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**DOES FAMILY OWNERSHIP CREATE OR DESTROY VALUE:
EVIDENCE FROM CANADA**

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A Thesis
In
The John Molson School of Business

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Canada

ABSTRACT

Does family ownership create or destroy value: Evidence from Canada

Heng Du

This study examines whether and how family ownership enhances or damages firm value using a sample of Canadian companies listed on the Toronto Stock Exchange (TSX) 1999 to 2007. We identify family companies as firms in which the founder or founding family hold more than 20 percent of outstanding shares and are the largest shareholders, or firms in which family members work as CEOs and/or serve as Chairman of the board of directors. In addition, we construct a sample of matching firms which are in the same industry, have a similar size as the family companies, and whose sales range within +/- 25 percent of the sales of family companies. We use Tobin's Q and return on asset (ROA), measured by either net income or EBITDA divided by total assets, as proxies of firm value. Our results suggest that family companies are generally superior to non-family companies. In addition, we find that control-enhancing mechanisms which are often employed by family companies add values to companies. Furthermore, we find that agency conflicts between ownership and management are more costly than those between majority and minority shareholders, suggesting that family ownership helps resolve the agency conflicts between ownership and management and in turn enhances firm value. Finally, we find that family companies with founders as CEOs outperform those with descendants as CEOs.

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Dedication

I would like to dedicate this thesis to my parents, Changsheng Du and Li Wang, for their unconditional love, support and encouragement; and to my friends, for their kind support throughout the course of this thesis.

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Does family ownership create or destroy value: Evidence from Canada

1. Introduction

Family control is common in publicly traded firms (Burkart et al., 2003). It is one of the most prevalent forms of ownership structure all around the world, such as in the US, Canada, Western Europe, and Asia. Family companies also make great contributions to the economies in those countries. Family-founded companies in the U.S. account for one third of companies listed on the S&P 500 and for 18% of outstanding equities (Anderson and Reeb, 2003). In Western Europe, the controlling power of most publicly traded firms retains within the founding family. According to Faccio and Lang (2002), 44% of Western European companies are controlled by families. Moreover, those controlling families often have executive representation. Even though founders are retired from managerial positions, their descendants continue to hold significant equity stakes and occupy senior manager positions in the companies (Burkart et al., 2003).

Although there has been an extensive research on family controlled firms, the question remains largely unanswered whether family-concentrated ownership structures increase or decrease firm value relative to a diversified ownership structure. In the US, family firms tend to have higher valuations and profitability than non-family firms (McConaughy et al., 1998; Anderson and Reeb, 2003). Villalonga and Amit (2004) find that the premiums of family-controlled companies are mainly attributed to founding family-CEOs. Anderson and Reeb (2003) show that gains from family control start to

disappear when the ownership stake exceeds 30%. In contrast to family premiums, Faccio et al. (2001) report that family control may harm minority shareholders by probing East Asian firms where the legal environment is weak. For Western Europe, it is assumed that family control should increase firm profitability, where value premiums should arise in such legal environments that succeed in protecting minority shareholders against the expropriation by majority shareholders.

In this paper, we examine the relationship between family ownership and firm performance in Canadian companies. Our sample consists of firms listed on the Toronto Stock Exchange (TSX) between 1999 and 2007. We follow Villalonga and Amit (2006) and define family companies as those in which the largest shareholder is the founding family and holds more than 20% of outstanding shares, or in which the CEO and/or the chairman of the board of directors comes from the founding family. For comparison purposes, we construct a sample of matching firms which have the same two-digit SIC code, are of similar size, have sales lie within +/-25 percent of the sales of family companies, (see also McConaughy et al., 1998). We then examine whether family-run companies outperform non-family-run companies and whether potential performance differences between the two groups can be attributed to the firms' ownership structure.

In general, we find that family companies outperform their non-family counterparts, even though Tobin's Q decreases as the ownership percentage increases. The mean value of Tobin's Q in family companies is higher than that in non-family firms. In addition, the average return on assets in family companies is significantly higher than that of non-family firms, based on either net income or EBITDA.

Second, we examine whether control-enhancing mechanisms contribute to firm value. Specifically, we focus our attention on firms with dual-class shares. This share structure is frequently viewed as one of the most important control-enhancing mechanisms as it aims to provide major shareholders excessive control rights over cash-flow rights (Faccio and Lang, 2002). Claessens et al. (2000) show that in most East Asian countries, the controlling families hold more voting rights than cash-flow rights through pyramid ownership structures and cross-ownership which protect their controlling status within the company. Findings from prior research suggest that family companies with a single class of shares perform no differently from non-family companies with respect to Tobin's Q, even though they are superior to widely held companies in terms of accounting profitability (King and Santor, 2008). However, family companies with control-enhancing mechanisms, i.e. firms with dual-class shares, do worse than widely held companies in terms of their market performance, but have similar accounting performance, based on ROA, and have a similar level of financial leverage (Gompers et al., 2007; King and Santor, 2008). Our findings show that control-enhancing mechanisms add value to Canadian firms. Specifically, in our empirical analysis there is a significant and positive relationship between the presence of control-enhancing mechanisms and both Tobin's Q and ROA. However, if the controlling family holds more excessive voting rights, both Tobin's Q and ROA decrease dramatically. Theoretical studies suggest that family concentrated ownership structures help resolve the so-called Agency Problem I, i.e. the agency conflict between ownership and management, while Agency Problem II, i.e. the agency conflict between majority and minority shareholders remains or is even exacerbated in family controlled companies (Villalonga and Amit, 2006).

Hence, whether family companies create or destroy value depends on the relative importance of agency costs related to these two types of agency problems. We find that Agency Problem I is more costly than Agency Problem II. Finally, we find that family-CEOs are superior based on ROA, while family-Chairman is worse based on Tobin's Q. Such different influences on firm value can be attributed to the unclear effects of family management on firm performance. If the company is controlled and managed by its founding family, Agency Problem I can be mitigated. However, at the same time, Agency Problem II appears. On the other hand, if the family controlled company is managed by professional managers, Agency Problem II can be alleviated to some extent, Agency Problem I occurs, however. Hence, family managers can either positively or negatively affect firm value. Consistent with Villalonga and Amit (2006), we find that founder-CEOs are superior to descendant-CEOs.

The paper is organized as follows. Section 2 reviews theories and empirical evidence in prior studies. Section 3 describe our sample and defines our variables, and while Section 4 describes our methodology. In Section 5, we provide and discuss our empirical results. Section 6, we provides concluding remarks.

2. Literature review

2.1 Does family ownership create or destroy value?

The question whether firms with concentrated ownership, more specifically, family concentrated ownership are as efficient as firms with diversified ownership structure has

been extensively studied in the financial literature. Yet, the empirical evidence is at most mixed. Anderson and Reeb (2003) state that concentrated ownership can facilitate operations and add value to the company as majority shareholders are encouraged to mitigate managerial expropriation. In addition, it is often argued that the presence of founding families in family companies, the large concentrated ownership in these companies, and the family's ability to exert significant influence on the decisions made by management and the board of directors place family owners in an extraordinary position to influence and monitor the firm. Besides the monitoring and controlling advantages enjoyed by family companies, families tend to have longer investment horizons compared to non-family companies, resulting in more efficient investments (James, 1999). In addition, Berle and Means (1932) note that concentrated ownership adds value to a company by releasing the conflicts between owners and managers. However, Demsetz (1983) argues that concentrated ownership has an insignificant influence on firm value in that it is endogenously decided by owners for profit maximization purposes. This later view is also supported by Demsetz and Lehn (1985), Himmelberg et al. (1999), and Demsetz and Villalonga (2001).

2.1.1 Advantages and disadvantages of concentrated ownership

Andres (2008) argues that the effect of concentrated ownership on firm value is uncertain in that large shareholders may act either in the best interest of the company or in the best interest of themselves and expropriate minority shareholders to maximize their

own utility. The empirical results in the literature fail to provide unambiguous evidence regarding the impact of concentrated ownership on firm performance, however.

There are two types of agency conflicts associated with a concentrated ownership structure. The first describes the agency conflicts between owners and management, and is referred to as Agency problem I (Berle and Means, 1932; Jensen and Meckling, 1976). This agency problem, which is inherent in companies with separated owners and managers, can be mitigated by monitoring. The presence of a powerful controlling shareholder helps exert monitoring on management and can thus reduce the severity of this agency problem. In contrast, in widely-held firms, prior researchers have identified a free-rider problem (Grossman and Hart, 1980; Holmstrom, 1982). Specifically, they argue that small shareholders are not willing to contribute their personal resources to supervising managers as the cost of doing so may outweigh their benefits and because they believe that other shareholders may monitor managers on their behalf. At the same time, large blockholders holding large stakes in the company are willing to put more effort into monitoring managers. Hence, concentrated ownership provides a solution for the free-rider problem (Shleifer and Vishny, 1986), and the associated agency problem. In addition to the reduced agency costs, managers face the risk that they may be removed by large shareholders with great voting power, if they do not manage the company in the best interest of those shareholders. Hence, Shleifer and Vishny (1997) state that large shareholders have not only the incentives to decrease agency costs and hence improve firm performance, but that they have the actual power to do so as well, when compared with small shareholders.

The second agency conflict arises in situations in which controlling shareholders work in the best interest of themselves and expropriate minority shareholders to maximize their own utility. This conflict is often referred to as Agency Problem II (Berle and Means, 1932; Jensen and Meckling, 1976). The conflict arises because large shareholders may maximize their private benefits at the expense of small shareholders. When the voting rights owned by large shareholders exceed the cash flow rights, the probability of extraction from small shareholders is particularly high (Faccio et al., 2001). Consequently, large shareholders are likely to distribute a large sum of cash flows to themselves, rather than to expand the company or distribute to all shareholders.

2.1.2 Advantages and disadvantages of family ownership

It is often argued that family ownership is superior to other ownership structures. First of all, like other large shareholders, family shareholders have strong incentives to spend time and money on monitoring managers to reduce agency costs and improve firm performance. In addition, the incentives of family shareholders are stronger than those of other large shareholders since they invest their private wealth in the company, and because they are not well diversified (Andres, 2008). Thus, family shareholders are more concerned about firm performance and have a stronger incentive to monitor managers.

Second, families may know the market and the company better due to their long-term presence at the company and because knowledge and technologies are passed from generation to generation. Moreover, their long-time presence in the company may result

in a good relationship with employees, customers, suppliers, creditors and outside shareholders. Ward (1988) indicates that the turnover rate and recruitment costs are lower in family companies than in widely held companies, resulting from better working environments, as well as a stronger trust and higher level of loyalty from employees. The reputation built by the family through the long presence in the company may facilitate the relationship with customers, suppliers and creditors. According to Anderson et al. (2003), the owners' long-term commitment and the fewer conflicts between shareholders and bondholders in family companies lead to a lower cost of debt. Moreover, the long-term presence of family owners may facilitate raising money from investors, since financiers are more willing to invest in companies that focus on long-run profit maximization instead of the maximization of short-run profits. Consequently, family ownership is superior to other ownership structures to the extent that it allows for the better correlation of trust and loyalty between majority owners, i.e. the families, and employees, customers, suppliers, creditors and outside shareholders, (Tagiuri and Davis, 1996).

Third, as briefly noted above, investment decisions made in family companies are typically made for long-term profit maximization purposes, rather than for short-term profit maximization (James, 1999). Stein (1988), for example, develops a model that indicates that the investment horizons in family companies are longer than those in non-family companies. He argues that family companies are not likely to sacrifice long run profits to boost current earnings. Hence, family companies make more efficient investment decisions than widely held companies.

Finally, family companies are more productive than non-family companies. Martikainen et al. (2008) suggest that the production output is higher for family companies than for non-family companies. The higher firm value and profitability of family companies are attributed to the higher production efficiency of family companies.

2.1.3 Disadvantages of family ownership

On the downside, family ownership is also associated with potential costs and disadvantages. First of all, family shareholders may choose to maximize their own benefits instead of maximizing firm value, and hence, expropriate minority shareholders (Faccio et al., 2001). Moreover, La Porta et al. (1999) find that the regulations and laws to protect minority shareholders from the expropriation by large shareholders are insufficient in many countries, even in developed countries. Claessens et al. (2000) show that family ownership is the most prevalent form of ownership structure in East Asian countries, where regulations to protect minority shareholders are weak. Those firms are more willing to employ a pyramid ownership structure and cross-ownership, which lead to more voting rights in excess of cash-flow rights, to secure their managerial controlling status.

Second, Demsetz and Lehn (1985) introduce the term “amenity potential”, which refers to non-pecuniary private benefits of control. They argue that decisions made by the entrenched family may be sub-optimal. In order to enhance their control over the company, the family may appoint a family member as CEO or as a member of the board

of directors rather than outsiders, though the latter may be more competent. The sub-optimal selection of managers negatively affects firm value. Family companies are more likely to use control-enhancing mechanisms, which exacerbate the expropriation from minority shareholders to maximize majority shareholders' personal utility (Lease et al., 1984). In addition, Barclay and Holderness (1989) argue that as a consequence of family entrenchment, the probability of bidding by outside investors may be reduced, leading to a lower market value. In line with those arguments, the authors find that there is a negative relationship between firm performance and firm age.

Third, as discussed above, because family shareholders are typically large and poorly diversified investors, they tend to employ less risky investment and financing strategies. The excessive use of risk-averse investment strategies can be attributed to the desire to secure the family legacy passed from generation to generation. In order to reduce the risk, family companies are likely to diversify by investing in businesses that fall outside the core business of the company. Minority shareholders may not benefit from their diversification strategy, however, as they may be able to diversify on an individual basis. Another way in which family companies often reduce risk is by using less debt, leading to the loss of potential tax shields and hampering the company's ability to raise funds. Both of those risk reduction strategies negatively affect firm value. In contrast to those arguments, however, Anderson and Reeb (2003) find a similar debt to equity ratio and a lower level of diversification in family companies relative to non-family companies.

2.2 Definition of a family firm

There is no clear definition of a family firm. In the literature, researchers use different definitions to identify family firms. Anderson and Reeb (2003) and Villalonga and Amit (2006), for example, define family companies as those where a family member holds a managerial position, such as officer, director, or those where the founding family holds at least 5% of the company's ownership. Saito (2008) defines family companies as firms which are controlled by the founding family and in which managerial positions are occupied by family members. He selects companies where the CEO or the Chairman of the board of directors is a family member and/or the founding family is the largest shareholder in the firm. In order to investigate how management succession affects firm value, Smith and Amoako-Adu (1999) examine actively managed family firms that are companies where the family holds the largest block of voting rights and holds at least 10% of voting shares, and the managerial positions are controlled by the family. Andres (2008) defines family companies as those where the founding family holds at least 25% of voting rights or those where founding family members serve as the CEOs or as Chairmen of the board of directors.

2.3 Does the use of control-enhancing mechanisms improve firm performance?

King and Santor (2008) argue that the inconclusive results in the literature of how family ownership is associated with firm value are due to the inability to capture the effects of excessive voting rights over cash-flow rights. They conclude that the

underperformance of family companies is due to the use of control-enhancing mechanisms, instead of the family ownership structure. They find that the size of the wedge, which is referred to as the difference between families' voting rights and cash-flow rights, is negatively associated with market performance (Conqvist and Nilsson, 2003; Lins, 2003; Gompers et al., 2007).

By issuing different classes of shares, which is one of the mechanisms to enhance control, ownership can differ from controlling power. According to Claessens et al. (2002), family firms are more likely to employ control enhancing mechanisms than their non-family counterparts. In order to maintain their controlling positions and their interests within the company, a family may employ certain ways to enhance their voting rights, thus the control-enhancing mechanisms. The use of control-enhancing mechanisms, such as dual-class shares or pyramids, may raise the control of the family over the company dramatically. The most common method employed by families in this context is the use of dual-class shares. Generally, the class of shares with greater voting rights per share is held by the family, while the class of shares with relatively fewer voting rights per share is owned by outside shareholders.

According to Villalonga and Amit (2006), 50% of the family companies in their sample use some form of control-enhancing mechanism which entitles them to a proportion of the total voting rights exceeding their ownership stakes. In addition, they find that family companies tend to employ more control-enhancing mechanisms than non-family companies. This is also supported by the recent findings of King and Santor (2008). They indicate that 87% of the companies using control-enhancing mechanisms

are family companies. In their study, the authors find that the voting rights held by families exceed their actual shareholdings by an average of 17%. Furthermore, they find that shareholder values are lower when the family employs control-enhancing mechanisms in that the value being proportional to the excess of voting rights over cash flow rights is decreased (see also Villalonga and Amit, 2006). King and Santor further observe that the use of dual-class shares leads to a lower Tobin's Q. On average, the Tobin's Q of the companies with control-enhancing mechanisms is 0.367 lower than the mean value of those without control-enhancing mechanisms, and there is no significant effect on ROA. Gompers et al. (2007) find an insignificant relationship between the use of control-enhancing mechanisms and firm value. According to Villalonga and Amit (2006), minority shareholders in family companies are neither worse nor better off than those in non-family companies. Moreover, even if both founder-CEO and descendant-CEO managed companies with control-enhancing mechanisms outperform non-family companies, such mechanisms produce more value in founder-CEO family companies.

2.4 Agency theory

Agency theory, which highlights interest conflicts within organizations, is a major concern in corporate governance research. The so called Agency Problem I, which describes the conflicts between owners and managers, can be alleviated if there are large shareholders because those shareholders have greater incentives to supervise managers. On the other hand, Agency Problem II refers to the agency conflict between large shareholders and small shareholders. It is generally assumed that large shareholders may

use their controlling power to provide benefits to themselves at the expense of smaller shareholders. The Agency Problem II can be relieved to some extent if the large shareholder is an institution or a widely held company, but even then the incentive to monitor management will be reduced at the same time.

2.4.1 Agency costs in family firms

As stated by Andres (2008), founding families have strong incentives to decrease agency problems and increase firm value. Andres argues that the incentives to both monitor management and expropriate from minority shareholders are greater in family-controlled companies than in non-family companies. If a single individual and/or his family own the firm, Agency Problem I may be reduced or eliminated, while Agency Problem II remains (Fama and Jensen, 1983; Villalonga and Amit, 2006). Furthermore, which of these two agency problems is more costly is still an open question. Morck et al. (1988), Palia and Ravid (2002) and Fahlenbrach (2004) find higher firm valuation in founder-controlled family companies, while Smith and Amoako-Adu (1999) and Perez-Gonzalez (2001) find contrary results.

In many family companies, the controlling family tends to occupy managerial positions. On one hand, combining ownership with management provides benefits in that family-managers have more incentives to improve firm performance. In addition, Leland and Pyle (1977) suggest that the extent of information asymmetries between managers

and minor shareholders may be reduced, as the percentage of shares held by family-managers serves as a signal of the quality of the company.

On the other hand, majority shareholders maximize their personal benefits by expropriating from minority shareholders. Perez-Gonzalez (2006) examines 500 US companies and finds that the stock prices increase substantially when professional CEOs are appointed after the retirement or resignation of a family-CEO. Moreover, the extent of expropriation of majority shareholders from minority shareholders is affected by the legal environment. Burkart et al. (2003) find that founding families are more willing to retain control within the family when the regulations to protect minority shareholders are weak. This is also supported by the findings of Claessens et al. (2000) and Faccio and Lang (2002) who find that family ownership is dominant in both Asia and Continental Europe where, the protection of minority shareholders is generally weak.

Jensen and Meckling (1976) argue that corporate diversification is of importance in assessing the agency problems between shareholders and managers. Diversification strategies are deemed as ineffective corporate governance means in that they are believed to facilitate management entrenchment and expropriation (Rose and Shepard, 1997; Aggarwal and Samwick, 2003). According to Jensen and Meckling (1976), agency problems are caused by the insufficient compensation provided to managers. In order to seek additional compensations, managers may employ non-compensatory means such as free-riding or shirking, which are harmful to shareholders. Moreover, managers could take advantages of information asymmetries to commit frauds. On the other hand, by monitoring managers, shareholders can, to some extent, release such problems (Schulze

et al., 2001). Therefore, due to the reduced likelihood and severity of such information asymmetries, agency problems are less severe in family controlled companies (Jensen and Meckling, 1976). The cost to reducing information asymmetries is the lowest in family companies, in that family members are involved in management (Tsai et al., 2006; Anderson and Reeb, 2003).

According to Fama and Jensen (1983), on one hand, family controlled companies are superior to non-family companies due to more efficient firm operations when a firm is run by a family. On the other hand, altruism makes agency problems within family companies more difficult. The agency costs associated with the conflicts between ownership and management, as well as those engendered by altruism, which is deemed as a motivation since it can simultaneously satisfy both “altruistic preferences” and “egotistic preferences” (Lunati, 1997), negatively affect the performance of family controlled companies.

2.5 Founder-CEOs, descendant-CEOs, and professional CEOs

Except for the combination of ownership and management, the succession of family member-CEOs by other family members is another notable characteristic of family companies. Recent research indicates that most family companies around the world are operated by family members, either via the original founders or their descendants (La Porta et al., 1999; Morck et al., 2000; Claessens et al., 2000; Faccio and Lang, 2002). From a theoretical prospective, the influence of family-CEOs on firm performance is

unclear (Donnelley, 1964). On one hand, family managers could perform better since they are motivated not only by monetary incentives but also by non-monetary incentives, which are unique to family managers, such as the reputation of the family (Kandel and Lazear, 1992; Davis et al., 1997). They also have more firm specific knowledge and are enjoy a higher level of trust by shareholders than outside CEOs. Moreover, they tend to concentrate on long-run profitability instead of short-run profits (Cadbury, 2000). On the other hand, family managers tend to be less competent and less experienced, because they are selected from a small pool of managerial talent (Burkart et al., 2003; Perez-Gonzalez, 2006).

As discussed above, controlling families have a strong incentive to improve firm performance and create firm value, as they align their own interests with those of their companies. But the conflicts between large shareholders and minority shareholders are more serious in family firms due to their undiversified ownership structure. Moreover, the controlling family may employ outside managers or appoint a family member as CEO. A family controlled company whose CEO stems from the controlling family loses the opportunity to employ a better professional manager who might create more firm value than a family member CEO. At the same time, however, companies with professional managers have greater agency costs than family member-CEO companies, since in family companies, the conflicts between shareholders and management are less than those in non-family companies. Hence, family-member managers can either positively or negatively affect firm performance. Smith and Amoako-Adu (1999) find that when a family holds more voting rights and the degree of involvement in the company's management is greater, the company is more likely to appoint family successors.

Villalonga and Amit (2006) find that founder-CEOs or founder-Chairmen add value to a company in that firms with founder-CEOs or Chairmen have the highest average Tobin's Q. Firms with descendant-CEOs have the lowest average Tobin's Q, but the difference is not significant.

As Villalonga and Amit (2006) argue, family management may positively affect firm performance in that family management may reduce or even eliminate Agency Problem I. However, if the outside professional manager is more competent than the family manager, such effects are, to some extent, eliminated (Caselli and Gennaioli, 2002; Burkart et al., 2003). In line with the argument that family management may reduce the cost of Agency Problems I, Morck et al. (1988), Palia and Ravid (2002), Adams et al. (2003), and Fahlenbrach (2004) find that founder-CEO companies have greater firm value than non-family companies, as well as descendant-CEO and professional manager operated family companies. However, the stock market typically reacts negatively to the appointment of family members as managers (Smith and Amoako-Adu, 1999; Perez-Gonzalez, 2001). They argue that this negative reaction is due to the uncertainty of both outside financiers and potential investors towards the management quality of the family successor. Even though descendants know the company better than outside professional managers, they are generally younger and are deemed less competent.

2.5.1 Factors related to family successions

Some companies may intend to improve firm performance through the appointment of a new CEO. Vancil (1987) finds that the appointment of either an insider or a family member as CEO has an insignificant effect on improving firm performance, whereas the appointment of an outside professional manager creates value. Hence, he argues that a professional manager is a better choice as successor than either an insider or a family member. In family companies, the controlling family plays an essential role in deciding whom to appoint as CEO, however. The controlling family may pursue their own interests with the appointment, and are therefore more likely to propose a person who shares their interests rather than the interests of outside shareholders.

2.5.2 Is the appointment of a family member as CEO value-enhancing or value-damaging?

Whether the appointment of a family member as CEO is a less optimal selection compared with the appointment of a professional manager is inconclusive. Some argue that the appointment of family members is extensively affected by the entrenchment of family ownership. Families tend to maintain their controlling power by appointing family members as CEOs or senior managers, thereby ignoring potentially more competent outsiders. Accordingly, the appointment is sub-optimal and in turn, damages firm value.

According to Morck et al. (1988), when a family company appoints an insider or outsider as a CEO successor, the company is more likely to become the target of a

takeover. Family companies with family member CEOs, on the other hand, are less likely to be the target of a takeover. Due to the lower takeover probability, minority shareholders are more likely to be critical of the appointment.

Moreover, it is believed that the negative reaction from the stock market towards the appointment of family member can be attributed to the uncertainty about the family-CEO successor. Generally, family successors are younger than hired managers or insiders and are often deemed less experienced and less competent. Also, professional managers or insiders are better known by minority shareholders and potential investors due to their relatively longer presence in the industry than family successors.

On the other hand, some argue that there are advantages of family member successors. First of all, family members are more concerned about the company's survival than outsiders, since the company is passed from generation to generation as a legacy. Also, the social status of the family is often aligned with their firms' performance. Second, family successors have better knowledge of the company than outsiders due to their long standing with the company and its senior management. Furthermore, some family members may have been trained to become a successor from a young age already.

2.6 Empirical findings in previous studies

The academic literature provides inconclusive findings on the question whether family controlled ownership enhances or damages firm value (McConaughy et al., 1998; Maury, 2006). Morck et al. (1988) find a nonlinear relationship between family ownership and

firm performance. Anderson and Reeb (2003) find that generally, family companies are superior to non-family companies in terms of both accounting and market performance, which is contrary to the statement that family ownership is detrimental. Specifically, they find that family ownership first positively affects firm performance, but reduces firm value when family shareholdings increase. Moreover, they state that both young (less than 50-year old) and old (more than 50-year old) family companies exhibit superior performance over non-family companies. In addition, they find that family companies with founder-CEOs have better performance than non-family companies with respect to both accounting and market measures. Family companies operated by descendant-CEOs have superior operational profitability than non-family companies and outsider-CEOs. Similarly, McConnaughey et al. (1998) conclude that family companies in the US are more valuable and efficient than non-family companies. Similarly, Maury (2006) finds that founding family-controlled companies in Western Europe outperform non-family companies.

In contrast, Holderness and Sheehan (1988) find that family companies in Southeast Asia underperform their non-family counterparts, due to the expropriation of minority shareholders. In addition, family companies are found to be less efficient and less valuable than non-family firms in Sweden and Norway (Cornqvist and Nilsson, 2003; Barth et al., 2005).

It is theoretically suggested that professional managers are superior to family members, although the agency costs that result from the conflicts between managers and owners are more severe. Hence, if the benefits from the avoidance of Agency Problem I exceed the

losses of failing to appoint superior professional managers, actively managed family companies will outperform non-family companies with hired CEOs.

According to Villalonga and Amit (2006), family companies outperform non-family companies when the controlling family actively involves in the management of the company, such as present as family member CEO and/or family-Chairman of the board of directors, which is similar to the results from Barontini and Caprio (2006) who find a higher firm value and better firm performance for founder-controlled companies. Morck et al. (1988) find that founders and descendant-CEOs positively affect firm performance in companies established less than 50 years ago whereas there is a negative effect on firm performance in older companies, which have been incorporated more than 50 years ago, due to the relatively higher level of entrenchment.

Burkart et al. (2003) suggest that professional CEOs are superior. Similarly, Bennedsen et al. (2007) find that there is a negative relationship between management successions and firm performance around the successions. After the appointment of family members as CEOs in family companies, the return on assets decreases by at least 4 percent. After controlling for firm characteristics, the results are robust. The authors argue that the better performance following the appointment of professional managers may be due to the changes of ownership structure, rather than better managerial ability or experience. Moreover, they find that family companies that are actively operated by family members have lower profitability ratios than companies operated by professional managers and are more likely to file for bankruptcy or be liquidated. Lane and Jameson (1993) find that when family companies are controlled by younger family members, the

companies are less likely to employ advertising, and have lower dividend payout ratios. There is no significant influence on leverage by family ownership. Yermack (1996) finds that family ownership is negatively associated with firm performance by investigating the presence of family members on the board of directors. Johnson et al. (1985) find that the death of a founder-CEO leads to an increase in stock prices, whereas they find no significant relationship between the stock price performance and the status of CEOs in family companies. Chung (1992) states that the status of CEOs has no significant effect on firm value, which is measured by modified Tobin's Q. However, stock prices decline significantly when founders leave the companies, stock prices decline significantly.

With respect to control-enhancing mechanisms, King and Santor (2008) find that Canadian companies are more likely to employ control-enhancing mechanisms, such as pyramids and dual-class shares than companies in the US. They report that Canadian family companies with single class shares operate indifferently from their family firms with dual class shares based on Tobin's Q, but outperform based on ROA. However, family companies employing control-enhancing mechanisms underperform family firms without such mechanisms based on Tobin's Q, which is consistent with Gompers et al. (2007) who argue that the use of control-enhancing mechanisms by family companies destroys firm value.

Finally, Maury (2006) finds that Agency Problem I in family companies is less severe than in widely held companies. However, as ownership increases, this benefit disappears. Claessens et al. (2002) and Lins (2003) find that the benefits of concentrated ownership are offset by the damages caused by the wedge between voting rights and cash-flow

rights on firm valuation in East Asian countries, which is supported by the results from Cornqvist and Nilsson (2003).

3. Data

3.1 How to define family companies?

As discussed before, there is no clear definition for family companies. Typically, family companies are characterized as being controlled and usually managed by the founding family (Shanker and Astrachan, 1996; Lansberg, 1999) and passed as a legacy from generation to generation (Anderson and Reeb, 2003). In our study, to be identified as a family-controlled company, a firm has to meet at least one of the following criteria: 1) the founder or the founding family either individually or as a group holds at least 20% or more of the outstanding shares and is the largest shareholder; or 2) either the CEO and/or the chairman of the board of directors comes from the founding family (Villalonga and Amit, 2006). If the company is operated by a family member and the family owns 20% or more of the shares outstanding and is the largest shareholder in the company, it is deemed an actively managed family company (Smith and Amoako-Adu, 1999). Companies in which no shareholder owns more than 20% of the outstanding shares are referred to as widely held companies or non-family companies (Claessens et al., 2002; King and Santor, 2008).

3.2 How to define founders?

We follow the method used by Villalonga and Amit (2006) and Andres (2008) to identify founders as those who founded the company or the predecessor of the company in case of a change in the legal form and/or the name of the company. If the company was founded by more than one person, we follow Andres (2008) to sum the shares across all founding families. Furthermore, people who changed the operations of a company significantly after acquiring a majority equity stake in the firm and operated it as the CEO are also deemed as founders of the company (Andres, 2008). Hence, as noted by Villalonga and Amit (2006), for a person to be considered a founder, he/she does not necessarily have to be the person who both incorporated the company and took the company public.

To distinguish their study from prior research, Miller et al. (2007) separate “lone founder” companies from “family founder” companies. They define “lone founder” companies, as those in which a sole founder manages the company as an officer or director, or owns 5% or more of the firm’s outstanding shares and there are no other family members involved in the company. “Family founder” companies are those in which not only the founder but also other relatives participate in the management of the company either contemporarily or over time.

3.3 How to define control-enhancing mechanisms?

It is typically assumed that control-enhancing mechanisms entitle the controlling family to hold excessive voting rights relative to their equity stakes and facilitate the maximization of their own utility (Villalonga and Amit, 2006). They classify voting structure into four categories: multiple classes of shares, pyramids, cross holdings and voting agreements to investigate whether control-enhancing mechanisms create or destroy value. They argue that when the family owns shares through one or more intermediate entities, such as a trust, fund, foundation, limited partnership, holding firm, or any other form of corporation of which the family owns less than 100% of the shares, it is referred to as a pyramid. Cross-holdings exist when the company owns shares in a corporation that belongs to the family's chain of control in the firm. Voting agreements are agreements among shareholders that result in the family holding voting power over a larger number of shares than what it owns in forms of its investment power. Multiple share classes refer to voting structures in which firms issue two or more classes of shares with differential voting rights. Due to data restrictions, in this paper, we only examine the use of dual-class shares. If the company issues more than one class of shares and at least one class of shares is entitled to vote more than one vote per share, the company is deemed to employ a control-enhancing mechanism.

3.4 Data sources

We collected data about significant shareholders and senior management of all Toronto Stock Exchange (TSX) listed companies from the TSX Group Factbook, the annual Financial Post Survey of Industrials, the Financial Post Survey of Mines, the Financial Post 500, the Canadian Business 500 and the proxy circular on the System for Electronic Document Analysis and Retrieval (SEDAR). Ownership data and board of director data was obtained via the Osiris database and SEDAR. Financial data was collected from Mergent Online, while stock prices were obtained from the Canadian Financial Markets Research Centre (CFMRC). Data regarding the use of dual-class shares was retrieved from proxy circulars on SEDAR and the Financial Post Survey of Industrials.

3.5 Sample description

Our sample consists of companies listed on Toronto Stock Exchange (TSX) during any year from 1999 to 2007. Following Villalonga and Amit (2006), companies in which the founding family holds more than 20% of outstanding shares and is the largest shareholder, either individually or as a group, or firms in which the CEO and/or the Chairman of board of directors is a family member as family controlled companies. The percentage of shares owned by a family is calculated by aggregating across all family members and across all classes of outstanding shares (Villalonga and Amit, 2006) and across all founding families if there is more than one founding family (Andres, 2008). Financial services companies and utility companies are excluded from the sample to make this

study comparable with other studies (Villalonga and Amit, 2006; Miller et al., 2007; King and Santor, 2008).

In order to investigate how family companies differ from non-family companies, we follow the matching method used by McConaughy et al. (1998) to select companies with the same two-digit SIC code, a similar size (within +/- 25% of sales revenues) and without a single shareholder holding more than 20% of shares in the company as matching firms¹.

In order to examine whether the use of control-enhancing mechanisms adds value to a family company, we use a control-enhancing dummy, which equals one if the company issues multiple voting right shares and zero if each share only has a single vote. The wedge between ownership stakes and voting rights is defined as the difference between total percentage of voting rights owned by the founding family and the total percentage of ownership held by the family.

Furthermore, we compare the board of director name lists and shareholders name lists to identify family member CEOs and chairmen of the board of directors, founder-CEOs and descendant-CEOs. Board size and the number of family members on the board are also collected to examine the extent to which families exert influence on the management.

¹ Before we followed the method used by McConaughy et al. (1998) to select matching firms, we also considered an alternative matching procedure in which we considered those firms as matching firms that had a market capitalization within +/- 25% of the market capitalization of the corresponding family firms, operate in the same industry (i.e. have the same two digit SIC code) and have no majority shareholders holding more than 20% of the firm's outstanding shares. Because the results we obtained after employing this matching procedure were generally somewhat weaker, we chose to report the results for our sales-based matching procedure.

Firm age is collected from the company's profile on their own websites or through Factiva.

3.6 Variables

Definitions and descriptions of the variables used in this paper are provided in Table 1. Tobin's Q is calculated as the ratio of the firm's market value to the replacement cost of total assets. A firm's market value is calculated as the sum of the book value of total debt and the market value of equity. The market value of equity is calculated as the closing price multiplied by the number of shares outstanding. When a company has multiple classes of shares, we add the market value of each class (Nenova, 2003; Zingales, 1994; Villalonga and Amit, 2006). If at least one class of shares is not traded on the market for companies with multiple classes of shares, we multiply the total number of shares of all classes with the closing price of the tradable class of shares (Gompers et al., 2004; Villalonga and Amit, 2006). With respect to ROA, we employ both net income and EBITDA to calculate ROA (King and Santor, 2008; Andres, 2008; Adams et al., 2008). As argued by King and Santor (2008), Tobin's Q is a "forward-looking" measurement, which is aimed to reflect the market's valuation of the firm's assets relative to book value and the company's future growth opportunities. ROA, on the other hand, is typically deemed a "backward-looking" measurement of profitability and productivity. However, both Tobin's Q and ROA are substantially affected by the accounting principles used by the company towards the valuation of intangible assets, fair market value of assets and liabilities.

*** Insert Table 1 about here ***

3.7 Data description

Correlation coefficients between independent variables are provided in Table 2. We find that even if there are significant correlations between control-enhancing mechanisms, wedge, log of board size, percentage of family members on the board, family-CEO dummy, family-Chairman dummy, founder-CEO dummy and descendant-CEO dummy, the coefficients are all less than 0.7, which is the typical benchmark beyond which is concerned about multicollinearity.

*** Insert Table 2 about here ***

Table 3 provides descriptive statistics for our sample. The univariate comparison of family and non-family companies suggests that first of all, family companies are smaller, which is consistent with Anderson and Reeb (2003) who report that family companies have smaller firm size, which is measured by assets, sales or the number of employees. King and Santor (2008) who examine 613 Canadian companies find that family owned firms have similar firm size, which is measured by market capitalization, to widely held firms. Second, we find that family firms have higher leverage and a lower sales growth rate, which is consistent with King and Santor (2008). Third, family firms are older than their non-family counterparts, which is contrary to Anderson and Reeb (2003), who find that family firms are younger. Fourth, both Tobin's Q and ROA (measured by net income and EBITDA) are higher in family companies, although the difference in Tobin's

Q between family companies and non-family companies is not statistically significant. Similarly, Villalonga and Amit (2006) note that family companies in the US have a higher Tobin's Q than non-family firms and that the difference is even greater for industry-adjusted Tobin's Q. King and Santor (2008) report that family companies have a higher ROA but lower Tobin's Q than widely held companies, however.

*** Insert Table 3 about here ***

Villalonga and Amit (2006) argue that founding families are more likely to use control-enhancing mechanisms to secure their controlling power by holding excessive voting rights over cash-flow rights. In our sample, there are 21 companies issuing dual-class shares. Among them, 6 companies are widely held companies, and 15 companies are controlled by a founding family. The average percentage of shares outstanding held by family companies employing dual-class shares is 40.16%, whereas the average percentage of voting rights owned by founding families is 62.59%, representing 22.43% of voting rights in excess of cash-flow rights. This supports the view that firms employ control-enhancing mechanisms to secure the majority control within the company. Smith and Amoako-Adu (1999) show that the family companies in their sample hold on average 53.52% of total voting rights and 62% of family companies employ control-enhancing mechanisms, such as dual class shares. Furthermore, Villalonga and Amit (2006) find that more than 50% of family companies in their sample employ control-enhancing mechanisms, including dual classes of shares, pyramids, cross holdings, and voting agreements. King and Santor (2008) argue that Canadian companies are more likely to employ control-enhancing mechanisms than those in the US, and are thus similar to firms

in Asia and in Europe, which is consistent with the findings by Gompers et al. (2007). They also find that more than half of their sample companies employ control-enhancing mechanisms, of which 20% have excessive voting rights over cash-flow rights.

When investigating whether founder-CEOs and descendant-CEOs are superior to professional CEO, in our sample, we find that there are 70 out of 79 family companies where CEOs and/or Chairmen of the board of directors are family members. Among those 58 are founders. Family companies have an average board size that is similar to that of non-family companies. Specifically, boards tend to consist of 10 directors, on average, and there are 1.5 directors out of those 10 that come from the founding family. Smith and Amoako-Adu (1999) argue that when a family has higher ownership stake and voting rights, a family company is more likely to appoint a family member successor. In our sample, we find that when the family actively participates in the company's management, the average number of family members on the board is 1.586, which is slightly higher than the average number of family board members for all family companies, which is 1.5.

4. Methodology

4.1 Family vs. non-family companies

King and Santor (2008) use a random-effects specification to include both time-invariant and time-variant variables. They take both random effects and clustered standard errors into account and include year dummies to measure the time effects.

Following Claessens et al. (2002), Villalonga and Amit (2006), King and Santor (2008) and Andres (2008), we employ multivariate regressions to examine whether family ownership is superior to non-family ownership. The dependent variable, for our purpose, is firm performance, which is measured by ROA (based on both net income and EBITDA) and Tobin's Q. ROA and Tobin's Q are the most common dependent variables used by researchers (see also Anderson and Reeb, 2003; Bertrand and Schoar, 2003; Villalonga and Amit, 2006; King and Santor, 2008; Andres, 2008; Miller et al., 2007; and Adams et al., 2008).

Our main independent variables include a family firm dummy, which equals one when the company is controlled by a family and zero otherwise, and ownership percentage, which is the percentage of shares owned by the controlling family, either individually or as a group. The control variables include the firm's leverage (measured by the firm's debt/equity ratio), its sales growth rate and its age, (specifically the natural logarithm of the firm's age). Besides those variables discussed above, Miller et al. (2007) also include lone founder and management variables, the firm's advertising to sales ratio, R&D to sales, new investment in plant and equipment, the volatility of company returns (beta) as well as total ownership of outside blockholder whose ownership is greater than 5% as control variables.

To examine the relationship between ownership structure and firm performance, we establish the following model:

$$Y_{it} = \alpha + \sum_{m=1}^2 \beta_m OWN_{mit} + \sum_{n=1}^N \gamma_n X_{nit} + \varepsilon_{it} \quad (1)$$

where Y_{it} is firm value, measured by Tobin's Q and ROA (based either on net income or EBITDA). OWN_{1it} and OWN_{2it} are ownership variables, including our family firm dummy and ownership percentage. X_{mit} ($n = 1 \dots N$) are control variables, including the firm's leverage, its sales growth rate and the natural logarithm of the firm's age.

4.2 Control-enhancing mechanisms

Compared to US companies, Canadian family companies are more likely to employ pyramids or dual-class shares than widely held companies (Villalonga and Amit, 2006; Gompers et al., 2007; King and Santor, 2008). Such a control-enhancing mechanism is aimed to secure and enhance the controlling power held by founding families in that it entitles founding families to hold excessive voting rights over cash-flow rights. In order to test how control-enhancing mechanisms affect firm performance, an additional control-enhancing mechanism dummy variable is used, which identifies whether a firm employs dual-class shares or not. Villalonga and Amit (2006) include control-enhancing mechanisms in their examination by classifying voting or control structures which facilitate the enhancement of the controlling family's voting power into different types: multiple classes of shares, pyramids, cross-holdings and voting agreements. In our study, in order to examine the effects of control-enhancing mechanisms on firm valuation, the following model is used.

$$Y_{it} = \alpha + \sum_{m=1}^2 \beta_m OWN_{mit} + \sum_{n=1}^N \gamma_n X_{nit} + \delta CONT_{it} + \varepsilon_{it} \quad (2)$$

where Y_{it} is firm value, measured by Tobin's Q and ROA (based either on net income or EBITDA). OWN_{1it} , OWN_{2it} and X_{nit} ($n = 1 \dots N$) are as defined above. $CONT_{it}$ is control-enhancing mechanism variables, which include control-enhancing mechanism dummy variable, which equals one if the company uses dual-class shares and zero otherwise. In addition, we include the wedge, which is the difference between the percentage of voting rights owned by the family and the percentage of outstanding shares held by the controlling family (Villalonga and Amit, 2006). The appearance of such difference is attributed to the issuance of multiple voting rights shares.

4.3 Which agency problem is more costly?

Villalonga and Amit (2006) estimate the interaction effects of family ownership, control-enhancing mechanisms and management on firm performance to examine which agency problem is more costly, because it is difficult to measure the effects of agency problems directly. They assume that family-CEOs and/or family-chairman of the board of directors can eliminate the conflicts between ownership and management, and the control-enhancing mechanisms can aggravate the conflicts between majority shareholders and minority shareholders. Similar to Villalonga and Amit (2006), we classify family companies into four categories to examine how family vs. professional management and the use of control-enhancing mechanisms affect firm performance in terms of the two agency problems: the conflict between owners and managers and the conflict between large and small shareholders. We employ the following four categories to classify our sample firms (See also Figure 1):

- I) Family firms with control-enhancing mechanisms and family management (i.e. a family CEO) and/or a family Chairman of the board of directors -- these firms are assumed to experience Agency Problem II.
- II) Family firms with control-enhancing mechanisms but with hired CEOs -- these firms are assumed to experience both two agency problems.
- III) Family firms without control-enhancing mechanisms but with family member-CEOs and/or Chairmen of the board of directors -- these firms are assumed to have neither of the two agency problems.
- IV) Family firms having neither control-enhancing mechanisms nor family-CEOs and/or Chairmen of the board of directors -- these firms are expected to suffer from Agency Problem I.

Type IV companies are deemed as non-family companies in that they neither have family-management nor employ control-enhancing mechanisms, which are the typical characteristics of non-family controlled companies (Villalonga and Amit, 2006). We employ two dummy variables (family-CEO and control-enhancing mechanisms) and compare the average Tobin's Q and ROA and the differences of average Tobin's Q and ROA between these four types of companies.

*** Insert Figure 1 about here ***

It is assumed that Type III companies have the highest levels of both Tobin's Q and ROA because they experience neither Agency Problem I nor Agency Problem II. On the

other hand, companies classified as Type II are expected to have the lowest Tobin's Q and ROA, as they encounter both Agency Problem I and Agency Problem II. The mean values of Tobin's Q and ROA of Type I and Type IV companies are expected to measure which agency cost is more costly. Furthermore, we compare the mean differences among these four classes of companies. First, the mean difference between Type I and Type II companies is assumed to measure the incremental benefits from relieving a firm that experiences both agency problems (a Type II firm) of Agency problem I. Second, the difference between the mean values of Type IV companies and Type II companies is assumed to proxy for the incremental benefits of relieving a Type II firm from Agency Problem II. Third, the difference between the mean values of Type I and Type III companies is hypothesized to measure the stand-alone cost of suffering from Agency Problem II. Finally, differences in the average Tobin's Q and ROA between Type IV and Type III companies serves as a proxy for the stand-alone cost of Agency Problem I.

4.4 Founder-CEO, descendant-CEO, hired CEO and non-family companies

Some academics argue that founders and descendants of those founders affect firm performance differently (Morck et al., 1988; Perez-Gonzalez, 2001). Smith and Amoako-Adu (1999) employ a multinomial logit model and calculate the cumulative abnormal return to estimate the likelihood a family company appoints a family CEO successor and the impact of family successors on firm valuation by comparing family member appointments, non-family insider appointments and outsider appointments in actively managed family companies listed on the Toronto Stock Exchange (TSX)

between 1962 and 1996. They find that when family member appointments are announced, stock prices decline. However, they argue that the negative reaction on the stock market is not due to investors' suspicion about the managerial ability of the family successor, but due to their relatively young age and lack of experience. Barontini and Caprio (2006) find that founder CEO managed companies outperform non-family companies, while the performance of descendant CEO companies is not statistically different from that of non-family companies.

In order to examine whether founder-CEOs and descendant-CEOs are superior to professional CEOs, Anderson and Reeb (2003) classify family companies into three categories: i.e. those with a founder-CEO, a descendant-CEO or a hired CEO. In addition, they examine the impact of family member representation on the board of directors. We follow their approach by using a founder-CEO dummy, a descendant-CEO dummy, a family-CEO dummy and a family-chairman dummy, which are designed to distinguish between family CEOs, including both founder-CEOs and descendant-CEOs, and family chairman of the board of directors from professional CEOs. In addition, we examine the impact of board size and percentage of family members on the board of directors on firm performance. In line with the results from prior studies, we expect family firms that are managed by founders to display superior firm performance (proxied for by Tobin's Q). We expect that founder-CEOs are superior to descendant-CEOs and professional CEOs. The effects of family-CEO and family-Chairman can be either positive or negative, however. This is because on one hand, owner-managers can alleviate or even eliminate Agency Problem I. On the other hand, the conflicts between majority shareholders and minority shareholders will be more serious. The following model is used to measure

whether family member CEOs (and/or family member chairmen of the board of directors) create or destroy values for a company:

$$Y_{it} = \alpha + \sum_{m=1}^2 \beta_m OWN_{mit} + \sum_{n=1}^N \gamma_n X_{nit} + \delta CONT_{it} + \sum_{p=1}^P \theta_p CEO/BOD-Status_{pit} + \varepsilon_{it} \quad (3)$$

where Y_{it} is firm value, measured by Tobin's Q and ROA (based either on net income or EBITDA). Our collection of $CEO/BOD-Status$ variables include a board size variable, measured as the natural logarithm of the total number of directors on the board, a family-CEO dummy variable, which equals one if the CEO comes from the founding family and zero otherwise, a family-Chairman dummy, which equals one if the Chairman of the board of directors comes from the founding family and zero otherwise, a founder-CEO dummy, which equals one if the CEO is the founder of the company and zero otherwise, a descendant-CEO, which equals one if the CEO is a descendant of the founder and zero otherwise, as well as the percentage of family members on the board, measured as the ratio of the number of family member directors to the total number of directors on the board. OWN_{1it} , OWN_{2it} , X_{nit} ($n = 1 \dots N$) and $CONT_{it}$ are as defined above.

5. Empirical Results

5.1 Family vs. non-family companies

Our regression results for model (1) are shown in Table 4. Our findings suggest that based on Tobin's Q, family companies are superior to non-family companies. When

considering ROA, on the other hand, we find no significant difference between family and non-family controlled firms. Overall, our results are largely consistent with Villalonga and Amit (2006) and Andres (2008). Andres (2008), for example, reports that family companies outperform non-family companies based on both Tobin's Q and ROA. As noted, our findings only confirm the first finding. On the other hand, King and Santor (2008) find that family firms underperform non-family firms based on Tobin's Q, but outperform based on ROA.

*** Insert Table 4 about here ***

Moreover, when family ownership percentage increases, Tobin's Q decreases. The decrease is significant at the 10% level, which is consistent with Maury (2006). He finds that as ownership increases, the benefits from releasing a firm of Agency Problem I disappears. Similarly, Anderson and Reeb (2003) state that family ownership positively relates to firm value, but when family shareholdings increase, firm value is reduced. In contrast, Villalonga and Amit (2006) find a significant positive influence of family ownership percentage on Tobin's Q. We find that there is no significant relationship between family ownership percentage and ROA.

Furthermore, as shown in Table 4², both leverage and firm age are significantly negatively associated with Tobin's Q, while firm age is positively correlated with ROA measured by both net income and EBITDA. This is somewhat supportive of King and

² When we include firm size as an additional control variable in our regressions for Model 1, we find that firm size significantly positively affects both Tobin's Q and ROA. Moreover, the family firm dummy becomes significant in both ROA regressions. However, our variable that measures family ownership loses its significance in our Tobin's Q regression. The significance and signs of leverage, sales growth rate and firm age are unchanged.

Santor (2008) who find a positive relationship between firm size, growth rate and ROA, whereas leverage negatively affects a firm's accounting profitability. When Miller et al. (2007) divide family companies into two categories: "lone founder" companies and family businesses, they find that firm performance measured by Tobin's Q is highly sensitive to the definition of a family company. Only "lone founder" firms outperform widely held companies.

5.2 Control-enhancing mechanism

In order to measure the effect of employing a control-enhancing mechanism such as dual-class shares, we first run the regression for model (2) for the full sample. In a second step, we then divide all samples firms into two subsamples: companies employing dual-class shares and companies not using dual-class shares. The results are shown in Panel A, B, and C of Table 5, respectively.

*** Insert Table 5 about here ***

In Panel A, the significance and signs on the coefficients of both our family firm dummy and our ownership percentage variables remain the same as the results of model (1) shown in Table 4. The coefficients on the control-enhancing mechanism dummy are positive and significant when considering either Tobin's Q or ROA. This implies that there is a value premium of using control-enhancing mechanisms, which is contrary to the findings of Claessens et al. (2002), Villalonga and Amit (2006), Gompers et al. (2007) and King and Santor (2008). They find that control-enhancing mechanisms destroy firm

value in that the use of control-enhancing mechanisms is generally negatively correlated to firm performance.

Moreover, we find an insignificant influence of the wedge between voting rights and equity stakes on firm performance, which is partly consistent with King and Santor (2008). They find that both wedge between voting rights and cash flow rights and control-enhancing mechanisms insignificantly affect ROA. However, the wedge and the use of dual-class shares are negatively associated with Tobin's Q. According to the results of Villalonga and Amit (2006), excessive voting rights over cash-flow rights negatively affect both a firm's Tobin's Q and its industry-adjusted Q, which is consistent with Gompers et al. (2004), Gompers et al. (2007). Gompers et al. (2004) find that when dual-class shares produce excessive voting rights over cash-flow rights, firm value decreases. Gompers et al. (2007) find that the wedge, which is defined as the difference between family shareholders' voting rights and their equity stakes, has a negative impact on the median value of Tobin's Q but note that the degree and significance vary depending on the estimation methods. In addition, we find a firm's sales growth rate does not appear to have any significant effects on firm performance. Leverage negatively affects Tobin's Q and has no significant influence on ROA. Firm age is significantly negatively associated with Tobin's Q, but the sign is different when considering ROA instead. This supports earlier findings by King and Santor (2008), although the coefficients are not statistically significant in their study. Similar to our results, they find that firm age is negatively correlated with Tobin's Q, but positively correlated with ROA.

In Panel B of Table 5, we provide the regression results for model (2) for companies employing control-enhancing mechanisms. Family companies outperform based on Tobin's Q and underperform based on ROA, based on either net income or EBITDA.

When families hold higher ownership stakes, Tobin's Q decreases, whereas ROA increases. The difference between voting rights and cash-flow rights becomes significant in both our Tobin's Q and ROA regressions. On the other hand, leverage becomes significant in our ROA regression, but loses its significance in the Tobin's Q regression when compared with the results in Panel A. Our results for firm age are consistent with those in Panel A. Even though control-enhancing mechanisms appear to add value to the company, excessive voting rights over cash-flow rights decrease Tobin's Q. Interestingly, the wedge in Panel A is negative and insignificant on ROA. However, it becomes significant and positive in Panel B. The greater the excessive voting rights held by controlling family, the higher the level of ROA produced by a given firm. The results in Panel C are highly similar to the results in Panel A.

Compared to most other studies in the literature, our results are somewhat contradictory with respect to the influence of control-enhancing mechanisms on firm value. While our findings suggest that control-enhancing mechanisms create value, prior research generally finds that the use of control-enhancing mechanisms destroys firm value. Our findings may be sample-specific and unique to Canada. In Canada, both the local and federal government have been known to provide support to large family companies such as Bombardier when they undergo difficult times – a practice that is rather rare in the US. Such government aid programs are undoubtedly beneficial for

shareholders, including family shareholders. However, when these same firms do well, there is typically no payback to the government, meaning that shareholders benefit again. This provides many Canadian firms in the past with a sort of call option that protects them from failure on the downside but grants them the full upside potential during favorable times. This protection may also prompt family shareholders to issue dual-class shares to secure their controlling power within the company and allows them to further benefit from having excessive control rights over cash-flow rights.

5.3 Agency problems

As discussed above, in order to estimate which agency problem is more costly, we follow Villalonga and Amit (2006) and classify family companies in our sample into four categories. There are fourteen Type I companies, one Type II company, fifty-six Type III companies and eight Type IV companies. The results are shown in Table 6³. Opposite to our expectation that Type III would have the highest levels of Tobin's Q and ROA (Villalonga and Amit, 2006), Type I firms have the highest level of Tobin's Q and ROA. At the same time, we find that Type II firms have the lowest levels of Tobin's Q, which is consistent with our expectation, and Type IV companies produce lowest level of ROA.

*** Insert Table 6 about here ***

³ Note that given the small size of some of our subsamples (particularly the Type II companies), the results presented have should be viewed with some caution.

Villalonga and Amit (2006) find that companies that have no agency problems, have the highest average Tobin's Q and average industry-adjusted Tobin's Q. However, our results suggest that firms classified as Type I, i.e. those with a control-enhancing mechanism and a family-CEO and/or a family-chairman of the board of directors, generate higher levels of both Tobin's Q and ROA than those in Type IV companies, which indicates that companies with Agency Problem II may be better off than companies encountering Agency Problem I. Second, the differences of both Tobin's Q and ROA between Type I and Type III companies are assumed to measure the cost of experiencing Agency Problem II and differences between Type IV and Type III are supposed to measure the cost of Agency Problem I. They are all supposed to be negative, because companies with neither Agency Problem I nor Agency Problem II are assumed to generate the highest levels of Tobin's Q and ROA. However, as shown in Table 6, the differences are positive, which is contrary to our expectations. Third, the difference between Type I and Type II companies, which is 0.254, proxies for the benefits of relieving a firm of Agency Problem I. Interestingly, this figure is greater than the difference between Type IV and Type II companies, which is 0.135, and measures the benefits generated from the avoidance of Agency Problem II, based on Tobin's Q. Although we were unable to test for the significant of the difference between those two type-changes, our results appear to suggest that Agency Problem I is more costly than Agency Problem II, which is in contrast with Villalonga and Amit (2006). They find that the use of control-enhancing mechanism destroys firm value, and minority shareholders are neither better nor worse off than they would have been in a non-family company due to the benefits of family ownership. In summary, our results suggest that control-

enhancing mechanism adds value to the firm, which is consistent with the finding for model (2), and Agency Problem I, the conflict between owner and management, is more costly than the conflict between majority and minority shareholders, namely Agency Problem II.

5.4 Founder-CEOs and descendant-CEOs

The results for model (3) are shown in Table 7. After controlling for the control exerted over managers by the founding family, the family dummy becomes significant based on both Tobin's Q and ROA, even if the signs are different. Family companies are better off based on Tobin's Q, which is consistent with Anderson and Reeb (2003), Villalonga and Amit (2006), and Miller et al. (2007), and worse off based on ROA. On one hand, our control-enhancing dummy variable remains positive and significant in our Tobin's Q regression. On the other hand, when the excessive voting rights over cash-flow rights become greater, Tobin's Q decreases significantly. Moreover, larger board size generates a higher level of ROA but has no influence on Tobin's Q. When there is more family members presented on the board of directors, Tobin's Q decreases dramatically. According to Smith and Amoako-Adu (1999), the number of family officers and directors has a strong positive effect on the likelihood of family successor appointments. However, the cumulative abnormal return surrounding the announcement of a successor is negative when the company appoints either a family member or a non-family member insider. With respect to long-run performance, they find that the median industry-adjusted ROA decreases significantly in firms managed by family successors,

whereas the median industry-adjusted ROA in firms with outside successors increase significantly. On the other hand, they find no significant relationship between non-family insider successors and firm performance.

*** Insert Table 7 about here ***

Furthermore, family-CEOs are better managers based on ROA while family-Chairmen destroy firm value proxied for by Tobin's Q. With respect to the generation of CEO and/or the Chairman of the board of directors, we find that founder-CEOs are better managers, measured by Tobin's Q, than descendant-CEOs. Moreover, ROA is significantly lower when the firm is operated by a descendant-CEO, which is consistent with Villalonga and Amit (2006). Similarly, Andres (2008) finds that founder-CEOs are better than both descendant-CEOs and professional CEOs in family controlled companies, even though they are superior to CEOs in non-family companies. Adams et al. (2008) find that founder-CEOs add value to companies, based on both Tobin's Q and ROA. In contrast, Sraer and Thesmar (2007) find that descendant-CEOs are as successful as founder-CEOs, based on ROA. Miller et al. (2007) find that when "lone founder" companies are separated from family businesses, "lone founder" companies have a higher Tobin's Q than family companies and non-family companies, whereas family business never outperform.

6. Conclusions

We find that family companies are superior to non-family based on Tobin's Q, even though when the proportion of family ownership increases, firm value decreases. In our multivariate analysis, we find that the coefficients of many of our explanatory variables, such as firm age, have opposing signs in our on Tobin's Q and ROA regressions. Some of these differences can likely be attributed to the different characteristics of Tobin's Q and ROA. For example, it is often argued that Tobin's Q is a "forward-looking" measurement of firm value and that ROA is a "backward-looking" measurement of a firm's profitability and productivity. As such, Tobin's Q also proxies for a firm's future growth opportunities. Thus, when a firm is older, its future growth opportunities tend to be smaller, leading to a negative relationship between firm age and Tobin's Q.

Moreover, family companies are more likely to employ control-enhancing mechanisms such as dual-class shares than non-family companies, which is consistent with Villalonga and Amit (2006), Gompers et al. (2007), and King and Santor (2008). Control-enhancing mechanisms are positively associated with both Tobin's Q and ROA, even though the more excessive the voting rights over cash-flow rights are, the lower the Tobin's Q is.

To shine some light on the different types of agency problems that frequently affect firms and on their respective costs, we follow Villalonga and Amit (2006) and divide family companies into four categories and compare the mean value of Tobin' Q and ROA between these categories to measure which agency problem is more costly. We find that firms experiencing Agency Problem II have the highest average Tobin's Q and ROA,

which confirms our results of model (2) that suggested that control-enhancing mechanisms add value to the company. Moreover, we conclude that conflicts between owners and management are more costly than conflicts between majority and minority shareholders. This suggests that the expropriation of minority shareholders by majority shareholders is compensated for by the benefits of family ownership.

Finally, as Andres (2008) suggests, family companies outperform non-family companies and this outperformance relates to the role the family plays in the company and the degree of the family's involvement in the management. As discussed above, firms with family-CEOs are superior to firms with professional CEOs based on ROA. Yet, family-Chairmen and family officers / directors significantly negatively affect a firm's Tobin's Q. Consistent with prior studies (Morck et al., 1988; Palia and Ravid, 2002; Adams et al., 2003; Fahlenbrach, 2004; and Andres, 2008), we find that firms with founder-CEOs are better off than firm's with descendant-CEOs. We argue that the superior firm performance of family firms can be attributed to the active representation of family members in managerial positions. When the founder serves as a CEO in the company, the superior performance is found to be strongest.

In addition to the agency costs I discussed in this paper, there are other types of agency costs that may affect firm performance, such as the agency costs between family firm and its creditors and the agency costs between the firm and its employees. For example, in order to secure their interests, creditors may require their client to maintain a certain level of debt to keep the leverage below a required ratio. On the other hand, the company may tend to borrow more money to expand operations and make more profits.

Hence, there is conflict between the firm and its creditors that may indirectly also affect firm value. In future research in this area, it would be interesting to empirically explore how these agency costs affect firm value.

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Table 1

Definition of variables

Variable	Definition and/or description
1. Tobin's Q	Measurement of firm performance $\text{Tobin's Q} = \frac{\text{Book Value of Total Assets} - \text{Book Value of Shareholders' Equity} + \text{Market Value of Shareholders' Equity}}{\text{Book Value of Total Assets}}$
2. ROA (Net Income)	Return on assets = Net Income / Book Value of Total Assets
3. ROA (EBITDA)	Return on assets = EBITDA / Book Value of Total Assets
4. Family firm	Dummy variable which equals one when the company is controlled by a family, (i.e. a family is the largest shareholder and holds more than 20% of the outstanding shares in the company, either individually or as a group or the CEO and/or Chairman of the board of directors is family member), and zero otherwise
5. Ownership percentage	Ratio of the total number of shares held by the controlling family to the total number of shares outstanding
6. Leverage	The firm's debt-to-equity ratio
7. Sales growth	The firm's annual sales growth rate
8. Control-enhancing mechanism	Dummy variable which equals one if the company employs dual-class shares resulting in the violation of the one-share-one-vote principle.
9. Wedge	Difference between the percentage of ownership stakes held by the family and the percentage of voting rights owned by the family
10. Log of board size	Natural logarithm of the number of directors on the board
11. Percentage of family members on the board	Ratio of the number of family member directors to the total number of directors on the board. It measures the power or the influence of the family on the board
12. Log of firm age	Natural logarithm of the firm's age

Table 1 (continued)

Variable	Definition and/or description
13. Family-CEO dummy	Dummy variable which equals one if the CEO comes from the founding family, and zero otherwise
14. Family-Chairman dummy	Dummy variable which equals one if the Chairman of Board of directors is family member, and zero otherwise
15. Founder-CEO dummy	Dummy variable which equals one if the CEO of the company is the founder, and zero otherwise
16. Descendant-CEO dummy	Dummy variable which equals one if the CEO is a descendant of the founder, and zero otherwise
17. Firm size	Firm's market capitalization

Table 2

Correlation coefficients

	Family firm	Ownership percentage	Leverage	Sales growth	Control- enhancing mechanism	Wedge
Ownership percentage	0.14993***					
Leverage	0.07630*	0.00692				
Sales growth	-0.07191	-0.01764	-0.00335			
Control- enhancing mechanism	0.17255***	-0.00503	0.06081	-0.05346		
Wedge	0.16696***	-0.01573	0.06232	-0.03475	0.67801***	

Table 2 (continued)

	Log of board size	Percentage of family members on the board	Log of firm age	Family-CEO dummy	Family-Chairman dummy	Founder-CEO dummy	Descendant-CEO dummy
Percentage of family members on the board	0.57210***						
Log of firm age	0.00227	0.00211					
Family-CEO dummy	0.59117***	0.67758***	0.00177				
Family-Chairman dummy	0.63258***	0.53957***	0.00184	0.30942***			
Founder-CEO dummy	0.63444***	0.65707***	0.00167	0.62645***	0.61162***		
Descendant-CEO dummy	0.40466***	0.31004***	0.0342	0.38417***	0.35551***	0.01375	

The table presents the correlation coefficients between independent variables. The definitions of independent variables are provided in Table 1. Statistical significance is denoted at the 1% (***), 5% (**) or 10% (*) level, respectively.

Table 3

Univariate comparison of Family firms and non-family firms

Variables	[a] All firms [173]		[b] Family firms [79]		[c] Non-family firms [94]		[d] Diff in Mean	
	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	[b]-[c]	t-stat
Tobin's Q	1.593	1.856	1.635	1.634	1.553	2.045	0.082	0.827
ROA (Net Income)	-0.071	0.488	-0.027	0.207	-0.113	0.648	0.086	3.332***
ROA (EBITDA)	-0.009	0.471	0.042	0.228	-0.057	0.614	0.099	3.978***
Family percentage	0.303	2.204	0.663	3.226				
Sales growth	0.110	0.072	0.061	0.050	0.165	0.090	-0.104	-2.649***
Leverage	1.500	3.821	1.799	3.523	1.216	4.065	0.583	3.056***
Firm size	5,833	4,720	1,470	4,110	9,500	5,180	5,200	20.687***
Firm age (yrs)	30.26	25.284	34.152	26.628	26.989	23.62	7.163	5.294***
Wedge	0.025	0.100	0.043	0.129	0.010	0.052	0.032	6.121***
Log of board size	10.260	3.879	10.60	4.511	9.979	3.231	0.621	1.932*
Percentage of family members on the board			1.506	0.967				

This table presents means, standard deviations and tests of differences between family companies and non-family companies with respect to their firm performance, ownership, control-enhancing mechanisms, family's control power on the Board and generations of CEOs. Family firms are defined as those where the founding family is the largest shareholder and holds more than 20% of outstanding shares, either individually or as a group, or the CEO and/or Chairman of the board of directors is a family member. Statistical significance is denoted at the 1% (***), 5% (**) or 10% (*) level, respectively.

Table 4

Regression of firm value on family ownership

Variable	Tobin's Q	Return on Assets (Net Income)	Return on Assets (EBITDA)
Intercept	0.888 (4.65)***	-0.194 (-5.83)***	-0.148 (-4.3)***
Family firm	1.226 (13.6)***	-0.0004 (-0.03)	0.0115 (0.71)
Family percentage	-0.028 (-1.85)*	-0.0003 (-0.13)	-0.001 (-0.21)
Leverage	-0.025 (-2.13)**	-0.0007 (-0.33)	0.0003 (0.13)
Sales growth	-0.0005 (-0.38)	0.0003 (1.3)	0.0002 (0.65)
Log of firm age	-0.129 (-2.34)**	0.053 (5.49)***	0.057 (5.71)***
R-square	0.169	0.032	0.035
Adjusted R-sq	0.164	0.027	0.030

This table provides the results of multivariate regressions on Tobin's Q, ROA (net income) and ROA (EBITDA) on a series of explanatory variables. There are a total of 173 companies in our sample, 79 firms are controlled by family and 94 are widely held companies. Tobin's Q is defined as the ratio of a firm's market value of total assets to the replacement cost of total assets. Family firm is a dummy variable, which equals one if founding family holds at least 20% of total outstanding shares and is the largest shareholder, individually or as a group, or the CEO and/or Chairman of the board of directors is a family member, and zero otherwise. Family percentage is the percentage of shares held by the founding family. Leverage is the firm's debt-to-equity ratio. Sales growth is the firm's annual sales growth rate. Log of firm age is the natural logarithm of firm age. T-values are provided in parentheses. Asterisks denote statistical significance at the 1% (***), 5% (**) and 10% (*) level, respectively.

Table 5

Regression of firm performance on family ownership after controlling for control-enhancing mechanisms

Panel A: All companies [173]			
	Tobin's Q	Return on Assets (Net Income)	Return on Assets (EBITDA)
Intercept	0.956 (4.92)***	-0.180 (-5.29)***	-0.1334 (-3.81)***
Family firm	1.249 (13.61)***	-0.001 (-0.06)	0.011 (0.66)
Family percentage	-0.027 (-1.76)*	-0.00005 (0.02)	-0.0002 (-0.07)
Control-enhancing mechanism	0.331 (2.42)***	0.045 (1.86)*	0.044 (1.78)**
Wedge	-0.729 (-1.59)	-0.014 (-0.17)	-0.012 (-0.14)
Leverage	-0.025 (-2.19)**	-0.0009 (-0.43)	0.0001 (0.03)
Sales growth	-0.0005 (-0.38)	0.0003 (1.29)	0.0002 (0.64)
Log of firm age	-0.166 (-2.88)***	0.046 (4.57)***	0.050 (4.81)***
R-square	0.1739	0.0367	0.0393
Adjusted R-sq	0.1677	0.0295	0.0321

Table 5 (continued)

Panel B: Companies employing dual-class shares [21]			
	Tobin's Q	Return on Assets (Net Income)	Return on Assets (EBITDA)
Intercept	1.969 (2.46)**	-0.064 (-1.68)*	0.099 (2.19)**
Family firm	3.559 (7.1)***	-0.050 (-2.1)**	-0.053 (-1.89)*
Family percentage	-3.243 (-5.13)***	0.064 (2.13)**	0.0861 (2.41)**
Wedge	-3.868 (-4.47)***	0.083 (2.03)**	0.0943 (1.93)*
Leverage	-0.059 (-0.98)	-0.022 (-7.68)***	-0.021 (-6.09)***
Sales growth	-0.008 (-0.18)	0.001 (0.66)	-0.0002 (-0.08)
Log of firm age	-0.367 (-1.85)*	0.038 (4.05)***	0.0118 (1.05)
R-square	0.2675	0.3249	0.1976
Adjusted R-sq	0.2407	0.3002	0.1682

Table 5 (continued)

Panel C: Companies not using dual-class shares[152]			
	Tobin's Q	Return on Assets (Net Income)	Return on Assets (EBITDA)
Intercept	0.790 (4.21)***	-0.191 (-4.77)***	-0.161 (-3.91)***
Family firm	1.196 (13.54)***	0.005 (0.28)	0.017 (0.86)
Family percentage	-0.025 (-1.83)*	-0.000 (-0.03)	-0.0005 (-0.17)
Leverage	-0.017 (-1.56)	0.0004 (0.19)	0.001 (0.6)
Sales growth	-0.001 (-0.36)	0.0003 (1.2)	0.0002 (0.65)
Log of firm age	-0.108 (-1.92)*	0.048 (4.02)***	0.057 (4.65)***
R-square	0.1995	0.0247	0.0316
Adjusted R-sq	0.1933	0.0170	0.0240

This table provides the results of multivariate regressions on Tobin's Q, ROA (net income) and ROA (EBITDA) on a series of explanatory variables. Tobin's Q is defined as the ratio of a firm's market value of total assets to the replacement cost of total assets. Family firm is a dummy variable, which equals one if founding family holds at least 20% of total outstanding shares and is the largest shareholder, individually or as a group, or the CEO and/or Chairman of the board of directors is a family member, and zero otherwise. Family percentage is the percentage of shares held by the founding family. Leverage is the firm's debt-to-equity ratio. Sales growth is the firm's annual sales growth rate. Log of firm age is the natural logarithm of firm age. In order to measure the effect of control-enhancing mechanism, dual-class shares, on firm performance, control-enhancing dummy and difference variables are used. Control-enhancing dummy equals one, if the company issues multiple classes shares, which lead to any wedge between voting rights held by the family and equity stakes owned by the family. Wedge is the difference between total voting rights held by the family and total equity stakes owned by the family. T-values are provided in parentheses. Asterisks denote statistical significance at the 1% (***), 5% (**) and 10% (*) level, respectively.

Table 6

Agency problem results

	Type I firms		Type II firms		Differences (t-stats)
	Mean	Std Dev	Mean	Std Dev	(I)-(II)
	[14]		[1]		
Tobin's Q	1.776	2.1892	1.522	0.5025	0.254 (1.534)
ROA (Net Income)	0.0208	0.103	0.0159	0.0235	0.005 (1.506)
ROA (EBITDA)	0.0945	0.1175	0.0565	0.0257	0.038 (1.446)
	Type III firms		Type IV firms		Differences (t-stats)
	Mean	Std Dev	Mean	Std Dev	(IV)-(III)
	[56]		[8]		
Tobin's Q	1.598	0.5455	1.657	1.0919	0.059 (1.044)
ROA (Net Income)	-0.035	0.2137	-0.067	0.2874	-0.032 (-1.921)*
ROA (EBITDA)	0.031	0.2461	0.025	0.2521	-0.006 (-1.348)
Differences (t-stats)	(I)-(III)		(IV)-(II)		(I)-(IV)
Tobin's Q	0.1781(2.749)***		0.135 (1.921)*		0.119 (3.530)***
ROA (Net Income)	0.056 (3.344)***		-0.083 (-1.353)		0.088 (3.137)***
ROA (EBITDA)	0.064 (3.653)***		-0.031 (-1.014)		0.070 (2.722)***

The table presents the mean values and standard deviations of Tobin's Q and ROA measured by net income and EBITDA of Type I, II, III and IV companies. Type I companies are family firms with control-enhancing mechanisms and family CEOs and/or family Chairman of the board of directors. Those firms are assumed to experience Agency problem II. Type II firms are family firms with control-enhancing mechanisms but with hired CEOs and are assumed to experience both of the two agency problems. Family firms without control-enhancing mechanisms and with family member-CEOs and/or family Chairman of the board of directors are Type III companies and are assumed to experience neither of the two agency problems. Type IV companies are family firms that have neither control-enhancing mechanisms nor family-CEOs and/or family Chairman of the board of directors. They are expected to suffer from Agency problem I. The table also includes the differences and t-values between firms in those four categories. T-values

are provided in parentheses. Asterisks denote statistical significance at the 1% (***) , 5% (**) and 10% (*) level, respectively.

Table 7

Regression of firm value on family ownership after controlling for the active management by founding families

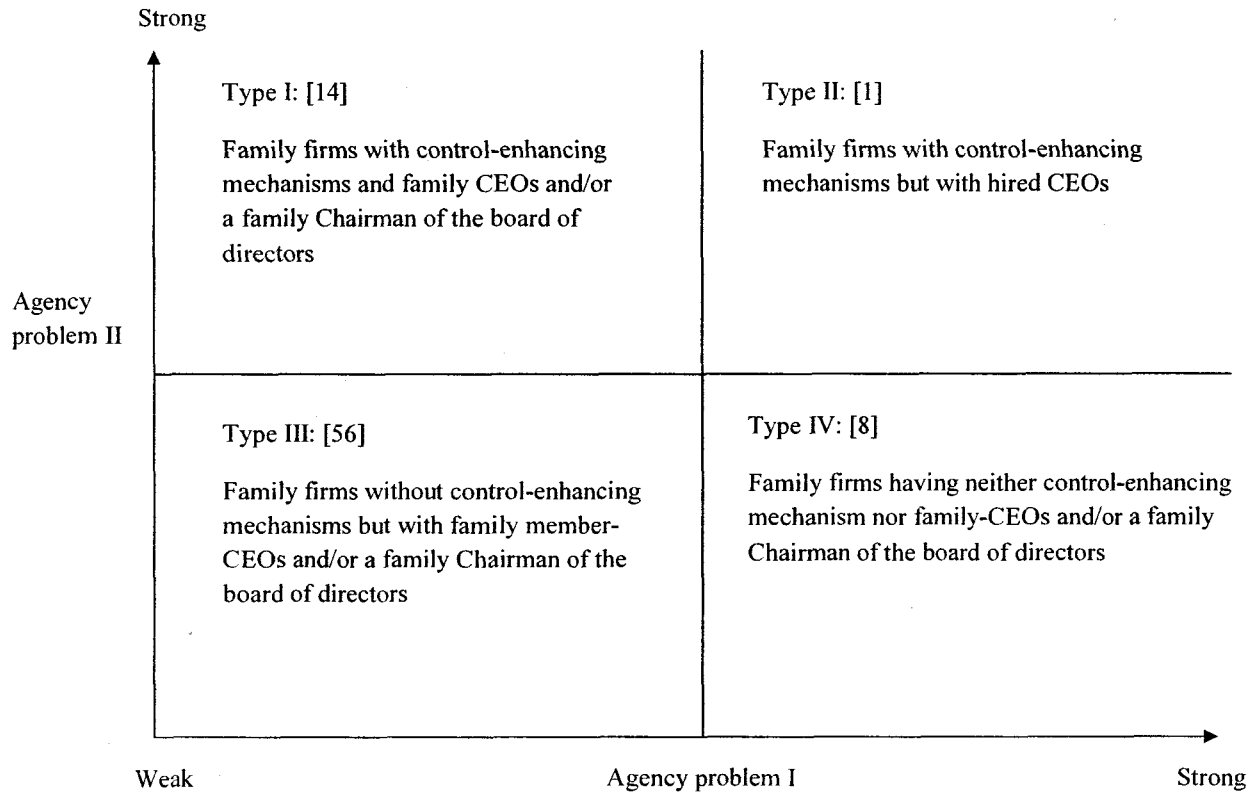
	Tobin's Q	Return on Asset (net income)	Return on Asset (EBITDA)
Intercept	0.38773 (1.64)	-0.279 (-6.47)***	-0.232 (-5.22)***
Family firm	1.50277 (5.27)***	-0.187 (-3.6)***	-0.169 (-3.16)***
Family percentage	-0.0001 (0.01)	-0.001 (0.35)	-0.0002 (0.08)
Wedge	-1.376 (-3.08)***	-0.059 (-0.73)	-0.052 (-0.62)
Control-enhancing mechanism	0.463 (3.41)***	0.033 (1.32)	0.029 (1.13)
Log of board size	0.133 (0.9)	0.106 (3.96)***	0.109 (3.94)***
Percentage of family members on the board	-3.190 (-4.25)***	0.069 (0.5)	0.041 (0.29)
Family-CEO dummy	-0.038 (-0.27)	0.045 (1.79)*	0.064 (2.5)**
Family-Chairman dummy	-0.909 (-6.94)***	0.019 (0.8)	0.024 (0.98)
Founder-CEO dummy	0.798 (5.16)***	0.0005 (0.02)	-0.023 (-0.81)
Descendant-CEO dummy	0.111 (0.65)	-0.054 (-1.74)*	-0.070 (-2.19)**
Leverage	-0.0287 (-2.6)***	-0.0007 (-0.36)	0.0001 (0.05)
Sales growth	-0.00021 (-0.16)	0.0004 (1.51)	0.0002 (0.83)
Log of firm age	-0.032 (-0.54)	0.047 (4.4)***	0.050 (4.55)***
R-square	0.2610	0.0631	0.0688
Adjusted R-sq	0.2506	0.0500	0.0557

This table demonstrates results of multivariate regressions on Tobin's Q, ROA (net income) and ROA (EBITDA). There are a total of 173 companies in our sample, 79 firms are controlled by family and 94 are widely held companies. Tobin's Q is defined as the ratio of a firm's market value of total assets to the replacement cost of total assets. Family firm is a dummy variable,

which equals one if founding family holds at least 20% of total outstanding shares and is the largest shareholder, individually or as a group, or the CEO and/or Chairman of the board of directors is a family member, and zero otherwise. Family percentage is the percentage of shares held by the founding family. Leverage is the firm's debt-to-equity ratio. Sales growth is the firm's annual sales growth rate. Log of firm age is the natural logarithm of firm age. Control-enhancing dummy equals one, if the company issues multiple classes shares, which lead to any wedge between voting rights held by the family and equity stakes owned by the family. Wedge is the difference between total voting rights held by the family and total equity stakes owned by the family. In order to examine the effects of the degree of founding family's managerial control on the company and the effects of generation, the following variables are employed. Log of board size is the natural logarithm of total number of board directors. Family-CEO dummy variable equals one if the firm's CEO is family member, either founder or descendant and is zero otherwise. Family-Chairman dummy variable is one if the Chairman of Board of directors is family member, and is zero otherwise. Founder-CEO dummy variable equals one if the CEO is the firm's founder and is zero otherwise. Descendant-CEO dummy variable equals one if the CEO is descendant of the founding family. Percentage of family members on the board is the percentage of family member director on the board of directors. T-values are provided in parentheses. Asterisks denote statistical significance at the 1% (***) , 5% (**) and 10% (*) level, respectively.

Figure 1

Agency problems



This graph presents 4 types of family companies, which encounter either Agency Problem I or II, both of them, or neither of them. Type I companies are assumed to experience Agency Problem II. Type II companies are assumed to experience both Agency Problem I and Agency Problem II. Type III companies are assumed to experience neither of them, while Type IV companies are assumed to experience Agency Problem I.