

How does Family Control Influence Firm Strategy and Performance? A Meta-Analysis of US Publicly Listed Firms

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ABSTRACT

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Research Question/Issue: A contentious and prominent research question in the management literature is whether publicly listed family firms (FFs) outperform other types of corporations. Through a research synthesis of all available studies on the performance of US FFs, we address this question directly. We also extend the debate by raising three salient follow-up questions. First, is the performance differential between FFs and non-FFs attributable to a unique set of strategic choices? Second, do FF performance effects persist across generational transitions in FF control? Third, are performance differentials across generations attributable to intergenerational shifts in corporate governance and strategy?

Research Findings/Insights: With respect to our primary research question, we find that the balance of evidence indicates that (US) FFs outperform other types of public corporations. We also evaluate competing narratives regarding which strategies are characteristic of FFs, and demonstrate that their diversification, internationalization, and financing strategies mediate the FF-performance relationship in manners consistent with the narratives advanced by certain leading FF scholars, but not others. Further, we find that the performance of (US) FFs drops dramatically after the first generation and show that this negative performance differential is due to the much more conservative patterns of strategic decision making enacted by successor generations.

Theoretical/Academic Implications: In addition to providing the most comprehensive evidence to date regarding the performance attributes of FFs, we nuance several theoretical debates concerning the propensity of FFs to diversify, internationalize, and leverage their equity capital.

Practitioner/Policy Implications: We identify value-creating strategic choices of FFs related to internationalization, diversification, and capital structure. We also identify strategic choices often made in successor-led FFs which reduce value. Both sets of findings are relevant to FF executives and consultants. The policy implications of the study are that in advanced liberal market economies high-quality capital market institutions are likely to contribute to FF outperformance vis-à-vis other types of publicly listed firms, but these findings may not hold in other types of national governance systems or in emerging markets.

Keywords: Corporate Governance, Family Firms, Performance, Generation, Meta-Analysis

INTRODUCTION

Alfred Chandler (1977) famously characterized the US as the seedbed of managerial capitalism. In Chandler's view, a professionally managed firm accountable to external capital markets represents a preeminent and modern

organizational form and one that is best able to compete successfully in technologically advanced market economies. In documenting the emergence and domination in the US of the managerial enterprise and the concomitant decline of the "traditional family firm as the primary instrument for managing production and distribution" (1977: 1), Chandler established a lasting narrative in the management literature, namely: that in advanced market economies, family firms (FFs) are plagued by managerial inefficiencies that compromise their competitive capabilities.

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Yet, while Chandler was confidently proclaiming the demise of the FF, his contemporaries Jensen and Meckling (1976) produced a scathing critique of managerial enterprise. Their agency-theoretic analysis, which identified professional managers' self-serving behaviors as a source of principal-agency costs, still constitutes the dominant theoretical paradigm in the mainstream corporate governance literature. Interestingly, Jensen and Meckling (1976) believed that owner-managers, typical of family firms, could mitigate many of the agency problems of the managerial firm due to their monitoring capacity and their high-powered incentives to maximize firm value. In so doing, Jensen and Meckling's (1976) agency theory launched a potent counter-narrative to the Chandlerian position that has also become central to the analysis of effective corporate governance in FFs (Raelin & Bondy, 2013).

Contrary to Chandler's prediction, FFs have not disappeared from the ranks of leading publicly listed US firms (Miller, Le Breton-Miller, Lester, & Cannella, 2007), but after four decades of research on the relative efficiency of managerially and family controlled firms, the polarized narratives articulated by Chandler and Jensen and Meckling are not yet settled. Scholars argue that FF research remains in a pre-paradigmatic state that is cluttered by conflicting theories and findings, as well as by significant open questions regarding the characteristic strategies and performance attributes of FFs (Schulze & Gedajlovic, 2010). On no point is the field more conflicted than over the question whether FFs outperform other types of organizations, and Le Breton-Miller, Miller, and Lester (2011: 704) characterize the field as bifurcated into "two contradictory family business perspectives." Indeed, much of the subsequent theoretical literature on FFs' advantages and disadvantages can be read as a debate, gathering into two opposing camps, fueled by Chandler's and Jensen and Meckling's competing narratives.

Recent research gathering in the Chandlerian camp holds that FF inefficiencies arise from conflict between controlling and minority shareholders (Claessens, Djankov, Fan, & Lang, 2002), from value-destroying tensions within the controlling family and between family and non-family employees (Schulze, Lubatkin, Dino, & Buchholtz, 2001), and the excessive valuation given to socio-emotional wealth by family members (Gómez-Mejía, Cruz, Berrone, & De Castro, 2011a). These recent perspectives portray FFs as relatively inefficient organizations that survive in niche markets where they face little competition. Set against these arguments are the theoretical perspectives reflecting the positive agency theory narrative, which suggest that FFs outperform public corporations operated by salaried executives, due to various inefficiencies in the latter that are attributable to the separation of ownership and control (Jensen & Meckling, 1976). More recent expressions of this perspective suggest that FFs themselves benefit from the relative advantages of favorable stakeholder management (Miller, Le Breton-Miller, & Scholnick, 2008) or capacities for developing certain rent-generating capabilities (Sirmon & Hitt, 2003). Thus, controversy continues to surround the question as to which of these views is supported by the body of empirical evidence.

In a departure from research that focuses upon the internal dynamics of the FF, new comparative research has

begun to address the problem of mixed findings by incorporating institutional theory. Potential insights from institutional theory lay in the possibility that the relative efficiency of FFs may be attributable to factors external to the firm, such as the quality of the legal environment, protection for property rights, and the availability of external finance (Gedajlovic et al., 2012; Van Essen, Heugens, Van Oosterhout, & Otten, 2012). One institutional perspective based on the logic of institutional complementarity suggests that in advanced market economies high-quality institutions can mitigate the negative tendencies often ascribed to FFs (García-Castro, Aguilera, & Ariño, 2013; Yoshikawa, Zhu, & Wang, 2014). Complementarity exists if the presence or efficiency of an institution increases the returns to a particular organizational practice or strategy (Hall & Soskice, 2001). One study pointing to institutional complementarity concludes that "in well-regulated and transparent markets, family ownership in public firms reduces agency problems without leading to severe losses in decision-making efficiency" (Anderson & Reeb, 2003b: 680). Hence, the logic of institutional complementarity suggests that FF efficiency can be attained through the interaction and alignment of external and internal governance mechanisms. Specifically, public FFs perform well when (i) large blockholding family members have strong incentives to monitor professional executives, and (ii) the existence of transparent and liquid capital markets assures effective monitoring of family owners.

In marked contrast, there is also an institutional perspective based upon the logic of institutional substitutability, which suggests that FF attributes such as a reputation for honesty (Gilson, 2007) can compensate for under-developed institutions or "institutional voids" (Miller, Lee, Chang, & Le Breton-Miller, 2009). Institutional substitutability exists if the absence or inefficiency of an institution (i.e., an institutional void) increases the returns of a particular organizational practice or strategy (Hall & Soskice, 2001). In this view, FFs' attributes allow them to substitute for missing institutions, such as inefficient legal processes and insufficient sources of external finance – conditions common to emerging and less developed economies. Hence, the analysis of FF performance under conditions of weak institutional development is based on very different theoretical precepts than those applied in more advanced economic settings, and extends beyond the scope of the hypotheses we develop and test in this paper.

Thus, based on the assumption of complementarity, focusing upon the performance of publicly listed FFs relative to other publicly listed firms in the US, a characteristically advanced economy with well-developed institutions, the performance differences that arise between firms operating in this context are explained by their internal dynamics reflecting their corporate governance and strategic choices. To test hypotheses based upon the competing narratives, we use Hedges and Olkin-type meta-analytical techniques (HOMA: Hedges & Olkin, 1985) to synthesize data from multiple studies and bring it to bear on the open question of whether FFs outperform other types of business enterprise. In contrast with a recent meta-analysis using a similar methodology synthesizing international studies of unlisted private FFs (Carney, Van Essen,

Gedajlovic, & Heugens, 2013), our focus is exclusively on US medium- to large-sized publicly listed corporations, a setting explored by 74 prior empirical studies. Unlike private FFs that are sheltered from the efficiency demands of capital markets and where family owners are more able to pursue their socio-emotional interests, the US publicly listed context represents a setting where FFs and non-FFs co-exist and operate under well-regulated and transparent financial markets. This context constitutes an intensely competitive environment in which only efficient forms of organization can be expected to survive and thrive. As such, it provides a relevant and strong test environment, in which performance outcomes can be attributed to strategy and governance characteristics, rather than to the alleged propensity of FFs to position themselves in less competitive market niches (Colli, 2003) or to capitalize on under-developed regulatory institutions, such as those found in emerging markets (Fogel, 2006).

Comparable with Carney and his colleagues' (2013) meta-analysis of private (unlisted) FFs, we also go beyond establishing the overall association between family control and firm performance and its moderators. Instead, we treat this initial objective as a point of departure, from which we explore the processes and causal mechanisms underlying FF performance differences. In particular, we evaluate the competing theoretical narratives stemming from the polarized positions contained in Chandler's (1977) and Jensen and Meckling's (1976) works, which have more recently been advanced by contemporary FF theorists regarding which strategies are characteristic of FFs. While recent scholarship has established that family firms exhibit particular strategic preferences (e.g., Anderson & Reeb, 2003b; Gómez-Mejía, Makri, & Larrazza-Kintana, 2010), they do not examine how such choices intervene in the family control–firm performance relationship. In this study we specify and test mediating effects of strategic choices on the family control–firm performance relationship. In doing so, we find that diversification, internationalization, and financing strategies mediate the focal relationship in manners consistent with certain narratives, but not others. We test these theory-extending ideas using advanced multivariate meta-analytic techniques, which allow for path analysis through structural equations modeling (MASEM: Cheung & Chan, 2005).

We also shed new light on intergenerational dynamics in publicly listed FFs. Scholars generally agree that founder-led FFs are more profitable than successor-run firms (Pérez-González, 2006). Yet, aside from a notable study by Villalonga and Amit (2006), the empirical literature on FFs contains scant evidence regarding *why* this is the case. To address this open “why” question, we hypothesize and empirically trace founder and successor-led FF performance differences to shifts in specific types of governance practices and strategies. Using meta-analytic regression analysis (MARA: Lipsey & Wilson, 2001), we also establish the robustness of our findings against a broad range of control variables and methodological moderating influences. In the discussion section, we review our findings in relation to the competing theories of FFs present in the literature, and provide specific suggestions regarding open questions and fertile avenues for future research.

FIGURE 1
Theoretical Arguments Regarding the Relative (Dis)Advantage of Family Control

	Classical Public Corporation	Family Firm
Relative Weaknesses	Quadrant I • Aggravated PA Agency Problems due to Uninvolved Owners	Quadrant II • Aggravated PP Agency Problems due to Concentrated Ownership • Less Professional Management due to Retention of Family Control
Relative Strengths	Quadrant III • Reduced PP Agency Problems due to Dispersion of Ownership • More Professional Management through External Recruiting	Quadrant IV • Reduced PA Agency Problems due to Unified Ownership and Control • Development of Valuable Capabilities due to Stewardly Managers

THEORY AND HYPOTHESES

Family Firm Strategy

A central question in management is “why do some firms perform better than others?” (Barnett, Greve, & Park, 1994: 11). Viewed in this light, the field of family business is still very much in a pre-paradigmatic state with many alternative theoretical perspectives offering a mixture of divergent and convergent views on the relative efficiency of the publicly listed FF. To capture and parse the range of views on the performance characteristics of FFs, we provide Figure 1, which distinguishes between theoretical arguments based on the relative strengths and weaknesses of FFs alongside those pertaining to the relative strengths and weaknesses of the classic public corporation characterized by the separation of ownership and control.

Whereas both quadrants I and IV capture perspectives suggesting that FFs will outperform classical public corporations, those from quadrant I suggest that this is due to inherent weaknesses in the latter, while quadrant IV captures perspectives highlighting the relative strengths of FFs. The primary theoretical explanation associated with quadrant I is the principal-agent (PA) variant of agency theory (Eisenhardt, 1989). According to this view, family control over the company obviates a variety of incentive problems endemic to arrangements where salaried professional managers with little or no ownership stakes exercise decision control over the firm on behalf of widely dispersed shareholders (Jensen & Meckling, 1976). In this view, family control provides owners with an enhanced ability to monitor and discipline managers (McConaughy, Walker, Henderson, & Mishra, 1998). Consequently, PA theory is predicated on the idea that professional managers have the incentive to pursue non-profit-maximizing strategies, which benefit them at the expense of shareholders (Amihud & Lev, 1981), and that widely dispersed shareholders have little incentive or ability to monitor their managerial agents (Burkart, Gromb, & Panunzi, 1997). Conversely, the PA perspective also suggests that family control provides incentives for owner-managers to manage costs efficiently

(McConaughy et al., 1998), to pursue profit-maximizing strategies (Gedajlovic & Shapiro, 1998), and that members of the controlling family are able and motivated to monitor and discipline salaried managers (Anderson & Reeb, 2003a). The PA variant of agency theory thus suggests that family control will be positively associated with financial performance.

Though less well examined in the empirical literature, there are recently developed perspectives suggesting that FFs will outperform classical corporations because of certain inherent strengths rather than due to the shortcomings of classic corporations. These perspectives are captured in quadrant IV. Notable among these perspectives is the paper by Sirmon and Hitt (2003), that broke new ground by providing an analysis based on the resource-based view of the firm (RBV), highlighting the advantages that FFs have in managing and leveraging certain types of rent producing assets (human, social, patient, and survivability capital). Consistent with Sirmon and Hitt's RBV-inspired framework and their notion of survivability capital, Miller and his colleagues have argued that FFs often benefit from the profound commitment family managers provide to their firms and stakeholders, as well as a concomitant longer time horizon for decision making (Kappes & Schmid, 2013; Miller et al., 2008). Others have similarly argued that FFs have unique strengths in developing, sustaining, and appropriating value from various forms of social capital (Arregle, Hitt, Sirmon, & Very, 2007). More generally, Miller and Le Breton-Miller (2006) assert that the governance properties of FFs engender competitive advantages tied to organizational resources that are hard to imitate or create in other firms. Consequently, it is hypothesized that:

Hypothesis 1a. Publicly listed family firms are more profitable than publicly listed non-family firms.

Although the view expressed in Hypothesis 1a is prominent in the family business literature, there are similarly well-grounded theoretical arguments predicting that FFs will underperform relative to other forms of corporations. These perspectives can be divided into explanations emphasizing the relative strengths of the classical public corporation (quadrant III), as well as those that point to inherent deficiencies of the FF form of organization (quadrant II).

Theoretical arguments corresponding to quadrant III are closely associated with Chandler's narratives (Chandler, 1977, 1990) on US and UK-based corporations. This perspective emphasizes the important role that professional salaried executives play in developing and managing the sorts of complex organizational systems capable of reaping benefits from economies of scale and scope (Chandler, 1990). In this perspective, highly educated and trained professional managers (Chandler, 1977) fostered in competitive managerial labor markets (Fama, 1980) are uniquely suited to manage large and complex organizations. Chandler's thesis that professional managers are inherently superior to those selected on the basis of family ties has been illustrated through detailed case studies and historical accounts by Chandler himself (Chandler, Amatori, & Hikino, 1997; Chandler & Daems, 1980), as well as other business historians (e.g., Colli, 2003).

The second set of theoretical perspectives suggesting that FFs will underperform other public corporations is based

upon their own inherent weaknesses (quadrant II). Prominent among these perspectives is the so-called principal-principal (PP) variant of agency theory (Young, Peng, Ahlstrom, Bruton, & Jiang, 2008). In this view, the control of a corporation by a group of family members creates various investment hazards for minority shareholders (Heugens, van Essen, & van Oosterhout, 2009). Here, family control is seen as a device to entrench managers who are difficult to remove through proxy contests or the market for corporate control (Young et al., 2008). Entrenchment allows controlling families to use a variety of techniques, such as pyramid building (Morck & Yeung, 2003) or tunneling (Bertrand & Schoar, 2006), to expropriate minority shareholders. Such agency problems have been linked to inefficient resource allocation practices (Burkart, Panunzi, & Shleifer, 2003) and higher effective costs of capital (Claessens et al., 2002) for family-controlled firms, both of which put them at a relative disadvantage to other sorts of corporations.

A second type of PP agency problem has been described by Jensen (1994) as "agency problems with one-self." Closely associated with the work of Schulze and his colleagues (e.g., Schulze et al., 2001), this perspective suggests that the non-economically motivated preferences of FF management lead them to make decisions that threaten their own welfare, as well as that of those around them. In particular, Schulze and his colleagues (2001) emphasize the negative effects of asymmetric altruism between parents and children, which may lead to practices favoring family members over more qualified employees. Similarly, research by Gómez-Mejía and his colleagues finds that family managers may harm their firm's profitability or even endanger its survival through their efforts to entrench familial control (Gómez-Mejía, Larraza-Kintana, & Makri, 2003) or secure privately appropriable "socio-emotional wealth" (Gómez-Mejía, Haynes, Nunez-Nickel, Jacobson, & Moyano-Fuentes, 2007).

Thus, along with the theoretical arguments supporting Hypothesis 1a, there are similarly compelling arguments supporting the position that FFs underperform relative to other types of corporations. Given the compelling theoretical arguments on either side of this debate, we offer the following competing hypothesis to Hypothesis 1a, rather than opting to select one set of arguments over the other. In doing so, we treat the question of whether FFs outperform other corporations as an open empirical question to be directly addressed through our subsequent meta-analyses.

Hypothesis 1b. Publicly listed family firms are less profitable than publicly listed non-family firms.

Family Firm Strategy

In comparison to the body of scholarly work on the relative performance of FFs, the literature on the effects of family control on firm strategy is much sparser, but no less equivocal (Miller et al., 2008). In particular, there exist clear points of theoretical divergence as well as ambiguous empirical evidence regarding two fundamental questions: Which strategies characterize publicly listed FFs? And how do

these characteristic strategies impact upon their financial performance? In terms of Figure 1, little is known regarding the strategic processes which mediate the relationship between family control and firm-specific advantages (quadrant IV) and disadvantages (quadrant II).

In particular, relatively few empirical studies have examined the relationship between family control and the strategies a firm adopts (but see Anderson & Reeb, 2003b; Fernández & Nieto, 2005; Gómez-Mejía et al., 2010; Zahra, 2003), and only one study (Sirmon, Arregle, Hitt, & Webb, 2008) has explicitly examined the mediating role that strategy choices play in the family control–performance relationship. Below, we focus on the possible mediating effects of diversification, internationalization, and financing decisions. In doing so, we highlight the conflicting theoretical narratives of prominent family business scholars, who have sometimes made contrasting claims regarding the strategic behavior of FFs (e.g., Gómez-Mejía et al., 2010; Zahra, 2003) and at other times provided contradictory assessments of the performance implications of similar findings regarding observed strategies (e.g., Anderson & Reeb, 2003b, 2004; Gómez-Mejía et al., 2010). Reflecting these divergent narratives, we develop competing hypotheses.

Diversification. In contrast to research grounded in agency theory, which suggests that FFs tend to be more diversified than widely held corporations in order to mitigate the financial risks associated with concentrating familial wealth in a single firm (Amihud & Lev, 1999), other theory and empirical evidence on publicly listed FFs indicate that they are less diversified (Anderson & Reeb, 2003b; Gómez-Mejía et al., 2010). However, whereas the findings of both Anderson and Reeb (2003b) and Gómez-Mejía and his colleagues (2010) indicate that FFs tend to be less diversified than other types of public corporations, they base their explanations of this phenomenon on different theoretical assertions and invoke conflicting narratives regarding its antecedents and performance implications.

Gómez-Mejía et al. (2010) ground their explanation of lower diversification among FFs in terms of Wiseman and Gómez-Mejía's (1998) behavioral agency model and the notion of "socio-emotional wealth" (Gómez-Mejía et al., 2007). In this view, the desire to protect the socio-emotional benefits family members derive from the firm usually takes precedence over the preservation of financial wealth. This suggests that FFs engage less in diversification because it threatens familial socio-emotional wealth, as diversification requires financing and human capital above that which can be provided by the family, which represents a risk to family control (Gómez-Mejía et al., 2010). Thus, driven by loss aversion with respect to socio-emotional wealth, family managers are more willing to accept both "threats to the firm's financial well-being" (Gómez-Mejía et al., 2010: 225) as well as "below-target performance, relative to the performance of referent firms in order to retain family control" (Gómez-Mejía et al., 2007: 112).

In contrast, Anderson and Reeb (2003b: 659) attribute their finding of lower diversification among FFs to the sound management of highly committed managers who "forgo corporate diversification because of its substantial negative effects" and because they perceive that "the firm-specific

knowledge of an acquisition or new business lies beyond the firm's competitive advantage." Anderson and Reeb's explanation is consistent with the stewardship perspectives on FFs, which suggest that the commitment and quality of FF top management represents a relative strength (Miller et al., 2008; Sirmon & Hitt, 2003).

Thus, whereas the narrative by Gómez-Mejía and his colleagues (2010) suggests that lower diversification reflects non-economic considerations and has negative performance implications, the narrative offered by Anderson and Reeb (2003b) suggests the opposite. In terms of Figure 1, Gómez-Mejía et al. (2010) see lower diversification levels as a manifestation of intra-firm processes which result in a relative weakness with respect to financial performance (quadrant II), while Anderson and Reeb (2003b) see it as a source of strength (quadrant IV). Since Gómez-Mejía et al. (2010) and Anderson and Reeb (2003b) infer, but do not directly empirically evaluate, the performance implications of lower diversification levels among FFs, whether it represents a source of relative strength or weakness remains an unanswered question in the literature. We consequently propose to evaluate the following two competing hypotheses.

Hypothesis 2a. Family control negatively influences the profitability of publicly listed firms through its negative effect on diversification.

Hypothesis 2b. Family control positively influences the profitability of publicly listed firms through its positive effect on diversification.

Internationalization. The degree to which a firm internationalizes its operations and pursues business opportunities outside of its domestic market is an important strategic dimension distinguishing between firms (Sirmon et al., 2008). There is broad agreement that the impact of internationalization on financial performance is generally positive (Hitt, Hoskisson, & Kim, 1997), as it allows firms to tap into foreign factor markets more readily, avoid quotas and tariffs through the domestication of production, and leverage firm-specific skills across a wider range of product markets (Sanders & Carpenter, 1998).

Pukall and Calabrò (2014) have recently documented the conflicting theoretical narratives and empirical findings concerning the internationalization strategies of FFs. For example, Gómez-Mejía et al. (2010) find that FFs internationalize less than non-FFs. Analogous to their explanation of FF diversification activity, they theorize that these lower levels of internationalization stem from management's desire to retain familial control and safeguard socio-emotional wealth. This view is supported by other research suggesting that FFs seek to avoid international operations due to the costs and complexity associated with managing geographically dispersed operations (Fernández & Nieto, 2005). FFs may thus be ill-suited for complex international activities, as their top management teams are often restricted to a small cadre of trusted insiders (Gedajlovic, Lubatkin, & Schulze, 2004) and are less likely to recruit professional managers possessing detailed knowledge of international markets.

In contrast, Claver, Rienda, and Quer (2009) reported that the long-term vision commonly found in FFs is positively related to high commitment entry modes. Similarly, Carr and Bateman (2009) found that due to their access to “patient capital”, the international configuration of the world’s largest FFs is comparable to that of a matched-pair sample of non-family firms. Furthermore, Zahra (2003) theorizes and finds that family control has a positive effect on the degree to which a firm internationalizes its operations. In Zahra’s narrative, the owner-managers of FFs actively pursue “internationalization to broaden their firm’s market base, creating momentum for growth as well as opportunities to involve the family in the organization” (p. 499). In this view, family managers act as astute stewards of the firm (Anderson & Reeb, 2003a; Miller and Le Breton-Miller, 2005) and pursue the long-term benefits that may derive from international expansion. Zahra (2003) also notes that FFs often benefit from well-established name recognition and connections to other family businesses in foreign markets, which are factors that reduce barriers to entry and help position the firm’s products internationally. This view is consistent with research positing that FFs have unique advantages in terms of the development and exploitation of reputational assets and social capital (Arregle et al., 2007; Sirmon & Hitt, 2003).

Thus, contrasting narratives and findings exist regarding the internationalization strategies of FFs. In the narrative of Gómez-Mejía et al. (2010), family members lead firms to forgo potentially profitable foreign business opportunities over concerns that such growth will weaken familial control over the firm. In contrast, Zahra (2003) and others (Carr & Bateman, 2009; Claver et al., 2009) depict family managers as favorably disposed to internationalization because it provides opportunities to profitably leverage their firm’s reputational assets and social capital and also enhances the long-run prospects of the enterprise. These rival perspectives are summarized in the following competing hypotheses.

Hypothesis 3a. Family control negatively influences the profitability of publicly listed firms through its negative effect on internationalization.

Hypothesis 3b. Family control positively influences the profitability of publicly listed firms through its positive effect on internationalization.

Financing Strategies. Recent research documents the importance of financial strategies regarding capital structure and dividend policy of publicly listed family firms as a signaling device to mitigate capital market concerns about owner-agency problems (Anderson & Reeb, 2003b; Pindado, Requejo, & de la Torre, 2012). More generally, within the main body of empirical research on the financing strategies of FFs, there is some agreement that they are less inclined to make use of debt financing, and consequently have less levered capital structures (Mishra & McConaughy, 1999). However, researchers have not yet evaluated the performance implications of such capital structure decisions. It is therefore an open question whether their tendency to use less debt financing represents a source of competitive advantage or disadvantage.

The theoretical narrative offered by Mishra and McConaughy (1999) suggests that FFs exhibit aversion to debt due to concerns over maintaining familial control. In this view, debt covenants and the primacy of creditor rights represent binding constraints on family prerogatives, thereby increasing the risk that the family will lose control of their firm. Gómez-Mejía and his colleagues (2010) also contend that FFs use less debt, because it increases the firm’s risk of bankruptcy and therefore endangers their socio-emotional wealth. Thus, from this perspective, less use of debt among FFs is driven by non-economic motives and leads to underinvestment in risky, but potentially profitable activities (Chandler, 1990). As Mishra and McConaughy (1999: 62) note, their “aversion to debt” may result in FFs “giving up profitable growth opportunities.” Thus, viewed from this theoretical narrative, lower debt usage among FFs represents a source of disadvantage (quadrant II) relative to firms making judicious use of debt and equity financing based upon economizing principles (cf. Williamson, 1999).

On the other hand, others have portrayed family managers and shareholders as effective stewards committed to improving the long-run profitability of the firm through the adoption of sound business practices and the promotion of a longer time horizon for decision making (Anderson & Reeb, 2003a; Miller et al., 2008). There is some consensus in the literature that high levels of debt financing are detrimental to long-term performance, because under conditions of high leverage, excessive emphasis is placed on meeting short-term goals and preventing default, rather than maximizing long-term firm value (Smith & Warner, 1979). As such, the debt-avoidance strategies of FFs may constitute a source of relative strength (quadrant IV) related to their long-term focus (Arregle et al., 2007; Miller et al., 2008), and the desire of their executives for strategic autonomy (Carney, 2005) rather a weakness (quadrant II).

In light of these conflicting theoretical narratives, we propose the following competing hypotheses.

Hypothesis 4a. Family control negatively influences the profitability of publicly listed firms through its negative effect on leverage.

Hypothesis 4b. Family control positively influences the profitability of publicly listed firms through its negative effect on leverage.

Generational Effects

Despite the many other points of contention among family business scholars, there is now a fairly broad consensus that founder-led FFs are more profitable than those led by successor generations (Pérez-González, 2006; Villalonga & Amit, 2006). In terms of Figure 1, this consensus reflects the widely held view that the relative strengths of FFs (quadrant IV), which are dominant when founding generations are in control, dissipate and become relative weaknesses when the leadership shifts to successor generations (quadrant II). However, whereas this point of consensus exists, empirical work examining the intra-organizational processes underlying the diminished performance of successor-led FFs is largely absent from the literature. As a consequence, the

question of *why successor-led FFs underperform* is still very much an open and largely unaddressed question in the empirical literature on FFs.

In a notable exception, Villalonga and Amit's (2006) study provides a theoretical narrative suggesting that principal-principal agency problems (quadrant II) become more severe in successor-led FFs and offset the inherent advantages of FF governance in terms of mitigating principal-agent agency problems (quadrant I). In support of their narrative, Villalonga and Amit find that second-generation-led FFs exhibit lower performance in terms of Tobin's q and are also more likely than founder-led firms to make use of governance devices such as dual class shares, which enhance familial control relative to non-family equity holders (Burkart et al., 1997). Similarly, we expect that second-generation-led FFs will eschew governance arrangements that can potentially mitigate agency problems in family firms, such as the presence of non-family blockholders who can play a valuable monitoring role. Consistent with Villalonga and Amit's (2006) study, we posit that governance practices mediate the relationship between generational control and financial performance among FFs. Formally stated, we hypothesize that,

Hypothesis 5a. Successor control of publicly listed firms negatively influences profitability through its influence on control-enhancing devices.

Extending the logic of Hypothesis 5a, we seek to also identify previously undetected strategic processes that may result from the governance differences of founder- and successor-controlled FFs. We theorize that the governance practices adopted by successor-controlled FFs provide their top managers with additional discretion to adopt strategies and allocate resources in ways they see fit. In this respect, we reason that because the top managers of successor-controlled FFs tend to be more loss averse (Chandler, 1990; Gómez-Mejía et al., 2007) and less managerially capable (Bloom & van Reenen, 2007; Morck, Stangeland, & Yeung, 2000) than those in charge in founder-controlled firms, the additional discretion provided them as the result of their governance practices (cf. Hypothesis 5a) will have deleterious consequences in terms of their strategic behavior and financial performance.

More specifically, we theorize that the executives of successor-controlled FFs will be more inclined to eschew risky investments, such as those related to R&D expenditures, which draw heavily on managerial and technical expertise and which may consequently jeopardize familial control (Gómez-Mejía, Hoskisson, Makri, Sirmon, & Campbell, 2011b). Instead, successor-generation FF executives will pursue strategies which allow them to extract income streams and diversify the wealth they derive from the firm. We hypothesize that these resulting strategies will negatively influence the financial performance of successor-controlled FFs.

Hypothesis 5b. Successor control of publicly listed firms negatively influences profitability through its influence on firm strategies.

METHODS

Sample and Coding

We employed five search strategies to identify studies on publicly listed FFs in the US context (cf. Van Essen, Van Oosterhout, & Heugens, 2013). First, we consulted prior review articles (e.g. Gómez-Mejía et al., 2011a; Sharma, 2004). Second, we explored five electronic databases: (1) ABI/INFORM Global, (2) EconLit, (3) Google Scholar, (4) JSTOR, and (5) SSRN, using the following search terms: "blockholder", "families", "family business", "family control", "family firm", "family ownership", "founder", "founding family", and "ownership." Third, we manually searched 25 economics, finance, and management journals. Fourth, we searched all references of the retrieved studies, as well as all articles citing them using Google Scholar and ISI Web of Knowledge. Fifth, we corresponded with 27 researchers, asking them for missing effect size information and additional studies. Combined, these strategies yielded a final sample of 74 primary studies (see Appendix A). One author coded all effect sizes. To assess inter-rater agreement, a second rater coded a subsample of 100 randomly selected effect sizes, after which we computed a chance agreement-corrected measure of inter-rater reliability (Cohen's kappa coefficient; Cohen, 1960). With a value of 0.98, kappa signified high inter-rater agreement.

HOMA Procedure

We use HOMA (Hedges & Olkin, 1985) to test Hypotheses 1a and 1b. HOMA involves statistical procedures for calculating the meta-analytic mean correlation between two variables and the corresponding confidence interval (Lipsey & Wilson, 2001). The data used in HOMA are effect sizes such as the Pearson product-moment correlation r or the partial correlation coefficient $r_{xy.z}$. We employ both r and $r_{xy.z}$. We use r because it offers a scale-free measure of linear association. Yet r is a bivariate measure, which ignores the effect of other variables researchers may use as controls in multivariate tests. We therefore also use $r_{xy.z}$, which can be computed from regression results (Doucouliagos & Ulubaşoğlu, 2008).¹ In our case, $r_{xy.z}$ captures the association between family control (X) and firm performance (Y), given a set of n controlling variables (Z). In 16.2 percent of all cases, the Z-vector also contained an instrumental variable correcting for endogeneity. We use this information in the robustness checks reported below.

When multiple measurements of the focal effect are reported, we include them all in our analyses. Monte Carlo simulations show that procedures using the complete set of measurements outperform those representing each study by a single value in areas like parameter significance testing and parameter estimation accuracy (Bijmolt & Pieters, 2001). We use Fisher's (1928) Zr-transformation to correct for skewness in the effect size distribution (Hedges & Olkin, 1985),² and random-effects HOMA for combining study estimates (Raudenbush & Bryk, 2002). To account for differences in precision across effect sizes, we weight effect sizes by their inverse variance weight w (Hedges & Olkin, 1985).³ We also use these weights to calculate the

standard error of the mean effect size and its confidence interval.⁴

MASEM Procedure

We use MASEM, which combines the techniques of structural equation modeling with those of meta-analysis (Cheung & Chan, 2005), to test Hypotheses 2a through 5b. MASEM tests foresee in a two-stage procedure. First, r -based effect size information for all relationships between independent and dependent variables are combined into a pooled meta-analytic correlation matrix. Second, this matrix is subjected to maximum likelihood structural equation modeling (Cheung & Chan, 2005). In our test of Hypotheses 2a through 4b, we use the harmonic mean number of observations of all included effect sizes as our sample size ($N = 8,387$), to compute correct t -values for the parameter estimates. We control for the effects of firm size and risk on revealed strategy choices, as these contingency variables are known to affect strategic decisions (Beatty & Zajac, 1994). This yields the following system of structural equations, which we test concurrently to avoid simultaneity biases (Geyskens, Krishnan, Steenkamp, & Cunha, 2009):

$$\text{Diversification} = \beta_1 \text{FF} + \beta_2 \text{size} + \beta_3 \text{risk} + \varepsilon \quad (1)$$

$$\text{Internationalization} = \beta_4 \text{FF} + \beta_5 \text{size} + \beta_6 \text{risk} + \varepsilon \quad (2)$$

$$\text{Leverage} = \beta_7 \text{FF} + \beta_8 \text{size} + \beta_9 \text{risk} + \varepsilon \quad (3)$$

$$\begin{aligned} \text{Performance} = & \beta_{10} \text{FF} + \beta_{11} \text{diversification} \\ & + \beta_{12} \text{internationalization} + \beta_{13} \text{leverage} + \varepsilon \end{aligned} \quad (4)$$

In regards to Hypotheses 5a and 5b, MASEM allows us to establish broad patterns of strategy and governance decisions in FFs, assess whether these patterns differ across founder- and successor-led FFs, and relate observed differences to firm performance. We compute a separate meta-analytical correlation matrix for the intergenerational hypotheses, with a harmonic mean sample size of 7,078. Based on this matrix, we test the following structural equations:

$$\text{R \& D} = \beta_1 \text{founder-led FF} + \beta_2 \text{successor-led FF} + \beta_3 \text{size} + \varepsilon \quad (5)$$

$$\text{Risk} = \beta_4 \text{founder-led FF} + \beta_5 \text{successor-led FF} + \beta_6 \text{size} + \varepsilon \quad (6)$$

$$\begin{aligned} \text{Dividend} = & \beta_7 \text{founder-led FF} \\ & + \beta_8 \text{successor-led FF} + \beta_9 \text{size} + \varepsilon \end{aligned} \quad (7)$$

$$\begin{aligned} \text{Dual class shares} = & \beta_{10} \text{founder-led FF} \\ & + \beta_{11} \text{successor-led FF} + \beta_{12} \text{size} + \varepsilon \end{aligned} \quad (8)$$

$$\begin{aligned} \text{Outside blockholder} = & \beta_{13} \text{founder-led FF} \\ & + \beta_{14} \text{successor-led FF} + \beta_{15} \text{size} + \varepsilon \end{aligned} \quad (9)$$

$$\begin{aligned} \text{Performance} = & \beta_{16} \text{founder-led FF} + \beta_{17} \text{successor-led FF} \\ & + \beta_{18} \text{R \& D} + \beta_{19} \text{risk} + \beta_{20} \text{dividend} + \beta_{21} \text{dual class shares} \\ & + \beta_{22} \text{outside blockholder} + \varepsilon \end{aligned} \quad (10)$$

MARA Procedure

We use MARA (Lipsey & Wilson, 2001) to test the robustness of our findings against a number of data concerns, using $r_{xy,z}$ as effect sizes. We rely on $r_{xy,z}$ as this type of effect size information allows us to control for omitted variable bias by incorporating a separate dummy variable in the MARA models for each variable that was frequently, but not universally, included in the z -vector of each $r_{xy,z}$.⁵ The $r_{xy,z}$ is weighted by w using WLS estimation (Lipsey & Wilson, 2001). We use mixed-effects MARA models (Geyskens et al., 2009), which attribute variability across effect sizes to between-study differences and firm-level sampling error (as in fixed-effects models) and to a remaining unmeasured random component (as in random effects models). As we use MARA to extract standardized parameter estimates, the intercept represents the overall mean effect size corrected for the influence of control variables.

The advantage of using the meta-analytical procedures described above resides in the statistical strength derived from considering the full body of research on the subject. Meta-analysis offers an authoritative assessment of the state of research in a field due to the large number and diversity of subjects addressed as well as the accumulated effects and findings over time. A single study cannot decisively resolve contentious theoretical debates, nor can a single study offer the conclusive evaluation of extant empirical evidence in the manner made possible by meta-analysis. This is because sampling error and other statistical artifacts resulting from initial studies often increase uncertainty about the level of support for a theory (Hunter & Schmidt, 2004). The problem of single studies is particularly acute in management research, because of the emphasis in the management field on theory development over replication, which requires that every test of a theory must also extend the theory for it to be considered a contribution. This complicates the task of comparing results across tests of particular hypotheses.

RESULTS

FF Financial Performance

Two *funnel plots*, which are scatter plots of study sample size against r and r_{xyz} , are presented in Figures 2 and 3, respectively. They visually depict the heterogeneity present in effect size distributions (Cooper, Hedges, & Valentine, 2009). The heterogeneity depicted in both figures is strongly suggestive of the need for a meta-analysis on the FF-performance link because the spread of the retrieved effect sizes is considerable (ranging from $-.36$ to $.43$ for r and from $-.18$ to $.26$ for r_{xyz}), and both distributions occupy broad zones left and right of the zero mark. Under such conditions, research synthesis through meta-analysis is not just

FIGURE 2
***r*-Based Funnel Plot of Effect and Sample Sizes**

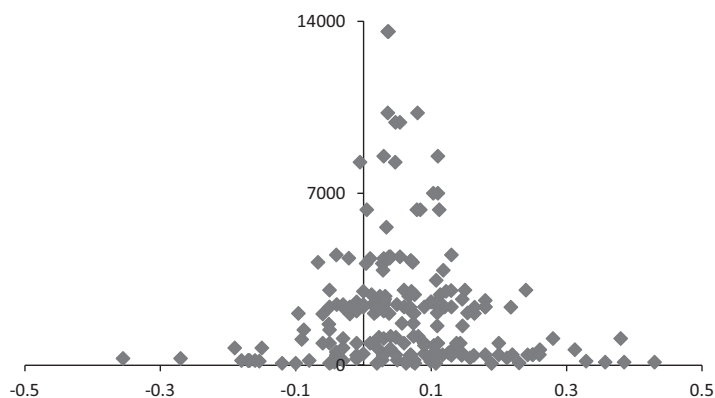
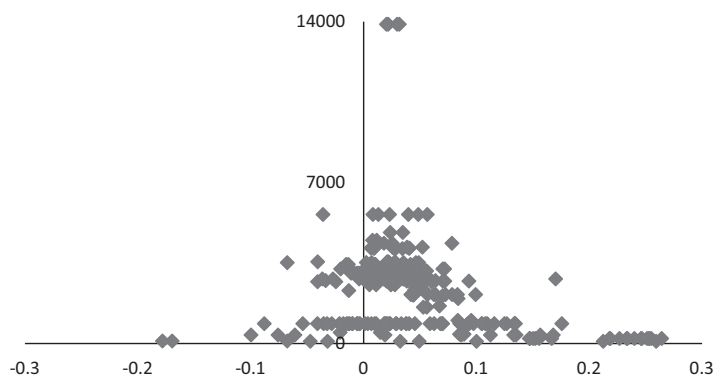


FIGURE 3
 r_{xyz} -Based Funnel Plot of Effect and Sample Sizes



warranted, but essential to the resolution of conflicting theoretical and empirical debates (Geyskens et al., 2009). Of further note, the forms of both plots are appropriately funnel-shaped, suggesting that our results are not hampered by publication bias (Cooper et al., 2009).

Table 1 reports the *r*- and r_{xyz} -based HOMA results for Hypotheses 1a and 1b showing that US publicly listed FFs outperform other types of public corporations. The mean *r* is .06 ($k = 196$), and the confidence interval does not include zero, indicating statistical significance (Hedges & Olkin, 1985). A *Q*-test ($Q = 2,222.62$) reveals considerable variance in FF performance, suggesting that FFs underperform other public firms in several samples. These results are corroborated by the r_{xyz} -based analyses (mean $r_{xyz} = .04$; $k = 247$). The *Q* value for these is lower (810.47), however, meaning that the effect size distribution becomes more homogeneous after controlling for factors like firm age, size, industry, and strategy.

Table 1 also reports tests concerning the robustness of our findings against different operationalizations of the variables. Our results are materially similar across different market- and accounting-based operationalizations of perfor-

mance. Further, findings are robust across different FF definitions. Whether FFs are defined by family ownership or management is not significant (mean *r* = .06 vs. .07; mean $r_{xyz} = .03$ vs. .04). However, we do observe generational effects as FFs led by a founder (Miller et al., 2007) substantially outperform those led by a successor CEO (mean *r* = .15 and .11 vs. -.05; mean $r_{xyz} = .05$ and .06 vs. -.01). We test for endogeneity (cf. Demsetz & Villalonga, 2001) by conducting an r_{xyz} -based HOMA on the subset of samples that include endogeneity controls. We find that the mean r_{xyz} of samples with endogeneity controls is identical to the overall mean r_{xyz} (.04 vs. .04) and similar results were found for subsets of results based on ownership (.02 vs. .03) and management definitions (.04 vs. .04). We conclude that controlling for endogeneity does not change our findings.

Because some scholars theorize a curvilinear relationship between controlling ownership and firm performance (Morck, Shleifer, & Vishny, 1988) we also test for such effects using a small subsample of six studies that examine the curvilinear family ownership–firm performance relationship. Interestingly, the results do indeed show a curvilinear relationship, since the linear term is positive and significant (mean $r_{xyz} = .05$; $k = 6$; $N = 10,727$), while the squared term is negative and significant (mean $r_{xyz} = -.06$; $k = 6$; $N = 58,487$) (see Table 1). The relationship between family ownership and firm performance thus follows an inverted U-shaped pattern. The benefits of family ownership, such as the close monitoring of professional executives and the benefits of “patient capital” for the pursuit of high-commitment strategies, thus tend to concentrate in the lower ranges of the distribution of the ownership variable. In contrast, the costs of family ownership, such as self-benefiting decisions and the pursuit of socio-emotional rather than economic wealth, tend to accumulate in the higher ranges of the ownership variable’s distribution. An interesting objective for future research is to determine the “optimal” percentage of family ownership: the tipping point where the benefits of such inside ownership are maximized and the corresponding costs minimized (Heugens et al., 2009; Morck et al., 1988).

Finally, we ran a series of robustness checks (not reported here) to assess whether stochastic interdependencies in the effect size distribution, which derive from (partially) overlapping firm-year observations across studies or multiple measurements of the focal effect within studies, were driving our results.⁶ As these tests yielded similar results as the ones reported here, we conclude that family control is positively associated with financial performance. Hypothesis 1a is supported and Hypothesis 1b is rejected.

FF Strategy and Financial Performance

Table 2 shows the meta-analytic correlation matrix, and Table 3 contains MASEM results for Hypotheses 2a through 4b. Overall, the model fits the data well ($\chi^2 = 246.82$; RMSR = .031; GFI = .99). As hypothesized, all three strategy variables mediate the focal relationship, as confirmed by formal mediation tests (Sobel: $z = 7.58$, $p < .001$; Aroian: $z = 7.57$, $p < .001$; Goodman: $z = 7.59$, $p < .001$; cf. MacKinnon, Warsi, & Dwyer, 1995). Hypothesis 2a is

TABLE 1
HOMA Results for the Focal Relationship

Predictor	Pearson product-moment correlation					Partial correlation coefficient						
	k	N	Mean	SE	CI 95%	Q test	k	N	Mean	SE	CI 95%	Q test
Public FF to performance	196	428,747	0.06*	0.01	0.05 / 0.08	2,222.62 (0.00)	247	564,979	0.04*	0.00	0.03 / 0.04	810.47 (0.00)
	97	194,589	0.05*	0.01	0.03 / 0.06	850.79 (0.00)	21	50,125	0.04*	0.00	0.04 / 0.05	15.88 (0.72)
	72	184,677	0.05*	0.01	0.04 / 0.06	615.11 (0.00)	17	48,359	0.04*	0.00	0.04 / 0.05	11.96 (0.75)
	25	9,912	0.02	0.03	-0.04 / 0.09	215.25 (0.00)	4	1,766	0.04	0.03	-0.01 / 0.09	3.86 (0.28)
	99	234,158	0.08*	0.01	0.07 / 0.10	1,279.89 (0.00)	226	514,854	0.04*	0.00	0.03 / 0.04	785.17 (0.00)
	18	28,069	0.04*	0.01	0.01 / 0.07	65.28 (0.00)	33	87,050	0.02*	0.01	0.01 / 0.03	81.51 (0.00)
	79	202,843	0.09*	0.01	0.07 / 0.11	1,179.16 (0.00)	189	420,950	0.05*	0.00	0.04 / 0.05	688.44 (0.00)
	2	3,246	0.04*	0.02	0.01 / 0.08	0.07 (0.79)	4	6,854	0.06*	0.01	0.03 / 0.08	1.56 (0.67)
							40	114,699	0.04*	0.01	0.03 / 0.06	128.94 (0.00)
							51	155,742	0.03*	0.00	0.03 / 0.04	84.21 (0.00)
Ownership definition FF	18	46,137	0.04*	0.01	0.02 / 0.07	103.76 (0.00)	18	50,743	0.04*	0.01	0.03 / 0.05	24.31 (0.11)
	6	4,528	0.03*	0.01	0.00 / 0.05	4.85 (0.43)	7	10,621	0.05*	0.02	0.01 / 0.09	28.42 (0.00)
	28	61,502	0.08*	0.01	0.05 / 0.10	246.01 (0.00)	26	94,378	0.03*	0.00	0.02 / 0.04	29.15 (0.26)
							5	12,320	0.02*	0.01	0.00 / 0.04	2.13 (0.71)
							6	10,727	0.05*	0.02	0.00 / 0.09	28.36 (0.00)
							6	10,727	-0.06*	0.02	-0.09 / -0.01	22.51 (0.00)
							102	236,595	0.04*	0.00	0.03 / 0.05	461.12 (0.00)
							17	28,197	0.05*	0.01	0.02 / 0.08	78.34 (0.00)
							8	20,443	0.05*	0.01	0.03 / 0.06	21.04 (0.00)
Management definition FF	64	133,927	0.07*	0.01	0.04 / 0.09	997.11 (0.00)	43	134,468	0.06*	0.01	0.05 / 0.07	146.18 (0.00)
	25	43,741	0.05*	0.01	0.02 / 0.07	136.44 (0.00)	13	28,899	-0.01	0.01	-0.03 / 0.03	48.30 (0.00)
	6	11,308	0.15*	0.06	0.03 / 0.26	187.02 (0.00)	21	24,588	0.01	0.01	-0.02 / 0.03	58.97 (0.00)
	18	44,821	0.11*	0.02	0.07 / 0.16	276.88 (0.00)	15	78,007	0.04*	0.01	0.03 / 0.06	36.20 (0.00)
	5	19,680	-0.05	0.04	-0.14 / 0.03	107.27 (0.00)	94	172,642	0.04*	0.00	0.03 / 0.05	258.76 (0.00)
	10	14,377	0.04	0.04	-0.04 / 0.13	225.31 (0.00)						
							80	182,653	0.07*	0.01	0.05 / 0.08	836.44 (0.00)
	Management or ownership def. FF	80	182,653	0.07*	0.01	0.05 / 0.08	836.44 (0.00)	20	24,372	0.05*	0.01	0.02 / 0.07

k = number of samples; N = total sample size; SE = the standard error of the mean effect size; CI 95% = 95 percent confidence interval around the meta-analytic mean; Q test = Hedges and Olkin (1985) chi-square test for homogeneity.

Public FF: A variable coding for the identity of a firm, identifying it as a publicly listed family firm (commonly measured as a dummy variable or as the ownership percentage held by a family). Ownership definition FF: A variable identifying (one of) the concentrated owner(s) of a firm as a family owner (commonly measured as a dummy variable or as the ownership percentage held by a family). Management definition FF: A dummy variable coded as one if the researcher(s) identified one or several members of a family as being involved in the day-to-day management operations of the firm, and zero otherwise. Management or ownership def. FF: A dummy variable coded as one if the researchers identified (one of) the concentrated owner(s) of a firm as a family owner, and/or one or several members of a family as being involved in the day-to-day management operations of the firm, and zero otherwise.

* p < .05.

TABLE 2
Meta-Analytic Correlation Matrix for Pooled Results

Variable	1	2	3	4	5	6	7
1. Public FF							
2. Firm size	-0.10 (0.01)	268,505 (125)	170,576 (83)	6,745 (3)	152,724 (72)	20,619 (15)	428,747 (196)
3. Risk	0.06 (0.01)	-0.11 (0.03)	57,299 (23)	5,305 (2)	52,683 (19)	9,301 (6)	129,366 (51)
4. Internationalization	-0.06 (0.03)	0.11 (0.13)	-0.04 (0.02)	2,880 (2)	34,930 (13)	14,774 (7)	91,118 (32)
5. Leverage	-0.09 (0.01)	0.16 (0.03)	-0.05 (0.03)	-0.08 (0.02)	5,305 (2)	1,440 (1)	9,170 (3)
6. Diversification	-0.04 (0.03)	0.16 (0.09)	0.07 (0.09)	0.12	0.08 (0.02)	3,548 (2)	81,662 (32)
7. Firm performance	0.06 (0.01)	-0.05 (0.03)	0.03 (0.03)	0.21 (0.06)	-0.17 (0.03)	-0.03 (0.08)	4,810 (5)

Cells below the diagonal contain mean correlations (Mean) and standard error (SE). Cells above the diagonal contain the total number of observations (N) and number of samples (k). Bold font indicates a significant χ^2 test, suggesting the presence of moderator variables.

Public FF: A variable coding for the identity of a firm, identifying it as a publicly listed family firm (commonly measured as a dummy variable or as the ownership percentage held by a family). Firm size: An indicator of the size of the firm, commonly measured as a firm's total assets, sales, or employees. Risk: A variable which reflects the degree to which the financial valuation of a firm's stock varies in relation to movements of the broader market. A commonly used measure of such risk is the Beta of a firm's stock, computed by regressing a firm's monthly stock return on the corresponding country's market index return. Internationalization: A variable which reflects the international orientation of an enterprise, in terms of its involvement in international trade (number of foreign countries) and the intensity of its international trade (ratio of export to total sales). Leverage: A variable which reflects the degree of leverage of the firm, commonly measured as a ratio of total debts to total assets. Diversification: A variable which reflects the degree to which firms are simultaneously active in many different businesses (entropy index, Herfindahl index, or number of segments). Firm performance: Any indicator of the financial performance of the firm that is expressed in the form of an accounting-based measure of firm profits or market-based measure of firm value.

rejected and Hypothesis 2b is supported. FFs are less diversified than non-FFs ($\beta = -.03$, $p < .05$). This benefits FFs, because diversification tends to worsen firm performance ($\beta = -.04$, $p < .05$). These results are consistent with a theoretical narrative stressing the stewardly qualities of FF managers (Anderson & Reeb, 2003b), but not with one of FF managers foregoing diversification opportunities out of a desire to protect non-economic socio-emotional benefits (Gómez-Mejía et al., 2010). With regard to internationalization, Hypothesis 3a is supported and Hypothesis 3b rejected. In comparison with non-FFs, FFs are less internationally oriented ($\beta = -.05$, $p < .05$). This hurts their relative performance, because the more internationalized firms become, the better their financial results ($\beta = .21$, $p < .05$). These findings are in line with a narrative of familial control retention and socio-emotional wealth preservation (Gómez-Mejía et al., 2010), and they contrast with Zahra's (2003) narrative emphasizing the desire of managers to leverage family-related capabilities to foreign markets. With regard to financing strategies, Hypothesis 4a is rejected and Hypothesis 4b is supported. FFs are less levered than non-FFs ($\beta = -.07$, $p < .05$) and this is beneficial as leverage is detrimental to financial results ($\beta = -.14$, $p < .05$). Thus, the narrative stressing the stewardly qualities of FF managers (Anderson & Reeb, 2003a; Miller et al., 2008) is again supported over the one emphasizing the preservation of familial control (Mishra & McConaughy, 1999).

Generational Effects on Financial Performance and Strategy

Table 4 contains the meta-analytic correlation matrix for the generational results, while Table 5 reports the results for Hypotheses 5a and 5b. The model fits the data well ($\chi^2 = 1215.70$; RMSR = .06; GFI = .96). In line with prior findings (Villalonga & Amit, 2006), it shows that founder-led FFs significantly outperform other public firms ($\beta = .08$, $p < .05$), whereas successor-led FFs do not ($\beta = .01$, $p > .05$).

The results in Table 5 provide partial support for Hypothesis 5a. As hypothesized, successor-led FFs are more likely than founder-led FFs to adopt dual class shares ($\beta = .37$, $p < .05$ vs. $\beta = .15$, $p < .05$). This helps them retain control over the firm's strategic decision-making processes, but dual class shares are bad for financial performance ($\beta = -.04$, $p < .05$). Contrary to our expectations, however, founder- and successor-led FFs *both* resist control by outside blockholders ($\beta = -.11$, $p < .05$ vs. $\beta = -.08$, $p < .05$). Somewhat surprisingly, this governance policy has a *positive* impact on financial performance ($\beta = -.15$, $p < .05$), possibly because this prevents expropriation by outside principals (Young et al., 2008). Hypothesis 5b is largely supported by the results (Table 5). Founder-led FFs invest more in R&D than non-FFs ($\beta = .08$, $p < .05$), surpass them in terms of risk acceptance ($\beta = .13$, $p < .05$), and pay out less dividends ($\beta = -.16$, $p < .05$). In sharp contrast, successor-led firms under-invest in R&D ($\beta = -.14$, $p < .05$), are more risk averse ($\beta = -.06$, $p < .05$), and pay out more in dividends ($\beta = .09$, $p < .05$) than non-FFs. These findings account for the successor generation discount, as investments in R&D improve performance ($\beta = .15$, $p < .05$), while dividend payouts are

TABLE 3
Pooled MASEM Results

Predictors	Diversification	Internationalization	Leverage	Performance
Public FF	-0.03* (-2.66)	-0.05* (-4.42)	-0.07* (-6.78)	0.06* (5.45)
Firm size	0.17* (15.40)	0.10* (9.34)	0.15* (13.76)	
Risk	0.09* (8.33)	-0.03* (-2.37)	-0.03* (-2.69)	
Diversification				-0.04* (-3.88)
Internationalization				0.21* (19.62)
Leverage				-0.14* (-13.73)
Harmonic mean <i>N</i>	8,387			
<i>X</i> ²	246.82 (0.00)			
<i>GFI</i>	0.99			
<i>RMSR</i>	0.031			

Sobel: $z = 7.58$, $p < .001$; Aroian: $z = 7.57$, $p < .001$; Goodman: $z = 7.59$, $p < .001$.

* $p < .05$; *t*-values are given in parentheses.

harmful ($\beta = -.18$, $p < .05$). The one counter hypothesized result we find is that the risk proneness of founder-led FFs weakens their performance, due to the negative relationship between risk and financial results ($\beta = -.07$, $p < .05$).

Robustness Checks

Table 6 reports robustness checks based on MARA results. Model 1 contains controls for study, sample and methodological characteristics, focal variable operationalizations, and *z*-vector content. The model fits the data reasonably well ($R^2 = .28$), but a significant Q_{residual} implies missing moderator variables (Lipsey & Wilson, 2001). Model 2 captures additional variance by unpacking moderating variables ($R^2 = .45$). As the Q_{residual} is no longer significant ($p > .05$), most salient moderator variables appear to have been accounted for in the specification of this model.

We base our subsequent interpretations on Model 2, as it offers the most fine-grained insights. The significant negative coefficient for publication year ($\beta = -.01$, $p < .01$) suggests that the focal effect becomes smaller over time. The significant effect for journal impact factor ($\beta = -.01$, $p < .05$) could indicate that studies with strong findings find their way to niche journals with modest impact factors that are more inclined to celebrate the virtues of FFs. Our robustness checks corroborate earlier findings by Miller and his colleagues (2007), as FF outperformance is somewhat driven by sample selection. The outperformance effect is larger for FFs drawn from the Fortune 500 or 1000 ($\beta = .07$, $p < .05$ and $\beta = .06$, $p < .01$), and smaller for FFs in the Fortune 1500 or 2000. Importantly, the regression coefficient for the dummy variable coding for studies controlling for endogeneity is insignificant, suggesting that the findings of studies using instruments to correct for endogeneity are similar to those that do not. Nevertheless, it is desirable that future research seek to control for endogeneity of the relationship.

In terms of variable operationalization, we find that the strongest outperformers are FFs led by a lone founder

CEO ($\beta = .04$, $p < .01$) and that successor-led FFs are underperformers ($\beta = -.04$, $p < .01$). No significant moderating effects could be detected across different operationalizations of firm performance. Examination of the *z*-vector content confirms that FF strategy variables impact performance. The negative significant effects for diversification ($\beta = -.05$, $p < .01$) and leverage ($\beta = -.03$, $p < .05$) indicate that studies controlling for these factors tend to find a weaker focal relationship than studies that do not. The intuition behind findings of this type (cf. Doucouliagos & Ulubaşoğlu, 2008) is that because FFs are less diversified and levered than other firms, and because diversification and leverage negatively influence the performance of all firms (see Table 3), the studies that control for these factors will show a weaker FF–performance relationship. Other strategy and control variables do not significantly impact the focal relationship.

DISCUSSION AND DIRECTIONS FOR FUTURE RESEARCH

Research on publicly listed FFs in the US has grown rapidly in the past few decades. Underlying this concentration of effort is the widely held view that FFs are a theoretically interesting organizational form. Yet beyond this consensus on the theoretical and practical significance of FFs, there is considerable ongoing debate regarding the characteristic strategies and performance attributes of FFs that is being fueled by the divergent narratives being actively advanced by prominent FF scholars (Le Breton-Miller et al., 2011), as well as a body of empirical findings that has recently been characterized as “mixed and conflicting” (Gómez-Mejía et al., 2011a: 693).

Under such conditions, meta-analytic scholars stress that there is a particularly strong case for research synthesis by means of meta-analysis (cf. Geyskens et al., 2009). We therefore employ research synthesizing meta-analytic techniques to take stock of the available empirical evidence on US publicly listed firms. We also go beyond the traditional

TABLE 4

Cells below the diagonal contain mean correlations (Mean) and standard error (SE). Cells above the diagonal contain the total number of observations (*N*) and number of samples (*k*). Bold font indicates a significant χ^2 test, suggesting the presence of moderator variables.

Public FF: A variable coding for the identity of a firm, identifying it as a publicly listed family firm (commonly measured as a dummy variable or as the ownership percentage held by a family). Firm size: An indicator of the size of the firm, commonly measured as a firm's total assets, sales, or employees. Risk: A variable which reflects the degree to which the financial valuation of a firm's stock varies in relation to movements of the broader market. A commonly used measure of such risk is the Beta of a firm's stock, computed by regressing a firm's monthly stock return on the corresponding country's market index return. Dividend: The percentage of earnings paid to shareholders in dividends. Dual class shares: A variable measuring the difference between control rights and cash flow rights held by the controlling shareholder. Outside blockholder: The extent to which ownership is in the hands of blockholders other than the founding family. Firm performance: Any indicator of the financial performance of the firm that is expressed in the form of an accounting-based measure of firm profits or market-based measure of firm value.

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TABLE 5

First-generation (Sobel: $z = 15.88$, $p < .001$; Aroian: $z = 15.86$, $p < .001$; Goodman: $z = 15.90$, $p < .001$). Successor-generation (Sobel: $z = 17.00$, $p < .001$; Aroian: $z = 16.98$, $p < .001$; Goodman: $z = 17.02$, $p < .001$). * $p < .05$; t -values are given in parentheses.

TABLE 6
MARA Results

Variables	Model (1)	Model (2)
Constant	0.04 (0.02)**	0.04 (0.02)**
Study characteristics		
Publication year	−0.01 (0.00)***	−0.01 (0.00)***
Published study	0.02 (0.01)*	−0.01 (0.02)
ISI Impact factor	−0.01 (0.00)***	−0.01 (0.00)**
Sample and methodology		
Top 500 firms	0.02 (0.01)*	0.07 (0.02)**
Top 1000 firms		0.06 (0.02)***
Top 1500 firms		0.02 (0.02)
Top 2000 firms		0.04 (0.03)
Family prevalence in sample	0.14 (0.09)	0.03 (0.06)
Panel data	−0.01 (0.01)	−0.01 (0.01)
Endogeneity control	0.00 (0.01)	−0.00 (0.01)
Family firm definition		
Ownership definition	0.01 (0.01)	0.01 (0.01)
Management definition	−0.01 (0.01)	
Lone founder CEO		0.04 (0.01)***
Founder CEO		0.02 (0.01)*
Family CEO mixed generations		−0.01 (0.01)
Family CEO Successor		−0.04 (0.01)***
First generation		−0.00 (0.01)
Performance definition		
Accounting measure	−0.00 (0.01)	
ROA		0.03 (0.03)
Other accounting measures		
Market measure		
Stock market return		0.03 (0.03)
Tobin Q		0.03 (0.03)
Other market measures		0.00 (0.04)
Industry adjusted	0.01 (0.01)	0.00 (0.01)
Log transformation	0.00 (0.01)	−0.02 (0.01)
Control variables in regression		
Diversification	−0.02 (0.01)*	−0.05 (0.01)***
Leverage	−0.00 (0.01)	−0.03 (0.01)**
Risk	0.01 (0.01)	0.01 (0.01)
Firm size	−0.00 (0.02)	0.00 (0.00)
Industry and year controls	Yes	Yes
R^2	0.28	0.45
K	247	247
$Q_{\text{Model}} (p)$	114.02 (0.00)	211.46 (0.00)
$Q_{\text{Residual}} (p)$	287.33 (0.00)	255.37 (0.06)
V	0.0008	0.00053

Unstandardized regression coefficients are presented for study moderators and substantive moderators with standard errors in parentheses. k is the total number of effect sizes; Q is the homogeneity statistic with its probability in parentheses; v is the random effects variance component.

* $p < 0.1$

** $p < 0.05$

*** $p < 0.01$.

meta-analytic goal of research synthesis and use the technique to advance theory by developing and testing three novel pairs of competing theory-extending hypotheses. To help the field move forward, we now turn to describing the four general areas in which this study has made a contribution, discussing their implications for open questions in the body of FF and corporate governance research and the types of future research needed to address them.

Family Firms Outperform in Competitive and Complex Business Environments

We find that family control has a modest, but statistically significant, positive effect on firm performance. This finding corroborates theoretical narratives stressing that FFs are less hampered by PA-type agency problems and better able to develop unique managerial resources than other public firms (Anderson & Reeb, 2003b; Miller et al., 2008; Sirmon & Hitt, 2003), while nuancing those highlighting the costs of PP-type agency problems and FFs' lack of professional management (Gómez-Mejía et al., 2003, 2007; Schulze et al., 2001). Moreover, through a series of robustness checks, we show that our findings on the FF–performance link are not endogenous to the explanatory variables commonly employed in studies of FF performance and are robust across alternative model specifications, performance measures and FF definitions (see Tables 1 and 6).

Given that the primary studies included in our dataset are empirical inquiries of US-based publicly listed firms, our findings indicate that the FF enjoys performance-enhancing advantages in precisely the sort of highly competitive and complex business environments that many scholars see as incompatible with its capabilities, resources, and managerial capacities (cf. Chandler, 1990). Our analysis therefore represents a strong test of the performance characteristics of FFs, as the data are drawn from firms operating in an environment thought to be inhospitable to them. Thus, our results offer strong support for Hypothesis 1a as well as for theoretical perspectives suggesting that family control provides net performance advantages (e.g., Sirmon & Hitt, 2003). We also identify a curvilinear, inverted U-shaped effect with respect to the family ownership–firm performance relationship, suggesting that the positive effects of concentrated family ownership are limited to the lower ranges of this variable's distribution. However, this finding does not vitiate the broad support we found for the "efficient family firm hypothesis." Our results are robust across all measures of performance, and across all measures of ownership and management involvement. Apparently, the universe of US publicly listed FFs contains relatively few firms in which family ownership is so concentrated that the negative effects of family "blockholdership" prevail over its positive effects. Given the apparent importance of inside ownership for FF performance, we call for more studies that focus on nonlinear effects of family involvement.

Another way forward is to distinguish between FF control as proxied by family ownership and family influence on the firm as proxied by other indicators of family and non-family involvement in firm governance, such as the proportion of family involved in managerial and cor-

porate board positions (Sirmon et al., 2008). For example, in this paper we found that the relationship between family ownership and performance is negatively mediated by FFs' weak international diversification compared with non-family firms. However, Arregle, Naldi, Nordqvist, and Hitt (2012) find that FF internationalization is positively moderated by the ratio and number of external board representatives. The implication is that potentially negative family ownership effects on firm performance can be mitigated by judicious governance choices that result in better strategic decision making.

Strategy Differences as a Source of Advantage

Through the use of meta-analytic structural equation modeling techniques, we have also been able to evaluate theory-extending hypotheses, which specify strategic pathways linking family control with performance outcomes. We harvested effects related to diversification, internationalization, and financing strategies from primary studies to assess whether they act as mediators in the family control–firm performance relationship. While the tendencies of FFs with respect to these strategies have been examined in a few earlier studies (e.g., Anderson & Reeb, 2003b; Gómez-Mejía et al., 2010), these studies offer conflicting narratives on the strategic choices FFs make and typically do not examine the performance implications of such choices (but see Sirmon et al., 2008).

Our analyses supported Hypotheses 2b, 3a, and 4b (refuting 2a, 3b, and 4a), providing new evidence regarding the complex causal chain linking family control to specific strategic choices and ultimately to firm performance. Specifically, we found that FFs' tendency to engage in fewer international ventures than non-FFs harms their performance. However, their tendencies to diversify less and make less use of debt provide them with profit-enhancing advantages. These findings suggest that the net positive effect of family control on performance (cf. Hypothesis 1a and Table 1) is partially attributable to specific strategic choices made by FF managers, rather than to inherent weaknesses in other forms of business enterprise. While these results support narratives grounded in the RBV, which emphasize the inherent advantages of FFs (e.g., Arregle et al., 2007; Miller & Le Breton-Miller, 2006; Sirmon & Hitt, 2003), a still unanswered question is: Why are non-FFs unable to close the performance gap, by imitating the performance-enhancing patterns of strategic decision making that benefit FFs? We suspect that some answers to this largely unaddressed question lie in the path-dependent resource accumulation trajectories characterizing the life cycle of FFs, which are paved with unique learning obstacles and opportunities.

For FFs, their patterns of investment in capabilities of predominantly local value, like social capital, reputation, and relational contracting (Arregle et al., 2007; Gilson, 2007), appear to hamper their ability to exploit new international business opportunities (Table 3). At the same time, FFs' need for frugality and self-sufficiency, during their formative stages, to overcome resource constraints (Carney, 2005) can harbor important learning opportunities that become imprinted in their culture and operating routines

(Gedajlovic et al., 2004). These long-learned practices born from early resource privation are likely to be difficult to imitate for less resource-constrained firms. Similarly, with respect to our diversification findings, we note that FFs often grow around a distinct set of personal interests and competencies (Carney, 2005), which reduces their inclination to invest in new businesses which lie beyond the family's knowledge set (Gómez-Mejía et al. 2010). We suspect that such restraint is more difficult to enact in non-FFs because they are more susceptible to capital market pressures compelling their managers to achieve profit and growth targets (Anderson & Reeb, 2003a). Looking forward, a challenge for future research is to more precisely identify the barriers to imitation which underlie these strategy-mediated performance advantages.

The Successor Generation Discount and its Implications for Future Research

We find that founder-led FFs are substantially more profitable than those controlled by successors (Table 5). We further observe that successor-led FFs also underperform non-family public firms, turning the founding generation premium into a successor-generation discount. While the lower performance of successor-led FFs has been documented in prior research (Villalonga & Amit, 2006), the empirical literature is largely silent on the strategic and governance choices underlying the successor discount effect. In this regard, our findings largely corroborate Villalonga and Amit's (2006) study regarding differences in the governance practices of founder- and successor-led FFs and also identify the specific concomitant strategic processes underlying the successor discount effect. In doing so, our study highlights that a consideration of *both* governance and strategy differences between founder- and successor-controlled firms provides a richer account of how rents are generated and dissipated in FFs.

In particular, we find that successor-led FFs pursue more conservative strategies by investing less in R&D and by generally avoiding risk. We also find that successor-led FFs are more likely to use dual class shares, which is suggestive of attempts to entrench family control and avoid external constraints (cf. Faccio et al., 2002). The picture that emerges of successor-led firms is one of less innovation, greater risk aversion, and more frequent reliance on governance devices to entrench family control and resist external demands for greater accountability. In contrast, founder-led FFs are more innovative and risk taking, and much more profitable. These findings suggest that while theories like the RBV may best explain the behavior and performance of founder-led FFs, theories such as PP agency theory (Young et al., 2008) and the work of Schulze et al. (2001) on asymmetric familial altruism may be more applicable to successor-led FFs.

In this regard, the FF literature has long been embroiled in an ontological debate about the appropriate definition of the FF and what constitutes "familiness" (Chrisman, Chua, & Steier, 2005). The legacy of this debate is reflected in the current notion that the essence of the FF resides in a socio-emotional wealth (SEW) endowment (Gómez-Mejía et al., 2010). Unsurprisingly, given the unresolved definitional

debate, the conceptual utility of SEW has been challenged on several counts (Miller & Le Breton-Miller, 2014). As shown in Table 1, a notable finding of our study is that, with the exception of the successor CEO definition, all of the other definitions of family firm do not matter much. Specifically, with respect to the relative performance of FFs, each of the FF definitions, whether based upon ownership or participation in management, point in the same direction and have very similar means. The implication is that the definitional debate is moot except for the founder- and successor-controlled FF distinction, which may be very different constructs. This is because SEW constitutes an endowment which is a time-dependent quality that accumulates over time, and is likely to intensify in older, late generation-managed family firms.

Thus, our findings not only provide some insights regarding possible causes of the successor generation discount, they also suggest that founder- and successor-led FFs are quite distinct in terms of their strategic behaviors. To date, the primary distinction emphasized in most FF research has been between family- and non-family-controlled firms (Hypotheses 1a and 1b). Our findings indicate that founder- and successor-led FFs may be similarly distinct, but we note that this distinction has only recently begun to be considered in empirical research (e.g., Miller et al., 2007; Villalonga & Amit, 2006). Furthermore, these few studies have tended to focus on differences in performance outcomes rather than on strategic or governance choices. As such, scarcely little beyond the results reported here (Hypotheses 5a and 5b; Table 5) is known about the strategic and governance processes that underlie the successor discount effect.

We thus see a compelling need for future research through additional primary studies, which explore strategic and governance differences between founder- and successor-led FFs, to address this important gap in the body of research. Primarily through papers examining the unique characteristics of FFs relative to other types of organizations, research published in leading management, economics, and finance journals over the past decade has successfully established the legitimacy of family business research as a unique and valuable field of study. Having surmounted this important hurdle, and on the basis of the findings reported here, we believe that the primary challenge for FF scholars' future research in the coming years will be to go beyond this distinction and to pose and probe more subtle, but no less important ones, such as those between founder- and successor-led FFs.

Comparing Public and Private Family Firms

While the vast majority of empirical research compares FFs with non-FFs, recent studies are beginning to focus on the extant heterogeneity among different types of family firms (Chua, Chrisman, Steier, & Rau, 2012). Heterogeneity is particularly evident between private and publicly listed FFs, which represent very distinct structures. Private FFs, sheltered from capital market oversight, can give greater range to their family members' non-economic interests. In contrast, publicly listed FFs, which can be viewed as "a hybrid corporate form somewhere along a continuum between private

family and public nonfamily firms" (Combs, 2008: 1029), must cope with pressure from minority shareholders for greater risk taking and short-term returns. Data comparing the two forms of family governance are not readily available, and there are relatively few studies that examine differences and similarities between private and public FFs. However, because Carney et al. (2013) employ a meta-analytical methodology on private FFs that is broadly comparable with the one used in this study, we are able to tentatively compare meta-analytical findings concerning the performance of publicly listed FFs and private FFs relative to that of their closest peers.

The first difference is that, while this study finds that publicly listed FFs enjoy a small but significant performance advantage over non-family firms, Carney et al. (2013) find no significant difference between private FFs and private non-FFs. Second, both the paper by Carney and colleagues (2013) and our study find that all FFs share a broadly similar strategic orientation with respect to internationalization and choice of capital structure. For example, both public and private FFs are less internationalized than the non-FF comparison group, and this overly domestic focus harms the performance of both private and public FFs. Similarly, both private and public FFs prefer more conservative, less leveraged capital structures. This focus on equity financing and frequently also self-financing shields FFs from the interference of banks and other external financiers, and preserves a wider latitude of action. Taken together, these results suggest that private and publicly listed FFs share many strategically relevant characteristics. However, the performance differences observed in the two studies point to the importance of external institutional determinants of FF performance. In particular, the comparison provides support for Anderson and Reeb's "efficient family firm hypothesis" (2003), suggesting that it is the combination of family oversight of the firm's professional managers *and* capital market oversight of the family itself that is responsible for the positive public FF performance effect. In this regard we note that it is not simply internal family governance mechanisms that matter for performance, and that a high quality institutional and competitive market context also plays a crucial role in enabling better FF performance.

Limitations

Consistent with our theoretical logic of institutional complementarity, we have argued that superior FF performance may in part be explained by strong capital market institutions that constrain and inhibit negative FF tendencies. The idea that firms in advanced, high-performing economies can derive competitive advantages by forging complementarities with domestic institutions is now well established in the variety of capitalisms (VoC) literature (Hall & Soskice, 2001). However, VoC scholars have not given much attention to FFs in advanced economies. Yet FFs are prevalent in advanced economies, where capital markets are relatively under-developed but whose national governance systems are based upon alternative mechanisms such as bank equity ownership and oversight of public corporations, as well as corporate boards that

feature significant stakeholder participation. Such governance systems are characterized as a continental model or a coordinated variety of capitalism (Hall & Soskice, 2001) and the arguments advanced in this paper may not apply in these settings. Hence, one limitation of this paper is that our findings are generalizable only to countries sharing a broadly liberal market form of capitalism, such as the UK, Australia, and Ireland. Future research should examine the extent to which FFs in other advanced coordinated market economies develop complementarities with prominent institutional features of their environment. Recent work has begun to identify country-specific governance bundles (García-Castro et al., 2013) as well as idiosyncratic forms of complementarity (Jansson, 2013; Van Essen, Engelen, & Carney, 2013) that are associated with advanced high-performance economies. However, much work remains to be done in this exciting area of corporate governance research.

Moreover, because we have focused in this paper on the US, an advanced economy with well-developed and functioning institutions, our arguments and findings are unlikely to be generalizable to less developed and emerging economies characterized by institutional voids. Much research has recently emerged to describe the relative competitive advantages FFs possess in emerging economies (e.g., Luo & Chung, 2005; Miller et al., 2009). The presumption in much of that literature is that the relative strengths of FFs arise from advantages they possess in developing and utilizing their social capital (e.g., Granovetter, 2005), reputational assets (e.g., Carney & Gedajlovic, 2002), and relational contracting skills (e.g., Gilson, 2007), which allow them to fill "institutional voids" (Carney, Gedajlovic, Heugens, Van Essen, & Van Oosterhout, 2011; Miller et al., 2009) more effectively than other types of firms. Theories that suggest FFs' competitive advantages lay in their capacity to function effectively in under-developed institutional environments imply that their advantages will be context-specific and unlikely to be transferable to more highly developed business environments such as the US.

In these institutional conditions, scholars propose a logic of institutional substitution to explain superior family firm performance (Heugens et al., 2009; Miller et al., 2009; Peng & Jiang, 2010). However, this view is controversial and not universally shared. Some scholars propose that national systems of corporate governance in emerging markets are characterized by institutional contradictions that fail to attain productive complementarity between external and internal systems of governance. The consequences of these contradictions point to technological and financial under-performance by domestic firms (Nölke & Vliegenthart, 2009; Schneider, 2009). In these dissenting perspectives, FFs achieve financial prominence by their political connections and favored access to resources rather than through technological and competitive prowess (Morck & Yeung, 2003). While the body of research on FF located in emerging markets is well developed, there remain open questions regarding the value of FF governance relative to alternative organizational forms, and the time may be ripe to bring this body of work under the scrutiny of the meta-analysis comparable to this study. However, because the concept of

institutional substitution is based upon different theoretical precepts, new hypotheses will need to be developed and tested to assess the body of the evidence and identify new and under-explored avenues for research. We therefore conclude that there is a compelling need for future research using cross-national comparative studies, examining the relative (dis)advantages of FFs in relation to specific types of formal and informal institutional features (e.g., legal, financial, economic, and labor market infrastructure) as well as future research which examines how their strategic and capability development processes adapt, or fail to adapt, to differing types of local conditions.

NOTES

1. The partial correlation coefficient is calculated as follows: $\sqrt{t^2/(t^2 + df)}$, where t is the t -statistic and df represents the degrees of freedom. Note that this formula will always produce positive numbers, so it is necessary to convert it to negative numbers if the regression coefficients are negative (see Greene 2008: chapter 3).
2. Fisher's Z_r transformed correlations are calculated as follows: $z_r = \frac{1}{2} \ln\left(\frac{1+r}{1-r}\right)$, where r is the untransformed correlation coefficient.
3. w is calculated as follows: $w_i = \frac{1}{se_i^2 + \hat{v}_\theta}$, where se is the standard error of the effect size and $\hat{v}_\theta$ is the random effects variance component, which is in turn calculated as: $se(z_r) = \frac{1}{\sqrt{n-3}}$, and the formula of random effect variance is: $\hat{v}_\theta = \frac{Q_T - k - 1}{\sum w - \left(\frac{\sum w^2}{\sum w}\right)}$
4. The meta-analytic mean is calculated as follows: $\overline{ES} = \frac{\sum (w \times ES)}{\sum w}$, with its standard error: $se_{\overline{ES}} = \sqrt{\frac{1}{\sum w}}$, and

with its 95 percent confidence interval computed as: $Lower = \overline{ES} - 1.96(se_{\overline{ES}})$, $Upper = \overline{ES} + 1.96(se_{\overline{ES}})$

5. To test for moderating effects of FF strategy and control variables on the FF-performance relationship, we estimate the partial correlation coefficient ($r_{xy.z}$) between family control and firm performance against a constant, a vector of study characteristics and methodological artifacts, and whether a particular FF strategy or control variable is used in the regression or not (cf. Doucouliagos & Ulubaşoglu, 2008). Specifically, this yields the following regression equation:

$$R_i = y_0 + y_m D_i + \beta_m S_i + \phi R + u_i$$

- where R_i is the partial correlation between family control and firm performance, y_0 is the constant term, D is a vector of study characteristics, sample and methodological artifacts, S is a vector of measurement artifacts; R is a vector of whether a particular FF strategy or control variable is included in the regression or not, and u_i is the random component. In our case, the S -vector contains the following variables: (1) diversification, (2) leverage, (3) risk, (4) firm size, and (5) whether a study controlled for year and industry effects. A statistically significant effect for any of these variables signifies the presence of a moderating effect by detecting that the focal relationship becomes significantly stronger or weaker when the variable under scrutiny is accounted for in the regression work of primary studies.
6. The robustness checks we performed consisted of different HOMA analyses on subgroups of our data that (a) consisted of primary studies that had non-overlapping time periods, so that when two or more samples included overlapping firm-year observations, we retained only the largest sample and excluded the smaller one(s), (b) conducted a separate HOMA test in which all studies were represented by a single value by combining all individual measurements of the focal effect into a linear composite (Hunter & Schmidt, 2004: 457–460). Finally, we ran a separate hierarchical linear modeling meta-analysis (Raudenbush & Bryk, 2002; Van Essen et al., 2012), in which we modeled effect sizes (level 1 observations) as being nested in studies (level 2 observations). The results of these robustness checks are not reported here due to space constraints but are available on request.

APPENDIX A

Studies Included in the Meta-Analysis^a

Author	Year	Journal	Author	Year	Journal
Adams, Almeida and Ferreira	2005	RFS	Fich and Slezak	2008	RQFA
Adams, Almeida and Ferreira	2009	JEF	Gómez-Mejia, Makri and Larraza-Kintana	2010	JMS
Ali, Chen and Radhakrishnan	2007	JAE	Hadani	2007	BS
Anderson, Brouthers and Reeb	2009a	WP	He	2008	JBV
Anderson, Duru and Reeb	2009b	JFE	Hufftt	1999	WP
Anderson, Duru and Reeb	2009c	WP	Hwang and Kim	2009	JFE
Anderson, Mansi and Reeb	2003a	JFE	Jayaraman et al.	2000	SMJ
Anderson and Reeb	2003b	JF	Jiraporn and DaDalt	2009	AEL
Anderson and Reeb	2003c	JLE	Jones, Makri and Gómez-Mejia	2008	ETP
Anderson and Reeb	2004	ASQ	Khan, Hadani and Das	2007	IJABW
Baber, Kang and Liang	2005	WP	Le Breton-Miller, Miller and Lester	2011	OSC
Bagnoli, Liu and Watts	2011	AF	Lee	2004	ADMJ
Barnes, Harikumar and Roth	2005	JBER	Lee	2006	FBR
Basu, Dimitrova and Paeglis	2009	JBF	Martikainen, Nikkinen and Vahamaa	2009	QREF
Bathala	1996	FR	McConaughy et al.	1998	RFE
Bauguess and Stegemolle	2008	JCF	Miller, Block and Jaskiewicz	2010	WP
Berrone et al.	2010	ASQ	Miller, Le Breton-Miller and Lester	2011	JMS
Berrone and Gómez-Mejia	2009	AMJ	Miller, Le Breton-Miller and Lester	2010	SMJ
Block	2010a	WP	Miller et al.	2007	JCF
Block	2010b	WP	Mishra and McConaughy	1999	ETP
Block	2010c	FBR	Morck, Shleifer and Vishny	1988	JFE
Block, Jaskiewicz and Miller	2010d	WP	Nelson	2003	SMJ
Block and Thams	2008	WP	Palia and Ravid	2002	WP
Block and Wagner	2010e	WP	Palia, Ravid and Wang	2008	JRE
Boland, Golden and Tsoodle	2008	JAAE	Shivdasani and Yermack	1999	JF
Chaganti and Damanpour	1991	SMJ	Srinivasan	2005	JAR
Chakraborty and Sheikh	2008	IFR	Stavrou, Kassinis and Filotheou	2007	JBE
Chan, Chen and Hilary	2010	WP	Tinaikar	2008	WP
Chen	2006	WP	Tong	2008	AIA
Chen, Chen and Cheng	2008a	JAR	Vaknin	2010	WP
Chen et al.	2008b	WP	Villalonga and Amit	2006	JFE
Chen et al.	2010	JFE	Villalonga and Amit	2009	RFS
Chen, Cheng and Dai	2007	WP	Villalonga and Amit	2010	FM
Chen and Dasgupta	2010	WP	Wang	2006	JAR
Davis and Stout	1992	ASQ	Webb	2006	CG
Dyer and Whetten	2006	ETP	Willard, Krueger and Feeser	1992	JBV
Fahlenbrach	2009	JFQA	Yalin	2008	DIS

^aADMJ: *Advanced Management Journal*; AEL: *Applied Economics Letters*; AF: *Annals of Finance*; AIA: *Advances in Accounting*; AMJ: *Academy of Management Journal*; ASQ: *Administrative Science Quarterly*; BS: *Business Society*; CG: *Corporate Governance*; ETP: *Entrepreneurship Theory and Practice*; FBR: *Family Business Review*; FM: *Financial Management*; FR: *Financial Review*; IFR: *International Finance Review*; IJABW: *International Journal of the Academic Business World*; JAAE: *Journal of Agricultural and Applied Economics*; JAE: *Journal of Accounting and Economics*; JAR: *Journal of Accounting Research*; JBE: *Journal of Business Ethics*; JBER: *Journal of Business Economics Research*; JBF: *Journal of Banking & Finance*; JBV: *Journal of Business Venturing*; JCF: *Journal of Corporate Finance*; JEF: *Journal of Empirical Finance*; JF: *Journal of Finance*; JFE: *Journal of Financial Economics*; JFQA: *Journal of Financial and Quantitative Analysis*; JLE: *Journal of Labor Economics*; JMS: *Journal of Management Studies*; JRE: *Journal of Regulatory Economics*; OSC: *Organization Science*; QREF: *Quarterly Review of Economics and Finance*; RFE: *Review of Financial Economics*; RFS: *Review of Financial Studies*; RQFA: *Review of Quantitative Financial and Accounting*; SMJ: *Strategic Management Journal*; WP: *Working Paper*.

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