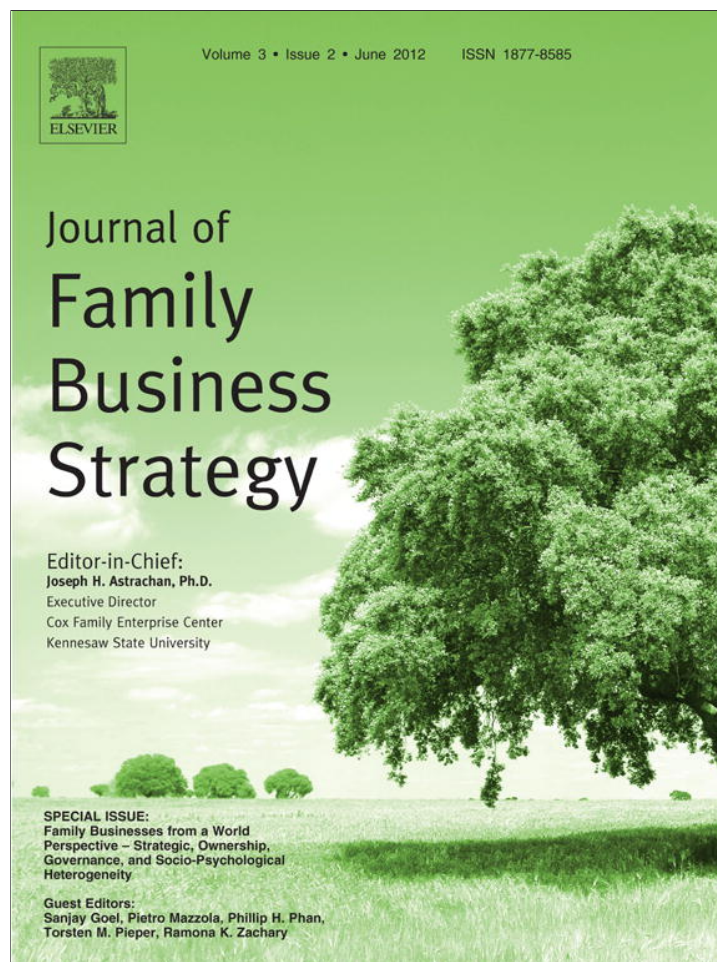


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## The relationship among family business, corporate governance and firm performance: Evidence from the Mexican stock exchange

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### ABSTRACT

This study aims to examine whether there are differences in performance between family and non-family firms, taking into account the peculiarities of the Mexican corporate governance system. We propose an analysis that allows us to conduct a comprehensive study and comparison between companies with different (i.e., family vs. non-family) ownership structures, distinguished by developed patterns of governance with heterogeneous characteristics. We also analyze the effects on firm performance depending on the degree of ownership concentration. We find that family firms adopt substantially different corporate governance structures to non-family firms. There is some evidence to suggest that these differentials ultimately impact upon firm performance.

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### 1. Introduction

In thinking about family business and firm performance, an important question is, does family ownership per se increase or decrease firm performance? This is not a question easy to answer. With regard to U.S. firms, we can find different answers. Anderson and Reeb (2003) find that family firms have a better performance than non-family firms, although Holderness and Sheehan (1988) find the opposite. These conflicting and ambiguous empirical findings led O'Boyle, Pollack, and Rutherford (2012) to develop a meta-analysis. As a result, they propose to refine measurement of family involvement as a multidimensional construct. Therefore, whether family firms have a better or worse performance is an empirical question that depends on many aspects, including the context of each country and their influence on the ownership structure. La Porta, Lopez de Salinas, Shleifer, and Vishny (1997) argue that the legal system operating in each country determines the ownership structure. They show that civil law countries with low protection granted to shareholders cause a trend toward greater concentration of ownership and consequently, a larger proportion of family firms. On the other hand, common law countries tend to protect shareholders more, leading to a greater degree of ownership dispersion. In summary, the authors show that there is a relationship between the degree of shareholder protection and the degree of ownership concentration.

Considering family companies where it is more difficult to mitigate agency problems, Jensen and Meckling (1976) and Morck, Shleifer, and Vishny (1989, 1990) find empirical evidence of agency problems and the mechanism by which owners are constrained. Fama and Jensen (1983) argue that concentrated companies with overall control tend to exchange benefits for private rents. Demsetz (1983) explains that the owner chooses the consumption of non-pecuniary resources at the expense of resources for profitable projects. Morck, Shleifer, and Vishny (1988) find a nonlinear relationship between ownership concentration and firm value. Some authors show that, on average, the concentration has a negative effect on the value of the company. Shleifer and Vishny (1997) provide evidence that controlling shareholders try to extract benefits from the firm and that this is more accentuated as they have more control of the firm. Morck, Stangeland, and Yeung (2000) and Perez-Gonzales (2001) argue that family firms hire relatives in important positions in the company, although they are less efficient than professional managers available on the market. Sacristan-Navarro, Gomez-Anson, and Cabeza-García (2011) do not find results that support the idea that any shareholders' combination influences significantly family firm performance. Other authors such as Barclay and Holderness (1989), Barclay, Holderness, and Pontiff (1993), Bebchuk (1999), Claessens, Djankov, Fan, and Lang (2002), Faccio and Lang (2001), Johnson and Mitton (2002), Morck et al. (2000), Nenova (2000) and Rajan and Zingales (2001) argue that concentrated ownership causes an exchange of corporate profits for private benefit. Moreover, family business may tend to not maximize profits because they are not able to separate economic preferences of the owner from other interests, thus being at a disadvantage compared to non-family companies.

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That family business is less efficient is not a widely accepted view. Demsetz and Lehn (1985) show that by ownership concentration and control, managers can mitigate the problems of managerial expropriation. By placing relatives in key positions, there is more possibility of monitoring and controlling the company by the family. Shleifer and Vishny (1986) find a positive relationship between ownership concentration and performance, while Claessens and Djankov (1999), DeAngelo and DeAngelo (2000), Faccio and Lang (2001), Friend and Lang (1988), Johnson, Magee, Nagarajan, and Newman (1985) and Singell (1997) argue that large shareholders can mitigate the managerial expropriation in companies with concentrated ownership and control. This occurs because family firms have relatives inside the company who know the business better, as they have a longer time in the business or are the founders. Also, James (1999) finds that the family firms have a greater efficient investment because they have longer investment horizons that can mitigate the problem of myopic short time investment decisions by managers. Basco and Perez (2011) find that family firms can achieve successful business results by using a combination of family and business orientation in their decisions making. Wang (2006) argues that family firms have no incentive to behave opportunistically as the board is willing to adopt policies to reverse damage to the reputation of the family and improve performance in the long term. Others (Claessens et al., 2002; Gorton & Schmid, 1996; Himmelberg, Hubbard, & Palia, 1999; Holderness, Kroszner, & Sheehan, 1999; La Porta, López de Silanes, & Shleifer, 2002; Lee, 2006; Morck et al., 1988; Shleifer & Vishny, 1997) find evidence that family firms show a better performance than non-family companies. Therefore, the relationship between ownership structure and performance is an empirical question with contrasting results. We can find literature with negative, positive and endogenous relationships across different countries.

There is growing evidence that family firms retain their advantages in more developed economies and in highly codified legal environments. However, the superior performance of family firms is even more evident in emerging markets where they are viewed as the “engines” of the economy (Whyte, 1996). Large family controlled business groups are dynamic and versatile, and they account for a significant proportion of gross national product in high-growth emerging markets (Carney, 2005; Claessens et al., 2002). In Mexico, a majority of firms, as in most developing countries, are considered family businesses. Regardless of size, the most dominant companies are owned and managed by one or more families, either the founders or their descendants. Nevertheless, very few studies refer to Mexican family businesses. The principal reason for the absence of these studies has been the difficulties of gaining access to information on ownership and control structures of the companies.

In this research, we studied the relationship between family ownership and firm performance considering all the companies listed in the Mexican Stock Exchange. We used a data panel model to show the performance differences between family and non-family firms. To measure performance, we used accounting and market data through cross-sectional comparisons between family and non-family companies. We also show whether family members exert active control on the company and the effects of this control. Our main focus is to find the relationship between family ownership and firm performance answering questions like: Does family ownership per se increase performance or decrease it? Does family management per se increase performance or decrease it? While prior research has focused on how different incentives of family members impact on performance, the purpose of this paper is to examine the relationship between family control and other internal control mechanisms on performance. In this way we try to disentangle if they are potentially substitutes or reinforcing

components depending on the ownership structure (family and non-family firms).

The remainder of this paper is structured as follows. Section 1 provides an explanation of family companies and the Mexican context, while Section 2 presents the data collection and summary statistics. We continue with Section 3 and describe the methodology used, while Section 4 presents our empirical results. Section 5 discusses government mechanism and ownership structure, and finally, in Section 6, we present the conclusions of our research.

## 2. Family firms, corporate governance and firm performance

The agency relationship between owners and managers has intrigued researchers for many years. The central premise of agency theory is that managers, as agents of shareholders (principals), can engage in decision making and behaviors that may be inconsistent with maximizing shareholder wealth (Daily, Dalton, & Rajagopalan, 2003). This delegation of authority exposes agents to risks for which they are not fully compensated, giving them incentive to seek additional compensation through non-compensatory means such as free-riding or shirking (Jensen & Meckling, 1976). It also creates information asymmetries that make it possible for agents to engage in activities that, if left unchecked, would threaten firm performance and may ultimately harm the welfare of owners and agents alike. Information asymmetries and incentives therefore combine and pose a moral hazard to agents, which owners can reduce by monitoring agents conduct, gaining access to their firms' internal information flows, and providing incentives that encourage agents to act in the owners' best interests (Schulze, Lubatkin, Dino, & Buchholtz, 2001).

Accordingly, Jensen and Meckling (1976) conclude that the cost of reducing information asymmetries and the accompanying moral hazard are lowest when owners directly participate in the management of the firm. Owner managed firms thus have little need to guard against this agency threat. Thus, according to agency theory, one could argue that family involvement in ownership and management of the business should be more efficient than in firms where there is a separation between ownership and control, given the problems of opportunistic behavior of the agent with respect to the principal and the costs associated with supervision (Cabrera, De Saá, & García, 2000).

### 2.1. Family firms

As an indication of the relatively undeveloped state of research in family business management, there is still no consensus on how to define a family business (Chua, Chrisman, & Sharma, 1999; Steier, Chrisman, & Chua, 2004). The family business classification into “wide”, “intermediate” and “restrictive”, proposed by Shanker and Astrachan (1996) provides a way to overcome this ambiguity. The wide definition considers a company as a family business when the family members approve the main corporate strategies, even though they do not participate in their formulation. The intermediate definition of family firms considers those businesses where founders or their descendants control the company and strategic decisions, and have some direct involvement in the implementation of these strategies. The family is directly involved in management but not exclusively. Finally, the restrictive definition regards a family business as a company where several generations of a family have control and an active presence in the management. Therefore, family involvement at different levels of management and execution is very intense. The family monopolizes the ownership and management of the company. Le Breton-Miller, Miller, and Steier (2004) do not explicitly define a family firm, but they assume that in this type of firm leadership will pass from one family member to another during the succession

process. In the absence of a competent family contender in the short-term, a non-family manager can assume momentarily the leadership role between family tenures. Zahra, Hayton, and Salvato (2004) define family firms according to the presence of both a family member with some identifiable share of the ownership of the firm and multiple generations of family members in leadership positions within that firm. Morck and Yeung (2004) use the family control criteria to identify family firms as follows: (1) the largest group of shareholders in a firm belongs to a specific family, and (2) the participation of that family is greater than 10 percent of the voting shares. Chrisman, Chua, and Litz (2004) build on previous work (Chrisman, Chua, and Steier, 2002; Chua et al., 1999) and measure family involvement along the following dimensions: ownership, management, and an expectation of trans-generational management succession within the family. Anderson, Mansi, and Reeb (2002) consider that shareholders of family firms are different from other shareholders in at least two aspects: the family's interest in the long-term survival of the company's and its interest in the company's reputation. Casson (1999) and Chami (1999) argue that family businesses consider the company as an asset to be inherited by family members or descendants and not as wealth to consume during their lifetime. Thus, the survival of the firm is a major concern for families, suggesting that they have a higher probability of maximizing the company value. Villalonga and Amit (2006) argue that most definitions include at least three dimensions: one or several families hold a significant part of the capital; family members retain significant control over the company, which depends on the distribution of capital and voting rights among non-family shareholders, with possible statutory or legal restrictions; and family members hold top management positions. In addition, Chrisman, Chua, and Sharma (2005) differentiate between definitions that focus on components of family business, such as ownership, governance, management, and trans-generational succession, from the essence approach. The latter emphasizes the behavioral and cultural aspects of a family business, including the intent of the family to keep control, firm behavior, and idiosyncratic resources that arise from family involvement. Colli, Fernandez-Perez, and Rose (2003) propose the following conditions for a family business: a family member is chief executive, there are at least two generations of family control, and a minimum of five percent of voting stock is held by the family or trust interest associated with it. Similarly, Miller and Le Breton-Miller (2003) define the family firm as one in which a family has enough ownership to determine the composition of the board, where the CEO and at least one other executive is a family member, and where there is an intent to pass the firm onto the next generation. Habbershon and Williams (1999) propose a definition that considers a dominant or controlling coalition that shapes the vision of a firm across generations. Each definition possesses three core elements pertaining to ownership and control; family involvement in management; and the expectation, or realization, of family succession (Carney, 2005).

However, a consensus definition may not represent a pertinent research goal because, by nature, family businesses are contingent on the institutional legal and cultural context, which differs from country to country (Allouche, Amann, Jaussaud, & Kurashina, 2008). Differences in institutional and cultural contexts suggest that it may be a mistake to assume that a generic definition of family firm will prevail across societies. In some contexts, effective control may require an absolute majority of voting stock to be concentrated in the hands of the family. In others, the use of dual-class shares may afford effective control with significantly less than an absolute majority of equity ownership. The strategic control of a firm's assets can also be attained with low ownership levels through the establishment of pyramids and cross-holdings (Claessens, Djankov, & Lang, 2000). Also, the existence of covenants

may allow the family to appoint the chief executive officer or board members, or even bypass the board for certain decisions (Carney, 2005). Therefore, a unique or universal definition of family business may be misleading, because it cannot take into account fundamental differences of various legal and institutional frameworks (Carney, 2005; Dyer, 2006). This question makes sense in the case of Mexico, where families play an essential role in defining the corporate governance practices, and the predominance of family corporate structure has been explained in terms of conflict theory, assuming a framework to protect inefficient property rights (Allouche et al., 2008; La Porta, López de Silanes, Shleifer, & Vishny, 2000)

### 2.1.1. The benefits of family ownership

Based on Jensen and Meckling's (1976) study, Schulze et al. (2001) argue about three reasons for family firms to reduce agency cost significantly. First, owner management should reduce agency costs because it naturally aligns the ownership and management interests about growth opportunities and risk. This alignment reduces their incentive to be opportunistic, sparing firms the need to maintain costly mechanisms for separating the management and control of decisions (Fama & Jensen, 1983). Second, private ownership should reduce agency costs because property rights are largely restricted to "internal decision agents" whose personal involvement assures that managers will not expropriate shareholder wealth through the consumption of and the misallocation of resources (Fama & Jensen, 1983). Finally, family management should further reduce agency costs because shares tend to be held by agents whose special relations with other decision agents allow agency problems to be controlled without separating the management and control decisions. Therefore, family firms have advantages in monitoring and disciplining agent's decisions (Fama & Jensen, 1983). Essentially, families in family firms have an additional incentive to counteract the free rider problem that prevents atomized shareholders from bearing the costs of monitoring, ultimately reducing agency costs (Bartholomeusz & Tanewski, 2006). Jensen and Meckling (1976) also argue that the control of the property can be advantageous, family firms have a longer investment horizons, so it will take long-term profitable projects, because they want the company to persist in time and to be inherited by family members. James (1999) argues that families have a longer investment horizon. It is suggested that family owners view the firm as an asset to be passed on to subsequent generations (Chami, 1999), leading to strict adherence to maximizing the value of the firm, while Stein (1988, 1989) finds that firms with higher investment horizons are less myopic, maximizing long-term benefits. Demsetz and Lehn (1985) show that family firms with high ownership concentration have a lower cost of supervision due to lower agency costs, achieving greater efficiency and maximizing the value of the company. Additionally, a family's special technical knowledge concerning a firm's operations may put it in a better position to monitor the firm more effectively (Bartholomeusz & Tanewski, 2006). Grossman and Hart (1980) argue that firms with high ownership concentration show a better performance than those companies whose ownership is dispersed, as a result of the increased incentives for better supervision by the former. Maug (1998) and Shleifer and Vishny (1997) argue that family business owners are always trying to minimize the risk of the company, so that family businesses do not focus its efforts on investments with high levels of risk. Anderson et al. (2002) argue that atomized shareholders have an incentive to take on risky projects with a view to expropriating the wealth of bondholders. Family members, because of their concentrated shareholding, long-term interest, and concern for reputation, have a fundamental different risk profile to typical equity holders. As a consequence, they are more likely to maximize

the overall value of the company reducing the agency cost of debt. Chrisman et al.'s (2004) findings suggest that agency problems in family firms might be less serious than in non-family firms. However, recent research suggests that agency issues in family firms are more complex than previously believed (Gomez-Mejia, Larraza-Kintana, & Makri, 2003; Steier, 2003). Specifically, entrenched ownership could create its own unique agency problems that must be controlled (Gomez-Mejia, Nuñez-Nickel, & Gutierrez, 2001; Schulze et al., 2001; Schulze, Lubatkin, & Dino, 2003; Steier, 2003).

### 2.1.2. The costs of family ownership

There is also a line of thought within the agency theory that proposes that family control creates agency costs. It has been suggested that family control provides family members with a unique opportunity (not available to other shareholders) to use their concentrated blockholding to expropriate the wealth of outside shareholders (Anderson et al., 2002; Anderson & Reeb, 2003; Perez-Gonzales, 2001). By exercising this power, corporate governance in family firms may become inconsistent with wealth maximization. Shleifer and Vishny (1997) provide evidence that controlling shareholders try to extract benefits from the firms as they have more control of the firm. In an analysis conducted for non-listed firms in Spain, Arosa, Iturralde, and Maseda (2010) arrived to similar results. In first-generation family firms the results show a positive relationship between ownership concentration and corporate performance at low level of control rights as a result of the monitoring hypothesis and a negative relationship of high level of ownership concentration as a consequence of the expropriation hypothesis. Morck et al. (2000) and Perez-Gonzales (2001) argue that family firms hire relatives in important positions in the company, even though they are less efficient than professional managers who are available on the market. Anderson et al. (2002) add the possibility of risk avoidance, that is, because of their undiversified exposure, family firms may use their firm's control to avoid risks acceptable to other more diversified shareholders. Morck and Yeung (2003) note the potential for a family business group to organize itself into a pyramidal control structure that facilitates the expropriation of wealth from non-family shareholders in family subsidiaries to family holding companies. It is asserted that agency costs in family business groups stem from either management not acting for the shareholders, or rather, acting only for the interests of family shareholders. The logic behind this idea is straightforward. Assuming the effects of leverage to be constant, shareholders only benefit when management attempts to maximize the value of the company. If families in family firms are able to derive benefits through means that are not shared with other non-family shareholders, their actions may not be consistent with maximizing the value of the company (Bartholomeusz & Tanewski, 2006).

Moreover, due to their ownership, family members enjoy certain control rights over the firm's assets and use these rights to exert influence over decision-making processes in the organization. This combination of ownership and control in a family can generate an excessive role by the owner through its leadership, which can lead to problems of management entrenchment. The entrenchment hypothesis is based on the argument that ownership concentration creates incentives for large shareholders or controlling shareholders to expropriate wealth from other small shareholders (Fama & Jensen, 1983; Shleifer & Vishny, 1997). In this sense, authors such as Fama and Jensen (1983) find that companies with high concentration of ownership change benefits for private income. Shleifer and Vishny (1997) argue that companies with concentrated ownership try to obtain private profit from the businesses, and Gomez-Mejia et al. (2001) find that managers of the family members are less responsible than

externals. Finally, Faccio and Lang (2001) argue that family companies present a poor performance as the families involved try to increase their own wealth and ensure their personal interests at the expense of small shareholders. They are able to expropriate wealth from the firm through excessive compensations, special dividends, and even make suboptimal decisions resulting in a lower performance for family firm than non-family firm.

Academic literature emphasizes differences in corporate variables between family and non-family firms, such as board characteristics; for example, family dynamics undermine the effectiveness of outside directors. The advantages of outside directors in widely held firms are clear (Schulze et al., 2001), as they are better able to monitor firm performance, oversee discipline, or even dismiss managers when they are not beholden to the firm (Finkelstein & D'Aveni, 1994; Lin, 1996; Walsh & Seward, 1990). They also bring needed expertise and perspective to boards which might otherwise lack these skills (Finkelstein & Hambrick, 1996). Despite the advantages of outside directors, family firms are less likely to use them. First, outsiders almost never attain the status of large-block ownership that they sometimes do in widely held firms, and they are likely to be less motivated than family directors (Alderfer, 1988). Second, while their "impartial" status can enhance their ability to offer advice on some decisions, they have little influence on decisions involving family members or other family matters (Nelsen & Frishkoff, 1991). Finally, the tendency of family firm CEOs to appoint outside directors to their boards who are close friends and have a relationship with the firm limit their critical contribution (Ward & Handy, 1988). As Garcia-Ramos and Garcia-Olalla (2011) find, owners choose independent directors people who are not truly independent, but have a friendly or contractual relationship with the company or its founders. Thus, "handpicking" outside directors for reasons other than strong board oversight can undermine their effectiveness (Rubenson & Gupta, 1996). Consequently, we anticipate problems associated with family firms and composition of their boards of directors.

Finally, the last theme highlights the reduced recourse to debt (Gallo & Vilaseca, 1996; McConaughy, Matthews, & Fialko, 2001). Indebtedness reinforces financial risk (Nam, Ottoo, & Thornton, 2003) which correlates positively with the risks of bankruptcy and loss of control (Gilson, 1990). The aversion of family business to debt is all the stronger for current liabilities (Mishra & McConaughy, 1999) which are associated most strongly with the risk of loss of control (Allouche et al., 2008).

### 3. The Mexican context

Mexican firms, as in most developing countries, take the shape of family businesses. Regardless of size, the most dominant companies are owned and managed by one or more families. Nevertheless, very few studies refer to Mexican family firms, being the principal reason the difficulties of gaining access to information on ownership and control structures of the companies.<sup>2</sup> Despite these difficulties, it is clear that two main features characterize the ownership and control structures of most companies in Mexico. First, these companies present a much higher ownership concentration and second, many firms are directly or indirectly controlled by one of the relatively numerous industrial, financial or mixed conglomerates. A conglomerate is a group of firms linked to each other through ownership relations

<sup>2</sup> Accessibility was drastically improved in 2002, when the annual reports of listed companies, which are submitted to the National Banking and Securities Commission (in Spanish [www.cnbv.gob.mx](http://www.cnbv.gob.mx)) of Federal Government began to be placed on the web page of the Mexican Stock Exchange (in Spanish Bolsa Mexicana de Valores, BMV).

and controlled by a local family, or a group of investors. Usually, conglomerates are controlled by the dominant shareholders through relatively complex structures, including the use of pyramids, cross-holdings, and dual class shares.<sup>3</sup> In Mexico, families play an essential role defining the corporate governance practices. Analytically, the predominance of family corporate structure has been explained in terms of conflict theory, assuming a framework to protect inefficient property rights (Castillo-Ponce, 2007). In this context, the choice of maintaining the company in the hands of the family is a rational decision. This choice represents for the owner of the company the appropriate strategy to increase his share value. This result is consistent with Shleifer and Vishny (1997) who found an inverse relationship between the protection of shareholders rights and the corporate ownership concentration. La Porta, Lopez-de-Salinas, Shleifer, and Vishny (1999) clearly document that in most developing economies family firms have a high level of ownership concentration. San Martín (2010) finds evidence that different governance mechanisms are redundant when they have strong investor protection.

High ownership concentration and conglomerate structures also have an important effect on the board composition. Most board members in Mexican companies are related to controlling shareholders through family ties, friendship, business relationships and labor contracts. Babatz (1997) and Husted and Serrano (2001) show that 53 percent of the directors or senior executives of the company are also directors of others companies of the same group, or are relatives of executives of the company. According to Castañeda (2000), in most Mexican firms, the president of the board is usually the main stockholder and the chief executive officer; therefore he or she practically does not have opposition from independent board members. On average, only 20 percent of the firms present a majority of external members on the board and this fact does not necessarily mean independence, since they could be related to another company of the same business group. Besides, on average, 35.2 percent belong to the president's family and 38.7 percent are executive managers, and around 57 percent of board members are employees or relatives of the president. As we can see, the companies' composition in Mexico is very peculiar because family firms in this country have a high ownership concentration. Thus, in Mexico, a definition of a family firm normally implies that the founder or family members hold more than 50 percent of the property. In comparison, in other countries' studies to classify as a family business depends on whether the founder holds more than 20 or 30 percent of the property, or that the CEO is a member of the family.

It is important to say that the Mexican corporate system has much in common with the European or Latin-American corporate governance models. It does not show so much professional management and specialized control as the Anglo-Saxon one. In Mexican companies ownership is more concentrated (Barca & Becht, 2001; Faccio & Lang, 2002; Khanna & Palepu, 1999; La Porta et al., 1999). More specifically, the Mexican corporate system concentrates ownership in large blocks of shareholders (mainly families), which implies a majority control. The same is true in countries such as France, Spain, Germany or Italy, but very different to the US system (Berglöf, 1990; De Andres, Azofra, & Lopez, 2005; La Porta et al., 1999, 2000; Prowse, 1994; Shleifer & Vishny, 1997). These characteristics mean a lower ownership and control separation compared to Anglo-Saxon companies. On the one hand, agency problems stemming from ownership and control separation could be smaller than for US companies. But, on the other hand, some problems such as risk concentration, the forgoing

of specialization advantages (managers ability, specific investment, etc.), or minority shareholders expropriation could arise (De Andres, Lopez, Rodriguez, 2005; La Porta, López de Silanes, Shleifer, & Vishny, 1998).

We test four hypotheses, which we developed on the basis of the literature reviewed. Academic literature pertaining to agency theory (Fama & Jensen, 1983) which stresses the reduced agency costs for family business and the concept of reduced "managerial myopia" (Stein, 1988, 1989), predicts stronger performance for family business. Reduced agency costs should lead to increased profitability. Additionally, if family business managers have longer-term perspectives than managers in non-family companies, thus the family business must have a better performance than non-family firms (Harvey, 1999). Based on the previous discussion, we propose the following hypotheses:

**H1.** On the Mexican Stock Exchange, family firms perform better than non-family firms.

**H2.** The effect of governance mechanisms on performance depends on the ownership structure of the company.

Board characteristics are different between family and non-family firms. Family dynamics weaken the effectiveness of outside directors, because the appointment of independent directors in family firms could be influenced by possible personal ties with the controlling family. Therefore, there is an expectation that they (independent directors) would support unconditionally important decisions. In this way, the independence of outside directors in family-controlled companies could be ineffective (Chen & Jaggi, 2000), which leads us to formulate the following hypothesis.

**H3.** Board characteristics (that is, the proportion of insiders, outsiders and affiliates) have a different influence on performance in family firms than in non-family firms.

Furthermore, academic literature emphasizes differences in the financial structure between family firms and non-family firms, such that family firms tend to take more cautious attitudes toward debt. The main challenge of family companies is to promote growth without calling into question the permanence of family control (Goffee, 1996). Such an approach is consistent with the theory of longer-term perspectives by family firms (Allouche et al., 2008). Therefore, we propose the following hypothesis:

**H4.** In family firms performance is inversely related to financial leverage.

## 4. Sample and data collection

### 4.1. The sample

The sample includes the companies listed in the Mexican Stock Exchange for the period 2005–2009. Out of 132 listed companies, non-profit companies, companies that do not include enough information in its financial statements, as well as financial institutions, were excluded. The latter are not comparable to other industries and there are some difficulties in calculating Tobin's Q for banks. We were thus left with 90 companies. We obtained the annual reports and financial indicators from *Economática*,<sup>4</sup> and *Isi Emerging Markets*. Information about industrial sector was obtained from company annual reports published by the Mexican Stock Exchange on its website.

Table 1 shows the companies that make our sample, according to its ownership structure and the sectors to which they belong.

<sup>3</sup> Usually, class A shares convey a full voting rights and are tightly held by the controlling family. Most traded stocks have limits regarding voting rights and are held by the minority shareholders (Castañeda, 2000).

<sup>4</sup> This is an important data base that contains financial and economic data of the Mexican firms.

**Table 1**  
Number and percent of family and non-family firms by sector (Mexican Stock Exchange—BMV).

Sector	FAM	NO FAM	Total	%FAM	%NO FAM
Materials	10	8	18	11.11	8.88
Industrial	17	5	22	18.88	5.55
Services and goods of consumer non-basic	12	5	17	13.33	5.55
Common consumer products	16	4	20	17.77	4.44
Health	3	1	4	3.33	1.11
Telecommunications services	6	3	9	6.66	3.33
Total	64	26	90	71.11	28.88

Source: [www.bmv.com.mx](http://www.bmv.com.mx).

Number and percent of firms by sector agree with Mexican Stock Exchange classification code. Family (non-family) refers to those firms with (without) family ownership. Percent family firms in industry is computed as the number of family (non-family) firms divided by the total number of firms of the sample.

Thus, 71.11 percent were considered as family firms and 28.88 percent as non-family firms.

Certainly, the companies in the sample are basically medium to large companies compared with the average Mexican firm size either in terms of assets, sales or employees. This could raise some caveats about a possible sample bias. Notwithstanding, descriptive statistics in Panel A of Table 2 show that firm size (in terms of assets) is quite heterogeneous and highly dispersed around the mean value, so it can be reasonably assumed that results are not biased by size issues. The sample composition by sector reflects quite closely the Mexican economic structure.

**Table 2**  
Descriptive data for family and non-family firms.

Variables	Mean	S.D.	Min	Max
<b>Panel A: descriptive statistics</b>				
FAMOWN (%)	0.71	45.47	0	1
CFAM (%)	0.42	49.44	0	1
Q	1.28	0.67	0.19	3.62
IND	4.69	3.13	0	14
SHA	5.36	2.68	0	17
AFF	1.50	2.48	0	10
DEBT	0.40	0.20	0.01	1.11
LTA	37 155	77 290	153	623 647
<b>Panel B: summary statistics for the family sample</b>				
Family				
Q	1.28	0.62	0.19	3.62
IND	4.98	2.12	1	9
SHA	5.36	2.81	3	17
AFF	1.30	2.30	0	9
DEBT	0.41	0.19	0.02	1.11
LTA	15.651	1.83	11.129	19.392
Assets	36 648	65 910	153 081	438 163
<b>Panel C: summary statistics for the non-family sample</b>				
Non-family				
Q	1.29	0.77	0.19	3.45
IND	5.63	2.65	0	17
SHA	3.87	3.02	0	11
AFF	2.00	2.82	0	10
DEBT	0.40	0.20	0.01	1.02
LTA	15.37	1.956	11.129	19.081

Panel A presents the descriptive statistics for performance, ownership concentration (families), board structure, leverage and other control variables. Assets are in millions of pesos. The sample period is the financial year 2005/2009. Panels B and C provide summary statistics for the data employed in our analysis segmented by ownership structure (family and non-family). The data set comprises 90 firms listed in the Mexican Stock Exchange for the period 2005–2009. Performance of the firm measured by Tobin's Q or the asset market-to-book ratio measures the performance of the firm. Family firms are companies where the founder or family member holds more than 50 percent ownership and are represented by FAMOWN. CFAM is a binary variable that indicates if the CEO is or not a family member. Board structure includes IND (number of independent director in the board), SHA (number of shareholder director in the board) and AFF (number of directors who are not full-time employees but have relationships with the company). Leverage (DEBT) is total liability/total asset that is measured as the book value of debt divided by the book value of total assets. Firm size is represented by total assets, which we measure as the natural log of the book value of total assets, LTA.

#### 4.2. Measures of firm performance and control variables

The data comprise a number of features of the companies such as ownership, control structure, size of board, leverage and market valuation. In Appendix A, we include a list with the detail of all these variables. Now let us describe briefly the most important issues related to the specification of the variables.

A key aspect of our study is to define how we will differentiate between family and non-family companies. In some works, such as Anderson and Reeb (2003), they consider the proportion of ownership of the founding family and family presence on the board. Similarly, authors, such as McConaughy et al. (2001), consider a company as a family-owned company when the CEO is from the controlling family. We adopted as a definition of family control that was used by Mroczkowski and Tanewski (2007), who define a family-controlled firm as an entity controlled by a private individual, directly or indirectly, in conjunction with close family members. Inclusion is based upon the following criteria: the existence of a founding member or descendant involved in management with more than 20 percent of voting shares; the shareholder is CEO or a key member of the board (that is, chairperson); at least one other related party is a member of the board; and the original shareholder and the related parties hold more than 50 percent of the voting shares of the company. That is, 50 percent of the equity of each family firm in the sample is held by family members, because only in this case the family has the ability to control 100 percent of the decisions and management of the company. The variable CFAM indicates if the CEO is or not a member of the family (see Appendix A for variable abbreviations and their respective definitions).

These variables can show a majority control and proxy of measures of ownership and control specialization. Performance is measured using Tobin's Q ratios (Q) or the asset market-to book ratio<sup>5</sup> (see the glossary variables in Appendix A for a more systematic definition of all the variables and Table 2 for some descriptive statistics). The remaining corporate governance variables include the composition of the board (IND, SHA, AFF) and debt (DEBT). We use Weisbach's (1988) trichotomous classification scheme to determine board composition. A director who is a full-time employee of the company is classified as an inside director. A director who is neither an employee nor has extensive dealings with the company is referred to as an outside director. All

<sup>5</sup> It is common in the literature on corporate governance to use this measure or a similar one as the dependent variable (De Andres and Vallelado, 2008; Fernández, Gómez-Ansón, and Fernández (1998); Hermalin and Weisbach, 1991; Villalonga and Amit, 2006; Yermack, 1996). One of the potential problems in calculating Tobin's Q is the use of book value of debt rather than its market value; also, it uses the book value to measure the replacement cost of capital. However, the correlation between this measure of Q and a measure that uses the market value is high (Loderer and Martin, 1997). According to Chung and Pruitt (1994), by comparing the values of financial Q values of Tobin's Q, Linderberger and Ross (1981) found that the financial Q explains at least 96.6% of Tobin's Q.

other directors, who are not full-time employees but have relationships with the company (for example, family relationships, consultants) are designated as “gray” directors or “affiliates” (Bartholomeusz & Tanewski, 2006). DEBT is measured by total liabilities divided by total assets. In addition to the above-mentioned variables, we include some control variables in order to assess more clearly the effect of independent variables of performance. Based on what has been done in previous works (De Andres, Azofra, et al., 2005; Delgado, 2003; Wang, 2006; Warfield, Wild, & Wild, 1995), we have included the firm size (TA) and industry classification (INDUSTRY). First, the LTA variable represents firm size and, to some extent, it proxies the problems stemming from asymmetric information (Devereux & Schiantarelli, 1990). Second, the dummy industry variable was included and more in-depth comments about its influence can be found in the sensitivity analysis paragraphs (De Andres, Lopez, et al., 2005).

Panels B and C of Table 2 present descriptive statistics disaggregated by family and non-family companies. As we can see, the variable debt (DEBT) shows a value of 0.41 for family firms, while that for non-family has a slightly higher debt ratio value of 0.40. The board composition shows that the number of outside directors (IND) is on average larger in the non-family firms. This result is consistent with the argument that independent directors on family firms' boards are likely to have a lower presence than in non-family firms. Finally, the control variable, log of total assets of the company (LTA), is similar in both samples, 15.65 in family businesses and 15.37 in non-family firms.

5. Methodology

5.1. Regression analysis

As stated before, the sample combines 90 observations with five cross-sections or years, amounting to 450 observations in the panel data. Given the aim of the study, the panel data methodology seems to be the most accurate method (Arellano, 1993; Arellano & Bover, 1990). The fixed-effects term is unobservable, and hence becomes part of the random component in the estimated model. It is quite convincing that each one of the firms in the sample has its own specificity (e.g., the way it is run by the managers, the impression it makes to the stock market, the way it generates growth opportunities, etc.). This specificity is different from company to company and it is almost certain to be kept throughout the study period. A pooling analysis of all the companies without noticing these peculiar characteristics could cause an omission bias and distort the results. On the other hand, the dynamic dimension of a panel data enhances testing long time adjusting processes and determining the firm value reaction when the explanatory variables change (De Andres, Azofra, et al., 2005). The random error term  $\varepsilon$  it controls both, the error in the measurement of the variables and the omission of some relevant explanatory variables. With regard to the basic model to be estimated, a multivariate regression model has been built including most of the previously cited variables. This model can be expressed with the following equation, where  $i$  refers to the firms and  $t$  to the year ( $i = 1, \dots, 90$ ;  $t = 1, \dots, 5$ )

$$Q = \beta + \beta_1 FAMOWN_{it} + \beta_2 CFAM_{it} + \beta_3 SHA_{it} + \beta_4 IND_{it} + \beta_5 AFF_{it} + \beta_6 DEBT_{it} + \beta_7 LTA_{it} + \beta_{1-6} INDUSTRY_{it} + \xi_{it}$$

We tested independently the specified model for each one of the two sub-samples into which the initial sample was split (family and non-family). The results of the panel data estimation are displayed in Table 3. We ran the estimations not only for the basic specification (Table 3) but also we introduce the ownership structure and firm industry characteristics (Tables 4 and 5). The

Table 3 Results of estimations based on the full sample.

Panel: results of the estimated global model			
$q$	Coefficient	$t$ -Statistic	$P$ -Value
FAMOWN	1.345	1.74	[0.083]
CFAM	-0.646	-0.13	[0.899]
SHA	0.106	1.84	[0.067]
IND	0.097	1.75	[0.082]
AFF	0.142	2.47	[0.014]
DEBT	-0.405	-1.70	[0.091]
LTA	0.115	2.51	[0.012]
Constant	3.442	2.05	[0.041]
Adjusted $R^2$	0.4		
Hausman test	42.56		[0.000]

The table shows estimated coefficients,  $t$ -statistics and  $p$ -value. The dependent variable is the performance of the company measured by Tobin's  $Q$  (the dependent variable is defined in Appendixes A and B). Family firms are companies where the founder or family member holds more than 50 percent ownership and is represented by FAMOWN. CFAM is a binary variable that indicates if the CEO is or not a family member. Board structure comprises IND (number of independent director in the board), SHA (number of shareholder director in the board) and AFF (number of directors who are not full-time employees but have relationships with the company). Leverage (DEBT) is total liability/total asset that is measured as the book value of debt divided by the book value of total assets. We measure firm size as the natural log of the book value of total assets, LTA. Hausman test allows testing fixed versus random effects hypothesis. Hausman test follows a  $\chi^2$  distribution.

Hausman test reveals the importance of the fixed effect component, so that the within groups estimation method becomes necessary in order to deal with the constant unobservable heterogeneity.

6. Results

Table 3 contains results that are consistent with H1, since the family-owned variable (FAMOWN) has a positive influence on

Table 4 Results of estimations based on family and non-family sample.

$q$	Coefficient	$t$ -Statistic	$P$ -Value
<b>Panel A: results of the individual model estimation: family firms</b>			
OWN	1.427	1.74	[0.084]
SHA	0.064	2.03	[0.044]
IND	-0.075	-1.27	[0.205]
AFF	0.122	1.80	[0.074]
DEBT	-0.792	-2.83	[0.005]
LTA	0.142	1.24	[0.214]
Constant	-2.144	-1.51	[0.134]
Adjusted $R^2$	0.28		
Hausman test	18.80		[0.042]
<b>Panel B: results of the individual model estimation: non-family firms</b>			
OWN	-0.760	-2.03	[0.045]
SHA	-0.215	-1.72	[0.088]
IND	0.215	1.83	[0.071]
AFF	-0.315	-2.49	[0.015]
DEBT	0.894	2.70	[0.008]
LTA	0.906	3.14	[0.002]
Constant	-2.283	-1.03	[0.305]
$R^2$	0.23		
Hausman test	26.04		[0.006]

The table shows estimated coefficients,  $t$ -statistics and  $p$ -value. The Panel A shows the results for family firms. Panel B reports the results for non-family firms. The dependent variable is the performance of the company measured by Tobin's  $Q$  (the dependent variable is defined in Appendixes A and B). Ownership concentration is represented by main shareholder participation (OWN). Board structure comprises IND (number of independent director in the board), SHA (number of shareholder director in the board) and AFF (number of directors who are not full-time employees but have relationships with the company). Leverage (DEBT) is total liability/total asset that is measured as the book value of debt divided by the book value of total assets. We measure firm size as the natural log of the book value of total assets, LTA. Hausman test allows testing fixed versus random effects hypothesis. Hausman test follows a  $\chi^2$  distribution.



**Table 5**  
Results of Welch test.

		Statistical	gl1	gl2	Sig.
DEBT	Welch	12.498	1	221.996	.001
SHA	Welch	13.957	1	248.8	.000
INDP	Welch	4.293	1	244.096	.039
AFF	Welch	6.05	1	205.113	.015
Q	Welch	95.726	1	273.577	.001
OWN	Welch	12.262	1	219.232	.001
FAMOWN	Welch	1271.834	1	378.644	.000
CFAM	Welch	375.907	1	399.425	.000
LTA	Welch	9.726	1	207.954	.002

<sup>a</sup>Appendix B shows the Anova results.

performance. These results are statistically significant and suggest that, for Mexican companies, an increased ownership concentration is a factor associated with the performance of the company. This result goes along with the traditional hypothesis that the ownership concentration in families provides a closer supervision on the functioning of the company, leading to greater performance. In this way, a high ownership concentration may offset to some extent less protection to investors under the prevailing institutional framework in the Mexican legal context, which causes the owners to concentrate and seek an active participation in the decision-making process in order to generate a better performance. We also consider the influence that the board composition could have on the result of the company. As evidenced in Table 3, the regression coefficient for IND is positive and statistically significant, suggesting that a higher proportion of IND in firms is associated with better performance. In fact, the SHA and AFF directors show also a positive relationship with performance. With respect to the influence of debt, the results presented in Table 3 highlight the negative relationship between this and the performance and it is statistically significant. This fact confirms that high debt levels lead to lower performance of the company.

In order to estimate the influence of ownership structure on performance, we segmented the sample between family firm and non-family firms, considering the percentage of ownership of the main shareholder. As shown in Panel A of Table 4, the positive sign between ownership concentration and greater performance remains when we consider only family companies. However, when we consider the non-family firms, Panel B of Table 4, the sign changes to negative, indicating a decrease in the performance in companies where ownership is dispersed. Results regarding the composition of the board also show changes when considering the estimates for family and non-family companies. We find that in family firms the presence of outside directors (IND) has a negative impact on performance, while the participation of shareholders (SHA) and affiliates (AFF) directors has a positive effect on value creation. The participation of these different types of directors in non-family firms present contrasting signs to the family firms: positive for IND, and negative for SHA and AFF. These findings lend support to our hypothesis H2 and H3. Also, high debt levels correlates negatively with performance in family firms, while in non-family firms show the opposite effect, confirming our hypothesis H4. Thus, we obtain evidence that these governing mechanisms act differently depending on the type of company being considered. The variable that is not significant in any estimate is CFAM (Table 3). Finally, with respect to the control variable, size (LTA), this has in all cases positive coefficients. In the traditional econometric models, its predictive power is due in large part by the good model specification, the significance of regression coefficients, and by the absence of autocorrelation

**Table 6**  
Results of estimations with industry effects.

Q	Coefficient	t-Statistic	P-Value
<b>Panel A: results of the estimated global model</b>			
FAMOWN	1.06	2.09	[0.038]
CFAM	−0.444	−0.71	[0.477]
SHA	0.094	2.95	[0.003]
IND	0.125	3.62	[0.000]
AFF	0.074	2.26	[0.024]
DEBT	−0.217	−1.76	[0.079]
LTA	0.044	2.21	[0.027]
S1	0.117	1.10	[0.273]
S2	0.079	0.78	[0.436]
S3	0.175	1.64	[0.102]
S4	−0.030	−0.30	[0.767]
S5	0.067	0.42	[0.675]
Constant	0.213	0.38	[0.702]
Adjusted R <sup>2</sup>	0.4		

The original regression is run including industry dummies. The industries included are: materials, industrials, consumer discretionary and services, consumer staples and telecommunication services.

and heteroskedasticity, tests that our model passes successfully.<sup>6</sup>

One of the study's concerns is to know whether the results that have been obtained are contingent upon the specification of the model. In order to assess the robustness of the results to alternative specifications and variable measurements a sensitivity analysis is added consisting of two different tests. In Table 5, we used the Welch test to examine whether significant differences can be attributed to the different sample sizes, family and non-family firms. The results confirmed that there was not a bias caused by the different sub-sample sizes. Additionally, in order to control for industry heterogeneity, in Table 6 we incorporated an industry dummy. Neither individually nor together industry dummies were found to have any significant effect in each one of the sub-samples. It should be noted that this set of variables makes sense only in the random effects model (Table 6), since industry variables are constant throughout the period and hence their effect is removed by estimating the within groups method.

## 7. Conclusion

One stream of extant literature suggests that family control is, potentially, an agency cost-reducing mechanism in itself. Family firms are concentrated blockholders with a unique incentive to overcome the free rider problem that prevents atomized shareholders (Anderson & Reeb, 2003). Furthermore, as the wealth of the family is directly tied to the future of the company, and decision-making in family firms is predicated on much longer time horizons than in non-family firms, these companies are more adherent to wealth maximization (Chami, 1999; James, 1999). These reasons suggest that family control is an agency cost-reducing mechanism (Bartholomeusz & Tanewski, 2006).

Academic research explicitly recognizes the prevalence and better performance of family businesses around the world (Astrachan & Shanker, 2003; Sharma, 2004). Prior studies clearly indicate that differences between family and non-family businesses may exist because of their corporate environment (Smith, 2008). Thus, Mexico should be of great interest because of its long tradition of family business.

This paper provides evidence that family ownership interacts with other control mechanisms such as debt and composition of

<sup>6</sup> Breusch–Godfrey indicators do not indicate autocorrelation problems in the regression and the White test indicate that we do not reject the hypothesis of homoscedasticity. In addition, the test of variance inflation factors does not indicate evidence of multicollinearity problems.

board of directors. The results obtained in the global model corroborate the evidence of emerging markets previously presented and suggest a greater performance as ownership is concentrated in the Mexican market. Moreover, we found that the relationship between ownership concentration, composition of board, debt, and performance is different for family holding companies than for companies with lower ownership concentration. This would indicate that in concentrated ownership structures, shareholders have incentives to carry out the tasks of monitoring the enterprise so that it operates according to the interests of shareholders, which is maximization of profit. In firms with dispersed ownership structure, it becomes necessary to use alternative governance mechanisms to monitor the proper performance of the company. In this case, the company's financial structure, specifically its level of indebtedness and outside directors, has a positive effect on the outcome of the company. In family companies, these mechanisms become redundant and far from contributing to good firm performance, tend to have a negative effect on it. This high ownership concentration and conglomerate structures also have an important effect on the board room composition. Most board members in Mexican companies are related to the controlling shareholders through family ties, friendship, business relationships and labor contracts. It would seem that there is substantial evidence to suggest that family firms adopt distinctly different corporate governance structures to non-family firms. Empirical evidence seems to show that these mechanisms will promote the creation of value depending on the degree of concentration of ownership that the company possesses. There is a clear substitution effect between governance mechanisms, so that a company that does not use the concentration of ownership as a control device, it emphasizes mechanisms such as board or debt.

However, based on these results, it is of interest to reflect deeply on the idea of agency problems between controlling and minority shareholders for firms in emerging economies (Morck & Yeung, 2003). In these nations, shareholders' rights are not sufficiently protected, and the concentration of the ownership in the hands of large blockholders may act finally to the detriment of minority shareholders. Moreover, the institutional environment in which the corporation operates can affect not only the firm performance, but can affect new investment opportunities for the company as new shareholders would reject to participate in a company whose future performance depends on a few decision-makers.

Among the strengths of our research, the main contribution is that it provides an in-depth research of family business versus non-family business in another context of previous study where most are based in developed markets such as North American and European countries. Thus, we believe this study contributes new insights to the literature on emerging markets and the Latin

American context. Moreover, it will be a real contribution to Mexican literature given the low number of studies about Mexico. In particular, we focus on the Mexican market because it is one with a greater ownership concentration, as well as by the number of family businesses, and by the high ownership concentration in the hands of a few shareholders. Of course, there are a number of limitations to this study. First, our division of the sample into only two sub-samples by ownership structure limits our ability to check the family business's evolution across generations in greater depth. Second, our sample comes from only Mexican public firms, and even though this provides an interesting case, it does constrain the generalization of our results. Third, these findings require confirmation in other Latin-American countries, besides Mexico.

Moreover, we also note the need for further research to better understand the effect of family on firm performance. We have a number of unanswered questions, such as, what is the relationship between family ownership and management style and its effects on performance? That is, are there some organizational arrangements or specific decision-making processes which relate better to some level of ownership concentration in order to get a better performance? The strategic fit within family business and the type of strategy have been proved to be relevant determinants of firm performance in these firms (Lindow, Stubner, & Wulf, 2010). In a similar manner, we would like to know how the board composition or how the presence of a family or non-family CEO affects this management style that finally leads to a specific level of performance. This work as many dealing with those factors related to performance in family business is unable to assess the distinctive effects of family and founder presence in both ownership and management, without incurring problems of multicollinearity. This would provide further information in the effects of these variables on performance as Block, Jaskiewicz, and Miller (2011) find by the application of Bayesian regression analysis. We have also concentrated our attention on measuring performance by the Tobin's *Q*, but concentrated ownership in family businesses may privilege other types of measuring success, such as ROE, ROA, sales or employment growth, as well as other non-economic metrics. Another question that we have omitted to look at in our research has to do with other dimensions of family firms that will lead to new conclusions. One of these consists on examining the differential effect on performance whether we are considering that the firm is owned and controlled by the founders or subsequent generations. As we answer these questions, we can begin to develop additional propositions to help us understand more fully the advantages and disadvantages of having families firms and the level of ownership concentration in them. This would eventually lead to refine our questions, and instead of asking, do family firms perform better than non-family firms? We will begin asking, what type of family firm leads to higher performance? (Dyer, 2006).

## Appendix A. Variables glossary

Abbreviation		Definition
Q	EMV + BVD/TA	Financial <i>q</i> value creation
FAMOWN	Family ownership participation (%)	We consider a family firm when a family controls over 50 percent of the shares of the company
CFAM	(=1 for family CEO)	Binary variable that takes the value of 1 if the direction of the company is in the hands of a controlling family member and 0 if not
OWN	Main shareholder participation (%)	Ownership concentration
DEBT	Total liabilities/total assets	Indebtedness of the company
SHA	Director who is a full-time employee	Shareholder director
IND	A director who is neither an employee nor has extensive dealings with the company is referred to as an outside director	Independent director

## Appendix A (Continued)

Abbreviation	Definition
AFF	Who are not full-time employees but have relationships with the company (for example, family relationships, consultants) are designated as "gray" directors or "affiliates"
TA	Logarithm of total assets
INDUSTRY	(=1 for each industry)
	Affiliate director
	Size proxy
	Binary variable that takes the value 1 when the company belongs to one of the six industries

Abbreviations: equity market value (EMV); book value of debt (BVD); total assets (TA).

## Appendix B

ANOVA		Sum of Square	gl	Mean Square	F	Sig.
DEBT	Between Groups	0.676	1	0.676	13.810	.000
	Within Groups	27.071	448	0.058		
	Total	27.483	449			
SHA	Between Groups	129.887	1	129.887	13.609	.000
	Within Groups	4275.793	448	9.544		
	Total	4405.68	449			
INDP	Between Groups	0.149	1	0.149	4.259	0.040
	Within Groups	15.647	448	0.035		
	Total	15.796	449			
AFF	Between Groups	43.421	1	43.421	7.138	0.008
	Within Groups	2725.079	448	6.083		
	Total	2768.5	449			
Q	Between Groups	3.623	1	3.623	9.496	0.002
	Within Groups	53.087	448	0.133		
	Total	53.289	449			
OWN	Between Groups	0.696	1	0.696	13.491	.000
	Within Groups	23.119	448	0.052		
	Total	23.815	449			
FAMOWN	Between Groups	30.77	1	30.77	873.843	.000
	Within Groups	15.775	448	0.035		
	Total	46.545	449			
CFAM	Between Groups	30.605	1	30.605	173.175	.000
	Within Groups	79.173	448	0.177		
	Total	109.778	449			
TA	Between Groups	33.275	1	33.275	11.307	0.001
	Within Groups	1318.433	448	2.943		
	Total	1351.708	449			

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