An Empirical Examination of Ownership Structure, Earnings Management and Growth Opportunities in Mexican Market

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ABSTRACT

This paper analyses the influence of ownership structure, board and leverage on the earnings management when companies either face, or do not face, profitable growth opportunities for a sample of 90 listed Mexican firms during the period 2005-2009. The results confirm the relevance of debt and board of directors in terms of earnings management by showing a positive relationship between earnings management and both board of directors and leverage in the presence of growth opportunities. In contrast, this relationship becomes negative when firms have no profitable investment projects. The results also demonstrate the relevance of controlling shareholders on earnings management under a growth opportunity setting. Therefore, our results show that ownership structure, composition and size of board and leverage play a dual role: reduce the earnings management when there are no investments projects, but impact positively in presence of growth opportunities.

Keywords: Earnings Management, Ownership Structure, Leverage, Board, Growth Opportunities.

I. INTRODUCTION

The agency problem between shareholders and managers raised by Berle and Means (1932), as a result of dispersed shareholders in large enterprises; arises when the contributors of the funds need to finance investment, while assuming the risk of acquiring business and ownership of the company, and they are forced to entrust supervision and direction to someone who possesses the qualifications and skills needed to perform this function. If the shareholders have complete information on investment opportunities, presented to the organization and company managers, they could design complete contracts that did not give full scope for the discretion of the board of directors. But this is not true and the actions of management and investment opportunities are not perfectly observable by the owners, as a result, managers can engage in an opposite conduct to the owners' interests'. In other words, managers have incentives to expropriate the company´s profits, through projects that benefit them but may have adversely impacted shareholders (Jensen and Meckling, 1976, Fama and Jensen, 1983).

A conflict of interests has potential agency cost such as management decisions that do not maximize shareholder's interests. Managers may manage reported earnings to justify their actions. Earnings management may lead to an agency cost where investors make non-optimal investment decisions from reported earnings. In a situation where a company has a high free cash flow, the manager may be engaged in earnings management to show better performance of the company. This relation can be explained by using agency theory. In this contractual context, characterized by the conflict of interests between shareholders and managers, corporate governance involves the design series mechanisms that reconcile the interests of shareholders and managers (Fama and Jensen, 1983; Hart, 1995; Mayer, 1996), thus avoiding the management that seeks to maximize his or her utility function even at the expense of shareholder's wealth. There is, in turn, a relationship between fund sources and investment, that holds both when firms face positive NPV opportunities and when they do not.

We can see a clear relationship between ownership structure and managers´ discretionary accruals, being the measure of earnings management, an important and continuing debate in the literature on corporate governance. However, a growing body of literature has shown how the relation between earnings management and financial decisions is strongly conditional on the growth opportunities open to the firm (Smith and Watts, 1992; McConnell and Servaes, 1995; Lang et al., 1996; Bukit and Iskandar; 2009; Chen and Liu 2010). But much

less is known about how this relationship is influenced by ownership structure, particularly family ownership. This is an important issue because a new conflict of interests can arise between majority controlling shareholders and minority shareholders, since the fundamental agency problem for listed companies in emerging markets is not a conflict of interest between outside investors and managers as argued by Berle and Means (1932), but a conflict of interest between controlling shareholders and minority shareholders (Shleifer and Vishny, 1997).

Under agency theory approach, our study aims to analyze if the measure set by shareholders work or not to control managerial team through internal mechanisms and whether these measures have a positive or negative impact when manager face options to increase profits of the firm (considering these growth options as the use of cash flows available for the manager once he or she has covered all the short-term liabilities and invested the firm's resources in projects with net present value).

As a consequence, this study examines if in the presence of growth opportunities, the control mechanisms implemented by the shareholders continue operating in the same way when the manager has options to invest in projects using available cash flows (growth opportunity), or, whether control mechanisms operate differently when the manager does not has an option to invest (absence of growth opportunities). This theoretical framework has been applied to a sample of large Mexican firms publicly traded in capital markets for the 2005–2009 periods, examining if control mechanisms implemented by the shareholders operate differently on earnings management in presence or absence of growth opportunities.

This research follows the one of Andres et al. (2000) and draws also on the contributions of Myers (1977), Jensen (1986), Morck et al. (1988), Stulz (1990), Smith and Watts (1992), Lasfer (1995) and, very heavily, on McConnell and Servaes (1995) and De Andres et al., (2005). These last authors are among those which propose to sort out companies according to their growth opportunities using variables like price earnings ratio, the market-to-book ratio (Smith and Watts, 1992; Lasfer, 1995; McConnell and Servaes, 1995), or sales' rate of growth (McConnell and Servaes, 1995; La Porta et al., 2000, De Andres et al., 2005). However, the present study deviates from that research by focusing, not only on debt influence, but also on ownership effect (family control and ownership) in order to expand the analysis framework.

The results show that ownership structure, leverage and board of directors affect earnings management and that the type of influence depends on the presence or absence of investment opportunities. Family ownership, composition and size of board of directors and leverage play a dual role: to reduce the earnings management when there are no investments projects, but to impact positively in presence of growth opportunities. A problem of wealth expropriation is arising between majority and minority shareholders in firms with the greater growth opportunities. However, ownership concentration, debt and board act as a disciplinary mechanism only in firms with absence of growth opportunities.

To achieve these goals the paper is divided into four sections, starting with the introduction. Section II surveys previous research and presents theoretical foundations of the work. In Section III, some methodological issues can be found, along with the sample and variables description as well as comments on the results achieved and reports a sensitivity analysis to alternative specification of the model. The final section draws some conclusions from the most outstanding results and points out some future research directions.

II. LITERATURE REVIEW

Agency Theory

The debate about the impact of governance mechanisms on earnings management should be placed in the context of the agency problem arising from the ownership and control separation, creating interests asymmetries between managers and shareholders (Jensen and Meckling, 1976). When managers do not own the company, their behavior is affected by self-interest that put off their goals of maximizing company value and, consequently, the interests of the shareholders or owners (Berle and Means, 1932, Jensen and Meckling, 1976, Fama, 1980, Fama and Jensen, 1983).

In consequence, agency theory suggests that a separation between ownership and control, leads to a divergence between manager and owner interests (Jensen and Meckling, 1976). Conflicts of interest among principles (shareholders) and agents (managers) frequently happen. The agency problem becomes more evident on both,

the managers and shareholders, because the presumption is that managers will not act in the best interest of the shareholders (Jensen and Meckling, 1976). Thus monitoring managerial decisions becomes essential to assure that shareholders' interests are protected (Fama and Jensen, 1983). In this sense, the separation between ownership and control has as main problem to avoid possible opportunistic behavior of managers that tend to reduce the firm value. In this respect, the literature on corporate governance emphasizes the mechanisms available to protect investors' rights (Shleifer and Vishny, 1997).

A usual classification scheme makes a difference between external and internal control mechanisms. Whereas the market for corporate control is widely known as being the most outstanding external mechanism (Jensen, 1986) there is a number of possible internal mechanisms such as capital, ownership structure and board which have been proved to discipline firm managers (Jensen, 1993).

Ownership Structure: Family Firms

The widely dispersed ownership among small shareholders of the modern firm was first advocated by Berle and Means (1932) in which equity ownership is separated from the day- to-day operation of the corporation, resulting in a conflict of interest between shareholders and managers. However, the fundamental agency problem for listed companies in emerging economies is a conflict of interest between controlling and minority shareholders (Shleifer and Vishny, 1997). The study of La Porta et al., (1999) is the first one to examines the issue of ultimate controlling shareholders and finds, in contrast to the argument in Berle and Means (1932) that relatively few firms are widely held, particularly in countries with poor shareholder protection. La Porta et al., (1999) document that corporate ownership tends to be more concentrated and agency problems tend to be more severe in countries with weaker investor protection, which can be seen in emerging markets such as in Mexico. Babatz (1997), Husted and Serrano (2002) and Castañeda (2000), extend La Porta et al., (1999) to investigate the issue of ultimate controlling shareholders in Mexico, because managers of Mexican corporations are usually related to the family of the controlling shareholder. They document that Mexican companies present a higher ownership concentration and many firms are directly or indirectly controlled by one of the numerous industrial conglomerates. A conglomerate is a group of firms linked to each other through ownership relations 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[1]. We extend this strand of research to examine in deeply the corporate governance role of controlling shareholders in Mexico by investigating the positive (convergence of interest hypothesis) and negative (entrenchment) effects of controlling shareholders (families) on the relation between investment opportunity set and earnings management.

The convergence of interest hypothesis refers to the argument that controlling shareholders exert greater monitoring on management, reduce agency conflicts, and maximize firms´ value (e.g., Demsetz and Lehn, 1985; Shleifer and Vishny, 1997). Accordingly, family firms can provide several benefits. Jensen and Meckling (1976), show that the control of the property can be advantageous and that 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, achieving greater efficiency, while Stein (1988, 1989) finds that firms with higher investment horizons are less myopic maximizing long-term utility. Demsetz and Lehn (1985), show that companies with high ownership concentration are the family firms that have a lower cost of supervision due to lower agency costs, achieving greater efficiency and maximizing the value of the company, while authors such as Jensen (1986) and Stiglitz (1985), argue that firms with high ownership concentration is a form of disciplining managers and prevent inefficient use of free cash flow.

In contrast, the entrenchment effect of controlling shareholders refers to the argument that controlling shareholders have incentives to maximize their own benefits at the cost of minority shareholders (Shleifer and Vishny, 1997). The 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. For example, the use of pyramidal groups and crossholdings makes easier for controlling shareholders to separate ownership and control,

[1] 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).

and it is difficult for minority shareholders to detect actions that benefit the controlling shareholders (Fama and Jensen, 1983, Shleifer and 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. Schleifer and Vishny (1997) argue that companies with concentrated ownership try to obtain private profit from the businesses, also argue that companies with concentrated ownership try to get private profit from the companies, and Gomez-Mejia, et al., (2001) find that managers of the family members are less responsible than external. Thus, families try to increase their own wealth and ensure their personal interests at the expense of small shareholders. Private ownership, and particularly the family business, increases the problem because property rights and formal authority are combined with family status and resistance to the new changes in the company, which increases the risk of entrenchment of managers. When the ownership and, therefore, the power is not symmetrically distributed in the company, the objective of maximizing utility function of the main shareholder can lead to taking actions or decisions that are aligned with the common interest and adopt an opportunistic behavior and exploitative to the minority shareholders.

Consequently, ownership concentration can have a non-linear relation with managers´ discretionary, combining a negative effect in earnings management due to the closer monitoring of managers with a positive effect as a consequence of the expropriation effect. The core issue is to predict a relation between family ownership and earnings management when the firm has or not, growth opportunities. In this sense, opportunistic behavior (e.g, extracting private benefits) is more likely when firms have new projects that can be opportunistically exploited by large dominant shareholders, like families. In the absence of positive NPV projects, the majority shareholders have no projects whose returns they can capture (Gopalan and Jayaraman, 2011).

Board of Directors, Leverage and Growth Opportunities

It is common for firms outside the U.S. to be controlled by insiders, typically a family, financial institution or the government (La Porta et al., 1998). These insiders usually have concentrated ownership stakes and enjoy control rights far in excess of their cash flow rights. Such disproportionate control, in conjunction with lack of intervention from activist outside shareholders or a market for corporate control, affords insiders significant autonomy over firm decisions even when their ownership stakes are small. In many instances, firm's managers are also associated with the controlling entity. This provides insiders added opportunities to expropriate outside shareholders through the firm's operating and financing decisions (Lins, 2003; Leuz et al., 2009). Prior research provides evidence on how governance mechanisms are designed to motivate managers to make choices leading the creation of the value in the company. In this sense, there exists a large literature that shows a correlation between internal mechanisms of government and proxies of earnings management (Jensen and Murphy, 1990; Morck et al., 1988; Yermack, 1996; Gompers et al., 2003; Castrillo and San Martín, 2007). These mechanisms proposed in the literature include design elements which are held by the companies themselves, such as board of directors and debt.

The board of directors is considered an intermediate point between owners and managers, whose members are elected by the first monitor and limit the freedom decision of the second. There are a number of empirical studies that explore the relationship of various aspects of the director board with the earnings management. The central part of this paper is to analyze the effectiveness of the board as a supervisor in the process of maximizing shareholder value. Most of the empirical evidence shows this positive relationship between board size and earnings management. In this sense, authors such as Eisenberg et al., (1998); Jensen (1993); Yermack (1996); Fernández *et al.*, (1998); Azofra *et al.*, (2005) and Mak and Kusnadi (2005), San Martín (2010), find that smaller boards are positively related to a high value of the company.

The board composition plays an important role in monitoring the manager's performance. Independent board members are hypothesized to have an effect on discretionary accounting accruals. The presence of independent board members may protect the interest of shareholders. Their monitoring function reduces earnings management, hence decreases agency problems (Fama, 1980). Agency theory suggests that corporate controls can align managers' with shareholders' interests and thus can mitigate agency conflicts between them (Fama and Jensen, 1983). Therefore, when we focus on the control aspects of independent corporate boards that can provide effective oversight function (Lorsch and MacIver, 1989), we expect that the positive relation between growth opportunities and earnings management will be moderated by independent corporate boards (Chen and Liu, 2010).

Regarding the company's financial leverage, it should be noted that the role of financial institutions is not limited to a mere intermediary, but within the company, they play an important role when acting as a shareholder. In this sense, Pound (1988) proposes three hypotheses about the relationship between institutional ownership and firm value: 1) the efficient monitoring hypothesis, 2) the possibility of interest conflict and 3) the hypothesis of strategic alignment. According to the hypothesis of efficient supervision, institutional investors have greater knowledge and can monitor the directors at lower cost than minority shareholders. However, the possibility of interest conflict and the hypothesis of strategic alignment suggest the cooperation between institutional investors and managers, pointing to a positive relationship between institutional ownership and earnings management. The managers prefer self-financing rather than undertaking new issues of equity or debt, they do not want to be reviewed by the capital markets or increase the likelihood of failure in the company, while shareholders, however, prefer not to retain cash flow and reimbursed it as dividends. Therefore the distribution of free cash flow can generate confrontations between managers and owners of the company and lead to an overinvestment problem emphasized by Jensen (1986) theory of free cash flow. Jensen (1986) stated that if free cash flow in a company is not used or invested to maximize or to balance the best interest of shareholders, then it raises agency problems. The manager may choose to invest in an unprofitable project due to his or her self interest. As a result, the company may be in the position of low growth. This overinvestment view emphasizes the negative consequences of too much cash flow under the discretionary control of managers. Thus, a way to safeguard the value of the firm and discipline inefficient managers is to issue debt, so that managers lose control over free cash flow (Grossman and Hart, 1982; Jensen, 1986; Harris and Raviv, 1991, De Andres et al., 2005; Castrillo et al., 2010). This overinvestment view applies when the firm has no growth opportunities, and is closely related to the free cash flow (Jensen, 1986 and 1993; Lang et al., 1996; Smith and Watts, 1992; McConnell and Servaes, 1995; Singh and Faircloth, 2005). According to this view, a negative relation exists between debt and earnings management when the firm has no growth opportunities since the higher the leverage, the more in-depth is the control undertaken by lenders (Lima and López, 2010).

On the other hand, the accounting literature has extensively examined the impact of corporate growth opportunities on managerial behavior and decision making (Watts and Zimmerman, 1986). Firms with high-growth opportunities are reflected by a higher proportion of future discretionary investment expenditures by managers (Myers, 1977), and are thus more difficult to observe and monitor (Watts and Zimmerman, 1986; Gaver and Gaver, 1993). Consequently, managers in high-growth firms are more likely to have opportunistic behavior (Watts and Zimmerman, 1986; Skinner, 1993), which will further aggravate the situation of lower observability in growth firms. As a result of lower observability of managers' activities and higher probability for managers' opportunistic behavior, growth firms will be more risky than their non high growth counterparts (Smith and Watts, 1992). Moreover, controls in high-growth firms are less likely to be effective (Andersen et al., 1993), given the control system that has been installed, and which may keep pace only with the original scale of operations. A weak internal environment control also has the potential to allow intentionally biased accruals through earnings management (Doyle et al., 2007). Therefore, high growth firms are more likely to demonstrate earnings management characteristics.

Mexican Context and Institutional Framework

The framework has been broadened with the Law and Finance approach (La Porta et al., 1997; 1998; 1999 and 2000). Following these authors, it is logical enough to suppose that the system of corporate governance of a particular country and the predominance of certain supervisory mechanisms over others, whether of an internal or external nature, would be strongly influenced by the institutional framework of the country. It is a view confirmed by works such as Roe, 2000; Francis *et al.*, 2001; Denis and McConnell, 2003; within the line of research initiated by Rajan and Zingales (1995) and La Porta *et al.* (1997, 1998, 2000, 2002), which highlight the differences between the international economic environments, as well as the relevance of the institutional framework on the decision making process within the firm. The conflict between managers and shareholders differs from one country to another and might not prove worthwhile to use the same tools to solve it. As has been shown (Becht and Röell, 1999; Bianco and Casavola, 1999; La Porta et al., 1997, 1998, 2000, 2002; Roe, 2000; Francis *et al.*, 2001; Denis and McConnell, 2003; San Martín, 2010), the relationship between large controlling shareholders and weak minority shareholders is important in these countries as the interface between managers and small dispersed shareholders. Mexico belongs to the French tradition of the civil-law countries. In these nations shareholders' rights are not sufficiently protected, and the concentration of the ownership in the hands of large blockholders (mainly families) arises to shield shareholders' interests (Khanna and Palepu 1999; La Porta et al., 1999; Barca and Becht 2001; Facio and Lang 2002).

Thus, the institutional environment in which the corporation operates can affect its investment opportunity set (Smith and Watts, 1992), and consequently can have an impact on the relation between firms' investment opportunities and earnings management, issue examined in this paper. We believe that the institutional environment in Mexico provides an ideal setting for examining the corporate governance role of controlling shareholders among the investment opportunity set and earnings management for the following reasons. La Porta et al., (1998, 1999, and 2000) document that corporate ownership tends to be more concentrated and agency problems tend to be more severe in countries with a weaker investor protection, which can be seen in emerging markets such as Mexico.

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 company in the hands of the family is a rational decision. The reason is because this choice represents the strategy to increase his or her share value.

The most dominant companies in Mexico (regardless of size) are owned and managed by one or more families and descendants of the founding family. Nevertheless, very few studies refer to Mexican family firms as the principal reason for the absence of these studies has been the difficulty of gaining access to information on ownership and control structures of the companies[2]. 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 numerous conglomerates industrial, financial or mixed. A conglomerate is a group of firms linked to each other through ownership relations 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[3].

High ownership concentration and conglomerate structures also have an important effect, such as, for example, in a board room 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 (2002), show that 53 percent of the directors or senior executives of the company are also directors of others companies of the same group, or relatives to executives of the company. According to Castañeda (2000), in most Mexican firms, the president of the board is usually the main stockholder and the general director and therefore he or she practically does not have opposition from independents 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[4]. Our data are in the same sense, because as we can see in panel A and B of Table I, only 40.54 percent of the companies show a majority of independent directors. In addition, in 40 percent of the companies, the CEO is both the chairman and director. Also noteworthy, from the total number of analyzed companies, 23 percent of these family members are on the board of the company. As we can see, the companies´ composition in Mexico is very peculiar because this country has a high ownership concentration, defined as a family firm where the founder or family member hold more than 40 percent of the companies. Unlike other papers the classification as a family company depends on whether the founder holds more than 20 or 30 percent of the property or that the CEO is a member of the firm.

[2] 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 Comisión Nacional Bancaria y de Valores, CNBV) of Federal Government , begin to be placed on the web page of the Mexican Stock Exchange (in Spanish Bolsa Mexicana de Valores, BMV).
[3] 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).
[4]Besides, on average, 35.2% belong to the president family and around 57% of board members are employees or relatives of the president.

Table I
Descriptive Data for Board and CEO of the Company
Panel A presents the breakdown (in terms of main board and CEO of the company) for the sample of 90 firms listed on the Bolsa Mexicana de Valores (BMV). The data comes from the firm annual reports 2005/2009. And Panel B presents the breakdown (in terms of main board classified by Shareholder, Independent and Related[5]) for the sample of 90 firms listed on the BMV. The data comes from the firms' 2005/2009 annual reports.

Panel A: Percentage of companies whose CEO is the same person that the chairman of the board.		
2005 to 2009	Percentage	Total
CEO President	40	36
CEO Non President	60	54
TOTAL	100	90

Panel B: Classified by number of directors: Shareholder, Independent and Related.	
2005 to 2009	Percentage
SHR	46.32
IND	40.54
REL	12.95
Members of the family on the board	23.29

METHODOLOGY

The Sample and Data Collection
The sample includes the total number of the companies listed in the Mexican Stock Exchange for the period 2005-2009, excluding the financial companies, resulting in a total number of 90 firms. The information sources used were Economatica and Isi Emerging Markets, from which we obtained the annual reports and financial indicators. Information about the industrial sector was obtained from the Mexican Stock Exchange website. Of the 132 total companies, companies that do not include enough information in its financial statements, as well as financial institution because of fundamental differences in the nature of their accruals and cash flows that are not captured by expectation models of normal accrual activity were excluded (Delgado, 2003). Table II shows the number of companies that make up our sample, its classification was based on the ownership structure and the sectors to which each belongs. From the total number of companies analyzed the 62.22 percent were considered family and 37.77 percent non-family firms.

Table II
Number and Percent of Family and Non family Firms by Sector
Number and percent of firms by sector agree with Mexican Stock Exchange classification code. Family (Nonfamily) refers to those firms with (without) family ownership. Percent Family Firms in Industry is computed as the number of family (Nonfamily) firms divided by the total number of firms of the sample.

Sector	FAM	NO FAM	TOTAL	% FAM	% NO FAM
Materials	10	8	18	11,11	8,88
Industrial	10	12	22	11,11	13,33
Services and goods of consumer non-basic	11	6	17	12,22	6,66
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	56	34	90	62,22	37,77

[5] The shareholder director is the one chosen based on their character as significant shareholder. Independent directors are persons who are not linked with the management team of the company and meet the requirements of the code of best corporate practices. Related director is one who is not in any of the cases listed in the definitions of independent or shareholder.

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 caveat about a possible sample bias, notwithstanding, the Panel A of Table III descriptive statistics, shows that firm size (in terms of assets) is quite heterogeneous and highly dispersed around the mean value, so it is assumed that the results are not biased by size issues. The sample composition is quite industry-balanced, although there is a slight bias towards infrequent industries and consumer products firms at the expense of health or telecommunications companies that can be explained by the heavier concentration of the former in the Mexican market.

Discretionary Accruals as a measure of Earnings Management

Following most of the literature on this topic, we focus on accruals as a measure of earnings management. Jones' (1991) proposes a model of expectations to separate the components of discretionary and nondiscretionary of total accruals. In Jones' (1991) model, nondiscretionary accruals are calculated by regressing total accruals (TA) against the growth in total revenues (ΔREV) and the gross level of property, plants and equipment (GPPE). The expected sign for the GPPE coefficient is negative because it is related to depreciation expense. However, the expected sign for the change in revenue coefficient is not obvious, since a given change in revenue can bring about income -increasing changes in some working capital accounts but income decreasing in others (Delgado, 2003)-. This study reduces the heteroskedasticity of the regression by deflating each variable in the model by the book value of total assets from the prior year (Chung et al., 2005). The dependent variable that proxies earnings management is the absolute value of discretionary accruals (ABSDA) and Discretionary Accruals (DA) is defined as the residual, εit.

$$TA = \frac{\beta_0}{A_{it-1}} + \beta_1\left(\frac{\Delta REV_{it}}{A_{it-1}}\right) + \beta_2\left(\frac{GPPE_{it}}{A_{it-1}}\right) + \varepsilon_{it} \quad (1)$$

Regression Model and Variable Definition

The available data were intended to comprise a number of features of the companies such as ownership, control structure, board and leverage. Table III display some of their basic statistics. 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 written studies such as Anderson and Reeb (2003), they consider the ownership proportion of the founding family and family presence on the board. Similarly, authors such as McConaughy et al., (2001) consider a company as a family company when the director is from the controlling family or descendant thereof. In this paper, we consider a family firm as long as the family has more than 40 percent ownership of the company, because only in this case the family has the ability to control the decisions and management of the company. It is possible thanks to the composition of companies in Mexico, which have a high ownership concentration as we defined previously, unlike other papers where companies classified as a family whose family controls only 20 or 30 percent of the ownership (as we can see in Panel A of table III, the family firms represent 71.08 percent of the total sample). The variable (CEOWN) is the manager's ownership percentage of the company.

Another important aspect of the study is the identification of the availability of growth opportunities, where the choice to measure it becomes crucial. The price-earnings ratio[6] (PER) has been chosen. There is a general agreement that this variable is a good indicator of future growth opportunities by incorporating the market point of view on the firm ability to generate cash flows in the future (Smith and Watts, 1992; Lang and Stuz, 1994; Berger and Ofek, 1995). PER is positively related to growth opportunities, so that the higher the PER, the lower the equity value due to assets-in-place and, in turn, the higher the impact of growth opportunities on firm value (Chung and Charoenwong, 1991). As a consequence of this reason, the sample was split into two sub-samples (firms with or without profitable growth opportunities) according to McConnell and Servaes' (1995), procedure by dividing the whole number of firms into three groups as a function of the PER value. Those companies in the upper third are certain to have more growth opportunities, while those in the lowest third could be quite

[6] Some authors use other variables as the market equity value to total asset ratio (Lasfer, 1995), the market asset value to cash flow ratio (Smith and Watts, 1992) or sales' rate of growth (McConnell and Servaes, 1995; La Porta et al., 2000). This last variable will be used later as a sorting variable in order to test the robustness of the results.

reasonably characterized by the lack of valuable projects. This work uses another one additional measures of growth opportunities, the sales' rate of growth (McConnell and Servaes, 1995; La Porta et al., 2000).

The remaining of corporate governance variables are the size and composition of the board (BSIZE, INDP and SHA) and debt (DEBT). In addition for the mentioned variables, we include some control variables in order to embody some additional determinants of the earnings management. Based on what has been done in previous works, (De Andres et al., 2005; Delgado, 2003; Wang, 2006; Warfield et al., 1995), we have included the firm size (TA) and industry classification (INDUSTRY). First, LOGTA variable represents firm size and, to some extent, it proxies the problems stemming from asymmetric information (Devereux and Schiantarelli, 1990). Second, dummy industry variables were included and more in-depth comments about their influence can be found in the sensitivity analysis paragraphs (De Andres et al., 2005). The Appendix present descriptive statistics disaggregated in family and non-family firms.

Table III
Descriptive Data by Growth Opportunities
Panel A presents the descriptive statistics for the ownership concentration (families), board structure and size, leverage and control variable (Assets are in millions of pesos). The sample period is the financial year 2005/2009. Panels B provide summary statistics for the data employed in our analysis segmented by growth opportunities. The sorting out criteria was the PER ratio: we divided the whole sample into three groups (each one containing 150 observations) and selected the upper and the lowest third as those firms with more and less, growth opportunities respectively. The Panel A and B shows the mean, standard deviation, minimum and maximum coefficients. The data set is comprised of 90 firms listed in the Mexican Stock Exchange for the period 2005-2009. Family firms are companies where the founder or family member holds more than 40 percent ownership. CEOWN is the manager's ownership percentage of the company. Board size is Ln (Board size), which we measure as the natural log of the board of directors. Board structure is IND (number of independent director in the board) and SHA (number of shareholder director in the board). Leverage 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 the total assets, which we measure as the book value of total assets (the Annex shows the descriptive statistics for family firms and non-family firms).

Panel A: Descriptive Statistics

Variables	Mean	Std. Dev.	Min	Max
FAMOWN (%)	71.08	45.47	0	1
CEOWN (%)	42.22	49.44	0	1
BSIZE	11.57	3.81	4	23
IND	4.69	3.13	0	14
SHA	5.36	2.68	0	17
DEBT	0.40	0.20	0.01	1.11
Assets	37 155	77 290	153	623 647

Panel B: Descriptive Statistics by Growth Opportunities

PER Low Growth					PER High Growth			
Variable	Mean	Std. Dev.	Min	Max	Mean	Std. Dev.	Min	Max
FAMOWN	0.640	0.481	0.000	1.000	0.741	0.438	0.000	1.000
CEOWN	0.145	0.241	0.000	0.850	0.419	0.495	0.000	1.000
NCON	11.246	3.510	5	21	10.92	3.454	5	19
LNCON	2.368	0.331	1.609	3.044	2.343	0.309	1.609	2.944
IND	5.226	2.520	0	13	4.774	2.217	0	12
PAT	4.593	2.790	0	13	4.754	2.768	0	11
DEUD	0.470	0.217	0.054	1.118	0.378	0.196	0.015	0.842
Assets	17,997	23,650	206	99,724	19,061	24,824	153	109,045

Dependent Variable

Table IV presents descriptive statistics of the total accruals (TA) and discretionary accruals (DA). The table shows the mean value of discretionary accounting accruals are close to zero. This is consistent with prior studies (Warfield *et al.*, 1995; Delgado, 2003; García y Gill, 2005; Wang, 2006, Norman et al., 2007; Jara and Lopez, 2008; Chen et al., 2010; Chen and Liu 2010; Gopalan and Jayaraman, 2011).

Table IV
Descriptive statistics from discretionary accruals calculated as in Jones (1991) model

Variable	Mean	Std. Dev.	Min	Max
TA	-0.01	0.22	-0.19	0.82
DA	0.00	0.16	0.00	1.19

Regression Analysis

As stated before, the sample combines 90 observations with five cross-sections originating a 450 observations panel data. Given the aim of the study, the panel data methodology seems to be the most accurate (Arellano and Bover, 1990; Arellano, 1993). 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 market, the way it generates growth opportunities, etc). This specificity is different from a 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 earnings management reaction when the explanatory variables change (De Andres et al., 2005). The random error term εit 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….90; t=1….5)

$$DA = \beta + \beta_1 FAMOWN_{it} + \beta_2 CEOWN_{it} + \beta_3 BSIZE_{it} + \beta_4 IND_{it} + \beta_5 SHA_{it} + \beta_6 DEBT_{it} + \beta_5 TA_{it} + \beta_{1-6} INDUSTRY_{it} + \varepsilon_{it}$$

The specified model was independently tested for each one of the two sub-samples into which the initial sample had been split. The results of the panel data estimation are displayed in Tables V–VII. The estimations were run not only for the basic specification (Panel A and B of Table V) but also the firm industry characteristics were introduced (Table VII) and also segmenting the sample by alternative measure of growth opportunities, in order to assess robust the results (Table VI). The Hausman test reveals the importance of the fixed effect component, so that within groups estimation method becomes necessary in order to deal with the constant unobservable heterogeneity.

Table V

Results of estimations based on PER

The table shows estimated coefficients, t-statistics and p-value. The sorting out criteria was the PER ratio. We divided the whole sample into three groups (each one containing 150 observations) and selected the upper and the lowest third as those firms with more, and less, growth opportunities respectively. Panel A reports results for group of companies with most growth opportunities, Panel B results for firms without profitable investment projects. Earnings management was defined by discretionary accruals of Jones´s (1991) model; family firms are companies where the founder or family member holds more than 40 percent ownership. CEOWN is the manager's ownership percentage of the company. Board size is Ln (Board size), which we measure as the natural log of the board of directors. Board structure is IND (number of independent director in the board) and SHA (number of shareholder director in the board). Leverage is total liability/total asset that is measured as the book value of debt divided by the book value of total assets and SIZE is log of total firm assets, used as proxy for firm size. Hausman test allows testing fixed versus random effects hypothesis. Hausman test follows a χ^2 distribution.

Panel A: Presence of Growth Opportunities with PER				Panel B: Absence of Growth Opportunities with PER		
add	Coefficient	t-statistic	P-value	Coefficient	t-statistic	P-value
famown	0.3934826	0.63	[0.529]	-0.85025	-1.92	[0.057]
ceown	0.8098329	2.11	[0.037]	-0.46729	-1.8	[0.075]
ceownfamown	0.5935203	2.3	[0.023]	-1.26247	-2.16	[0.033]
debt	0.4859645	2.4	[0.018]	-0.28286	-1.77	[0.079]
lncon	0.2726528	1.12	[0.267]	-0.07278	-1.94	[0.055]
indep	-0.0324184	-1.28	[0.205]	-0.09319	-1.75	[0.084]
pat	0.0306351	0.70	[0.484]	1.04322	1.77	[0.079]
lat	0.1064801	2.02	[0.046]	-0.09893	-2.07	[0.041]
_cons	0.7236327	0.68	[0.496]	-1.42795	-2.05	[0.043]
R-squared	0.13			0.16		
Hausman Test	17.96		[0.055]	24.15		[0.019]

These results confirm the hypothesis about the influence of leverage, board of directors and ownership structure on earnings management. First, the financial leverage ratios are significant in all the estimations, although its role is quite different depending on the existence or the absence of growth opportunities. When firms lack those profitable projects (Panel B of Tables V, VI and VII), the DEBT negative sign suggests the debt contribution to disciplining managers. If this is the case, the debt burden reduces the free cash flow problem (Jensen, 1986) and prevents managers from wasteful uses from the shareholders' point of view.

On the other hand, DEBT coefficient becomes positive in the estimation for the most highly priced companies (Panel A of Tables V, VI and VII), emphasizing the positive impact that debt can have on earnings management when firms face growth opportunities. This finding is consistent with the literature which suggests that firms with more investment opportunities and greater access to positive net present value projects are more difficult to observe and monitor, because as the proportion of firm value represented by investment opportunities increases, the observability of managerial actions decreases (Gaver and Gaver, 1993; Smith and Watts, 1992). Thus, managers in high-growth firms are more likely to engage in opportunistic behavior (Skinner, 1993; Watts

and Zimmerman, 1986). In addition, high-growth firms will be more risky than non-growth firms because controls in high-growth firms are less likely to be effective (Andersen et al., 1993) in that the control system that has been installed may keep pace only with the original scale of operations. This result could be understood as the important role that debt plays over earnings management.

Second, as far as the ownership structure variables are concerned, it is worth noticing the different impact the family ownership concentration has in both sub-samples. The family-owned and director ownership participation variables (FAMOWN and CEOWN) have a negative influence on earnings management in firms without growth opportunities and positive relationship with discretional accruals in the presence of growth opportunities. It supports the hypothesis of alignment of interests and entrenchment. Even more, when we consider a family business with high manager ownership (commonly CEO of the family) the relation with earnings management keep on. This result is consistent with the previous literature and demonstrates again the existence of some agency problems inside the companies and suggests a combination of alignment and entrenchment effects (Morck et al., 1988). In the face of absence growth opportunities, a majority control in families seems to decrease the discretionary accruals. However, when we consider only firms with growth opportunities the relationship becomes positive, indicating an increase in the exercise of discretion in family firms with a manager from the same family. The explanation that might be attributed to the dissimilar behaviour of ownership structure in different institutional frameworks might be related to agency problems and informational asymmetries that differ in accordance with the firm's institutional environment. As we have seen in the case of Mexico, ownership structure is highly concentrated in families and this plays a fundamental role as control mechanism.

In the absence of growth opportunities, the ownership and control structure play an important role in reducing the agency problems mentioned above. In this case, ownership concentration becomes necessary because in absence of investment opportunities, the family ownership acts as a disciplining mechanism of behavior management. This result shows that in Mexican firms, an increase in ownership concentration is a factor associated with better management behavior. This argument goes along with the traditional assumption that ownership concentration in families provide closer supervision on the manager, based on the idea that when managers are faced with low investment opportunities they might be tempted to act opportunistically. In this case high levels of ownership can compensate the fewer levels of investor protection that exist in the Mexican institutional framework. However, when we talk about firms with growth opportunities, it can present the entrenchment phenomenon. The 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 effect of controlling shareholders refers to the argument that controlling shareholders have incentives to maximize their own benefits at the cost of minority shareholders (Shleifer and Vishny, 1997). For example, the use of pyramidal groups and crossholdings makes it easer for controlling shareholders to separate ownership and control, and it is difficult for minority shareholders to detect actions that benefit the controlling shareholders. Therefore, controlling shareholders may select board members that are less likely to monitor and are more likely to support them in order to benefit themselves at the expense of minority shareholders (Claessens et al., 2002; Lemmon and Lins, 2003). Moreover, controlling shareholders in firms in a high investment opportunity setting may demand higher quality financial reporting, given accounting earnings can be used to alleviate agency problems by aligning the interests of managers with those of outside shareholders or creditors (Bushman and Smith, 2001). This relation only holds for those firms, in which there is more potential for expropriation, in other words, firms with positive NPV projects.

On another note, the board size (LNCON) presents a different relationship with the earnings management depending if the firm has or not significant cash flows, which can be invested in projects with positive NPV projects (presence of growth opportunities). Although it only comes out significant when firms have not growth opportunities, it was observed that small boards of directors, in absence of growth opportunities, contribute in a significant way to decrease the discretionary accruals. This allows us to see that the possible benefits of greater supervision over the management, by numerous board members, are outweighed by the problems of coordination and information that can arise in the decision-making process. Nevertheless, when there are opportunities for growth, the coefficient changes sign, although they are not statistically significant. When we focus on the control aspects of independent corporate boards our results shows a negative relation between independent members and earnings management (with or without growth opportunities), being significant only in the absence of growth opportunities. Thus earnings management will be moderated by independent corporate boards. In other words, the independent corporate boards are associated with fewer earnings for firms with low-growth opportunities. However, the shareholders board members shows a positive and significant relationship

with discretionary accruals for firms without growth opportunities, indicating that concentrated ownership creates incentives for controlling shareholders to camouflage their self-serving behaviors and expropriate wealth from other shareholders. As Shleifer and Vishny (1997) argue, the fundamental agency problem for listed companies in emerging markets is a conflict of interest between controlling shareholders and minority shareholders. Finally, with respect to control variables size (TA), these have positive coefficients from firms with high-growth opportunities and negative in firms without growth opportunities, suggesting that the larger the firm size, a increased presence of earnings management and presence of growth opportunities give more incentives to practice opportunistic behavior.

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 specification and variable measurements a sensitivity analysis is added consisting of four different tests: an alternative identification of growth opportunities and the incorporation of industry specific features. The growth opportunities has been ranked by the sales rate of growth -SRGR- (McConnell and Servaes, 1995; La Porta et al., 2000; De Andres et al., 2005) and the previous regressions run in each one of the two usual groups.

Table VI
Results of Estimations based on SRGR
The table shows estimated coefficient, t-statistics and p-value. The sorting out criteria was the SRGR ratio: we divided the whole sample into three groups (each one containing 150 observations) and selected the upper and the lowest third as those firms with more, and less, growth opportunities respectively. Panel A reports results for group of companies with most growth opportunities, Panel B results for firms without profitable investment projects. Earnings management was defined by discretionary accruals of Jones´s (1991) model; family firms are companies where the founder or family member holds more than 40 percent ownership. CEOWN is the manager's ownership percentage of the company. Board size is Ln (Board size), which we measure as the natural log of the board of directors. Board structure is IND (number of independent director in the board) and SHA (number of shareholder director in the board). Leverage is total liability/total asset that is measured as the book value of debt divided by the book value of total assets and SIZE is log of total firm assets, used as proxy for firm size. Hausman test allows testing fixed versus random effects hypothesis. Hausman test follows a χ^2 distribution.

Panel A: Presence of Growth Opportunities with SRGR				Panel B: Absence of Growth Opportunities with SRGR		
	Coefficient	t-statistic	P-value	Coefficient	t-statistic	P-value
famown	0.182868	0.29	[0.775]	-0.05925	0.08	[0.933]
ceown	0.11452	0.13	[0.899]	-1.63297	-1.94	[0.055]
ceownfamown	0.34764	1.76	[0.080]	-1.37169	-1.82	[0.072]
debt	0.286	1.74	[0.084]	-0.82508	-3.82	[0.000]
lncon	0.063259	0.29	[0.774]	-0.09795	-2.29	[0.024]
indep	-0.00202	-0.08	[0.934]	-0.15791	-2.1	[0.038]
pat	0.017079	0.94	[0.352]	2.41624	2.42	[0.017]
lat	-0.08864	-1.67	[0.091]	0.355889	3.18	[0.002]
_cons	1.614902	1.66	[0.099]	-3.80706	-2.14	[0.034]
R-squared	0.08			0.28		
Hausman Test	29.80		[0.001]	39.10		[0.000]

Table VI reports the results, and is consistent with the previous ones: debt reduces the earnings management in firms without growth opportunities but increases the managerial discretion in firms with growth opportunities. Family ownership and CEO ownership are negatively associated with the earnings management, but in high-growth firms an inverse relation exists between discretional accruals and ownership concentration. In addition, independent corporate boards have a negative coefficient in all model specifications and have a statistical significant relationship with discretionary accounting accruals (only by firms without growth opportunities).

Results show that the presence of highly independent members in the board has benefited the company through controls on earnings management practices in firms with absence of growth opportunities. The evidence is consistent with the prediction from the hypothesis which suggests a negative relationship between independent members in the board and discretionary accounting accruals. Results also show that the presence of a large number of shareholders in the board can lead to entrenchment problems given the high ownership concentration.

This sensitivity analysis section is continued by intention to control for industry heterogeneity in case different industries were in different business cycle positions, faced different regulatory frameworks and, in turn, had very different growth opportunities. If this was the case, one could have found spurious relationships since two firms belonging to quite different industries are not comparable on the basis of their growth opportunities because of the very industry-specific content of these opportunities (De Andres et al., 2005). To control for industry heterogeneity a set of dummy variables have been added to the independent variables concerning the industry the firm belongs to (Table VII).

Table VII

Results of estimations based on PER (with industry effects)

Original regression is run including industry dummies. The industries included are: Materials, Industrials, Consumer Discretionary and Services, Consumer Staples and Telecommunication Services. Panel A reports results for group of companies with most growth opportunities, Panel B results for firms without profitable investment projects.

Panel A: Presence of Growth Opportunities with PER				Panel B: Absence of Growth Opportunities with PER		
add	Coefficient	t-statistic	P-value	Coefficient	t-statistic	P-value
famown	0. 10316	1.66	[0.098]	-0. 0297	-0.71	[0.477]
ceown	0.07178	1.01	[0.313]	-0.24540	-2.81	[0.006]
ceownfamown	0.357554	1.84	[0.065]	-0. 08214	-2.22	[0.028]
debt	0.200883	1.72	[0.086]	-0.28286	-1.77	[0.079]
lncon	0.133728	1.43	[0.153]	-0.04305	-0.75	[0.454]
indep	-0. 04825	-0.29	[0.772]	-0. 01502	-1.81	[0.073]
pat	0. 00936	1.08	[0.282]	0.05713	0.74	[0.464]
lat	-0.00845	-0.36	[0.719]	0. 05574	1.84	[0.067]
mat	-0.02019	-0.18	[0.858]	0.10980	1.46	[0.144]
ind	0.15692	1.43	[0.153]	0.00114	0.02	[0.986]
sbcnb	0.08798	0.68	[0.494]	-0.01483	-0.21	[0.836]
pcf	-0.037369	-0.32	[0.750]	0.03822	0.58	[0.559]
stc	-0.064067	-0.50	[0.620]	0.01494	0.18	[0.860]
_cons	0.329949	1.12	[0.263]	- 0.40726	-2.13	[0.033]
R-squared	0.60			0.54		

Similarly, ownership and control variables remain basically with the same influence that was previously detected. When firms have not some type of profitable growth opportunities, ownership concentration and directors' ownership percentage carry on having significant impact on earnings management whereas they have an inverse relation in their absence. The conclusion remains unaffected: the positive contribution of ownership and control family to agency conflicts resolution. Finally, either individually or together, the industry dummies do not have a 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 VII) since industry variables are constant throughout the period and hence their effect is removed by estimating the within groups method.

Conclusions

Agency theory suggests that earnings management may arise when managers have opportunities to promote their own self-interest at the shareholders' expense resulting from information asymmetry and agency problems that exist between managers and shareholders (Shackelford, 1998). Berle and Means (1932) indicate that the fundamental agency conflict is between shareholders and managers. However, Shleifer and Vishny (1997) argue that the fundamental agency problem for listed companies in emerging markets is a conflict of interest between controlling and minority shareholders.

This is the core of our paper since we are interested in assessing the ability of ownership concentration as a mechanism of corporate governance in Mexico, a country with a deficient protection of shareholders' rights. We aim to test if ownership concentration (in families) can reduce managers' discretionary power when the firm faces presence or absence of growth opportunities. Following La Porta et al., (1999); Claessens et al., (2000) we examine the issue of controlling shareholders in Mexico, because Mexican listed companies are characterized by family-control, group affiliation and cross-shareholding. Family-control is a dominant feature of small and medium-sized enterprises in Mexico, and even typical of listed companies (Babatz, 1997; Castañeda, 2000; Husted and Serrano, 2001; Castrillo and San Martín, 2007). This theoretical framework has been applied to a sample of large Mexican firms publicly traded in capital markets for the 2005–2009 periods.

Our research differ from prior studies which investigate the relation between corporate governance characteristics and earnings management by incorporating the role of growth opportunities, a prevailing environmental factor in Mexico, because the extent to which corporate governance controls can provide effective monitoring is likely to be conditioned on a firm's production-investment attributes characterized as the mix of assets-in-place versus growth options (Andersen et al., 1993).

The results show that ownership structure, leverage and board of directors affect earnings management as well as the type of influence depends on the presence or absence of investment opportunities. Family ownership, composition and size of board and leverage play a dual role: reduce the earnings management when there are no investments projects, but impact positively in presence of growth opportunities. In other words, when there are no growths opportunities, governance mechanisms (ownership, board and debt) play an important role in reducing the interest conflict mentioned above since undertaking unprofitable projects or perquisite consumption might exacerbate these agency problems. However, a problem of wealth expropriation is arising between majority and minority shareholders in firms with mayor growth opportunities. Ownership concentration, debt and board of directors act as disciplinary mechanisms only in firms with absence of growth opportunities because firms with more investment opportunities and greater access to positive net present value projects are more difficult to observe and monitor (Skinner, 1993; Watts and Zimmerman, 1986). As a result of this lower observability of managers' activities and higher probability for managers' opportunistic behavior, growth firms will be more risky than their non-growth counterparts (Smith and Watts, 1992). Moreover, controls in high-growth firms are less likely to be effective (Andersen et al., 1993), given the control system that has been installed may keep pace only with the original scale of operations.

In short, our results show that high growth firms are more likely to engage in earnings management, because managers have private information about the value of future projects and hence their actions are not readily observable to shareholders. We find a positive relation between family control and ownership with earnings management in firms with growth opportunities and this relation will be moderated by corporate mechanisms when the companies do not have access to positive NPV projects. In this sense, when we focus on the control aspects of independent and small corporate boards and debt, we find that they provide effective oversight function but only from firms with absence of growth opportunities.

To sum up, the study confirms the relationship between control mechanism, earnings management and growth opportunities. The results achieved are consistent with those obtained by a number of authors from other countries. Some future research directions can be pointed at as the idea of interaction, which opens new avenues in research on corporate governance, since it has been shown that the mechanisms of government are not independent. The author would also like to consider broader time analysis to consider how governance mechanisms can affect the performance in companies over time, as models with a larger database could

incorporate temporal effects in the estimation, which would give us a broader view of the results and the causality relationship among some of the most significant variables.

References

Andersen, D., Francis, J. and Stokes, D. (1993): "Auditing, directorships and the demand for monitoring" Journal of Accounting and Public Policy, 12 (4), pp. 353-375.

Andres, P., Azofra, V. and Rodríguez, J. A. (2000): "Endeudamiento, oportunidades de crecimiento y estructura contractual: Un contraste empírico para el caso español", Investigaciones Económicas, 24(3), 641–79.

Anderson, R. and Reeb, D. (2003): "Founding family ownership and firm performance: Evidence from the S&P 500", Journal of Finance, 58(3), pp. 1301-1328.

Arellano, M. and Bover, O. (1990): "La econometría de datos de panel", Investigaciones Económicas (Segunda época), 14(1), 3–45.

Arellano, M. (1993): "Introducción al análisis econométrico con datos de panel, La industria y el comportamiento de las empresas españolas", Ensayos en homenaje a Gonzalo Mato, Alianza Editorial, Madrid, pp. 23–47.

Azofra, V., Andrés de, P. y LÓPEZ, F. (2005): "Corporate Boards in OECD Countries: Size, Composition, Functioning and Effectiveness", Corporate Governance: An International Review, 13 (2), pp.197-210.

Barca, F., and Becht, M. (2001): "The Control of Corporate Europe", Oxford University Press.

Babatz, G. (1997): "Agency Problems, Ownership Structure, and Voting Structure under Lax Corporate Governance Rules: The Case of Mexico"; Ph.D. thesis; Harvard University.

Becht, B. and Röell, A. (1999): "Corporate governance in Europe, blockholdings in Europe: an international comparison", European Economic Review, 43, pp. 1049-56

Becht, M., Bolton, P. and Roell, A. (2002): "Corporate governance and control" (National Bureau of Economic Research [NBER] Working Paper No. 9371. Available at *http://papers.ssrn.com/so13/papers.cfm?abstract_id=343461*

Bianco M. and Casavola P. (1999): "Italian Corporate Governance: Effects on Financial Structure and Firm Performance", European Economics Review, 43, pp. 1057-69.

Berger, P.G. and Ofek, E. (1995): "Diversification's effect on the firm value, Journal of Financial Economics, 37, 39–65.

Berle, A. and Means, G. (1932): "The Modern Corporation and Private Property", Commerce Clearing House, New York, NY.

Bukit, R.B. and Iskandar, T.M. (2009): "Surplus Free Cash Flow, Earnings Management and Audit Committee", Int. Journal of Economics and Management, 3(1), pp. 204-223.

Bushman, R.M. and Smith, A.J. (2001): "Financial accounting information and corporate governance", Journal of Accounting and Economics, 32, pp. 237-333.

Castañeda, G. (2000): "Governance of large corporations in Mexico and productivity implications", ABANTE, Studies in Business Management, 3(1), pp. 57-89.

Castillo-Ponce, R. (2007): "Entre familia y amigos: La elección de la estructura de propiedad corporativa", Estudios Económicos, 22, pp. 3-18.

Castrillo, L.A. and San Martín-Reyna, J.M. (2007): "La propiedad familiar como mecanismo disciplinador de la dirección en las empresas mexicanas: Una evidencia empírica", Contaduría y Administración, 222, pp. 59-82.

Castrillo, L.A.; Marcos, S. and San Martín-Reyna, J.M. (2010): "Corporate governance, legal investor protection, and performance in Spain and the United Kingdom". Corporate Ownership and Control Journal, 7 (3), pp. 416-429.

Chen, K.Y. and Liu, J.L. (2010): "Earnings management, CEO domination, and growth opportunities –Evidence from Taiwan-", International Journal of Public Information Systems, 1, pp. 43-69.

Chen, K.Y., Elder R.J. and Hung, S. (2010): "The investment opportunity set and earnings management: Evidence from the role of controlling shareholders", Corporate Governance: An International Review, 18(3), pp. 193–211.

Chung, K. and Charoenwong, C. (1991): "Investment options, assets in place, and the risk of stocks", Financial Management, 20, pp. 21-33.

Chung, R., Firth, M. and Kim, J.B. (2005): "Earnings Management, Surplus Free Cash Flow, and External Monitoring", Journal of Business Research, 58, pp. 766 –776.

Claessens, S., Djankov, S. and Lang, L. (2000): "The separation of ownership and control in East Asian corporations", Journal of Financial Economics, 58, pp. 81-112.

Claessens, S., Djankov, S., Fan, J. and Lang, L. (2002): "Disentangling the incentive and entrenchment effects of large shareholders", Journal of Finance, 57, pp. 2741–2771.

De Andres, P.A., López, F.J. and Juan Rodríguez, A. (2005): "Financial decisions and growth opportunities: a Spanish firm's panel data analysis" Applied Financial Economics, 15, 391-407.

Delgado, M.M. (2003): "Factores determinantes de la discrecionalidad contable: Una aplicación empírica a las empresas cotizadas españolas", Servicio de Publicaciones de la Universidad de Burgos, Burgos.

Demsetz, H. and Lehn, K. (1985): "The structure of corporate ownership: Causes and consequences", Journal of Political Economics, 93, pp. 1155-1177.

Denis, D.K. and McConnell, J.J. (2003): "International corporate governance", Journal of Financial and Quantitative Analysis, 38 (1), pp. 1-36.

Devereux, M. and Schiantarelli, F. (1990): "Investment, financial factors, and cash flow: Evidence from UK panel data, In R.G. Hubbard [ed], Asymmetric information, corporate finance and investment, University of Chicago Press, pp. 279-306.

Doyle, J., Ge, W. and McVay, S. (2007): "Accrual quality and internal control over financial reporting", The Accounting Review, 44, pp. 193-223.

Eisenberg, T., Sundgren, S. and Wells, M.T. (1998): "Larger board size and decreasing firm value in small firms", Journal of Financial Economic, 48, pp. 35-54.

Faccio, M., and Lang, L. (2002): "The ultimate ownership of Western European corporations", Journal of Financial Economics, 65, pp. 365-395.

Fama, E.F. (1980): "Agency problems and the theory of the firm", Journal of Political Economy, 88, pp. 288-307.

Fama, E.F. and Jensen, M.C. (1983): "Separation of ownership and control", Journal of Law and Economics, 26, pp. 301-325.

Fernández, A., Gómez-Ansón, S. and Fernández, C. (1998): "El papel supervisor del consejo de administración sobre la actuación gerencial: Evidencia para el caso español", Investigaciones Económicas, 22, pp. 501-516

Francis, J., I. Khurana and Pereira, R. (2001), "Investor protection Laws, Accounting and Auditing Around the World", Working Paper (SSRN). Available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=287652

García, O. and Gill, B. (2005): "El gobierno corporativo y las prácticas de earnings management: Evidencia empírica en España", Working Paper of Instituto Valenciano de Investigaciones Económicas (Ivie), WP-EC 11.

Gaver, J. and Gaver, K. (1993): "Additional evidence on the association between the investment opportunity set and corporate financing, dividend, and compensation policies", Journal of Accounting and Economics, 16 (1-3), pp. 125-160.

Gomez-Mejia, L., Nuñez-Nickel, M., and Gutierrez, I. (2001): "The role of family ties in agency contracts", Academy of Management Journal, 44, pp. 81–95.

Gompers, P.A., Ishii, J.L., and METRICK, A. (2003): "Corporate governance and equity prices". The Quarterly of Economics, 118, pp. 107-155.

Gopalan, R. and Jayaraman, S. (2011): "Private Control benefits and earnings management: Evidence from insider controlled firms", Journal of Accounting Research, forthcoming.

Grossman, S.J. and Hart, O.D. (1982): "Corporate financial structure and managerial incentives", In: The Economics of Information and Uncertainty. Ed. by J.J. McCall, Chicago: The University of Chicago Press, pp. 123-155.

Harris, M. and Raviv, A. (1991): "The theory of capital structure", Journal of Finance, 46, pp. 297-356.

Hart, O. (1995): "Firms, contracts, and financial structure". Oxford University Press, Oxford.

Husted, B. and Serrano, C. (2002): "Corporate Governance in México", Journal of Business Ethics, 37 (3), pp. 337-348.

Jara-Bertin, M. and López-Iturriaga, F.J. (2008): "Earnings management and contest to the control: An analysis of european family firms", MPRA Paper No. 9660, posted 21. Retrieved from *http://mpra.ub.uni-muenchen.de/9660/*

Jensen, M.C. and Meckling, W.H. (1976): "Theory of the firm: Managerial behavior, agency costs and ownership structure", Journal of Financial of Economics, 76, pp. 305-360.

Jensen, M.C. (1986): "Agency costs and free cash flow, corporate finance, and takeovers", The American Economic Review, 76, pp. 323-29.

Jensen, M.C. and Murphy, K.J. (1990): "Performance pay out and top management incentives". Journal of Political Economy, 98, pp. 225-264.

Jensen, M.C. (1993): "The modern industrial revolution, exit, and the failure of internal control systems", Journal of Finance, 48(3), pp. 831-880.

Jones, J. (1991): "Earnings management during import relief investigations", Journal of Accounting Research, 29, pp. 193-233.

Khanna, T. and Palepu, K. (1999): "Policy shocks, market intermediaries, and corporate strategy: Evidence from Chile and India", Journal of Economics and Management Strategy, 8, pp. 271-310.

Lang, L., Ofek, E. And Stulz, R.M. (1996): "Leverage, investment, and firm growth", Journal of Financial Economics, 40, 3–29.

La Porta, R., López-de-Silanes, F., Shleifer, A. and Vishny, R. (1997): "Legal determinants of external finance", The Journal of Finance, LII (3), pp. 1131-50

La Porta, R., López-de-Silanes, F., Shleifer, A. and Vishny, R. (1998): "Law and finance", Journal of Political Economy, 52 (3), pp. 1113-55.

La Porta, R., López-de-Silanes, F., Shleifer, A. and Vishny, R. (1999): "Corporate governance around the world", Journal of Finance, 24, pp. 471-517.

La Porta, R., López-de-Silanes, F., Shleifer, A. and Vishny, R. (2000): "Investor protection and corporate governance", Journal of Financial Economics, 58, pp. 3-27.

La Porta, R., López-de-Silanes, F., Shleifer, A. and Vishny, R. (2002): "Investor protection and corporate valuation", Journal of Finance, 57 (3), pp. 1147-70.

Lang, L. and Stulz, R. M. (1994): "Tobin's q, corporate diversification, and firm performance", Journal of Political Economy, 102(6), pp. 1248–80.

Lasfer, M.A. (1995): "Agency costs, taxes, and debt: the UK evidence", European Financial Management, 1(3), pp. 265–85.

Lemmon, M. and Lins, K. (2003): "Ownership structure, corporate governance, and firm value: Evidence from the East Asian financial crisis", Journal of Finance, 58, pp. 1445–1468.

Leuz, C., Nanda, D. and Wysocki, P.D. (2002): "Investor protection and earnings management: and international comparison", Working Paper 4225-01 MIT Sloan School of Management.

Leuz, C., Lins, K. and Warnock, F. (2009): "Do foreigners invest less in poorly governed firms?" Review of Financial Studies, 22 (8), pp. 3245-3285

Lins, K.V. (2003): "Equity ownership and firm value in emerging markets", Journal of Financial and Quantitative Analysis, 38 (1), pp. 159-184.

López, F.J. and Lima, V. (2010): "Do Leverage, Dividend Payout, and Ownership Concentration Influence Firms' Value Creation? An Analysis of Brazilian Firms", Emerging Markets Finance and Trade, 46(3), pp. 80 – 94.

Lorsch, J. and MacIver, E. (1989): "Pawns and potentates: The reality of corporate boards", Boston: Harvard Business School.

Mak, Y.T. and Kusnadi, Y. (2005): "Size really matters: Further evidence on the negative relationship between board size and firm value", Pacific-Basin Finance Journal, 13(3), pp. 301-318.

Myers, S.C. (1977): "Determinants of corporate borrowing", Journal of Financial Economics, 5, pp. 147-175.

Mayer, C. (1996): "Corporate governance, competition and performance", Journal of Law and Society, 24, pp. 152–76.

McConaughy, D., Matthews, C. and Fialko, A. (2001): "Founding family controlled firms: Performance, risk and value", Journal of Small Business Management, 39, pp. 31-49.

McConnell, J. J. and Servaes, H. (1995): "Equity ownership and the two faces of debt", Journal of Financial Economics, 39, 131–57.

Morck, R., Schleifer, A. and Visnhy, R. N. (1988): "Management ownership and market valuation", Journal of Financial Economics, 20(1/2), pp. 293–315.

Mohd.-Saleh, N., Mohd.-Iskandar, T. and Mohid-Rahmat, M. (2007): "Audit committee characteristics and earnings management: evidence from Malaysia", Asian Review of Accounting, 15(2), pp.147 – 163.

Pound, J. (1988): "Proxy contests and the efficiency of shareholder oversight", Journal of Financial Economics, 22, pp. 237-265

Rajan, R.G. and Zingales, L. (1995): "What do we know about capital structure? some evidence from international data", Journal of Finance, 50(5), pp. 1421-1460.

Roe, M.J. (2000): "Political Foundations for Separating Ownership from Corporate Control", Stanford Law Review, 53.

San Martín-Reyna, J.M. (2010): "Mecanismos de gobierno y protección al inversor como forma de control de la discrecionalidad directiva: Un estudio para países europeos", Innovar Journal, 20(37), pp. 75-89

Shackelford, D. (1998): "Discussion of The effects of taxes, agency costs, and information asymmetry on earnings management: A comparison of public and private firms". Review of Accounting Studies, 3, pp. 327-329.

Shleifer, A. and Vishny, R.W. (1997): "A survey of corporate governance", The Journal of Finance, LII (2), pp. 737-83.

Singh, M. and Faircloth, S. (2005): "The impact of corporate debt on long term investment and firm performance", Applied Economics, 37, pp. 875-883.

Skinner, D. (1993): "The investment opportunity set and accounting procedure choice", Journal of Accounting and Economics and Economics, 16, pp. 407-445.

Smith, C. W. and Watts, R. (1992): "The investment opportunity set and corporate financing, dividend, and compensation policies", Journal of Financial Economics, 32, 263–92.

Stiglitz, J.E. (1985): "Credit markets and the control of capital", Journal of Money Credit and Banking, 17, pp. 133-152.

Stulz, R. (1990): "Managerial discretion and optimal financing policies", Journal of Financial Economics, 26, 3–27.

Wang, D. (2006): "Founding family ownership and earnings quality", Journal of Accounting Research, 44(3), pp. 619-656.

Warfield, T.D., Wild, J.J. and Wild, K.L. (1995): "Managerial ownership, accounting choices, and informativeness of earnings", Journal of Accounting and Economics, 16, pp. 61-91.

Watts, R.L. and Zimmerman, J.L. (1986): "Positive accounting theory", Prentice Hall, Englewood Cliffs.

Yermarck, D. (1996): "Higher market valuation of companies with a small board of directors", Journal of Financial Economics, 40, pp. 185-211.

APPENDIX

Variables Glossary

Abbreviations: equity market value (EMV); book value of debt (BVD); net income (NI); total assets (TA); (TA) total accruals; total revenues (ΔREV); gross level of property, plants and equipment (GPPE).

Abbreviation		Definition
ADD	$TA_t = \beta_0 + \beta_1 (\Delta REV_t) + \beta_2 (GPPE_t)$	Earnings management was defined by discretionary accruals of Jones´s (1991) model
FAMOWN	Family participation (%).	We consider a family firm as long as the family has more than 40 percent ownership of the company
CFAM	CEO participation (%)	Manager's ownership percentage of the company.
PER	EMV/NI	Price-earnings ratio. Growth opportunities proxy
DEBT	Total liabilities/total assets.	Indebtedness of the company
BSIZE	Logarithm of the number of directors.	Size of the board
IND	Number of independent directors	Independents directors on the board
SHA	Number of proprietary directors	Proprietary directors on the board
TA	Logarithm of total assets.	Size proxy
INDUSTRY	(=1 for each industry)	Binary variable that takes the value 1 when the company belongs to one of the six industries.

Panel B: Summary Statistics for the Family Sample

Family

Variables	Obs.	Mean	Std. Dev.	Min	Max
BSIZE	56	11.64	3.91	4	22
IND	56	4.98	3.01	0	12
SHA	56	5.23	2.68	1	17
DEBT	56	0.41	0.19	0.02	1.11
Assets	56	39,202	69,522	153	453,007

Panel C: Summary Statistics for the Non Family Sample

Nonfamily

Variables	Obs.	Mean	Std. Dev.	Min	Max
BSIZE	34	11.47	3.66	5	23
IND	34	5.55	2.68	0	17
SHA	34	4.22	3.25	0	15
DEBT	34	0.40	0.20	0.01	1.02
Assets	34	34,055	87,871	209	623,624