeover defense.
<b>Directors' Duties</b>	Provides BOD with a legal basis for rejecting a takeover that would have been beneficial to shareholders.
<b>Provisions protecting management and directors monetarily</b>	
<b>Provisions</b>	<b>Definitions</b>
<b>Compensation Plans</b>	In case of a change in control, this provision allows participants of incentive bonus plans to cash out options or accelerate the payout of bonuses.
<b>Golden Parachutes</b>	Severance agreements that provide cash or noncash compensation to senior executives upon an event such as termination, demotion, or resignation following a change in control.
<b>Severance</b>	Agreements assuring executives of their positions or some compensation and are not contingent upon a change in control.
<b>Provisions protecting management and directors legally</b>	
<b>Provisions</b>	<b>Definitions</b>
<b>Contracts</b>	Indemnifies officers and directors from certain legal expenses and judgments resulting from lawsuits.
<b>Indemnification</b>	Indemnify officers and directors from certain legal expenses and judgments resulting from lawsuits pertaining to their conduct.
<b>Limitations on Director Liability</b>	Limit directors' personal liability.

### 3. Hypotheses

#### 3.1. Family Involvement and Firm Performance

Family business studies generally suggest a nonlinear (*i.e.*, an inverted U-shaped) relationship between family involvement and firm performance (e.g., Sciascia and Mazzola [75], Anderson and Reeb [15,16], Claessens *et al.* [51], Morck *et al.* [27], Short and Keasey [76]). One reason for the nonlinear inverted U-shaped relationship between family involvement and firm performance may be the family's tendency to pursue noneconomic goals as family ownership and management increase (Sciascia and Mazzola [75], Chrisman *et al.* [25]). They are able to do so owing to the legitimacy and power obtained through ownership and management positions they hold in the company (Chrisman *et al.* [25]). When the level of family management increases along with the level of family ownership, the noneconomic goals are likely to be aligned with the interests of both owners and managers, resulting in a relatively lower cost of adopting the goals and lower resistance by management and/or noncontrolling owners (Chrisman *et al.* [25]). The largest shareholder may become entrenched and better able to extract value (Claessens *et al.* [51]), which may consequently

harm not only firm performance, but also the economy in a broader sense (Chrisman *et al.* [25], Morck *et al.* [77], Morck and Yeung [32]). For example, Morck *et al.* [27] show that heir-controlled Canadian firms exhibit low financial performance owing to the expropriation of noncontrolling owners' wealth and the entrenchment of poorly performing managers whose firms continue to survive through access to capital and insulation from competition via political influence. Accordingly, when controlling owners' voting rights and controlling status are enhanced while also having managers' and directors' positions secured through the use of governance provisions, controlling owners' and managers' ability to pursue the family agenda and engage in opportunistic actions can increase.

Therefore, after a certain point, family ownership and management may lead to the adoption of family-centered goals and strategies which may diminish shareholder value since the benefits of the pursuit of family-centered noneconomic goals are usually not transferrable to nonfamily members. Furthermore, principal-principal agency costs deriving from the controlling owners' and managers' expropriation of noncontrolling shareholder wealth and their entrenchment are likely to increase, which can consequently harm firm performance (Chrisman *et al.* [25]).

Additionally, according to Dyer [78], certain governance mechanisms may be associated with more or fewer agency problems. Indeed, certain provisions protecting management and family shareholder rights can make firms susceptible to principal-principal agency problems in publicly traded family firms since they strengthen the controlling family business members' ability, power, and legitimacy to entrench themselves and extract value (Burkart *et al.* [79], Claessens *et al.* [51]). This is relevant to Alchian and Demsetz' [80] agency concern regarding "Who will monitor the monitor?"

Since governance provisions differentially affect the balance of power in the firm (Gompers *et al.* [11]), the frequency of the use of provisions protecting controlling owners, noncontrolling owners, and management are also likely to interact with family involvement components (*i.e.*, family ownership and family management) to determine firm performance. Specifically, higher frequency of the use of provisions protecting controlling owners, management and directors, and others indicating higher management, director, and family shareholder power and ability to pursue family-centered noneconomic goals exclusively benefiting family members, are likely to weaken the positive effects and strengthen the negative effects of family involvement components on firm performance. Additionally, higher frequency of the use of provisions protecting noncontrolling owners and others, indicating a higher level of noncontrolling owners' rights, are likely to strengthen the positive effects and weaken the negative effects of family involvement components on firm performance. Owing to a prominent stream of research showing an inverted U-shaped relationship between family involvement and firm performance, this paper attempts to explore a relatively less investigated area (*i.e.*, the moderators which may influence this relationship) in order to extend this line of research.

### 3.2. Moderation Effects of the Provisions Protecting Controlling Owners

The higher frequency of the use of provisions, which create a wedge between controlling owners' voting rights and their cash-flow rights (*i.e.*, unequal voting rights, cumulative voting, and supermajority) as well as secure sustainability of their controlling status through delaying or preventing takeovers (*i.e.*, blank check, business combination law, poison pill, bylaw and charter, fair price, and antitakeover), can elevate family owners' and managers' power. This can exacerbate

expropriation of noncontrolling owners' wealth through strengthening the controlling family's ability to reap the private benefits of control and entrench themselves in ownership and management positions (Anderson and Reeb [15,33], Andres [34], Gomez-Mejia *et al.* [31], Shleifer and Vishny [39]), weakening the positive effects and strengthening the negative effects of family ownership and family management on firm performance. The moderating effects of the use of provisions protecting controlling owners in terms of their voting rights are expected to lead to a shift of the inverted U-shaped curve representing the relationship between family involvement (*i.e.*, family ownership and family management) and firm performance.

Moreover, additional discretionary power, attained through the provisions protecting controlling owners, can allow both family owners and managers to pursue family agendas primarily benefiting the family and to consume perks, thereby reducing firm performance and noncontrolling shareholder value. At relatively smaller percentages of ownership of shares and higher voting rights, family owners' incentive to consume perks, rather than to maximize firm value increases since they gain 100 percent of the amount spent on perks, but their percentage of share in firm profits are only reduced according to their percentage share of the firm. Hence:

Hypothesis 1. The use of provisions protecting controlling owners in terms of their (1a) voting rights and (1b) sustainability of controlling status will negatively moderate the inverted U-shaped relationship between family ownership and firm performance.

Hypothesis 2. The use of provisions protecting controlling owners in terms of their (2a) voting rights and (2b) sustainability of controlling status will negatively moderate the inverted U-shaped relationship between family management and firm performance.

### 3.3. Moderation Effects of the Provisions Protecting Noncontrolling Owners

These provisions (*i.e.*, cash-out laws and secret ballot) protect noncontrolling owners by elevating the value of noncontrolling owners' shares while selling to a controlling owner and assuring confidentiality in voting. Particularly, the secrecy of voting, which gives noncontrolling owners' a voice in firm governance, can constitute an internal control mechanism by monitoring controlling owners' actions and allowing potentially beneficial takeovers to take place by weakening the controlling family owners and managers' resistance and prevention tactics. As a result, the use of these provisions can democratize the dominant family governance context by lowering the risk of expropriation of noncontrolling owners' wealth and entrenchment of the family and facilitate raising capital through attracting outside investors. Hence, the higher use of these provisions is expected to strengthen the positive effects and weaken the negative effects of family involvement on performance. This is expected to lead to a shift of the inverted U-shaped curve representing the relationship between family involvement (*i.e.*, family ownership and family management) and firm performance.

Hypothesis 3. The use of provisions protecting noncontrolling owners will positively moderate the inverted U-shaped relationship between (3a) family ownership and firm performance, and (3b) family management and firm performance.

### 3.4. Moderation Effects of the Provisions Protecting Management and Directors

These provisions (*i.e.*, classified board, special meeting, written consent, directors' duties, compensation plans, golden parachute, severance, contracts, indemnification, and limitations on director liability) protect managers and directors in terms of their position in the firm, monetarily, and legally. Family owners are often involved in management to exert family influence on the business (Brecht *et al.* [63]). When they are not actively involved in the management of the firm, they appoint well trusted associates to represent them (Combs [64], Jones *et al.* [67]). When managers' and directors' positions in the firm are insulated from proxy fights and takeovers, they have more freedom to act according to the controlling family's family-centered expectations and/or their own personal gains, which may not always be beneficial for firm performance. Hence, the use of provisions protecting managers and directors in terms of their positions in the firm combined with family's dominance in ownership and/or management can enhance the family's pursuing family agendas and exacerbate expropriation of noncontrolling owners' wealth and entrenchment of the controlling family, which can consequently harm firm performance.

Moreover, as discussed and hypothesized in the previous section, family controlled publicly traded firms are expected to use provisions protecting managers and directors monetarily and legally less frequently than nonfamily firms. However, when/if they are used, they are expected to weaken the positive effects of family involvement on firm performance and strengthen the negative effects, which can shift the inverted U-shaped curve representing the relationship between family involvement (*i.e.*, family ownership and family management) and firm performance. In the absence of the concern for the monetary and legal consequences of wrongdoings, managers and directors are more likely to be in compliance with the controlling family's family-oriented expectations in their actions even if they may not be beneficial for the shareholders and firm value in general.

Hypothesis 4. The use of provisions protecting management (4a) in terms of their position in the firm, (4b) monetarily, and (4c) legally will negatively moderate the inverted U-shaped relationship between family ownership and firm performance.

Hypothesis 5. The use of provisions protecting management (5a) in terms of their position in the firm, (5b) monetarily, and (5c) legally will negatively moderate the inverted U-shaped relationship between family management and firm performance.

## 4. Methodology

### 4.1. Data

Panel data regarding governance provision usage in firms is obtained from a larger project designed to investigate all the companies incorporated in the U.S. in the Investor Responsibility Research Center books in terms of their usage of 20 out of 24 control enhancing governance mechanisms (Gompers *et al.* [11]). Accounting, market, ownership, and management data is obtained from Thompson Reuters Thompson One Corporate Development database. Family business members are identified by using the Hoover's database and annual reports in Mergent Online. Data is analyzed on a restricted sample of firms based on publicly available data for 2001 to 2007. We conducted

several tests to select the appropriate model for this paper. Consistent with previous studies investigating publicly traded family firms, the sample comes from the firms listed in S&P 500 (e.g., Anderson and Reeb [15,16,33], Short *et al.* [81]). Missing data lowered the sample size to 386.

#### 4.2. Variables

##### 4.2.1. Dependent Variable

*Firm performance* is measured by the Tobin's  $q$  (Chung and Pruitt [82]) with accounting data provided by Thomson Reuters. The use of this firm performance measurement in this paper follows Anderson and Reeb [33], Villalonga and Amit [2,3,56] and Miller *et al.* [18]. Tobin's  $q$  is the ratio of the firm's market value to replacement value of its assets (Villalonga and Amit [2], Miller *et al.* [18]). The formula for Tobin's  $q$  (Miller *et al.* [18]) is as follows:  $((\text{commonshares outstanding} \times \text{calendar year closing price}) + (\text{current liabilities-current assets}) + (\text{long-term debt}) + (\text{liquidating value of preferred stock}))/\text{total assets}$ ). For robustness checks, we also collected data regarding other firm performance measures concerning profitability such as Return on Assets (ROA = Net Income/Average Total Assets), Return on Equity (ROE = Net Income/Shareholders' Equity), and Return on Investment (ROI = Net Income/Total Assets) (Carton and Hofer [83]).

##### 4.2.2. Independent Variables

*Family ownership (FO)* is the percentage of total firm ownership held by members of a family. *Family management (FM)* is the number of individual family members who are in top management and/or the board of directors. The *squared family ownership (FO<sup>2</sup>)* and the *squared family management (FM<sup>2</sup>)* variables are used to indicate nonlinear relationships between independent variables and dependent variable. For robustness tests, the proportion of number of family managers and/or the board of directors (*PFM*) to total number of managers and/or the board of directors is also calculated.

##### 4.2.3. Moderators

Moderators consist of six categories of governance provisions that group the 20 of the 24 provisions (Business Combination Law and Cash-out Laws which were missing in the dataset) identified by Gompers *et al.* [11] according to the purposes of their usage by firms. Judgment-based categorization (Perreault and Leigh [84]) of the governance provisions is used. The validity of this categorization was confirmed by three expert judges who assessed the degree to which the provisions represent the categories (Netemeyer *et al.* [85]).

The first moderator is the *frequency of the use of governance provisions protecting controlling owners through voting rights (VOTING)*. This variable involves the following provisions: (1) Unequal voting rights; (2) Cumulative voting; and (3) Supermajority. The second moderator is the *frequency of the use of governance provisions protecting controlling owners through sustaining control status (STATUS)* and includes the following provisions: (1) Blank check; (2) Poison pill; (3) Bylaw; (4) Charter; (5) Fair price; and (6) Antigreenmail. The third moderator, the *frequency of the use of governance provisions protecting noncontrolling owners (NONCONTROLLING)* includes provisions

concerning: (1) Secret ballot. The fourth moderator is the *frequency of the use of governance provisions protecting management and directors in terms of their position (POSITION)*. This variable involves the following provisions: (1) Classified board; (2) Special meeting; (3) Written consent; and (4) Director's duties. The fifth moderator, the *frequency of the use of governance provisions protecting management and directors monetarily (MONETARY)* includes provisions concerning: (1) Compensation plans; (2) Golden parachute; and (3) Severance. The sixth moderator is the *frequency of the use of governance provisions protecting management and directors legally (LEGAL)*. This variable involves the following provisions: (1) Contracts; (2) Indemnification; and (3) Limitations on director liability.

In a given year, provisions that are used by a firm are coded as "1" and provisions not used are coded as "0". The frequency of the use of each category is calculated by adding usage/no usage figures (*i.e.*, 1/0) in each category. For robustness tests, particularly when one provision group (*i.e.*, NONCONTROLLING) included only one provision due to missing provision data, categorical provision group variables are also included (1 = at least one mechanism present; 0 = none).

#### 4.2.4. Control Variables

We controlled for the variables that are expected to influence firm performance. Larger companies may have performance advantages over small and medium size firms owing to economies of scale, consequently affecting their firm performance (Hansen and Wernerfelt [86]). Hence, *firm size (FS)* is controlled and measured via the log of the number of employees following Dewar and Dutton [87]. In addition, older firms may have the advantage of being established with a history of past successes, which can influence their performance (Hansen and Wernerfelt [86]). *Firm age (FA)* is measured as the number of years the firm has been in existence since founding. Additionally, family firms may have competitive advantages in some industries compared to others (Chrisman *et al.* [25]), which can influence their performance. We measure *primary firm industry (FI)* by classifying all firms into one of four industrial categories: (1) retail; (2) service; (3) manufacturing; and (4) other, following Chrisman *et al.* [25]. Three categorical variables, coded 1/0, are created to indicate retail, service, and manufacturing firms. Firms in other industries are coded as zero for each variable. For further specification of industry, four-digit SIC codes and sector names are also identified and entered for each firm. Additionally, *generational majority in management and board* is controlled since family influence tends to be weaker when family influence is more dispersed or fractionalized owing to the involvement of later generations (Schulze *et al.* [88], Gomez-Mejia *et al.* [24]). Two categorical variables, coded 1/0, are created to indicate first generation (*GEN1*) and second generation or later (*GEN2*). Nonfamily firms are those coded as zero for each of these two variables. Institutional owners such as mutual or pension funds may also play a significant role in corporate decision making (Anderson and Reeb [33]), which can consequently affect firm performance. *Institutional ownership (IO)* is the percentage of overall institutional ownership of voting shares outstanding. Similarly, ownership by other insiders can also influence decision making and firm performance (Anderson and Reeb [33]). Hence, *other insiders' ownership (OIO)*, which is the equity holdings of top managers and directors minus family ownership, is controlled to capture the incentive effects of other insiders' ownership (Anderson and Reeb [33]). Firm risk (*i.e.*, return volatility) may be another factor that can influence firm performance (Anderson and Reeb [15,33]) since high level of risk may

result in either above average returns or a large amount of losses. *Firm risk (FR)* is measured as the standard deviation of stock returns for the previous 60 months, following Anderson and Reeb [15,33]. Also, investment into R&D and internationalization may lead firms to high or low performance (Decarolis and Deeds [89], Graves and Langowitz [90]). Hence, these variables are controlled. *R&D (RD)* level will be calculated via R&D/sales ratio (Miller *et al.* [18]). *Internationalization (INT)* is measured as the percentage of foreign revenue (100%-percentage of domestic revenue).

#### 4.3. Analyses

Table 2 provides the means, standard deviations, and correlations of the variables used in the study. This is a balanced time series panel model. As a result, many observations have censored or truncated data which is important to recognize in the model. Hence the Tobit model would seem to be a sensible approach, because it was designed to accommodate such issues (Greene [91]). The basic choice is between a pooled model and fixed or random effects model. The difference between the random effect and fixed effect model is straightforward. The random effect estimator is the most efficient and it is consistent under the assumption that the effect from companies must be uncorrelated with other explanatory variables. The fixed effect estimators do not require this assumption (Caselli and Coleman [92]). Before selecting the correct model for the analysis, a series of tests were employed to confirm the correct econometric model for this paper. The Breusch-Pagan and Hausman tests confirm the model specification. Both of these tests confirm that both the pooled model and fixed effect model is adequate for this sample. Therefore we employed Fixed Effects Tobit Model to evaluate the hypotheses in this paper.

Since this is a time series dataset, it is reasonable to expect the lag effects in the model. To select the right model, we performed a series of time series tests and used AIC (Akaike Information Criteria) values in order to select the appropriate model (Enders [93]). We tested three models with various specifications, such as independent variables with no lags, with one lag and then with two lags and then compare their AIC values. The independent variable with first lag had the lowest AIC values. Hence, we used independent variables with first lag in this paper. Table 3 presents the results of the Fixed Effects Tobit Models, with firm performance as the dependent variable.

Hypotheses 1a through 5c are tested via Tobit Fixed Effects panel data analysis for first lagged the controls, independent variables, moderators, and interactions. NLOGIT version 4.0 Econometric software is used. NLOGIT4 selected the estimation model as the Fixed Effects estimation model. Tobit Fixed Effects estimation is used to adjust for a large number of zero observations (Maddala [94]). Prior to running the analyses, the variables' normality of their distributions is examined by graphing the distributions and examining the skewness and kurtosis in Excel. The variables which are not normally distributed are transformed (e.g., log of firm size). Additionally, Variance Inflation Factors for the variables are calculated. Additionally, Variance Inflation Factors for the variables are calculated. VIFs range between 1.10 and 3.24. Collinearity was not a problem since all VIFs were less than 10.

**Table 2.** Descriptive and Correlations.

	M	SD	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
<b>1. VOT</b>	0.29	0.50	1																							
<b>2. STA</b>	2.06	1.04	0.05	1																						
<b>3. NON</b>	0.21	0.41	-0.06	0.01	1																					
<b>4. POS</b>	1.64	1.15	0.07	0.37	0.05	1																				
<b>5. MON</b>	1.57	0.66	0.03	0.22	0.07	0.14	1																			
<b>6. LEG</b>	0.96	0.97	0.09	0.05	0.02	-0.17	0.03	1																		
<b>7. OTH</b>	0.04	0.22	0.03	0.19	0.11	0.06	0.08	0.03	1																	
<b>8. GEN1</b>	0.05	0.23	0.08	-0.03	-0.05	-0.02	-0.11	-0.04	0.01	1																
<b>9. GEN2</b>	0.14	0.35	-0.00	-0.11	-0.05	-0.08	-0.19	0.09	-0.04	-0.09	1															
<b>10. RET</b>	0.09	0.29	-0.04	-0.09	-0.12	0.03	-0.04	-0.08	-0.03	0.06	0.05	1														
<b>11. SER</b>	0.27	0.45	-0.01	-0.02	-0.03	0.10	-0.05	-0.06	-0.03	0.01	-0.03	-0.21	1													
<b>12. MAN</b>	0.38	0.48	-0.00	0.04	0.05	-0.07	-0.06	0.06	0.06	-0.08	0.01	-0.27	-0.49	1												
<b>13. IO</b>	32.29	11.21	-0.02	0.08	-0.07	0.05	0.17	-0.03	0.03	-0.05	-0.07	0.11	-0.07	0.03	1											
<b>14. FA</b>	59.19	44.63	0.09	0.09	0.08	0.04	0.06	0.13	0.02	-0.15	0.09	-0.09	0.03	0.05	-0.27	1										
<b>15. FSL</b>	4.23	0.56	-0.07	0.00	0.29	0.03	-0.07	0.09	0.05	-0.05	-0.01	0.16	0.03	0.05	-0.19	-0.27	1									
<b>16. OIO</b>	3.99	6.79	-0.01	-0.16	-0.19	-0.10	-0.01	-0.07	-0.13	0.02	-0.02	-0.09	-0.02	-0.02	-0.02	-0.15	-0.17	1								
<b>17. FR</b>	43.84	46.59	-0.03	-0.04	-0.11	-0.02	-0.03	-0.17	-0.02	0.03	-0.10	0.02	-0.02	0.06	-0.05	0.15	-0.26	0.19	1							
<b>18. FO</b>	1.69	6.21	0.00	-0.10	-0.07	-0.08	-0.33	0.06	-0.03	0.33	0.45	0.06	0.07	-0.05	-0.01	-0.01	-0.21	-0.01	0.01	1						
<b>19. FOS</b>	41.42	213.33	-0.00	-0.10	-0.05	-0.85	-0.29	0.05	-0.03	0.29	0.29	0.03	0.09	-0.05	-0.05	-0.20	-0.02	0.00	-0.08	0.93	1					
<b>20. FM</b>	0.39	0.96	-0.00	-0.16	-0.04	-0.12	-0.23	0.07	-0.06	0.36	0.69	0.12	-0.04	-0.04	0.00	-0.12	0.01	0.00	-0.14	-0.06	0.44	1				
<b>21. FMS</b>	1.06	3.55	-0.01	-0.18	-0.18	-0.12	-0.20	0.07	-0.05	0.19	0.56	0.14	-0.04	-0.03	-0.00	-0.10	0.02	0.00	-0.10	-0.05	0.49	0.92	1			
<b>22. FP1</b>	1.80	3.82	-0.06	-0.07	0.02	-0.09	-0.13	0.03	-0.04	-0.01	0.09	0.01	-0.03	0.11	-0.10	-0.05	-0.03	-0.06	0.06	0.05	-0.03	-0.03	0.06	1		
<b>23. RD</b>	0.03	0.00	-0.05	-0.06	-0.02	-0.08	0.02	-0.03	-0.01	-0.02	-0.11	-0.13	-0.16	0.40	-0.19	0.18	-0.20	-0.26	0.12	0.33	-0.10	-0.07	-0.10	0.09	1	
<b>24. INT1</b>	33.97	22.28	0.04	-0.07	-0.04	0.01	-0.07	0.10	-0.05	0.04	-0.02	-0.16	-0.06	0.24	-0.14	0.01	-0.2	0.00	-0.05	-0.05	0.14	-0.02	-0.4	-0.04	0.28	1

Variables: VOTING: The frequency of the provisions protecting controlling owners’ voting rights; RETAIL: Retail industry; FOS: Family ownership squared; STATUS: The frequency of the provisions protecting controlling owners’ controlling status; SERVIC: Service industry; FM: Family management; NONCON: The frequency of the provisions protecting noncontrolling owners; MANUF: Manufacturing industry; FMS: Family management squared; POSITIO: The frequency of the provisions protecting managers and directors’ positions; FA: Firm age; FP1: Firm performance; MONETA: The frequency of the provisions protecting managers and directors monetarily; FSL: Log of firm size; RD: Research and development; LEGAL: The frequency of the provisions protecting managers and directors legally; OTH: Other provisions; OIO: Other insiders’ ownership; INT1: Internationalization; GEN1: First generation’s majority in management and board; FR: Firm risk; IO: Institutional ownership; GEN2: Second or later generation’s majority in management and board; FO: Family ownership.



Table 3. Results of Analyses.

H1a-H5c with DV: FP1 (Firm Performance)	Model 1	Model 2	Model 3	Model 4
<b>Control Variables (First lagged)</b>				
GEN1 (Generational majority in management and board)	0.21	-0.81 *	1.26 *	-2.76 ***
GEN2 (Generational majority in management and board)	-0.22	-0.11	0.99	-2.46 ***
RETAIL	0.87	1.05 *	0.95*	0.96 *
SERVICE	0.52 +	-0.23	0.42	-0.31
MANUFACTURING	0.73 **	0.73 *	0.70 **	0.52 +
IO (Institutional Ownership)	0.01	0.01 ***	0.01	0.01 ***
FA (Firms Age)	-0.01	-0.01 *	-0.01	-0.01 +
FSL (Log of Firm Size)	-0.58 ***	0.04 +	-0.60 ***	0.01 +
OIO (Other Insiders' Ownership)	0.04 ***	-0.04	0.04 ***	-0.04
RD (Research and Development)	0.82	0.04	0.30	0.04
FR (Firm Risk)	0.01 ***	0.01 +	0.01 **	0.04 +
INT1 (Internationalization)	0.01	0.01 ***	0.01	0.04 ***
<b>Independent Variables (First lagged)</b>				
FO (Family Ownership)		0.91	-0.03	0.02
FOS (Family Ownership Squared)		-0.01 *	0.01	-0.02 **
FM (Family Management)		1.1 *	-0.81	5.22 ***
FMS (Family Management Squared)		-0.18 +	0.13	-0.65 ***
<b>Moderators (First lagged)</b>				
VOTING (Frequency of the use of provisions protecting owners through voting rights)			-0.11	0.29
STATUS (Frequency of the use of provisions protecting owners through sustaining control status)			0.01	-0.02
NONCONTR (Frequency of the use of provisions protecting noncontrolling owners)			0.11	-0.51 +
POSITION (Frequency of the use of provisions protecting managers' positions)			-0.01	-0.11
MONETARY (Frequency of the use of provisions protecting managers monetarily)			-0.20 *	-0.22
LEGAL (Frequency of the use of provisions protecting managers legally)			0.10	-0.08
<b>Interactions (First lagged)</b>				
FOVOTING (Family Ownership × Frequency of the use of provisions protecting owners through voting rights)				0.20
FOSVOTING (Family Ownership Squared × Frequency of the use of provisions protecting owners through voting rights)				-0.01
FOSTATUS (Family Ownership × Frequency of the use of provisions protecting owners through sustaining control status)				-0.35 ***
FOSSTATUS (Family Ownership Squared × Frequency of the use of provisions protecting owners through sustaining control status)				0.01 ***
FONONCONTR (Family Ownership × Frequency of the use of provisions protecting noncontrolling owners)				-0.19
FOSNONCONTR (Family Ownership Squared × Frequency of the use of provisions protecting noncontrolling owners)				-0.04
FOPOSITION (Family Ownership × Frequency of the use of provisions protecting managers' positions)				0.05
FOSPOSITION (Family Ownership Squared × Frequency of the use of provisions protecting managers' positions)				0.04

Table 3. Cont.

H1a-H5c with DV: FP1 (Firm Performance)	Model 1	Model 2	Model 3	Model 4
<b>Control Variables (First lagged)</b>				
FOMONETARY (Family Ownership × Frequency of the use of provisions protecting managers monetarily)				0.55 ***
FOSMONETARY (Family Ownership Squared × Frequency of the use of provisions protecting managers monetarily)				-0.01 ***
FOLEGAL (Family Ownership × Frequency of the use of provisions protecting managers legally)				-0.28 ***
FOSLEGAL (Family Ownership Squared × Frequency of the use of provisions protecting managers legally)				0.01 ***
FMVOTING (Family Management × Frequency of the use of provisions protecting owners through voting rights)				-1.96 **
FMSVOTING (Family Management Squared × Frequency of the use of provisions protecting owners through voting rights)				0.59 *
FMSTATUS (Family Management × Frequency of the use of provisions protecting owners through sustaining control status)				0.05
FMSSTATUS (Family Management Squared × Frequency of the use of provisions protecting owners through sustaining control status)				0.02
FMNONCONTR (Family Management × Frequency of the use of provisions protecting noncontrolling owners)				4.21 ***
FMSNONCONTR (Family Management Squared × Frequency of the use of provisions protecting noncontrolling owners)				-0.84 ***
FMPOSITION (Family Management × Frequency of the use of provisions protecting managers' positions)				-0.03
FMSPOSITION (Family Management Squared × Frequency of the use of provisions protecting managers' positions)				-0.01
FMMONETARY (Family Management × Frequency of the use of provisions protecting managers monetarily)				-3.09 ***
FMSMONETARY (Family Management Squared × Frequency of the use of provisions protecting managers monetarily)				0.33 +
FMLEGAL (Family Management × Frequency of the use of provisions protecting managers legally)				1.71 ***
FMSLEGAL (Family Management Squared × Frequency of the use of provisions protecting managers legally)				-0.30 **
Log likelihood function	-843.70	-2902.08	-829.03	-2796.64

+  $p < 0.10$ ; \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; \*\*\*  $p < 0.001$ .

To examine the endogeneity (*i.e.*, reverse causality), we used instrumental variables for both family ownership and family management. Stata 11 software is used to test family ownership and family management variables for endogeneity. Durbin-Wu-Hausman test is performed. Concerning the endogeneity of family ownership, GEN 1 (first generation's majority in management and board) and GEN2 1 (second generation's majority in management and board) instrumental variables are used. For family management variable, the instrumental variables were GEN 1 (first generation's majority in management and board), GEN2 1 (second or later generation's majority in management and board),

and PROPORFM (proportion of family managers and directors). Partial F-test results indicate that the co-significance of the instrumental variables for family ownership are significant ( $\chi^2 = 32.45$ ,  $p = 0.00$ ). Partial F-test results also indicate that the co-significance of the instrumental variables for family management are significant ( $\chi^2 = 405.69$ ,  $p = 0.00$ ). Durbin-Wu-Hausman test tests the null hypotheses that family ownership and family management are exogenous. Hence, the results of Durbin-Wu-Hausman show that family ownership ( $\chi^2 = 0.57$ ,  $p = 0.45$ ) and family management ( $\chi^2 = 1.13$ ,  $p = 0.29$ ) variables can be considered as exogenous.

In panel data analyses, Model 1 is the base model where the set of control variables are entered. Manufacturing industry, firm size, other insiders' ownership, and firm risk were significant and service industry was marginally significant. The log likelihood function was  $-843.70$ . In Model 2, we entered the independent variables. The family ownership (FO) variable was positive and not significant ( $\beta = 0.91$ , ns). Family ownership squared (FOS) was negative and significant ( $\beta = -0.00$ ,  $p < 0.05$ ). Family management (FM) was significant ( $\beta = 1.10$ ,  $p < 0.05$ ) and family management squared (FMS) was marginally significant ( $\beta = -0.18$ ,  $p < 0.10$ ). The log likelihood function for the second model was  $-2902.08$ . Model 3 introduces the moderators. The log likelihood function for the third model was  $-829.03$ . The frequency of the use of provisions protecting managers monetarily was negative and significant ( $\beta = -0.20$ ,  $p < 0.05$ ).

Model 4 introduces the interactions. The log likelihood function was  $-2796.64$ . The beta coefficient of Family Ownership  $\times$  Frequency of the use of Provisions Protecting Controlling Owners' Voting Rights (FO  $\times$  VOTINGRIGHTS) is positive and not significant ( $\beta = 0.20$ , ns) and the beta coefficient of Family Ownership<sup>2</sup>  $\times$  Frequency of the use of Provisions Protecting Controlling Owners' Voting Rights (FO<sup>2</sup>  $\times$  VOTING) is negative and not significant ( $\beta = -0.01$ , ns). Therefore, Hypothesis 1a is not supported. The beta coefficient of Family Ownership  $\times$  Frequency of the use of Provisions Protecting Controlling Owners' Status (FO  $\times$  STATUS) is negative and significant ( $\beta = -0.35$ ,  $p < 0.001$ ) and the beta coefficient of Family Ownership<sup>2</sup>  $\times$  Frequency of the use of Provisions Protecting Controlling Owners' Status (FO<sup>2</sup>  $\times$  STATUS) is positive and significant ( $\beta = 0.01$ ,  $p < 0.001$ ). Hence, Hypothesis 1b is supported.

The beta coefficient of Family Management  $\times$  Frequency of the use of Provisions Protecting Controlling Owners' Voting Rights (FM  $\times$  VOTING) is negative and significant ( $\beta = -1.96$ ,  $p < 0.01$ ) and the beta coefficient of Family Management<sup>2</sup>  $\times$  Frequency of the use of Provisions Protecting Controlling Owners' Voting Rights (FM<sup>2</sup>  $\times$  VOTING) is positive and significant ( $\beta = 0.59$ ,  $p < 0.05$ ). Therefore, Hypothesis 2a is supported. The beta coefficient of Family Management  $\times$  Frequency of the use of Provisions Protecting Controlling Owners' Status (FM  $\times$  STATUS) is positive and not significant ( $\beta = 0.05$ , ns) and beta coefficient of Family Management<sup>2</sup>  $\times$  Frequency of the use of Provisions Protecting Controlling Owners' Status (FM<sup>2</sup>  $\times$  STATUS) is positive and not significant ( $\beta = 0.02$ , ns). Hence, Hypothesis 2b is not supported.

The beta coefficient of Family Ownership  $\times$  Frequency of the use of Provisions Protecting Noncontrolling Owners (FO  $\times$  NONCONTROLLING) is negative and not significant ( $\beta = -0.19$ , ns) and the beta coefficient of Family Ownership<sup>2</sup>  $\times$  Frequency of the use of Provisions Protecting Noncontrolling Owners (FO<sup>2</sup>  $\times$  NONCONTROLLING) is negative and not significant ( $\beta = -0.00$ , ns). Therefore, Hypothesis 3a is not supported. The beta coefficient of Family Management  $\times$  Frequency of the use of Provisions Protecting Noncontrolling Owners (FM  $\times$  NONCONTROLLING) is positive and

significant ( $\beta = 4.21, p < 0.001$ ) and the beta coefficient of Family Management<sup>2</sup>  $\times$  Frequency of the use of Provisions Protecting Noncontrolling Owners (FM<sup>2</sup>  $\times$  NONCONTROLLING) is negative and significant ( $\beta = -0.84, p < 0.001$ ). Hence, Hypothesis 3b is supported.

The beta coefficient of Family Ownership  $\times$  Frequency of the use of Provisions Protecting Managers' and Directors' Position (FO  $\times$  POSITION) is positive and not significant ( $\beta = 0.05, ns$ ) and the beta coefficient of Family Ownership<sup>2</sup>  $\times$  Frequency of the use of Provisions Protecting Managers' and Directors' Position (FO<sup>2</sup>  $\times$  POSITION) is positive and not significant ( $\beta = 0.00, ns$ ). Hence, Hypothesis 4a is not supported. The beta coefficient of Family Ownership  $\times$  Frequency of the use of Provisions Protecting Managers and Directors Monetarily (FO  $\times$  MONETARY) is positive and significant ( $\beta = 0.55, p < 0.001$ ) and the beta coefficient of Family Ownership<sup>2</sup>  $\times$  Frequency of the use of Provisions Protecting Managers and Directors Monetarily (FO<sup>2</sup>  $\times$  MONETARY) is negative and significant ( $\beta = -0.01, p < 0.001$ ). However, the significant relationships are in the opposite direction than hypothesized. Therefore, Hypothesis 4b is not supported. The beta coefficient of Family Ownership  $\times$  Frequency of the use of Provisions Protecting Managers and Directors Legally (FO  $\times$  LEGAL) is negative and significant ( $\beta = -0.28, p < 0.001$ ) and the beta coefficient of Family Ownership<sup>2</sup>  $\times$  Frequency of the use of Provisions Protecting Managers and Directors Legally (FO<sup>2</sup>  $\times$  LEGAL) is positive and significant ( $\beta = 0.01, p < 0.001$ ). Hence, Hypothesis 4c is supported.

The beta coefficient of Family Management  $\times$  Frequency of the use of Provisions Protecting Managers' and Directors' Position (FM  $\times$  POSITION) is negative and not significant ( $\beta = -0.03, ns$ ) and the beta coefficient of Family Management<sup>2</sup>  $\times$  Frequency of the use of Provisions Protecting Managers' and Directors' Position (FM<sup>2</sup>  $\times$  POSITION) is negative and not significant ( $\beta = -0.01, ns$ ). Therefore, Hypothesis 5a is not supported. The beta coefficient of Family Management  $\times$  Frequency of the use of Provisions Protecting Managers and Directors Monetarily (FM  $\times$  MONETARY) is negative and significant ( $\beta = -3.09, p < 0.001$ ) and the beta coefficient of Family Management<sup>2</sup>  $\times$  Frequency of the use of Provisions Protecting Managers and Directors Monetarily (FM<sup>2</sup>  $\times$  MONETARY) is positive and marginally significant ( $\beta = 0.33, p < 0.10$ ). Hence, Hypothesis 5b is supported. The beta coefficient of Family Management  $\times$  Frequency of the use of Provisions Protecting Managers and Directors Legally (FM  $\times$  LEGAL) is positive and significant ( $\beta = 1.71, p < 0.001$ ) and the beta coefficient of Family Management<sup>2</sup>  $\times$  Frequency of the use of Provisions Protecting Managers and Directors Legally (FM<sup>2</sup>  $\times$  LEGAL) is negative and significant ( $\beta = -0.30, p < 0.01$ ). However, the significant relationships are in the opposite direction than hypothesized. Therefore, Hypothesis 5c is not supported.

Although not hypothesized, the results for the assumed inverted U-shaped relationships between family involvement (*i.e.*, family ownership and family management) and firm performance are the following: The beta coefficient of Family Ownership is positive and not significant ( $\beta = 0.91, ns$ ) and the beta coefficient of Family Ownership<sup>2</sup> is negative and significant ( $\beta = -0.00, p < 0.05$ ). The beta coefficient of Family Management is positive and significant ( $\beta = 1.10, p < 0.05$ ) and the beta coefficient of Family Management<sup>2</sup> is negative and marginally significant ( $\beta = -0.18, p < 0.05$ ). Therefore, the assumption of inverted U-shaped relationship between family management and firm performance is supported, whereas inverted U-shaped relationship between family ownership and firm performance is not supported (please see Table 4).

**Table 4.** Summary of Findings.

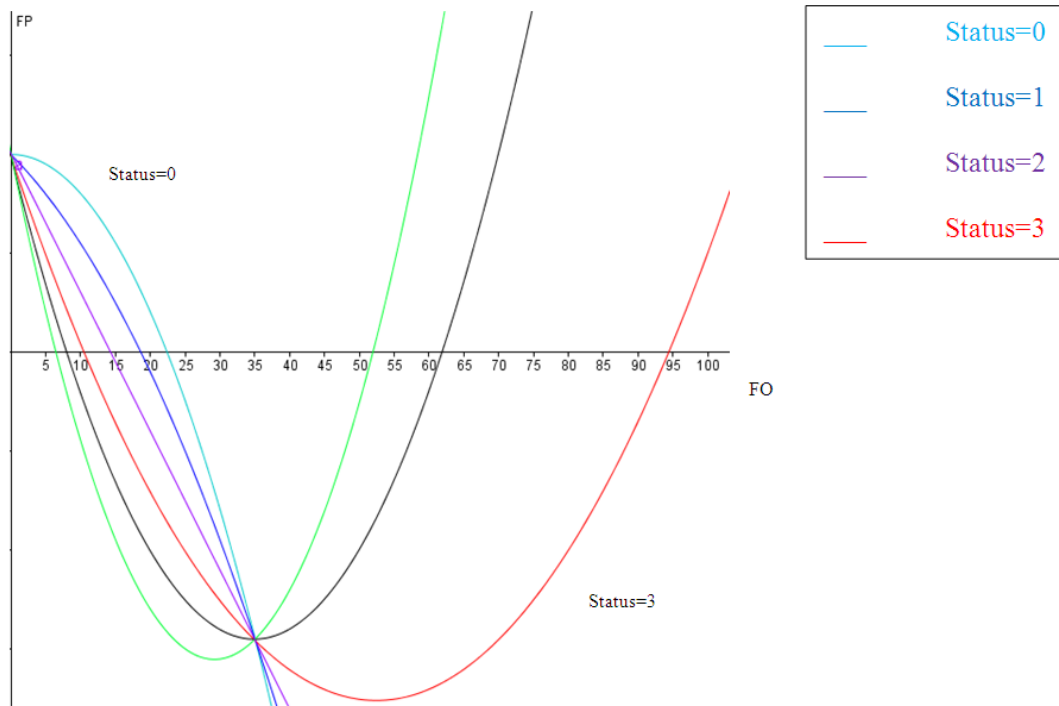
<b>Hypotheses</b>	<b>Conditions That Will Demonstrate Support for the Hypotheses</b>	<b>Findings (Table 3)</b>
<b>H1a</b>	Beta coefficient of Family Ownership $\times$ Frequency of the use of Provisions Protecting Controlling Owners' Voting Rights (FO $\times$ VOTINGRIGHTS) is negative and significant ( $p < 0.05$ ) and beta coefficient of Family Ownership <sup>2</sup> $\times$ Frequency of the use of Provisions Protecting Controlling Owners' Voting Rights (FO <sup>2</sup> $\times$ VOTING) is positive and significant ( $p < 0.05$ ).	Not supported
<b>H1b</b>	Beta coefficient of Family Ownership $\times$ Frequency of the use of Provisions Protecting Controlling Owners' Status (FO $\times$ STATUS) is negative and significant ( $p < 0.05$ ) and beta coefficient of Family Ownership <sup>2</sup> $\times$ Frequency of the use of Provisions Protecting Controlling Owners' Status (FO <sup>2</sup> $\times$ STATUS) is positive and significant ( $p < 0.05$ ).	Supported (Figure 1)
<b>H2a</b>	Beta coefficient of Family Management $\times$ Frequency of the use of Provisions Protecting Controlling Owners' Voting Rights (FM $\times$ VOTING) is negative and significant ( $p < 0.05$ ) and beta coefficient of Family Management <sup>2</sup> $\times$ Frequency of the use of Provisions Protecting Controlling Owners' Voting Rights (FM <sup>2</sup> $\times$ VOTING) is positive and significant ( $p < 0.05$ ).	Supported (Figure 2)
<b>H2b</b>	Beta coefficient of Family Management $\times$ Frequency of the use of Provisions Protecting Controlling Owners' Status (FM $\times$ STATUS) is negative and significant ( $p < 0.05$ ) and beta coefficient of Family Management <sup>2</sup> $\times$ Frequency of the use of Provisions Protecting Controlling Owners' Status (FM <sup>2</sup> $\times$ STATUS) is positive and significant ( $p < 0.05$ ).	Not supported
<b>H3a</b>	Beta coefficient of Family Ownership $\times$ Frequency of the use of Provisions Protecting Noncontrolling Owners (FO $\times$ NONCONTROLLING) is positive and significant ( $p < 0.05$ ) and beta coefficient of Family Ownership <sup>2</sup> $\times$ Frequency of the use of Provisions Protecting Noncontrolling Owners (FO <sup>2</sup> $\times$ NONCONTROLLING) is negative and significant ( $p < 0.05$ ).	Not supported
<b>H3b</b>	Beta coefficient of Family Management $\times$ Frequency of the use of Provisions Protecting Noncontrolling Owners (FM $\times$ NONCONTROLLING) is positive and significant ( $p < 0.05$ ) and beta coefficient of Family Management <sup>2</sup> $\times$ Frequency of the use of Provisions Protecting Noncontrolling Owners (FM <sup>2</sup> $\times$ NONCONTROLLING) is negative and significant ( $p < 0.05$ ).	Supported (Figure 3)

Table 4. Cont.

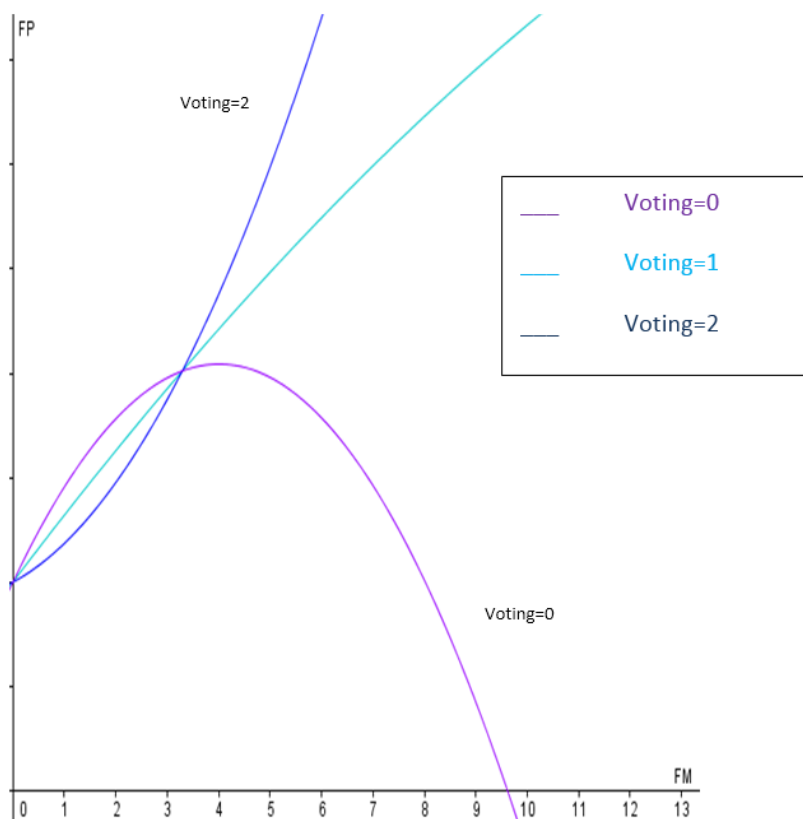
Hypotheses	Conditions That Will Demonstrate Support for the Hypotheses	Findings (Table 3)
H4a	Beta coefficient of Family Ownership $\times$ Frequency of the use of Provisions Protecting Managers' and Directors' Position (FO $\times$ POSITION) is negative and significant ( $p < 0.05$ ) and beta coefficient of Family Ownership <sup>2</sup> $\times$ Frequency of the use of Provisions Protecting Managers' and Directors' Position (FO <sup>2</sup> $\times$ POSITION) is positive and significant ( $p < 0.05$ ).	Not supported
H4b	Beta coefficient of Family Ownership $\times$ Frequency of the use of Provisions Protecting Managers and Directors Monetarily (FO $\times$ MONETARY) is negative and significant ( $p < 0.05$ ) and beta coefficient of Family Ownership <sup>2</sup> $\times$ Frequency of the use of Provisions Protecting Managers and Directors Monetarily (FO <sup>2</sup> $\times$ MONETARY) is positive and significant ( $p < 0.05$ ).	Not supported (Significant, but in the opposite direction) (Figure 4)
H4c	Beta coefficient of Family Ownership $\times$ Frequency of the use of Provisions Protecting Managers and Directors Legally (FO $\times$ LEGAL) is negative and significant ( $p < 0.05$ ) and beta coefficient of Family Ownership <sup>2</sup> $\times$ Frequency of the use of Provisions Protecting Managers and Directors Legally (FO <sup>2</sup> $\times$ LEGAL) is positive and significant ( $p < 0.05$ ).	Supported (Figure 5)
H5a	Beta coefficient of Family Management $\times$ Frequency of the use of Provisions Protecting Managers' and Directors' Position (FM $\times$ POSITION) is negative and significant ( $p < 0.05$ ) and beta coefficient of Family Management <sup>2</sup> $\times$ Frequency of the use of Provisions Protecting Managers' and Directors' Position (FM <sup>2</sup> $\times$ POSITION) is positive and significant ( $p < 0.05$ ).	Not supported
H5b	Beta coefficient of Family Management $\times$ Frequency of the use of Provisions Protecting Managers and Directors Monetarily (FM $\times$ MONETARY) is negative and significant ( $p < 0.05$ ) and beta coefficient of Family Management <sup>2</sup> $\times$ Frequency of the use of Provisions Protecting Managers and Directors Monetarily (FM <sup>2</sup> $\times$ MONETARY) is positive and significant ( $p < 0.05$ ).	Supported (Figure 6)
H5c	Beta coefficient of Family Management $\times$ Frequency of the use of Provisions Protecting Managers and Directors Legally (FM $\times$ LEGAL) is negative and significant ( $p < 0.05$ ) and beta coefficient of Family Management <sup>2</sup> $\times$ Frequency of the use of Provisions Protecting Managers and Directors Legally (FM <sup>2</sup> $\times$ LEGAL) is positive and significant ( $p < 0.05$ ).	Not supported (Significant, but in the opposite direction) (Figure 7)

The significant interactions can be seen in Figures 1–7.

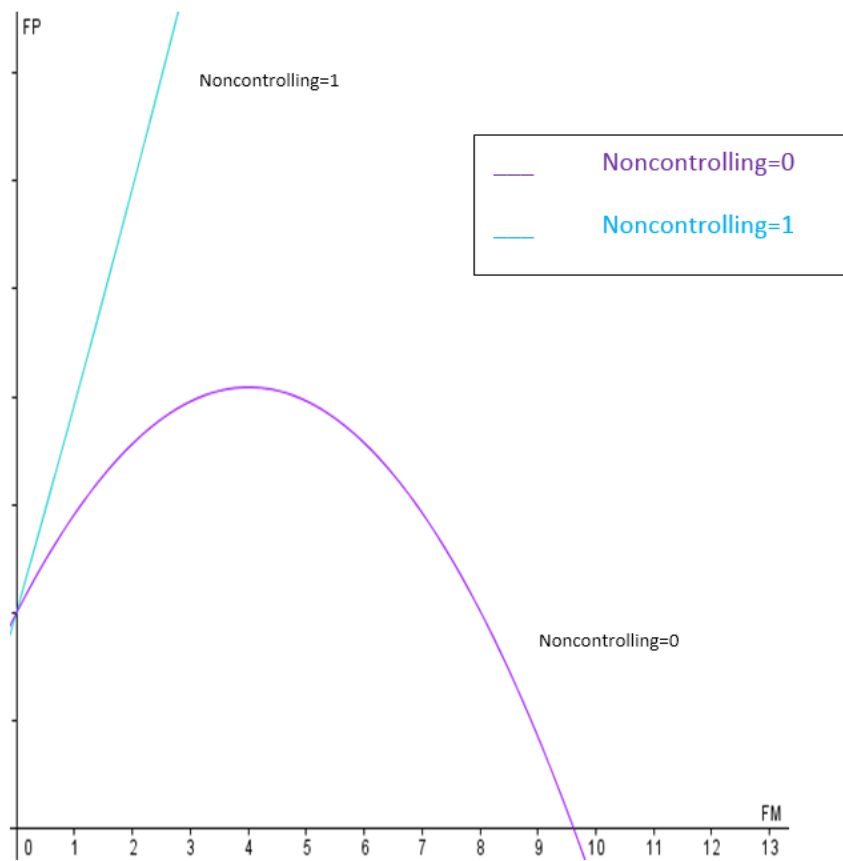
The results are compared to the Pooled Model through OLS Regression. The results of OLS were compatible with the Tobit panel data analyses. Robustness tests also include the analyses with categorical moderators (*i.e.*, 1 = at least one provision is used in each provision group; 0 = none), the proportion of family managers and/or the board of directors (PFM), and other firm performance variables (*i.e.*, ROA, ROE, and ROI). The results of these analyses were consistent with the results presented above.



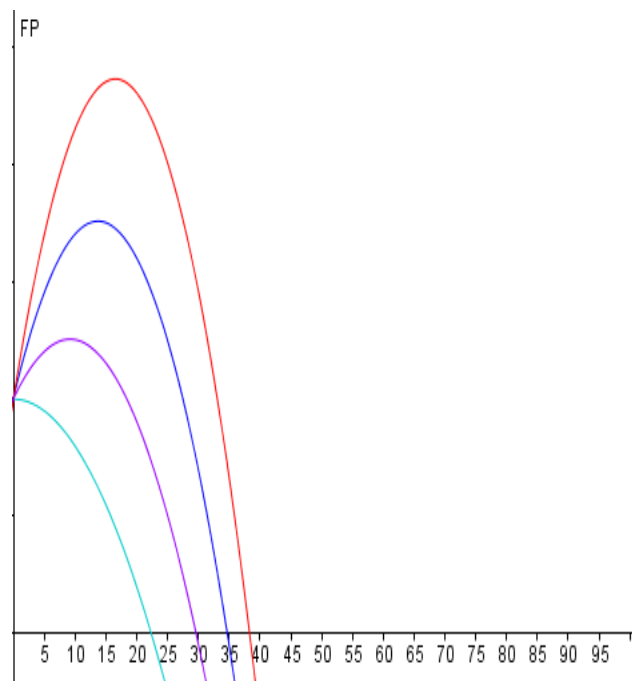
**Figure 1.** Significant Interactions between Family Ownership and Status Provision. The negative moderation effects of Status Provision changes the direction of inverted U-shaped relationship between Family Ownership and Firm Performance into a U-shape.



**Figure 2.** Significant Interactions between Family Management and Voting Provision. The negative moderation effects of Voting Provision changes the direction of inverted U-shaped relationship between Family Management and Firm Performance into a U-shape.

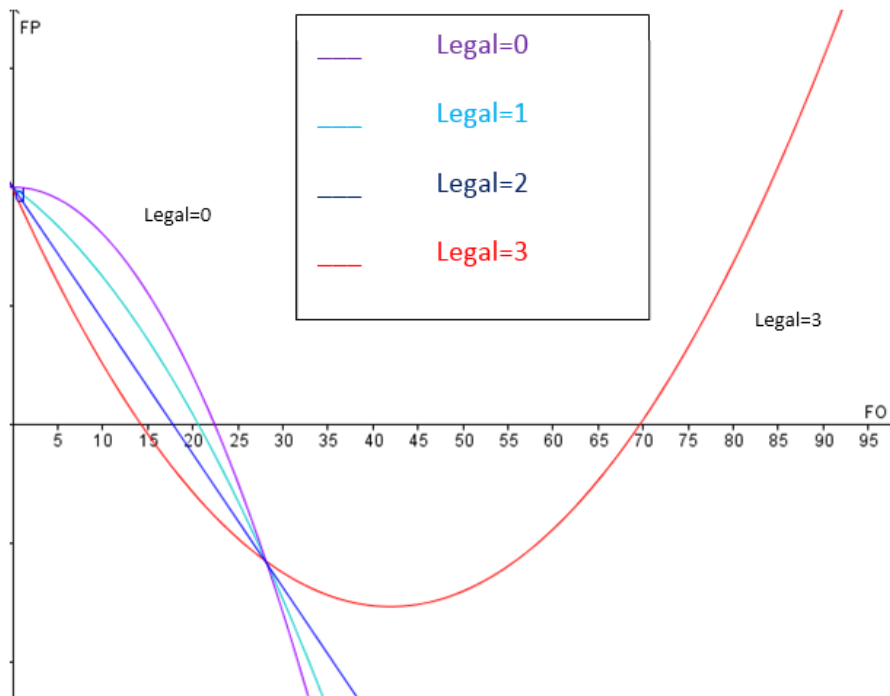


**Figure 3.** Significant Interactions between Family Management and Noncontrolling Provision. The positive moderation effects of Noncontrolling Provision makes the inverted U-shaped relationship between Family Management and Firm Performance steeper.

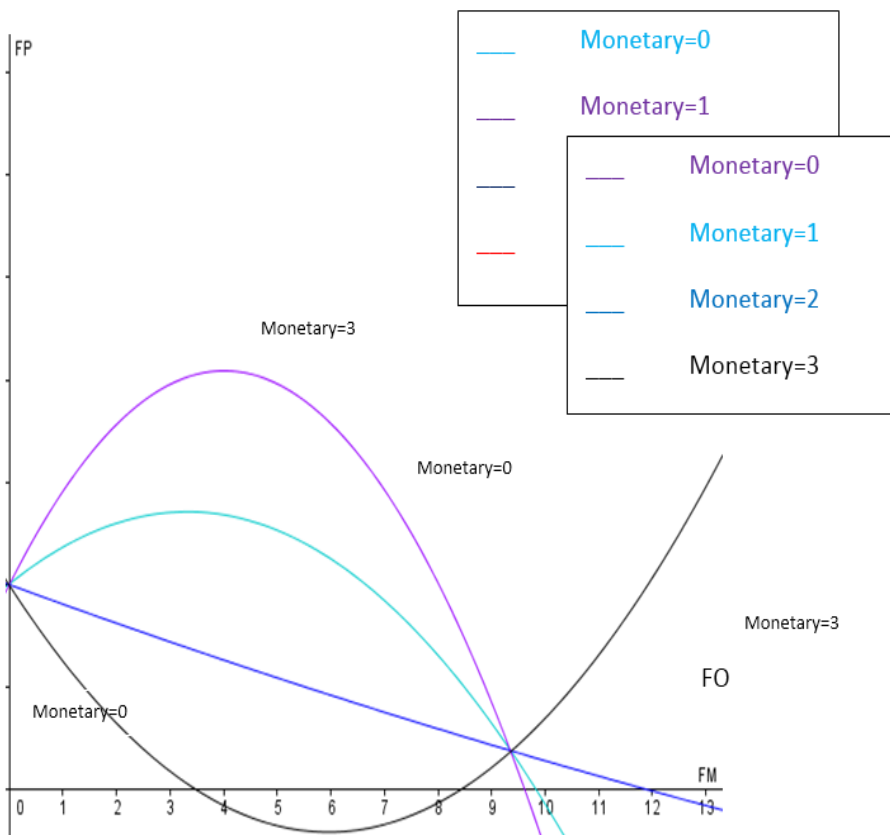


**Figure 4.** Significant Interactions between Family Ownership and Monetary Provision. Contrary to our hypothesis, the positive moderation effects of Monetary Provision make the inverted U-shaped relationship between Family Ownership and Firm Performance steeper.

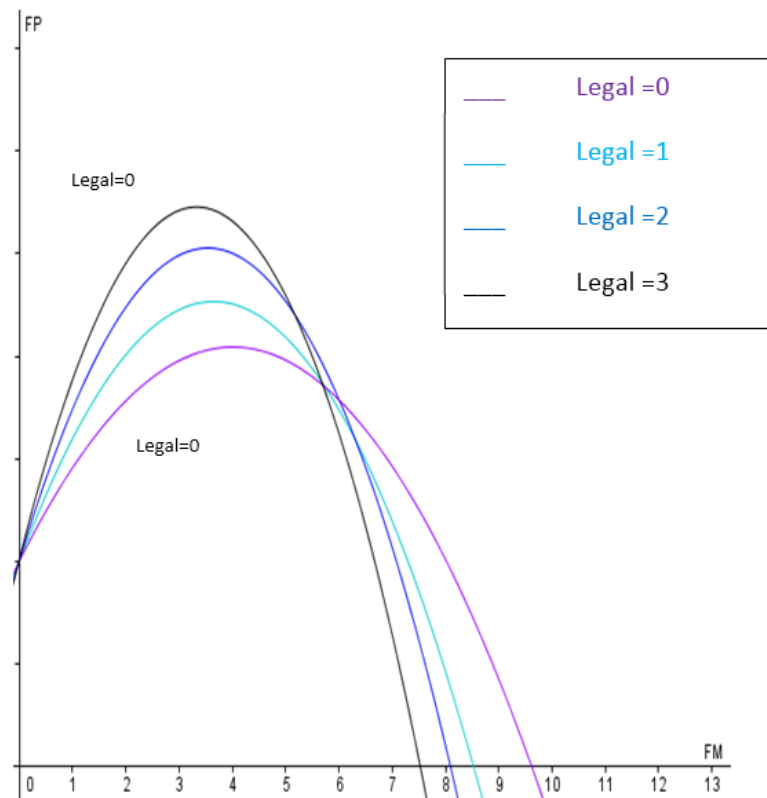




**Figure 5.** Significant Interactions between Family Ownership and Legal Provision. The negative moderation effects of Legal Provision changes the direction of inverted U-shaped relationship between Family Ownership and Firm Performance into a U-shape.



**Figure 6.** Significant Interactions between Family Management and Monetary Provision. The negative moderation effects of Monetary Provision changes the direction of inverted U-shaped relationship between Family Management and Firm Performance into a U-shape.



**Figure 7.** Significant Interactions between Family Management and Legal Provision. Contrary to our expectation, the positive moderation effects of Legal Provision makes the inverted U-shaped relationship between Family Management and Firm Performance steeper.

## 5. Discussion

Studies highlight the distinctive effects of family involvement (*i.e.*, ownership and management) on the behavior and performance of publicly traded firms (Anderson and Reeb [15,33], Claessens *et al.* [51], Villalonga and Amit [2,3]). However, to date, we do not know enough about how and why firm behavior and performance in family firms differ from those in nonfamily firms and among family firms themselves, and what the outcomes of the family involvement in the business are through the use of control enhancing governance mechanisms (Villalonga and Amit [2,3,21]).

To fill this gap, this paper suggests that the theory of the family firm will be advanced by the investigation of the link between family involvement components (*i.e.*, family ownership and family management), control enhancing governance provisions, and firm performance. Accordingly, this paper addresses how the use of different types of control enhancing mechanisms moderate the relationship between family involvement components and firm performance. We develop and test a model linking family involvement, control enhancing corporate governance mechanisms, and firm performance on a sample of 386 of the S&P 500 firms. The model in this paper is concerned with the moderation effects of the use of governance provisions on the relationship between family involvement and firm performance. It is expected that the frequency of the use of governance provisions will have a negative moderating influence on the relationship between family ownership and family management and firm performance.

The model is tested via panel data analyses. Findings support the hypotheses suggesting the moderation effects of (a) the use of provisions protecting owners' control status on the inverted U-shaped relationship between family ownership and firm performance (H1b); (b) the use of provisions protecting management legally on the inverted U-shaped relationship between family ownership and firm performance (H4c); (c) the use of provisions protecting controlling owners in terms of their voting rights on the inverted U-shaped relationship between family management and firm performance (H2a); (d) the use of provisions protecting noncontrolling owners on the inverted U-shaped relationship between family management and firm performance (H3b); and (e) the use of provisions protecting management monetarily will moderate the inverted U-shaped relationship between family management and firm performance (H5b). The results are consistent with the expected interplay between family involvement and the use of governance provisions in influencing firm performance.

The supported moderation effects of the frequency of the use of provisions protecting controlling owners in terms of their sustainability of controlling status on the inverted U-shaped relationship between family ownership and firm performance (H1b) appears to be negative. This may be because the higher use of provisions which secure sustainability of controlling owners' status can inflate family owners' power and authority, enabling them to engage in opportunistic behaviors. Family owners' equity rights at moderate levels enable them to effectively monitor and control, which can be beneficial to firm performance. However, enhanced power and authority through the use of provisions protecting controlling owners' status can weaken the positive effects of family ownership on firm performance since family owners may have the freedom to pursue family-centered noneconomic goals and enjoy the private benefits of control when their controlling status is secured. Particularly after an optimum level of family ownership, excessive power deriving from the combination of the higher levels of ownership and the use of provisions sustaining controlling owners' status can exacerbate principal-principal agency problems (Anderson and Reeb [15,33], Andres [34], Gomez-Mejia *et al.* [31], Shleifer and Vishny [39]) by allowing family owners to pursue family agendas primarily benefiting the family, which can be detrimental firm performance.

The hypothesized positive moderation effect of the frequency of the use of provisions protecting noncontrolling owners on the relationship between family management and firm performance (H3b) was also supported. Hence, the use of provisions protecting noncontrolling owners strengthens the positive effects of family management up to an optimum level and then weakens the negative effects after an optimum level is reached. The use of secret ballot provision assuring confidentiality in voting can facilitate noncontrolling shareholders' activism directed toward the replacement of managers and directors or the transfer of control to a hostile takeover bidder in case of underperformance. Particularly, the secrecy of voting, which gives noncontrolling owners' a larger voice in firm governance, can constitute an internal control mechanism by monitoring managers and directors' actions and allowing potentially beneficial takeovers to take place by weakening the family managers' resistance and prevention tactics. As a result, the threat of shareholder activism can be an internal monitoring mechanism and thereby discipline family managers, enhancing their positive impact on firm performance up to an optimum level of family management. Also, after an optimum level of family management is reached, this can weaken the negative effects of family management on firm

performance, policing their expropriation and entrenchment attempts which can be triggered by their excessive power and authority.

The hypothesis suggesting the negative moderation effects of the use of provisions protecting controlling owners in terms of their voting rights on the relationship between family management and firm performance (H2a) was supported. Family managers' discretion to generate strategic ideas and their timely implementation can be beneficial to firm performance up to an optimum level of family management. However, the higher use of provisions, which create a discrepancy between controlling owners' cash flow and voting rights, can further enhance both family owners' and managers' power and authority. Controlling family's excessive discretionary power on strategic decisions and actions may weaken the positive effects of family management on firm performance since family management combined with the use of provisions enhancing controlling owners voting rights can enable family managers to focus primarily on the attainment of noneconomic goals that primarily benefit the family and to consume perks. Particularly after an optimum level of family management, the combined enhancement of voting rights of the controlling family and higher levels of family involvement in management and the board can increase family managers' ability to expropriate noncontrolling shareholder wealth and entrench themselves in management and board positions (Anderson and Reeb [15,33], Andres [34], Gomez-Mejia *et al.* [31], Shleifer and Vishny [39]), reducing firm performance.

The significant findings in the opposite direction may initially seem paradoxical since the use of provisions protecting managers and directors monetarily has positive moderation effect on the relationship between family ownership and firm performance (H4b), while having negative moderation effect on the relationship between family management and firm performance (H5b). When family members participate in the business through ownership only, monetary protection for managers and directors diminishes managerial risk bearing for nonfamily managers, enabling their taking more risk to engage in potentially fruitful projects which may be beneficial to firm performance. Family owners' effective monitoring can also limit nonfamily managers' opportunistic behaviors. Hence, combined effective monitoring of family owners and nonfamily managers' reduced risk bearing and increased risk taking may strengthen the positive effects of family ownership on firm performance and then weaken the negative effects of family ownership on firm performance. However, the combination of family management and the use of provisions protecting managers and directors monetarily can reduce the concern for monetary consequences of managerial wrongdoings and enable family managers and directors to engage in expropriation of noncontrolling shareholder wealth and managerial entrenchment activities, which can be detrimental to firm performance.

The other conflicting set of results is regarding the use of provisions protecting managers and directors legally. The use of such provisions has negative moderation effect on the relationship between family ownership and firm performance (H4c), while having positive moderation effect on the relationship between family management and firm performance (H5c). The reason for the positive interaction between those governance provisions and family management may be that when family members directly benefit from reduced legal risk bearing because of being managers as well as owners, they may be more likely to formulate and implement aggressive business strategies with potentially high returns. However, when legal protections are provided to managers, the family owners, who may not be managers, may veto the aggressive business strategies formulated by

nonfamily managers, owing to a lack of trust or a concern for socioemotional wealth, even though they may yield high returns.

There were also several hypotheses (H1a, H2b, H3a, H4a, and H5a) that were not supported concerning the moderation effects of the frequency of the use of provisions protecting (a) controlling owners' voting rights; (b) noncontrolling owners; and (c) managers and directors' positions on the relationship between family ownership and firm performance and the moderation effects of the use of provisions protecting (a) controlling owners' status and (b) managers and directors' positions on the relationship between family management and firm performance.

The frequency of the use of provisions protecting controlling owners' voting rights have significant moderation effects on the relationship between family management and firm performance (H2a), whereas it has insignificant moderation effects on the relationship between family ownership and firm performance (H1a). Accordingly, the combined effects of family management and the enhancement of controlling owners' voting rights appear to be more influential in determining firm performance than the combination of family ownership and the enhancement of controlling owners' voting rights. This may be because family owners tend to have substantial voting rights naturally deriving from their equity rights. Hence, the use of provisions enhancing controlling owners' voting rights may not substantially affect the impact of family ownership on firm performance. However, the use of provisions enhancing controlling owners' voting rights combined with family management seem to have substantial impact on firm performance because family's participation in management and board combined with the controlling owners' elevated voting rights facilitate family influence over the business through multiple dimensions.

The lack of reinforcing effects of the frequency of the use of provisions protecting noncontrolling owners on the relationship between family ownership and firm performance (H3a) may be because of the noncontrolling owners' relatively low level of influence over the business compared to controlling owners even though provisions protecting noncontrolling owners may be in use. Also, the use of provisions protecting managers and directors' positions may not have significant influence on the effects of family ownership on firm performance (H4a) since any benefits or costs associated with those provisions may be mitigated by the monitoring abilities of family owners. Similarly, the use of provisions protecting managers and directors' positions (H5a) do not have significant moderation effects on the relationship between family management and firm performance. This may be because family managers and directors may be naturally expecting a relatively long tenure and higher levels of job security regardless of whether the provisions protecting their positions are in place or not. Hence, the use provisions protecting managers and directors' positions do not have substantial impact on the relationship between family management and firm performance. Finally, the use of provisions protecting controlling owners' status does not seem to influence the relationship between family management and firm performance (H2b). This may be due to family's already assuming its control over the business through participation in management and board regardless of the use of provisions protecting their controlling status.

Moreover, the assumed, but not hypothesized, inverted U-shaped relationship between family ownership and firm performance was not significant in this study, whereas the assumed, but not hypothesized, inverted U-shaped relationship between family management and firm performance was significant. This finding draws attention to the importance of family's involvement in management and

board in determining firm performance, while ownership itself does not seem to be sufficient to influence firm performance. On the one hand, this finding may be contrary to some studies suggesting that family ownership, rather than family management, is the key in differentiating family firms from nonfamily firms in other countries such as Germany and Chile (e.g., Klein [95], Silva and Majluf [96]). On the other hand, this finding is in line with Maury's [10] distinction between active (*i.e.*, family holds at least one of the top officer positions) and passive family control. The author also shows that active family control is associated with higher profitability compared to nonfamily firms, whereas passive family control does not influence profitability. Similarly, Andres [34] shows that family firms may perform better than nonfamily firms only when the founding family is still active either on the executive or the supervisory board in Germany. The author also demonstrates that if families are only large shareholders without board representation, their firm performance is not distinguishable from that of nonfamily firms. Westhead and Howorth [97] also illustrate that family management, rather than family ownership, is associated with performance in firms in the UK.

This paper contributes to the literature in several ways. First, it draws attention to the importance of family involvement within the context of corporations. Second, it adds to the understanding of how publicly traded family firms are heterogeneous in terms of the impact of the frequency of the use of different types of control enhancing governance mechanisms on the relationship between family involvement (*i.e.*, family ownership and family management) and firm performance, whereas studies mostly focus on the direct effects of family involvement or governance mechanisms on the firm performance (e.g., Anderson and Reeb [15], Andres [34]). This paper is one of the few attempts to use agency theory and family governance perspective to explain differences among family firms enlightening us regarding the heterogeneity among family firms. Third, this paper introduces the interplay between family involvement and the use of governance provisions as an explanation for the existence of principal-principal agency problems in publicly traded firms. Consequently, the contributions of this paper move us forward in the advancement of the theory of the family firm (Chrisman *et al.* [98], Conner [99]).

The limitations of this paper can also lead to a number of future research directions. First, as stated above, the regulatory context can affect the observed relationships and generalizability to the corporations around the world since the sample included S&P 500 firms headquartered in the U.S. Even though increased globalization tends to cause similarities in business conduct in world economies, different legal regimes (e.g., common *versus* civil law) in different countries can result in differences in corporate governance (Peng and Jiang [100]). For example, the legal system prevents pyramiding in the U.S., whereas it is permissible even in many developed countries in Asia and Europe (Peng and Jiang [100]). Since legal context may be influential on the findings of this paper, future studies can test or extend the model in other countries with different legal systems.

Similarly, we examine years 2001–2007. The findings may vary in other time periods (e.g., in 1990s) owing to the changes in the legal system. For example, the examined time periods in this paper involves the enactment and the aftermath of the Sarbanes-Oxley Act in 2002, also known as Investor Protection Act, as a reaction to corporate accounting scandals. This act enhanced the reliability of financial reporting, transparency, and accountability through increased internal controls and auditing (Coates [101]). Hence, future research can compare or contrast the findings of this paper to earlier

periods than the periods examined in this paper. This can also illustrate whether legislation is influential on corporate governance.

Another limitation is that, in this paper, the seven categories of governance provisions that group the 24 provisions identified by Gompers *et al.* [11] according to the purposes of their usage by firms are formed by a judgment-based categorization (Perreault and Leigh [84]). Future research using different categorizations can provide further insights.

Aside from the future research directions suggested in the discussion of findings and limitations, there may be other factors that may affect the relationship between family involvement and performance in publicly traded family firms. The imminence of succession (Chua *et al.* [102]) is one of them. Furthermore, the effects of family involvement and control enhancing corporate governance mechanisms might vary in family firms depending upon diversification (Anderson and Reeb [17], Jones *et al.* [67]), entrepreneurial orientation (Dess and Lumpkin [103], Lumpkin and Dess [104,105]), corporate entrepreneurship (Dess *et al.* [106], Lumpkin *et al.* [107]), and life-cycle phases. All these contingencies suggest additional applications of corporate governance to the study of family businesses.

## 6. Conclusions

In conclusion, we hope that our paper will inform scholars, publicly traded family firms, and policy makers about the proper use of corporate governance mechanisms, which can help mitigate agency problems and maximizing shareholder value.

## Author Contributions

Authors contributed equally to research and writing of the manuscript, deriving from the first author's dissertation.

## Conflicts of Interest

The authors declare no conflict of interest.

## References

1. Aguilera, R.V.; Crespi-Cladera, R. Firm family firms: Current debates of corporate governance in family firms. *J. Family Bus. Strategy* **2012**, *3*, 66–69.
2. Villalonga, B.; Amit, R. How do family ownership, management, and control affect firm value? *J. Financ. Econ.* **2006**, *80*, 385–417.
3. Villalonga, B.; Amit, R. Benefits and costs of control-enhancing mechanisms in U.S. family firms. Available online: [http://isites.harvard.edu/fs/docs/icb.topic66847.files/Belen\\_Villalonga.pdf](http://isites.harvard.edu/fs/docs/icb.topic66847.files/Belen_Villalonga.pdf) (accessed on 2 March 2015).
4. Chrisman, J.J.; Chua J.H.; Litz, R. Comparing the agency costs of family and nonfamily firms: Conceptual issues and exploratory evidence. *Entrep. Theory Pract.* **2004**, *28*, 335–354.
5. Neubauer, F.A.G. *Lank the Family Business: Its Governance for Sustainability*; Routledge: New York, NY, USA, 1998; Chapter 6, pp. 133–166.

6. Siebels, J.F.; zu Knyphausen-Aufseß, D. A review of theory in family business research: The implications for corporate governance. *Int. J. Manag. Rev.* **2012**, *14*, 280–304.
7. Carney, M. Corporate governance and competitive advantage in family-controlled firms. *Entrep. Theory Pract.* **2005**, *29*, 249–266.
8. Miller, D.; Breton-Miller, I.L.; Lester, R.H. Family firm governance, strategic conformity, and performance: Institutional vs. strategic perspectives. *Org. Sci.* **2013**, *24*, 189–209.
9. Ali, A.; Chen, T.Y.; Radhakrishnan, S. Corporate disclosures by family firms. *J. Account. Econ.* **2007**, *44*, 238–286.
10. Maury, B. Family ownership and firm performance: Empirical evidence from Western European corporations. *J. Corp. Financ.* **2006**, *12*, 321–341.
11. Gompers, P.; Ishii, J.; Metrick, A. Corporate governance and equity prices. *Q. J. Econ.* **2003**, *118*, 107–155.
12. Daily, C.M.; Dalton, D.R.; Cannella, A.A. Corporate governance: Decades of dialogue and data. *Acad. Manag. Rev.* **2003**, *28*, 371–382.
13. Daily, C.M.; Dalton, D.R.; Rajagopalan, N. Governance through ownership: Centuries of practice, decades of research. *Acad. Manag. J.* **2003**, *46*, 151–158.
14. Memili, E.; Misra, K.; Chrisman, J.J. Family involvement and the use of corporate governance provisions protecting controlling vs. noncontrolling owners. *J. Leadersh. Account. Ethics* **2012**, *9*, 11–27.
15. Anderson, R.C.; Reeb, D.M. Founding-family ownership and firm performance: Evidence from the S&P 500. *J. Financ.* **2003**, *58*, 1301–1328.
16. Anderson, R.C.; Reeb, D.M. *Who Monitors the Family?* Working Paper; American University: Washington, DC, USA, 2003.
17. Anderson, R.C.; Reeb, D.M. Founding-family ownership, corporate diversification and firm leverage. *J. Law Econ.* **2003**, *46*, 653–684.
18. Miller, D.; le Breton-Miller, I.; Lester, R.H.; Cannella, A.A. Are family firms really superior performers? *J. Corporate Financ.* **2007**, *13*, 829–858.
19. Villalonga, B.; Amit, R. *Family Control of Firms and Industries*; Harvard Business School Publishing: Boston, MA, USA, 2009.
20. Morck, R.; Steier, L. *The Global History of Corporate Governance: An Introduction*; Working Paper 11062; University of Chicago Press: Chicago, IL, USA, 2005.
21. Villalonga, B. *Note on Valuing Control and Liquidity in Family and Closely Held Firms*; Harvard Business School Publishing: Boston, MA, USA, 2009.
22. Dyer, W.G.; Whetten, D.A. Family firms and social responsibility: Preliminary evidence from the S&P 500. *Entrep. Theory Pract.* **2006**, *30*, 785–802.
23. Chrisman, J.J.; Kellermanns, F.W.; Chan, K.C.; Liano, K. Intellectual foundations of current research in family business: An identification and review of 25 influential articles. *Family Bus. Rev.* **2010**, *23*, 9–26.
24. Gómez-Mejía, L.R.; Hynes, K.T.; Núñez-Nickel, M.; Moyano-Fuentes, H. Socioemotional wealth and business risk in family-controlled firms: Evidence from Spanish olive oil mills. *Adm. Sci. Q.* **2007**, *52*, 106–137.



25. Chrisman, J.J.; Chua J.H.; Pearson, A.W.; Barnett, T. Family involvement, family influence, and family-centered non-economic goals in small firms. *Entrep. Theory Pract.* **2012**, *36*, 267–293.
26. Crutchley, C.E.; Jensen, M.R.H.; Jahera, J.S.; Raymond, J.E. Agency problems and the simultaneity of financial decision making: The role of institutional ownership. *Int. Rev. Financ. Anal.* **1999**, *8*, 177–197.
27. Morck, R.; Shleifer, A.; Vishny, R.W. Management ownership and market valuation: An empirical analysis. *J. Financ. Econ.* **1988**, *20*, 293–315.
28. Memili, E. Control Enhancing Corporate Governance Mechanisms: Family vs. Nonfamily Publicly Traded Firms. Ph.D. Dissertation, Mississippi State University, Mississippi, MS, USA, August 2011.
29. Fama, E.F.; Jensen, M.C. Agency problems and residual claims. *J. Law Econ.* **1983**, *26*, 327–349.
30. Jensen, M.C.; Meckling, W.H. Theory of the firm: Managerial behavior, agency costs, and economic organization. *J. Financ. Econ.* **1976**, *3*, 305–360.
31. Gómez-Mejía, L.R.; Núñez-Nickel, M.; Gutierrez, I. The role of family ties in agency contracts. *Acad. Manag. J.* **2001**, *44*, 81–95.
32. Morck, R.; Yeung, B. Agency problems in large family business groups. *Entrep. Theory Pract.* **2003**, *27*, 367–383.
33. Anderson, R.C.; Reeb, D.M. Board composition: Balancing family influence in S&P 500 firms. *Adm. Sci. Q.* **2004**, *49*, 209–237.
34. Andres, C. Large shareholders and firm performance: An empirical examination of founding-family ownership. *J. Corporate Financ.* **2008**, *14*, 431–445.
35. Johnson, S.; la Porta, R.; Lopez-de-Silanes, F.; Shleifer, A. Tunneling. *Am. Econ. Rev.* **2000**, *90*, 22–29.
36. La Porta, R.; Lopez-De-Silanes, F.; Shleifer, A. Corporate ownership around the world. *J. Finance* **1999**, *54*, 471–517.
37. Dharwadkar, R.; George, G.; Brandes, P. Privatization in emerging economies: An agency theory perspective. *Acad. Manag. Rev.* **2000**, *25*, 650–669.
38. Young, M.N.; Peng, M.W.; Ahlstrom, D.; Bruton, G.D.; Jiang, Y. Corporate governance in emerging economies: A Review of the principal-principal perspective. *J. Manag. Stud.* **2008**, *45*, 198–220.
39. Shleifer, A.; Vishny, R.W. A survey of corporate governance. *J. Financ.* **1997**, *52*, 737–784.
40. Mahoney, J.M.; Mahoney, J.T. An empirical investigation of the effect of corporate charter antitakeover amendments on stockholder wealth. *Strateg. Manag. J.* **1993**, *14*, 17–31.
41. Mahoney, J.M.; Sundaramurthy, C.; Mahoney, J.T. The differential impact on stockholder wealth of various antitakeover provisions. *Manag. Decis. Econ.* **1996**, *17*, 531–549.
42. Mahoney, J.M.; Sundaramurthy, C.; Mahoney, J.T. The effects of corporate antitakeover provisions on long-term investment: Empirical evidence. *Manag. Decis. Econ.* **1997**, *18*, 349–365.
43. Cremers, K.J.M.; Nair, V.B. Governance mechanisms and equity prices. *J. Finance* **2005**, *60*, 2859–2894.

44. Jensen, M.C.; Ruback, R.S. The market for corporate control: The scientific evidence. *J. Financ. Econ.* **1983**, *11*, 5–50.
45. Berkovitch, E.; Narayanan, M.P. Motives for takeovers: An empirical investigation. *J. Finance. Quant. Anal.* **1993**, *28*, 347–363.
46. Bebchuk, L.A. Why firms adopt antitakeover arrangements. *Univ. Penn. Law Rev.* **2003**, *152*, 713–753.
47. Jensen, M.C. Takeovers: Their causes and consequences. *J. Econ. Perspect.* **1988**, *2*, 21–48.
48. Gómez-Mejía, L.R.; Makri, M.; Kintana, M.L. Diversification decisions in family controlled firms. *J. Manag. Stud.* **2010**, *47*, 223–252.
49. La Porta, R.; Lopez-De-Silanes, F.; Shleifer, A.; Vishny, R. Investor protection and corporate governance. *J. Financ. Econ.* **2000**, *58*, 3–27.
50. Anderson, R.C.; Mansi, S.A.; Reeb, D.M. Founding family ownership and the agency cost of debt. *J. Financ. Econ.* **2003**, *68*, 263–285.
51. Claessens, S.; Djankov, S.; Fan, J.P.H.; Lang, L.H.P. Disentangling the incentive and entrenchment effects of large shareholdings. *J. Financ.* **2002**, *57*, 2741–2771.
52. Walsh, J.P.; Seward, J.K. On the efficiency of internal and external corporate control mechanisms. *Acad. Manag. Rev.* **1990**, *15*, 421–458.
53. Westhead, P.; Cowling, M.; Howorth, C. The development of family companies: Management and ownership imperatives. *Family Bus. Rev.* **2001**, *14*, 369–385.
54. Miller, D.; le Breton-Miller, I. Family governance and firm performance: Agency, stewardship, and capabilities. *Family Bus. Rev.* **2006**, *19*, 73–88.
55. Gilson, R.J.; Gordon, J.N. Doctrines and markets: Controlling shareholders. *Univ. Penn. Law Rev.* **2003**, *152*, 785–844.
56. Villalonga, B.; Amit, R. How are U.S. family firms controlled? *Rev. Financ. Stud.* **2009**, *22*, 1–45.
57. Ang, J.S.; Cole, R.A.; Lin, J.W. Agency costs and ownership structure. *J. Financ.* **2000**, *55*, 81–106.
58. Berrone, P.; Cruz, C.; Gomez-Mejia, L.R.; Kintana, M.L. Socioemotional wealth and corporate responses to institutional pressures: Do family-controlled firms pollute less? *Adm. Sci. Q.* **2010**, *55*, 82–113.
59. Chua, J.H.; Chrisman, J.J.; Sharma, P. Defining the family business by behavior. *Entrep. Theory Pract.* **1999**, *23*, 19–39.
60. Chrisman, J.J.; Chua, J.H.; Litz, R. A unified systems perspective of family firm performance: An extension and integration. *J. Bus. Ventur.* **2003**, *18*, 467–472.
61. Wright, P.; Ferris, S.P.; Sarin, A.; Awasthi, V. Impact of corporate insider, blockholder, and institutional equity ownership on firm risk taking. *Acad. Manag. J.* **1996**, *39*, 441–463.
62. Mishra, C.; McConaughy, D. Founding Family Control and Capital Structure. *Entrep. Theory Pract.* **1999**, *23*, 53–64.
63. Brecht, M.; Bolton, P.; Roell, A. Corporate Governance and Control. Available online: <http://ssrn.com/abstract=343461> (accessed on 5 March 2015).
64. Combs, J.G. Commentary: The servant, the parasite, and the enigma: A tale of three ownership structures and their affiliate directors. *Entrep. Theory Pract.* **2008**, *32*, 1027–1034.

65. Demsetz, H.; Lehn, K. The structure of corporate ownership: Causes and consequences. *J. Polit. Econ.* **1985**, *93*, 1155–1177.
66. Herman, E.S. *Corporate Control, Control Power*; Cambridge University Press: Cambridge, UK, 1981.
67. Jones, C.D.; Makri, M.; Gomez-Mejia, L.R. Affiliate directors and perceived risk bearing in publicly traded, family-controlled firms: The case of diversification. *Entrep. Theory Pract.* **2008**, *32*, 1007–1026.
68. Kellermanns, F.W.; Eddleston, K.A. Feuding families: When conflict does a family good. *Entrep. Theory Pract.* **2004**, *28*, 209–228.
69. Kellermanns, F.W.; Eddleston, K.A. A family perspective on when conflict benefits family firm performance. *J. Bus. Res.* **2007**, *60*, 1048–1057.
70. Holmstrom, B.; Kaplan, S.N. Corporate governance and merger activity in the United States: Making sense of the 1980s and 1990s. *J. Econ. Perspect.* **2001**, *15*, 121–144.
71. Davis, G.F. Agents without principles? The spread of the poison pill through the incorporate network. *Adm. Sci. Q.* **1991**, *36*, 583–613.
72. Sundaramurthy, C. Corporate governance within the context of antitakeover provisions. *Strateg. Manag. J.* **1996**, *17*, 377–394.
73. Gillan, S.L.; Starks, L.T. Corporate governance proposals and shareholder activism: The role of institutional investors. *J. Financ. Econ.* **2000**, *57*, 275–305.
74. Gillan, S.L.; Hartzell, J.C.; Starks, L.T. Explaining corporate governance: Boards, bylaws, and charter provisions. Available online: <http://ssrn.com/abstract=442740> (accessed on 2 February 2015).
75. Sciascia, S.; Mazzola, P. Family involvement in ownership and management: Exploring nonlinear effects on performance. *Family Bus. Rev.* **2008**, *21*, 331–345.
76. Short, H.; Keasay, K. Managerial ownership and the performance of firms: Evidence from the UK. *J. Corporate Financ.* **1999**, *5*, 79–101.
77. Morck, R.; Strangeland, D.A.; Yeung, B. *Inherited Wealth, Corporate Control and Economic Growth: The Canadian Disease?* Working Paper 6814; University of Chicago Press: Chicago, IL, USA, 1998.
78. Dyer, W.G. Examining the “family effect” on firm performance. *Family Bus. Rev.* **2006**, *19*, 253–273.
79. Burkart, M.; Panunzi, F.; Shleifer, A. Family firms. *J. Financ.* **2003**, *58*, 2167–2201.
80. Alchian, A.; Demsetz, H. Production, information costs, and economic organization. *Am. Econ. Rev.* **1972**, *62*, 777–795.
81. Short, J.C.; Payne, G.T.; Brigham, K.H.; Lumpkin, G.T.; Broberg, J.C. Family firms and entrepreneurial orientation in publicly traded firms: A comparative analysis the S&P 500. *Family Bus. Rev.* **2009**, *22*, 9–24.
82. Chung, K.H.; Pruitt, S.W. A simple approximation of Tobin’s  $q$ . *Financ. Manag.* **1994**, *23*, 70–74.
83. Carton, R.B.; Hofer, C.W. *Measuring Organizational Performance: Metrics for Entrepreneurship and Strategic Management Research*; Edward Elgar Publishing, Inc.: Northampton, MA, USA, 2006.

84. Perreault, W.D.; Leigh, L.E. Reliability of nominal data based on qualitative judgments. *J. Mark. Res.* **1989**, *26*, 135–148.
85. Netemeyer, R.G.; Bearden, W.O.; Sharma, S. *Scaling Procedures: Issues and Applications*; Sage Publications: Thousand Oaks, CA, USA, 2003.
86. Hansen, G.; Wernerfelt, B. Determinants of firm performance: The relative importance of economic and organizational factors. *Strateg. Manag. J.* **1989**, *10*, 399–411.
87. Dewar, R.D.; Dutton, J.E. The adoption of radical and incremental innovations: An empirical analysis. *Manag. Sci.* **1986**, *32*, 1422–1433.
88. Schulze, W.S.; Lubatkin, M.H.; Dino, R.N. Exploring the agency consequences of ownership dispersion among inside directors at family firms. *Acad. Manag. J.* **2003**, *46*, 179–194.
89. Decarolis, D.M.; Deeds, D.L. The impact of stocks and flows of organizational knowledge on firm performance: An empirical investigation of the biotechnology industry. *Strateg. Manag. J.* **1999**, *20*, 953–968.
90. Graves, S.B.; Langowitz, N.S. Innovative productivity and returns to scale in the pharmaceutical industry. *Strateg. Manag. J.* **1993**, *14*, 593–605.
91. Greene, H. *Econometric Analysis*, 7th ed.; Prentice Hall: New York, NY, USA, 2011; pp. 833–860.
92. Caselli, F.; Coleman, W.J. Cross-country technology diffusion: The case of computers. *Am. Econ. Rev.* **2001**, *91*, 328–335.
93. Enders, W. *Applied Econometric Time Series*, 2nd ed.; John Wiley & Sons: Hoboken, NJ, USA, 2004; pp. 72–75.
94. Maddala, G.S. A perspective on the use of limited-dependent and qualitative variables models in accounting research. *Account. Rev.* **1991**, *66*, 788–807.
95. Klein, S.B. Family businesses in Germany: Significance and structure. *Family Bus. Rev.* **2000**, *13*, 157–182.
96. Silva, F.; Majluf, N. Does family ownership shape performance outcomes? *J. Bus. Res.* **2008**, *61*, 609–614.
97. Westhead, P.; Howorth, C. Ownership and management issues associated with family firm performance and company objectives. *Family Bus. Rev.* **2006**, *19*, 301–317.
98. Chrisman, J.J.; Chua, J.H.; Sharma, P. Trends and directions in the development of a strategic management theory of the family firm. *Entrep. Theory Pract.* **2005**, *29*, 555–576.
99. Conner, K.R. A historical comparison of resource-based theory and five schools of thought within industrial organization economics: Do we have a new theory of the firm? *J. Manag.* **1991**, *17*, 121–154.
100. Peng, M.W.; Jiang, Y. Institutions behind family ownership and control in large firms. *J. Manag. Stud.* **2010**, *47*, 253–273.
101. Coates, J.C. The goals and promise of the Sarbanes-Oxley Act. *J. Econ. Perspect.* **2007**, *21*, 91–116.
102. Chua, J.H.; Chrisman, J.J.; Sharma, P. Succession and nonsuccession concerns of family firms and agency relationship with nonfamily managers. *Family Bus. Rev.* **2003**, *16*, 89–108.
103. Dess, G.G.; Lumpkin, G.T. The role of entrepreneurial orientation in stimulating effective corporate entrepreneurship. *Acad. Manag. Exec.* **2005**, *19*, 147–156.

104. Lumpkin, G.T.; Dess, G.G. Clarifying the entrepreneurial orientation construct and linking it to performance. *Acad. Manag. Rev.* **1996**, *21*, 135–172.
105. Lumpkin, G.T.; Dess, G.G. Linking two dimensions of entrepreneurial orientation to firm performance: The moderating role of environment and industry life cycle. *J. Bus. Ventur.* **2001**, *16*, 429–451.
106. Dess, G.G.; Lumpkin, G.T.; McGee, J.E. Linking corporate entrepreneurship to strategy, structure, and process: Suggested research directions. *Entrep. Theory Pract.* **1999**, *23*, 85–102.
107. Lumpkin, G.T.; Wales, W.J.; Ensley, M.D. Assessing the Context for Corporate Entrepreneurship: The Role of Entrepreneurial Orientation. In *Praeger Perspectives on Entrepreneurship*; Habbershon, T., Rice, M., Eds.; Better World Books: Mishawaka, IN, USA, 2005; Volume 3, pp. 1–43.

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