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Does Ownership Structure Matter For Returns and Returns Volatility?

DISSERTATION

Submitted by

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Introduction

"Corporations are republics. The ultimate authority rests with voters (shareholders). These voters elect representatives (directors) who delegate most decisions to bureaucrats (managers). As in any republic, the actual power-sharing relationship depends upon the specific rules of governance. .... Presumably, shareholders accept restrictions of their rights in hopes of maximizing their wealth, but little is known about the ideal balance of power."

Gompers et al. (2003)

Can firms' ownership structures influence firms' risk and hence the stocks' return generating process? Up to now, existing finance literature has focused on how the presence of certain blockholders – mainly family blockholders – influences firm performance using accounting measures. My research objective is to look at the stocks' return generating process and extend the literature in that direction.

Following the findings of La Porta et al. (1999, 2000), finance research has started looking at different types of blockholders (large shareholders), analyzing their economic incentives and behaviour, and their final impact on a whole gamut of corporate finance issues.

Broadly-speaking, we can distinguish between two classes of ownership structures: (a) closely-held firms, where a blockholder (large shareholder) holds enough shares to control a firm, and (b) widely-held firms, where the ownership structure is populated entirely by small shareholders none of whom has an ownership stake big enough to control the firm.

Existing literature in corporate finance has found that firm's ownership structure influences directly the type and level of agency costs that investors have to bear. Exploiting the relationship between ownership structure and agency cost I will show that ownership structure matters for stocks' returns generating process.

The main result that I find using different methodologies is that ownership structure matters for stock returns and their risk. Moreover, I also consider that the effective agency costs induced by blockholders depend on the shareholders' protection rules within a country. In this regards, I find that in countries with lower minority shareholders rights family firms tend to produce higher stock returns relative to those in countries with higher protection to minority shareholders.

In this chapter I will first discuss agency costs within firms, since my hypotheses are based on the idea that different ownership structures carry with them different agency conflicts for which stock market investors have to be compensated. Then I will introduce the hypotheses and the methodologies used. Finally I will describe the main results and the "road map" through this work.

i. Agency Costs

Agency theory is concerned with the conflicts of interest between an agent acting as a representative of a principal and the principal. Theoretically, it arises from divergent interests and asymmetric information. Ideally if both parties have the same interests, there is no conflict of interest and no agency problem (Jensen & Meckling, (1976)). However, in many instances, the two parties will have different interests and the agent will typically possess more or better information than the principal about the decision situation and/or the consequences of his actions (Ross, (1973)).

As a result of asymmetric information, agency problems fall into two basic categories: adverse selection and moral hazard. Adverse selection occurs when the principal accidentally contracts with an agent who is less able, committed, industrious, or ethical, or whose interests are less compatible than the principal expected. Moral hazard, on the other hand, involves actions that are in the interest of the agent (the manager) but are detrimental to that of the principal[1].

To control for the adverse selection problem, principals have to incur higher search and verification costs. To control the moral hazard problem, principals must incur the cost of controlling the manager using an optimal combination of incentives, punishments and bonding (Jensen and Meckling (1976)).

Conceptually to solve the moral hazard problem, if information is perfect and costless, the principals and agents can write a *complete contract* that anticipates and provides for every eventuality (Williamson, (1975)). In reality, information is imperfect or costly, and a complete contract is virtually infeasible.

When contracts are incomplete and managers possess more expertise and information than shareholders, they typically end up with the *residual rights of control* and have large margins to engage in self-interested behaviour that can be detrimental to shareholder wealth (Jensen and Meckling (1976)).

If separation of ownership from control is the principal source of agency cost, Fama and Jensen (1983a) suggest that ***this cost is reduced in closely-held firms***

1 For example, agents could enjoy perks or divert corporate wealth to themselves (Ross (1973), Shleifer and Vishny (1997)).

where the blockholder holds the residual claims and, therefore, has the right incentives to monitor and discipline the manager. Shleifer and Vishny (1986) also propose the presence of a blockholder as a possible solution to the classic agency cost. In subsequent work, Shleifer and Vishny (1997) propose an extension to heir argument: they argue that ***blockholders can abuse their dominant position and extract private benefits at the expense of minority shareholders*** creating an agency cost known in the literature as "*agency cost of control*" (Shleifer and Vishny (1997)).

Many papers on corporate ownership have suggested that in many countries large and medium-sized corporations have large shareholders (La Porta, Lopez-De-Silanes, Shleifer and Vishny (1998, 2000), and La Porta, Lopez-De-Silanes, Shleifer (1999)) and that these shareholders may be active in corporate governance[2]. However, it is fair to say that we do not yet have a complete theoretical understanding of the *net impact* of agency costs induced by the ownership structure given the nature of the trade-offs between the presence of a powerful blockholder and his incentives. Perhaps the issue can be better understood from an empirical point of view. This explains the proliferation of different empirical works set in different countries that allows for a bigger cross-sectional variability of blockholdings to see their impact on firm performances.

Existing empirical literature[3] has studied the impact of concentrated ownership on firm's performance mostly using accounting-based measures such as Tobin's Q[4] and ROA.

I take a different approach and look at market-based measures and use stock-returns performance. In other words, if ownership structures induce higher agency costs are investors rewarded for these risks? Furthermore, my approach based on stock-return performance has three main advantages over methodologies that use accounting-based measures: (a) stock returns are not biased by accounting practices that instead have a big impact on the components of both Tobin's Q and ROA, (b) I can investigate comprehensively the trade-off between risk and performance, and (c)

[2] Kang and Shivdasani (1995), Yafeh and Yosha (1996), Shleifer and Vishny (1997).

[3] In particular, Demsetz and Lehn (1985) study used accounting profit rate to measure firm performance while all of the studies that followed used Tobin's *Q*. Mork et al. (1988) use both profit rate and Tobin's Q.

[4] Tobin (1969)

I can focus on the problem that the presence of a blockholder may have from the point of view of the minority shareholder.

ii. Agency Costs and Type of Blockholders

Finance literature recognizes that in widely-held corporations atomistic shareholders has too little of a stake either to afford the cost of closely monitoring the manager or to pursue non-economic objectives. Instead, in closely-held firms the large shareholder has more incentives to monitor the manager, so that the classic agency cost of control is reduced. However, the blockholder in such firms can divert wealth from minority shareholders, even though the probability of expropriation depends on the blockholders' set of economic and non-economic incentives.

Within the class of closely-held firms we can distinguish between different possible blockholders: a firm may have (a) a family blockholder (the most common case around the world), (b) a widely-held financial institution (such as banks, pension funds, or mutual funds), (c) a widely-held industrial corporation, or (d) the State.

An important point that needs to be made is that different blockholders have different economic incentives and therefore should influence agency costs differently. In other words, we have to distinguish carefully across types of blockholders. Finance literature shows that only individual and family blockholders have significant control motivations[5]. Families have a long-term commitment to the firm, often spanning different generations. The same cannot be said to hold for most institutional blockholders which may be present in the ownership structure for a relatively short period of time. This means that a family blockholder will be very much interested in exerting control over the firm's decisions and anecdotal evidence also shows that family blockholders are normally involved in active management and often use control enhancing mechanism to guarantee their control over the business[6].

[5] Tufano (1996), for example, shows that institutional investors are not active in monitoring management and are more likely to have incentive structures similar to atomistic shareholders.

[6] Dyck and Zingales (2001), Villalonga and Amit (2004), Barottini and Caprio (2005), and Ellul (2007). Barottini and Caprio (2005) argue that families are clearly oriented to maintaining control of the companies they found or acquire, and often resort to control-enhancing devices. Families are often accused of considering executive positions in the firm as a channel for providing highly remunerated jobs to the offspring.

Control motives are not the only area that distinguishes family blockholders from institutional ones. For example, family firms are found to follow goals such as business survival and independence that are not directly related with firm's value maximization (at least with the concept of maximization in the short term).

Furthermore, family blockholdings appear to be much bigger those held by other blockholders and existing literature argues that families normally have a highly undiversified portfolio of companies in which they invest. Very often, the family's interests are limited to few industries, resulting in higher firm-specific risk. Widely-held institutional blockholders instead are normally more diversified than families.

These main differences indicate that a classification of ownership structure based only on the stake of the shareholder may not be sufficient to fully understand the blockholder dynamics. Since this paper addresses the problem of how agency costs affect company's stock performance, and in closely-held firms agency costs are directly related to the blockholders' control motivations, I will distinguish between family and non-family blockholders. Moreover, since non-family blockholders have economic and non-economic incentives more similar to atomistic shareholders in widely-held companies, it is possible to assume that potential investors in these companies would mostly suffer from managerial expropriation just as those who invest in widely-held companies.

Hence, in order to focus on the clearest possible relationship between ownership structure and main agency cost, a take a step further and consider family firms[7] versus non-family firms.

iii. Hypotheses and Contribution

In this work I consider that while family firms suffer from agency cost of control, non-family firms experience the classic agency cost. However, what is fundamental for my work is not the exact nature of the agency costs, but the magnitude and, more importantly, the likely impact that these agency costs may have on the firm's risk profile and, hence, stock's performance. In fact, we can assume

[7] Family firms are corporations in which the founder, or descendents of his/her family (either by blood or through marriage), is a blockholder, either individually or as a group.

that what mostly matters for potential investors is not the nature of the agency cost, but the possible expropriation that they can suffer by investing in one company instead than another. Hence, I test the hypothesis that if agency cost matters and family firms have higher agency cost, then, they should have higher returns to compensate investors for taking this risk.

With this work I contribute to the literature in various ways. First, I contribute to the literature that analyzes the link between ownership structure and firm's performance using market-based measures rather than accounting measures. Moreover, using stocks' returns, I am not only able to address the classic issues of this literature, but I am also able to investigate the trade-off between risk and performance. Analyzing this trade-off, I contribute to the literature by providing evidence that the presence of large blockholders- in the form of family blockholders - is considered riskier by investors. Third, my sample made up of small, medium and large firms coming from different countries with varying levels of shareholders' protection regimes allow for better and more extensive tests compared to the existing literature. In fact, such empirical literature that studies the relationship between ownership and performance has mostly used samples of large companies incorporated in countries in which the law that protects stakeholders is effectively enforced (for example, U.S.A. and U.K.). However, there is evidence that the blockholders (especially family blockholders) are very common in companies of medium and small size. Furthermore, large shareholders govern by exercising their voting rights and their effective power within the firm depends on the degree of legal protection within a country (Shleifer and Vishny (1997)). Therefore, to address these two concerns, I consider a very large sample of companies with large, medium and small size and also investigate how the impact of ownership structure on stock returns changes across countries with different legal and protection systems.

iv. Data and Methodology

To investigate my research question I use two datasets. A first dataset (DATASET A) is composed of a total of 1,565 European firms operating in non-financial industries from February 1992 to December 2006 for a total of 249,989

firm-monthly observations. For the same period of time, I use a second dataset (DATASET B) that contains a total of 2,048 European firms operating in non-financial industries for a total of 252,934 firm-monthly observations. The two datasets are different in terms of (a) coverage of different types of firms, and (b) the depth of the ownership data and accounting data. Hence they allow me to undertake different tests and reach a number of conclusions.

For the firms in the first dataset I have obtained monthly stock returns from Worldscope and information about the ownership structure from Faccio and Lang (2002) dataset. I collect the ownership data for firms in the second dataset manually from AMADEUS and collect monthly stock prices, accounting and financial information from Worldscope.

To answer my research question I use an approach based on portfolio formation. To test my hypotheses I form various portfolios based on different variables all directly related to presence of the blockholder and the magnitude of agency costs induced by its presence.

The econometric methodology is based on the two principal steps defined by Gompers et al. (2003). First, the time series of each portfolio is analyzed using a Fama and French two factor model regression. The intercept of my model, the so-called “alpha”, is interpreted as the abnormal return an investor would have received by investing in a portfolio long in family firms (or family firms with different magnitude of agency cost) and short in non-family firms. Hence, the “alpha” is the excess return of what he would have earned passively investing in the two factors. I interpret the coefficients of the independent variables as measures of the exposure of each portfolio to the risk factors in the model.

Using the Fama and French two factors model I am able to study the performance of different portfolios and can understand if family firms pay a higher return adjusted for risk than non-family firms.

One important criticism to such an approach is based on the different firm characteristics that may exist between family and non-family firms. Hence, it is very important to control for firm characteristics that may be driving the difference in returns between family firms and non-family firms.

To address this potential problem, I use a standard Fama and MacBeth (1973) two-steps methodology using various firm characteristics (market value, book-to-market ratio, a set of lagged returns to proxy for the momentum factor of Jegadeesh and Titman (1993, 1995), *Dividend Yield*, *Leverage, Total Assets* and the *Idiosyncratic Risk*, *Operating Margin,* and *Sales on Assets).*

v. Main Results

The main result that I find is that ownership structure matters for companies' returns generating process. In other words, I find that the presence of a family blockholder impacts the stock returns because increases the probability of minority shareholders expropriation. This is consistent with a rational expectations framework where investors in family firms have to be compensated with higher returns for the higher risk they are faced with.

Using Fama and French two factors model regression I find that from year 1992 to year 2006, an investor would have received an abnormal return (captured by the "alpha", or the intercept of the model) by investing in a portfolio long in family firms and short in non-family firms, in excess to what he could have earned passively investing in the two factors. The abnormal returns vary across the two different datasets but indicate the same economic outcome: an abnormal return of 0.27% per month (significant at 1% level) in DASATET A, and of 0.38% per month (significant at 1% level) in DATASET B. These abnormal performances, besides being statistically significant, also have economic significance.

While the results hold for the entire dataset there are noticeable differences across different countries. This may be as expected since country-specific factors may be behind these differences. It is still true to say that the results hold for the majority of the countries.

In DATASET A, I find that family firms' stock returns are not significantly higher to non-family firms in Finland, France, Germany and Norway. On the other hand, family firms in Italy, Sweden, Switzerland and the U.K. generate higher stock returns relative to non-family firms. Specifically, in Italy investors replicating the

strategy described above would have earned an abnormal return of 0.47% per month (significant at the 5% level) by investing in family firms. A significant result is also found in Sweden, Switzerland and UK where family firms do better than non-family firms by 0.59% (significant at the 10% level), 0.43% (significant at the 5% level) and 0.17% (significant at the 10% level) per month respectively.

Using DATASET B, I find that family firms in Austria, Italy, Netherlands, Spain, Sweden and Switzerland also pay higher returns relative to non-family firms. The overperformance of family firms is 0.78% per month in Austria (significant at 1% level), 0.47% in Italy (significant at the 1% level), 0.24% per month (significant at the 5% level) in Netherlands, 0.42% per month in Spain (significant at the 5% level), 0.60% per month in Sweden (significant at the 1% level) and 0.46% per month in Switzerland (significant at the 1% level).

It is equally important to note that the impact of family ownership holds also after controlling for other firm characteristics using the Fama and MachBeth regression approach.

To recapitulate, this work deals with both agency costs of control and the classic agency costs. Consistent with the efficient market hypothesis, the risk associated with the agency costs of control is correctly priced by the market, so that closely-held corporations with control motivations have higher market performance than widely-held firms to compensate minority shareholders for the higher risk of expropriation.

vi. "Road Map" of This Work

It would be useful to provide a sort of road map through my work and hence help walk the reader through understanding the research question I propose. In the first chapter I will analyze the agency costs problem by reviewing the major theoretical contributions made. First, I will describe the agency costs caused by the separation of ownership from control (Jensen and Mackling (1976)). Second, I will describe how the market can act as a monitoring mechanism over the operation of the managers who can become entrenched in a widely-held firm. Third, I will then

proceed to describe the agency costs of control which are present when a large shareholder is present in the ownership structure. Specifically, I will be referring to the contributions made by Shleifer and Vishny (1986, 1997) who show how a large shareholder can solve the classic agency problems but create its own problems by expropriation behaviour.

In Chapter II I will review some of the most important empirical contributions made on the relationship between firms' performance and ownership.

Finally, in Chapter III I develop and explain the hypotheses of this work. I will describe the data used in detail, and the empirical methodology used. The chapter concludes with the main results I have found and the conclusions I have reached.

Chapter I

The Agency Cost Problem

"An organization is the nexus of contracts, written and unwritten, among owners of factors of production and customers. These contracts or internal "rules of the game" specify the rights of each agent in the organization, performance criteria on which agents are evaluated, and the payoff functions they face. Agency problems arise because contracts are not costlessly written and enforced. Agency costs include the costs of structuring, monitoring, and bonding a set of contracts among agents with conflicting interests. Agency costs also include the value of output lost because the costs of full enforcement of contracts exceed the benefit (J&M 1976)."

Fama and Jensen (1983a)

The classic idea of the agency problem was developed within the theory of the contractual view of the firm (Coase (1937), Jensen and Meckling (1976), and Fama and Jensen (1983a,b)). The essence of the classic agency problem is the separation of ownership and control and the difficulties of setting complete contracts between the principal(s) (i.e. the shareholders) and the agent (i.e. the manager).

Jensen and Meckling (1976) describe the agency problem as the difficulties shareholders have in assuring that their funds are not expropriated or wasted in unattractive projects by the managers. In most general terms, the shareholders and the manager sign a contract that specifies what the manager does with the funds, and how the returns are divided between him and the owners. Ideally, the two parties would sign a complete contract, specifying exactly what the manager should do in all states of the world and how profits are to be allocated. The problem with this view is that it is impossible to describe and foresee all future contingencies. As a result, complete contracts are unfeasible.

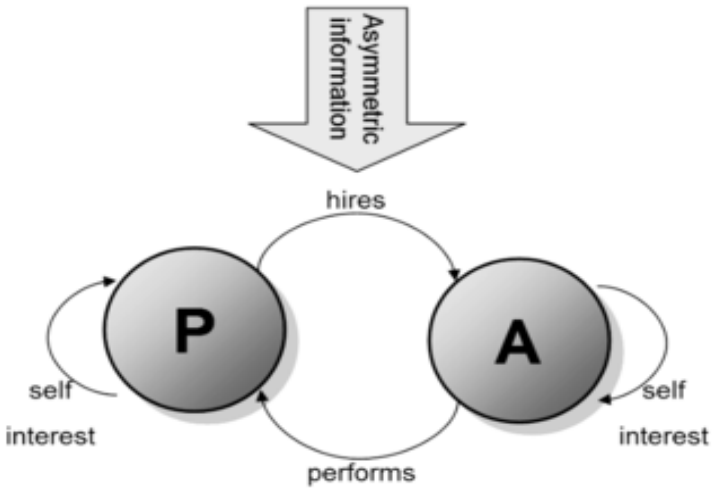

Figure 1

In this graph P represents the principal while A represents the agent. The principal employs the manager to take care of his interest and make decision on his behalf. Both the agent and the manager are driven by self-interests. The manager (the agent) desires to divert firm's cash flow to himself, while the owner (the principal) wants that his funds are not expropriated or wasted in unattractive projects. Ideally, they would sign a complete contract, which specifies exactly what the manager does in all states of the world, and how the profits are allocated. Unfortunately, often one party has more or better information than the other party, (i.e. there is asymmetric information) and the contract cannot be perfectly written. Source of the graph: Wikipedia.

When contracts are incomplete and managers possess more expertise and information than shareholders, they typically end up with the residual rights of control, giving them enormous latitude for self-interested behaviour. This can result in managers taking highly inefficient actions.

To better understand the nature of the agency cost and what kind of inefficient actions the manager can undertake let me briefly introduce some of the most common agency cost as described by Tirole (2005). Tirole illustrates four categories of inefficient actions: (a) insufficient effort, (b) extravagant investment, (c) entrenchment strategies, and (d) self-dealing behavior.

The first category (insufficient effort) refers to the fact that managers could dedicate too little time and effort to their own tasks because of over commitment with competing activities inside and outside the firm (good examples are given by the literature on busy directors, among others Ferris *et al.* (2003), Fich (2005)). The second category (extravagant investment) refers to the evidence that some managers engage in pet projects and empire-building at the expense of shareholders[8]. The third category (entrenchment strategies) refers to the fact that top managers often take actions that hurt shareholders in order to keep or secure their positions. They can achieve this objective in several ways. First, they can invest in activities that make them indispensable (Shleifer and Vishny (1989)). Second, they can manipulate performance measures so that they "look good" when their position is threatened and, finally, they can resist hostile takeover and/or lobby to reduce stockholder activism. The fourth category (self-dealing actions or tunneling) can be quite pervasive and refers to all kind of acts, ranging from benign to illegal, trough which those who control a corporation, managers controlling blockholder or both, divert corporate wealth to themselves, without sharing it with the other investors. For example, managers could enjoy perks or/and pick their successor among their friends or families, etc. (Shleifer and Vishny (1997))

This brief description of the most widely documented managers' inefficient actions illustrates that it is hard for the owners to fully control the manager, even if a contract is set. Hence the complete separation of ownership from control is very risky

[8] As example of extravagant investment Tirole indicates the illustration reported by Jensen (1988). Jensen shows that in the late 1970s during a period of high real rate of interest, high exploration cost and reduction in the expected oil price increase, oil industry managers spent a lot of money in exploration while it would have been cheaper to buy the oil directly on Wall Street.

(and costly) for the principal. The risks and costs of manager inefficient actions should when the owner is not completely estranged from the decision making process. In this framework, Fama and Jensen (1983a) propose that concentrated ownership can be one solution to the classical agency problem. In case of concentrated ownership, in fact, the principal hold the residual claim and, therefore, has advantages in monitoring and disciplining the decision-making agent. Concentrated ownership can solve the classical agency conflict but it can produce problems of its own. Shleifer and Vishny (1997), in fact, suggest that more large owners gain control of the corporation, more they prefer to generate private benefits of control that are not shared by minority shareholders. Blockholders can abuse their dominant position and extract private benefits at the expense of minority shareholders, especially when weak legal protection for minority shareholders exists (Bebchuk, (1994), Stiglitz, (1985)).

The optimal solution to curb the classic agency problems between managers and owners is still a challenge for modern finance theory. Whereas there is no consensus about the ability of concentrated ownership to curb agency costs, empirical evidence has made it clear that the classic agency cost between manager and shareholders is not the only form of agency cost that a company can experience. Villalonga and Amit (2006), for example, suggest two types of agency costs that are directly related to the nature of the firm's ownership structure:

a. Agency Cost I: The classic agency cost between manager and atomistic shareholders as described by Berle and Means (1932), and Jensen and Meckling (1976)
b. Agency Cost II: The agency problem between the dominant blockholder and minority shareholders.

The rest of this chapter is organized as follows: Section 1 describes the classic agency cost arising from the separation between ownership and control; Section 2 describes some of the instruments to curb the classic agency cost and Section III introduces the agency cost of control.

Section 1 Diffuse Stock Ownership and The Classic Owner-Manager Conflict

1.1 The Theoretical Evidence of The Classic Agency Cost:

Jensen and Meckling (1976)

The notion of diffuse stock ownership is well entrenched among economists. It started in 1776 with Adam Smith's work Wealth of Nations. In 1932 another lawyer, Adolf Berle, along with a journalist, Gardiner Means, returned to the theme of diffuse stock ownership. Berle and Means (1932) argued that since the dawn of capitalism most production had taken place in relatively small organizations in which the owners were also the managers. Beginning with the nineteenth century (the product of the Industrial Revolution) technological change had increased the optimal size of many firms to the point where no individual, family, or group of managers would have sufficient wealth to own a controlling interest. As a result, enterprises faced "the dissolution of the old atom of ownership into its component parts, control and beneficial ownership" (Berle and Means 1932, p. 8).

In 1976, Jensen and Meckling wrote a seminal paper about agency costs. Much of the focus is on the conflict between atomistic shareholders and the professional manager. Jensen and Meckling (J&M, henceforth) assume that separation of ownership from control is the principal source of firms' agency costs. They argue that, all else equal, firm value should rise with increased insider ownership because managers are more sensitive to shareholder value when they themselves own a share in the company. Hence, the authors show formally how the allocation of shares among insiders and outsiders can influence the value of the firm.

Since my interest is mostly on the effect that agency costs have on firm value, I will discuss the J&M discussion on the effect of outside equity on agency costs.

J&M's approach to the agency problem differs fundamentally from most of the existing literature up to that time. The previous literature focused almost exclusively on the normative aspects of the agency relationship; that is, given that uncertainty and imperfect monitoring exist, how to design the contracts (including

compensation incentives) between the principal and agent, so that the latter provides appropriate effort to maximize the principal's welfare. J&M, rather, pass over the normative problems and investigate the incentives faced by each of the parties and the elements entering into the relationship between the manager of the firm and the outside equityholders.

They define *agency costs* as the sum of:

1. The monitoring expenditures by the principal,

2. The bonding expenditures by the agent,

3. The residual loss.

J&M explain that the principal has to spend some money to assure that the agent makes optimal decisions from the principal's point of view. Principals, in fact, must use an optimal combination of incentives, punishments, bonding to align interests and monitor agents' action.

In case of divergence between the agent's decisions and the optimal ones that would maximize the principal's welfare there would be an outcome defined as "residual loss". This is the dollar equivalent of the reduction in welfare experienced by the principal.

To analyze the effect of outside equity on agency costs they compare (case A) the behaviour of a manager when he owns 100 % of the residual claims of a firm with his behaviour when (case B) he sells off a portion of those claims to outsiders. In each case they assume that the manager would like to enjoy both pecuniary and non-pecuniary benefits.

J&M show that when there is no separation between ownership and control (case A) the owner-manager will try to maximize his own utility. In such a case there will be no agency cost. Instead, if the owner-manager sells part of his equity claims (case B) and these shares are one share one vote, agency costs will be generated by the divergence between owner-manager interest and those of the outside shareholders. An example of this kind of situation can be the case of a family firm in which the family has appointed a family member as the company manager.

The owner-manager will only bear a fraction of the costs of any non-pecuniary benefits he enjoys. The agency problem becomes more serious as the

owner-manager's fraction of the equity falls. That's because when his stake in the firm falls his fractional claim on the outcomes falls and this will tend to encourage him to appropriate larger amounts of the corporate resources in the form of perquisites. This makes it desirable for the minority shareholders to spend more resources to monitor his behaviour.

1.1 Model

1.1.1 Model Assumptions

There are two set of assumptions. The first set is composed of permanent assumptions, i.e. the ones that are never relaxed, and a set of temporary assumptions, i.e. those that are made for expositional purposes only.

Permanent Assumptions:

a) There is only a single manager and he is interested in owning shares of the firm,

b) All outside equity shares are non-voting,

c) No outside owner gains any utility from ownership in any way other than through its effect on his wealth or cash flows,

d) The entrepreneur-manager's money wages are held constant throughout the analysis,

e) There is only one production-financing decision to be made by the entrepreneur,

f) No trade credit is available,

g) No taxes,

h) No complex financial claims such as convertible bonds or preferred stock or warrants can be issued.

Temporary assumptions:

i) The size of the firm is fixed,

j) No monitoring or bonding activities are possible,

k) No debt financing through bonds, preferred stock, or personal borrowing (secured or unsecured) is possible,

l) All elements of the owner-manager's decision problem involving portfolio considerations induced by the presence of uncertainty and the existence of diversifiable risk are ignored.

1.1.2 Model Set Up

1.1.2.1 The Sources of Agency Costs of Equity and Who Bears Them

There are few key items. First, X = {x1, x2, . . .,xn} is the vector of quantities of all factors and activities within the firm from which the manager derives non-pecuniary benefits. x_i are defined such that the manager's marginal utility (*Um*) is positive for each of them, then:

$$\frac{\partial Um}{\partial xi} > 0 \quad \forall xi \tag{1}$$

Second, they define C(X) as the total cost in dollar that the company bears because of the manager deriving non-pecuniary benefits. However, since not all actions that the manager does to enjoy non-pecuniary benefits are harmful to the company a function P(X) represent the total dollar value of the productive benefit of X. Then B(X), the difference between P(X) and C(X), is the net dollar benefit of X to the firm, ignoring any effects of X on the equilibrium wage of the manager.

$$B(X) = P(X) - C(X) \tag{2}$$

Ignoring the effects of *X* on the manager's utility and therefore on his equilibrium wage, the optimal levels of the factors and activities *X* are obtained when the marginal benefit to the firm is zero:

$$\frac{\partial B(X^*)}{\partial X^*} = \frac{\partial P(X^*)}{\partial X^*} - \frac{\partial C(X^*)}{\partial X^*} = 0 \tag{3}$$

Where *X** represent the optimal level of factors and activity from which the manager derives non-pecuniary benefits.

For any vector $X \geq X^*$ (i.e., where at least one element of X is greater than its corresponding element of X^*), a function F, equals to the difference between the net dollar benefit corresponding to the quantities of all factors and activities X^* (B(X*)) and the net dollar benefit corresponding to the quantities of all factors and activities X (B(X)), can be set. Since $X \geq X^*$, we expect that F ≡ B(X*) - B(X) > 0.

$$\text{If } X \geq X^* \text{ then } F \equiv B(X^*) - B(X) > 0 \qquad (4)$$

F simply measures the dollar cost to the firm (net of any productive effects) of providing the increment X^*- X of the factors and activities which generate utility to the manager. In other words, *F is the current market value of the stream of manager's expenditures on non-pecuniary benefits.* Then since B(X) = P(X) - C(X) we can re-write F as follow:

$$F \equiv P(X^*) - P(X) - (C(X^*) - C(X)) \qquad (5)$$

Assuming that V represents the firm value and given a Cartesian coordinate system, J&M produce the following figure:

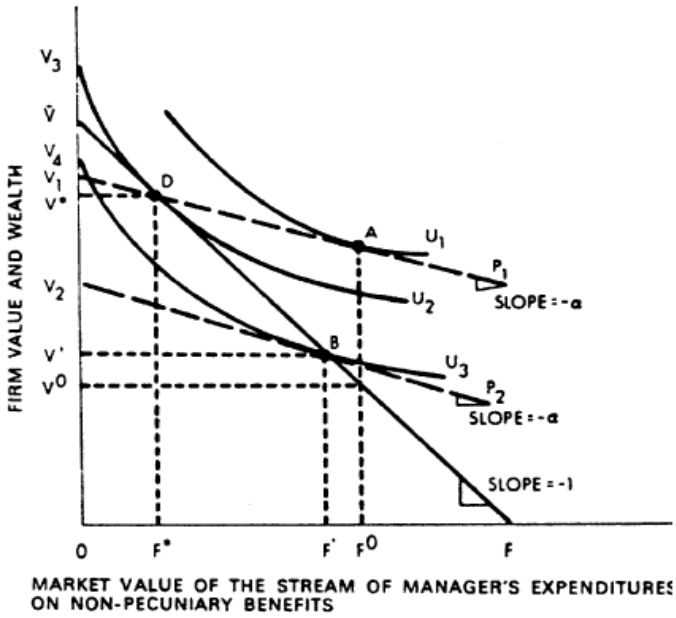

Figure 2-Jensen and Meckling (1976), p. 17

On the X-axis they jot F while on the Y-axis they represent V. $\overline{V}$ = the maximum market value of the cash flows generated by the firm for a given money wage for the manager when the manager's consumption of non-pecuniary benefits are zero. (1-α)V = the fraction of outside equity. F = the maximum amount of non-pecuniary benefits that the manager is able to extract. Uj (j = 1,2,3) = owner's indifference curves between wealth and non-pecuniary benefits.

There are a number of important things in this figure. First, the indifference curves are convex because the owner-manager's marginal rate of substitution between non-pecuniary benefits and wealth diminishes with increasing levels of benefits (i.e. they are job-specific and no substitutes are available outside the firm). Second, all the factors and activities within the firm which generate utility for the manager are at the level X*. Third, on this graph, we can distinguish line $\overline{V}F$, that is analogous to the manager's "budget constraint". By definition $\overline{V}$ is the maximum market value of the cash flows generated by the firm for a given money wage for the manager when the manager's consumption of non-pecuniary benefits are zero, so at this point all the factors and activities within the firm which generate utility for the manager are at the level X*. $\overline{V}F$ is analogous to the "budget constraint" because given the definition of F as the current market value of the stream of manager's expenditures on non-pecuniary benefits, $\overline{V}F$ represents the constraint which a single owner manager faces in deciding how much non-pecuniary income he will extract from the firm. Since one dollar of current value of non-pecuniary benefits withdrawn from the firm by the manager reduce the market value of the firm by \$1, by definition, the slope of $\overline{V}F$ is -1. Given the definition of $\overline{V}$ and *F*, the "budget constraint" changes for each possible scale of the firm (i.e., level of investment, *I*) and alternative levels of manager's money wage, *W*. Given the latter information, the authors assume:

1. An arbitrary and constant level of investment that has already been made,
2. A constant manager's money wage at the level *W** (that is, zero in case the manager owns 100% of the firm's claim) which represents the current market value of his wage contract in the *optimal compensation package* which consists of both wages, *W**, and non-pecuniary benefits, *F**[9]. Given F* the firm's value is V*. In the point (F*, V*) passes the indifference curve U_2 that represents the manager's utility when he completely owns the firm.

If the owner sells 1-α (where $0 < \alpha < 1$) shares of the firm to an outsider and he stays as manager, he will no longer bear the full cost of any non-pecuniary

[9] F* is the optimal level of non-pecuniary benefit for which the value of the firm is equal to V*, then the cost of (1- α) shares would have been (1- α)V*.

benefits he consumes. In fact for every 1$ of non-pecuniary benefits he consumes it will cost him only α(1$), while the others are bearing (1-α)(1$).

Suppose the owner-manager is free to choose any level of prerequisites and the buyers, at zero cost, were able to push the manager-owner to consume the same amount (F*) of prerequisites. In this case, the manager moves from his optimal point (D) to increase his enjoyment. In fact, at cost (-α)(1$) he tries to extract more non-pecuniary benefits. Therefore, at this point, the buyers would like to pay less than V* for his share of the firm. The slope of the manager's "budget constraint" switches from -1 (the cost of each dollar of non-pecuniary benefits when the manager was the only owner) to –α (the cost of each dollar of non-pecuniary benefits now that he has sold (1-α) shares), and the curve $\overline{VF}$ becomes flatter around point D (because the manager can, if he wishes, have the same wealth and level of non-pecuniary consumption he enjoyed as full owner), and a new level of firm's value (V_1) is reached. The new situation is summarized in the graph by the line V_1P_1.

Of course, if the owner-manager is free to choose the level of perquisites, *F*, subject only to the loss in wealth he incurs, his welfare will be maximized by increasing his consumption of non-pecuniary benefits. The utility function is not longer U_2, but U_1 representing a higher level of utility. Then the equilibrium point also moves toward the right to the point A. At this point the owner-manager would enjoy a level F^0 of prerequisites and the value of the firm falls from V^*, to V^0. This is because, if the equity market is characterized by rational expectations, the buyer anticipates an increase in the managerial consumption of non-pecuniary benefits and, since he would not be able (at zero cost) to monitor the manager, he would like to pay much less than (1- α)V^* (the price he would have paid at time zero) to purchase his shares. In other words, the investor wants to be repaid for the risk he is bearing. The difference in price between the original value of the firm and the new value (the original value adjusted for the impossibility of exerting monitoring and bonding activities) represent a residual loss, i.e. the total agency costs created by the sale of outside equity. Of course, because the owner-manager enjoys more private benefits than before, the welfare loss he incurs is less than the residual loss. Finally, the manager would sell only if the increment in welfare he achieved by using the cash amounting to (1- α)V^0 was worth more to him than the difference (V^*-V^0).

1.1.2.2 Monitoring and Bonding Activities

In the first analysis of the agency cost issues, J&M do not consider the possibility of any monitoring of the manager. In practice, though, the buyer could be able to reduce the ability of the owner-manager to extract private benefits using different ways of control of him. Examples include, among others, auditing, formal control systems, budget restrictions, and incentive-based compensation schemes.

In Figure 3 (Jensen and Meckling, (1976), p. 27) they portray the effects of monitoring and other control activities.

Figures 2 and 3 are identical except for the curve *BCE* in fig. 3 which depicts a "budget constraint" derived when monitoring possibilities are taken into account.

Without monitoring, and with outside equity of (1-α), the value of the firm will be *V'* and non-pecuniary expenditures *F'*. By incurring monitoring costs, *M*, the equity holders can restrict the manager's consumption of perquisites to amounts less than *F*".

When shareholders exercise monitoring over the manager that *F,* the current market value of the stream of manager's expenditures on non-pecuniary benefits, becomes function of the stake that the owner-manager still posses and of the level of monitoring. The authors assume that F(M, α) is the maximum perquisites the manager can consume for alternative levels of M, where M is monitoring expenditures, given his ownership share α.

J&M assume that an increase in monitoring reduces *F*, at a decreasing rate:

$$\frac{\partial F}{\partial M} < 0 \text{ and } \frac{\partial^2 F}{\partial^2 M} > 0 \qquad (6)$$

The outside equity holders will take into account the current value of expected future monitoring expenditures in determining the maximum price that they will pay for any given fraction of the firm's equity. Therefore, given positive monitoring activity the value of the firm is given by V α $\overline{V}$. $F(M, \alpha)$ -*M.* The locus of these points for various levels of *M* and for a given level of α lie on the line *BCE* in Figure 3. The vertical difference between the $\overline{V}$ *F* and *BCE* curves is *M*, the current market value of the future monitoring expenditures.

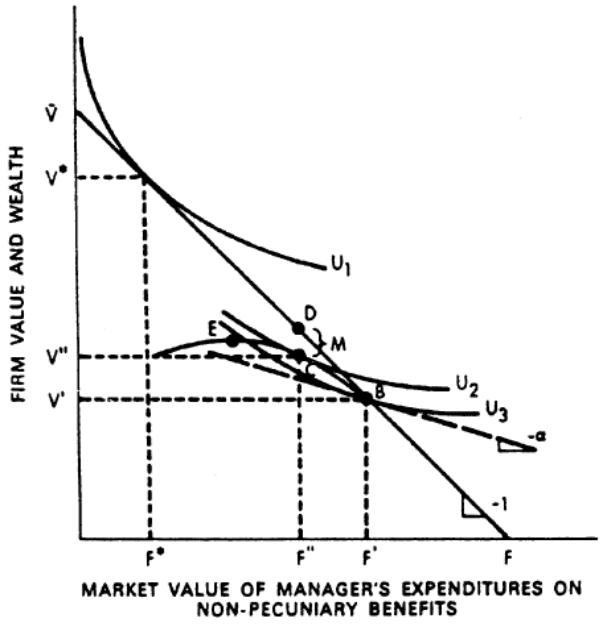

Figure 3 - Jensen and Meckling, (1976), pag. 27
The value of the firm *(V)* and level of non-pecuniary benefits *(F)* when outside equity is (1-a), *U*1,*U*2, *U*3 represent the owner's indifference curves between wealth and non-pecuniary benefits, and *BCE* is the tradeoff constraint facing the owner when other shareholders are engaging in monitoring activities.

If the outside equity holders can make these monitoring expenditures and thereby impose the reductions in the owner-manager's consumption of non-pecuniary benefits, then the owner-manager will voluntarily enter into a contract which gives them the rights to restrict his consumption of non-pecuniary items to *F''*. He finds this desirable because it will cause the value of the firm to rise to *V''*. The entire increase in the value of the firm that accrues will be reflected in the owner's wealth, but his welfare will be increased by less than this because he misses some non-pecuniary benefits he previously enjoyed.

If the equity market is competitive and makes unbiased estimates of the effects of monitoring expenditures on *F* and *V*, potential buyers will be indifferent between the following two contracts: (a) purchase of a share (1-α) of the firm at a total price of (1- α)*V'* and no rights to monitor or control the manager's consumption of perquisites, and (b) purchase of a share (1-α) of the firm at a total price of (1-α)*V''* and the right to expend resources up to an amount equal to *D-C* which will limit the owner-manager's consumption of perquisites to *F''*.

Given contract (2), the outside shareholders would find it desirable to monitor to the full extent provided by their contract because it will pay them to do so. The owner, instead, bears the full amount of these costs as wealth reduction. J&M argue that the owner-manager would suffer this wealth reduction also if he was spending resources to guarantee[10] to the outside equity holders that he would limit his activities of expropriating outside equity holders ("bonding costs"). J&M explain that the manager would incur these costs as long as the net increments in his wealth which they generate (by reducing the agency costs and therefore increasing the value of the firm) are more valuable than the perquisites given up. This means that he engages in bonding activities and writes contracts which allow monitoring as long as the marginal benefits of each are greater than their marginal cost.

J&M analyze the agency cost like something that arises from the contractual nature of the owner-manager and shareholders relationship. In their paper, though, the manager either can be the entrepreneur or just a professional manager, but in both cases he has a substantial stake in the firm. In either case, the managers are more sensitive to shareholder value since they themselves are shareholders. In other words, the allocation of shares among insiders and outsiders can influence the value of the firm.

Section 2 Agency Theory and Reputational Issues

2.1 Managerial Labour Market Monitor: Fama (1980) and Holmstrom (1999)

Jensen and Meckling's paper is based on two important key points: (1) the existence of an entrepreneur (the company's founder) who sells part of his stake, but still remain the controller and (2) the shareholders' cost of monitoring (the existence of a contractual agreement between the parts). They suggest that to solve the agency

[10] They could do so through "contractual guarantees to have the financial accounts audited by a public account, explicit bonding against malfeasance on the part of the manager, and contractual limitations on the manager's decision-making power (which impose costs on the firm because they limit his ability to take full advantage of some profitable opportunities as well as limiting his ability to harm the stockholders while making himself better off)". J&M 76, p. 29

cost due to the separation between the manager and the owner one way is to increases the stake of the manager, but principals must use an optimal combination of incentives, punishments and bonding actions to align interests, thus the shareholder incurs in monitoring costs.

Fama (1980) looks at the problem from a different point of view. He proposes the existence of a managerial market reputation effect that would be sufficient to curb agency costs without any need of writing contracts. In other words, since the manager is very interested in his reputation in the managerial labour market, then the market itself plays a central role in monitoring the manager behaviour.

Fama (1980) considers a situation where the manager is no longer the firm's owner. The classical figure of the entrepreneur-manager disappears and this opens up the possibility of having a widely-held firm where ownership and control are separated. In Fama's opinion, this is possible because the firm faces discipline by the competition on the market that forces the emergence of efficient controlling devices to monitor the performance of the entire company and its individual members.

Fama's contribution is interesting for at least two reasons:

1. He distinguishes between the owner (the entrepreneur) and the outside manager,
2. He introduces the idea that the outside manager invests his human capital in the firm and the benefits that he obtains by such an investment are likely to depend from the success or failure of the firm.

In such cases, in fact, based on the success or failure of the firm the labour market will produce its own beliefs of the manager's real ability. In other words, the market can discipline the manager's behaviour.

Holmstrom (1999) formalizes Fama's intuition in a moral hazard framework. While Holmstrom agrees with Fama he points out that reputational concerns are not enough to police the moral hazard problems without recourse to explicit output based contracts.

Holmstrom considers the following scenario:

1. The manager operates in a competitive labour market,

2. The manager is paid for his service in advance of his efforts. For example, when shareholders hire him they do not have real knowledge of his abilities, but to sign the contract they base their decision on his past performance (the success of failure of the company he managed in the past). Therefore, manager' present performance acts like information about future performance, then there is uncertainty about come characteristics of the manager.

In the model managerial talent, η, is uncertain. The parameter η, initially, is considered fixed and incompletely known to both the manager and the market that share prior believes about η. The parameter η is normally distributed with mean m1 and precision (the inverse of the variance) h1: $\eta \approx N(m_1, h_1)$. Over time the knowledge about η is realized through the observation of the manager's output. At time t the output is given by the following technology:

$$y_t = \eta + a_t + \varepsilon_t \quad t = 1,2,... \tag{7}$$

- $a_t \in [0, \infty]$ is the manager's labour input,
- ε_t is the white noise term, that is i.i.d.N(0, h_ε).

The manager is risk neutral with utility function:

$$U(c,a) = \sum_{t=1}^{\infty} \beta^{t-1} [c_t - g(a_t)] \tag{8}$$

where g (.) measures the disutility of labour (it is increasing and convex), while *U (.,.)* is the utility function and is publicly known. a_t is the manager labour supply at time t and c_t is the consumption at time t.

In order to decide the effort, the manager has to calculate the impact the present wage would have on future wages: the future wage depends from the past ones toward the manager's decision rule. In such cases, the wage and the decision rule are determined simultaneously in equilibrium.

Assuming that $y^t = (y_1, ..., y_t)$ is the history of outputs up to time t, we know that this information is acknowledged by the market and used as basis for wage payments, then, the wedge and the manager's labour input depend on this set of information, then $w_t(y^{t-1})$ is the wage at time t and $a_t(y^{t-1})$ is the manager's labour

supply at time t. In a competitive market, and risk neutrality, the wage equation is given by the following expression:

$$w_t(y^{t-1}) = E\left[y_t / y^{t-1}\right] = E\left[\eta / y^{t-1}\right] + a_t(y^{t-1}) \tag{9}$$

The manager will solve the following problem:

$$\max_{\{a_t(.)\}} \sum_{t=1}^{\infty} \beta^{t-1}\left[Ew_t(y^{t-1}) - Eg(a_t(y^{t-1}))\right] \tag{10}$$

The simultaneous solution of expressions (9) and (10) give the equilibrium.

Holmstrom's economic intuition is that as long as the manager's ability is unknown there are returns to supplying labour, because outputs will influence perceptions about ability. Increasing the labour supply the manager can bias the process of inference about his ability in his favour. In equilibrium, this can not happen. This is because to solve the wedge problem the market infers the ability of the manger observing his managerial output. Then, managerial output contains information on the ability of the manager (η), the effort he made (a_t) and an error component (ε_t), then observing y_t is the same that observing the sequence:

$$y_t = \eta + a_t + \varepsilon_t \tag{11}$$

That we can rewritten as

$$y_t - a_t = \eta + \varepsilon_t \tag{12}$$

In equilibrium $a_t = a_t^*(y^{t-1})$, where $a_t^*(y^{t-1})$ is the optimal manager labour supply, then

$$y_t - a_t^*(y^{t-1}) = \eta + \varepsilon_t \tag{13}$$

And

$$\eta = y_t - a_t^*(y^{t-1}) - \varepsilon_t \tag{14}$$

If

$$z_t \equiv y_t - a_t^*(y^{t-1}) \tag{15}$$

then

$$\eta \equiv z_t - \varepsilon_t \tag{16}$$

In other words, in equilibrium the ability of the manager depends on the history of outputs up to time and eventually, observing z_t the market learns about the manager ability, then, in equilibrium, the manager cannot bias the process of inference about his ability in his favour increasing the labour supply. In equilibrium, this can not happen. This is because to solve the wedge problem the market infers the ability of the manger observing his managerial output.

In equilibrium, the market knows what effort level to expect and adjust the output measure (z_t), so that the manager cannot fool the market. Indeed, a lower supply of labour will bias the inference against him, since a suboptimal level of labour supply will decrease the expectations on his abilities. Holmstrom notices that, in equilibrium, when managerial ability is still unknown to the market, then the manager is at the beginning of his career, this will induce the market to put more weight on the most recent output observations. However, when the manager's ability is clearly recognized by the market, then any new information about new outputs will have very little impact on the market's beliefs.

2.2 The Entrenched Manager: Shleifer & Vishny (1989)

Shleifer and Vishny (1989) suggest that managers are particularly keen to invest in projects that require their specific human capital, thereby strengthening their chances of keeping their jobs. Shleifer and Vishny's idea is in some way close to Fama (1980), since they consider the manager's human capital involvement, but they take a different avenue since they are not concerned neither with the mechanism to monitor the manager nor with the "perquisites" he wishes to consume.

Shleifer and Vishny assume that the manager has an interest in reducing the effectiveness of control mechanisms, such as the board of directors, the managerial labour market and hostile takeovers and show how manager-specific investments help him in reducing the threat of his replacement. They eventually conclude that to achieve their "goals", managers try to make themselves precious for the firm "*whether or not they enjoy prerequisites for their own sake".*

Shleifer and Vishny idea is based on two main points. First, there are manager-specific investments made with corporate resources and allowed to proceed without monitoring by the board. The board may fail to monitor because it is not sufficiently well informed to evaluate firm investment, or because board members approve of the manager's basic corporate strategy. Once the manager has made the investment, the board may or may not discover that the investment was value-decreasing. However in Shleifer and Vishny model, once the investment is made, the board perceives an increase in value from the investment made by the incumbent manager with respect to those of alternative managers. Second, any manager-specific investment is irreversible so there is part of the value of the assets that cannot be recovered by reselling them. This irreversibility makes the manager valuable to shareholders. Then a high degree of irreversibility (for example an investment in specializing plant that the incumbent is very good at operating) ensures that the incumbent remains valuable to shareholders even if the board later realizes that a manager-specific investment is not value-maximizing.

Manager-specific investments enter the model in two ways. First, if the manager has a stake in the company, his own investments impact value of the firm and hence the manager's wealth as a shareholder. Second, they affect the incremental profits from employing the current manager rather than an alternative. For simplicity, it is assumed that the manager does not derive utility from these investments directly. He chooses the investment level to increase his wealth as a shareholder, but also to raise the difference between the firm's value under him and under the next best manager.

To explain their economic intuition Shleifer and Vishny set up a very simple model. They consider two managers, the incumbent manager and an alternative one. They denote by I_{inc} the manager-specific investment the incumbent makes while I_{alt} is the incremental investment made by the alternative manager on the incumbent specific investment.

The value of the firm under the incumbent and before his compensation is paid can be written as:

$$V_{inc} \equiv \alpha_{inc} B(I_{inc}) - pI_{inc} \qquad (17)$$

where α_{inc} is a measure of the incumbent's ability to manage this investment, $B\ (I_{inc})$ is the present value of variable profit per unit of ability (when the investment is I_{inc} so that $B^{'} > 0$ and $B^{"}{}_{i} < 0$ and $\lim(B^{'}) \to 0$ when $I_{inc} \to +\infty$) and p is the per-unit cost of investment.

The firm's value (before compensation) under an alternative manager is:

$$V_{alt} \equiv \alpha_{alt} B\ (I_{inc} + I_{alt}) - p(I_{inc} + I_{alt}) \tag{18}$$

where α_{alt} is a measure of the alternative manager's ability to manage the investment.

The key assumptions about the manager-specific investments are the following ones:

1. Investments are irreversible, then:

$$I_{alt} \geq 0 \tag{19}$$

They are assuming that assets can be sold off only at a price of zero or, in general, they can be sold off at some positive price below the price paid for them. Moreover, in equilibrium, $I_{alt} = 0$, since the incumbent manager is better at managing a particular line of business than the potential replacement and wants to invest more in that line of business than the potential replacement.

2. Since the investment is manager-specific, the incumbent is better than his potential replacement at managing it:

$$\alpha_{inc} > \alpha_{alt} \tag{20}$$

If $\alpha_{inc} < \alpha_{alt}$ the incumbent has an incentive to invest in other areas to avoid replacement, perhaps by entering a new business.

3. From making manager-specific investments the manager gains an increase in his compensation.

Compensation includes all transfers from shareholders that the manager negotiates with the board, including direct monetary compensation, expenditures on perquisites, and pet projects the board accedes to while knowing they are wasteful. Pet projects differ from manager-specific investments in having consumption value

but no entrenchment value. It is assumed that manager-specific investments have no consumption value, but entrenchment value.

4. The dollar cost to shareholders of any component of the wage is the same as the dollar benefit to the manager.

5. The manager's compensation is determined in negotiations with the board after the manager-specific investment is made. This timing formalizes the idea that such investments often obtain board approval before the board fully understands their consequences for firm value.

The following is the manager's compensation function:

$$w = f\left[\alpha_{inc} B\ (I_{inc}) - (\alpha_{alt} B\ (I_{inc} + I_{alt})) - pI_{alt}\right] \qquad (21)$$

Then, the compensation of the manager is given by a function f of the difference between the firm's profits under the incumbent and the alternative. The compensation does not depend on the investment cost, since by the time the board has evaluated whether to keep or replace the manager, but the more the firm can earn under the incumbent in relation to the alternative, the higher the compensation the incumbent can demand. The incumbent chooses I_{inc} so that he will maximize:

$$y = w + \theta\left[\alpha_{inc} B\ (I_{inc}) - pI_{inc} - w\right] \qquad (22)$$

where θ is the manager's fractional ownership. The manager is assumed to have a small stake into the firm, then θ <<1 so that the manager does not completely internalize the value consequences of his manager-specific investments. An incumbent with a high enough ownership stake might choose to sell the firm to someone who can run it better just to get the additional value. In this case, $I_{inc} = 0$ and w =0. Given equation (20), the incumbent objective function is can be written as follow:

$$y = (1-\theta) f\left[(\alpha_{inc} - \alpha_{alt}) B\ (I_{inc})\right] + \theta(\alpha_{inc} B\ (I_{inc}) - pI_{inc}) \qquad (23)$$

where $V_{inc} \equiv \alpha_{inc} B(I_{inc}) - pI_{inc}$ is the pre-compensation market value. The incumbent puts weight θ on the pre-compensation market value under his job, while he puts weight (1 - θ) on the difference between variable profits under himself and under the alternative. The manager is shown to put higher weight on variable profit and this means that he over-invests with respect to the pre-compensation value-

maximizing level in order to distance himself from eventual replacement and raise his compensation.

In conclusion, the manager-specific investments can impose two distinct costs on shareholders. First, holding management compensation fixed, the level and type of investment may not be value-maximizing. Second, even when manager-specific investments produce more pre-compensation value than other investments, but give the incumbent a large bargaining power, the board may sometimes prevent such investments. However, the inefficiency results from the incumbent's inability to commit himself ex ante to not exploiting shareholders ex post.

Section 3 Agency Cost of Control

Jensen and Mackling (1976) sustained that the classic agency problem could be solved if the manager has a stake in the firm. In this case, the costs of deviation from value-maximization should decline as management ownership rises. As their stakes rise, managers pay a larger share of these costs and are less likely to destroy corporate wealth.

Given Jensen and Mackling (1976) claims, Fama and Jensen (1983a) propose that concentrated ownership can be one solution to the classical agency problem. In case of concentrated ownership, in fact, the principal hold the residual claim and, therefore, has advantages in monitoring and disciplining the decision-making agent.

In 1986 Shleifer and Vishny[11] analyzed the problem of how the presence of a large shareholder changes "corporation's life." Their speculation started from a very simple research question: *"who will monitor managers and look for ways to better the firm?"* The answer at this question seemed to them obvious: a blockholder. This kind of investor, in fact, hardly will be disinterested in the firm's destiny and welfare. The blockholder, in fact, owns the most significant stake and will bear the highest cost in case of inefficient managerial actions, thus, he will be more likely to collect information and monitor the management, thereby avoiding the traditional free rider

[11] Shleifer and Vishny (1986b).

problem[12]. Shleifer and Vishny also suggest that the blockholder should also have enough voting rights to put pressure on the management in some cases, or perhaps even to get rid of the management through a proxy fight[13] or a takeover.

Empirical evidence has somehow sustained Shleifer and Vishny theoretical idea showing that presence of a blockholder can produce some good for the firms (there is evidence that suggest a better performance of closely-held firm with respect to widely-held ones[14]), but part of this on-going research has also demonstrated that blockholders can develop opportunistic behaviour and exploit minority shareholders diverting wealth from them.

Thus, if the effect of concentrated shares came out like a theoretical solution to the classic agency cost, very soon scholars began to discover that the presence of large shareholder was much more that accidental and that many top managers and/or directors of many well known public corporations had a conspicuous percentage of shares. Studying the role of the blockholder, it suddenly appeared clear that the theoretical benefits he could have brought where largely offset form a new kind of agency cost, what the literature in general call: agency cost of control. In other words, like in the case of the manager in a widely-held firm, a large shareholder could ignore the maximization of the firm's value (the value for all shareholders) and try to do what better for himself and extract *private benefits of control*.

3.1 Evidence of Agency Cost of Control and Controlling Blockholders

Shleifer and Vishny (1997) in their survey on corporate governance[15] suggest that concentrated ownership is one of the most common instruments used to give

12 Free riders are actors who consume more than their fair share of a resource, or pay less than a fair share of the costs of its production. The free rider problem study how to prevent free riding from taking place, or at least limit its negative effects.

13 A proxy fight strategy may accompany a hostile takeover. It occurs when the acquiring company attempts to convince shareholders to use their proxy votes to install new management that is open to the takeover.

14 Empirical support for the existence of shared benefits comes from several sources. First, blockholders or their representatives usually serve as directors and officers, which puts them in the position to influence management decisions directly. Second, there is evidence that formations of blocks are associated with abnormal stock price increases (see, for instance, Mikkelson and Ruback [1985]). Third, there is also evidence that the trades of large blocks are associated with abnormal stock price increases (Barclay and Holderness 1991, 1992).

15 Corporate governance deals with the ways in which investors in a corporation assure try to curb the strength of expropriation by either the manager or the main blockholder.

power to the investors and curb the agency cost due to separation between ownership and control. They summarize the previous literature on concentrated ownership and explain that around the world concentrated ownership is more the norm that the exception.

In the United States, where the law restricts concentrated ownership and exercise of control by institutions such as banks and mutual funds, ownership is not completely dispersed and one of the most diffuse large shareholders are families (Eisenberg (1976), Demsetz (1983), Shleifer and Vishny (1986b)).In Continental Europe the presence of large shareholders is even more evident.

In Germany, large commercial banks often control over a quarter of the votes in major companies, and also have smaller but significant cash flow stakes as direct shareholders or creditors (Franks and Mayer (1994), OECD (1995)).About 80 % of the large German companies have nonbank large shareholder (Gorton and Schmid (1996)) while in smaller companies, the norm is family control through majority ownership or pyramids[16] that allow the ultimate owners to control the assets with the least amount of capital (Franks and Mayer (1994), Barca (1995)). In France, concentrated ownership through cross-ownership is also very common (OECD (1995)). In Italy, Finland, and Sweden (as well as Latin America, East Asia, and Africa), corporations typically have controlling owners, who are often founders or their offspring.

In Europe the only exception to the rule of concentrated ownership seems to be the United Kingdom where dispersed ownership by diversified shareholders is the most diffuse form of ownership (Black and Coffee (1994)).

Shleifer and Vishny (1997) also provide evidence that, , as suggested by Shleifer and Vishny (1986b), all around the world large shareholders are active in corporate governance curbing the classic agency cost; however their role is not costless to minority shareholders.

Large shareholders, in fact, may have interests that do not coincide with the one of minority shareholders or other agents, such as employees and managers. Then, if they use their dominant position only to represent their own interests they can

[16] Through a pyramid the owner controls 51 percent of a company, which in turn controls 51 percent of its subsidiaries and so on.

divert resources and pursuit personal (nonprofit-maximizing) objectives. The threat of expropriation increases when the large shareholders own equity with superior voting rights, i.e. they have control rights in excess to their cash flow rights. In this case, in fact, large investors have not only a strong preference, but also the ability to divert resource. For example, they could impose the decision not to pay cash as dividends to all investors, but pay themselves special dividends; they could decide for targeted share repurchases or exploiting other business relationships with other companies they control.

To expropriate minority shareholders, then, the large shareholders does not really need a large stake, instead he need to have strong preferences in pursuing his own interest and voting rights over and above his cash-flow rights.

La Porta, et al. (1998, 2000) emphasize that outside the United States, particularly in countries with poor shareholder protection, shareholders with control rights in excess to their cash-flow rights are common also in large firms. If a blcokholder has voting rights over and above its cash flow rights, he is able to impose his decision over the company, but bears a lower cost if he undertakes inefficient action to enjoy private benefits. Bebchuk et al. (1999) explain this with a very simple exercise based on the investment choice of a controlling blockholder. They demonstrate that, as the fraction of the firm's equity cash-flow rights held by the controlling shareholder declines, he can externalize progressively more of the costs of his moral hazard and, as a consequence, the agency cost increases. In other words a blockholder that has a voting rights in excess to his cash flow rights has more interest in extracting agency cost of control since he only bears the marginal cost of it while enjoys all the benefits.

Formally, let suppose that the blockholder is also the manager of the company, a case that is not completely unrealistic especially when the controlling blockholder is a family. The blockholder-manager can decide between 2 projects: (a) Project X that will produce a total value VX, which includes cash flow SX, available to all shareholders, and private benefits of control BX, available only to the firm's controller; (b) Project Y will produce a total value of VY, which includes the analogous terms SY and BY. Project Y give less private opportunities to the controller, that is, that: $BX > BY$.

If the controller wasn't the one enjoying the private benefit B, from project X he would have gotten α (VX - BX), where (VX - BX) represents the value that project X will produce for the firm at net of the private benefit extracted from the controller (BX) and α is the cash flow stake of the controlling blockholder. However, along to the benefits he receive from the net value of the project, the controller is also enjoying the private benefit, then the total value he will get from the project is:

$$\alpha (VX - BX) + BX. \quad (23)$$

Applying the same steps to Project Y, we can conclude that, the total value that the controller would get from investing in this project is given by:

$$\alpha (VY - BY) + BY \quad (24)$$

where α is the cash flow stake of the controlling blockholder, (VY - BY) is the value that project Y will produce for the firm at net of the private benefit extracted from the controller (BY). If the controller has strong preferences for private benefit of control and BX > BY, we can conclude that the controller will choose Project X on Project Y, if and only if:

$$\alpha (VX - BX) + BX > \alpha (VY - BY) + BY \quad (25)$$

Thus, depending on α, the controller might choose the project with the lower value V but the larger private benefits of control B and, as α declines, the difference between VY and VX will pale in importance, in the controller's eyes, relative to the difference in the private benefits of control.

If Bebchuk et al. (1999) shows that the preference for private benefit is inversely proportional to the stake that the controlling owner posses, assuming that he has enough voting rights to endorse his decisions, the central point of this discussion is that the blockholder must have control motivations. If the blockholder is interested in the company just as an investment in its portfolio and does not actively participate into it, then (a) his presence does not curb the classic agency cost, since it is not the stake of the blockhodler, but the control he has over the manager that matters, and (b) he is unlikely to extract private benefit of control.

The categories of blockholders are simply to summarize, but the analysis of blockholders' control motivation directly refer to their economic and non-economic incentive structure. A firm may have as blockholder (a) an individual, for example a family blockholder, (b) a widely-held financial institution (such as a bank, pension

fund, or mutual fund), or (c) a widely-held industrial corporation. Scholars show that only individual and family blockholders have real control motivations while institutional blockholders normally have incentive structures similar to atomistic shareholders. Tufano (1996), for example, shows that institutional investors are not active in monitoring management and are more likely to have incentive structures similar to atomistic shareholders. There is instead empirical evidence demonstrating that families have a long-term commitment to the firm, often spanning different generations. This means that a family blockholder will be very much interested in exerting control over the firm's decisions and anecdotal evidence also shows that family blockholders are normally involved in active management and often use control enhancing mechanism to guarantee their control over the business.[17] Moreover, families are found to be one of the most common blockholder around the world (La Porta, et al. (1998, 2000)) either in countries with low minority shareholders protection (such as Italy) or countries where the law strongly protects these investors (such as USA).Family blockhodlers are very often directly involved in the management,

Hence, as the separation between ownership and control in case of classic agency cost, control motivations are the key issue to understand the threat of minority expropriation by blockholder; the economic and non-economic incentive structure of family firms clearly indicate that they are the most likely to suffer from agency cost of control. However, investors in closely-held corporations with a blockholder such as institutions are more likely to suffer from the consequences of the classic agency cost since, as in widely-held firms, no shareholders has enough incentives (in this case non-economic incentives) to monitor the manager. Anyhow, a clear conclusion one the benefits and harm of concentrated ownership is still far from being reached.

In conclusion, since Jensen and Mackling' paper in 1976 research on the classic agency cost has increased dramatically both from a theoretical and empirical prospective. While the theory has proposed various ways to curb the classic agency cost and increase shareholders' wealth there is little evidence that concentrated

[17] Dyck and Zingales (2001), Villalonga and Amit (2004), Barottini and Caprio (2005), and Ellul (2007). Barottini and Caprio (2005) argue that families are clearly oriented to maintaining control of the companies they found or acquire, and often resort to control-enhancing devices. Families are often accused of considering executive positions in the firm as a channel for providing highly remunerated jobs to the offspring.

ownership in the management hands is really an advantage for shareholder. However, there is increasing evidence that the presence of a blockholder curbs the classic agency cost, but create a new agency cost.

If the real interest for investor is the maximization of their wealth, then the only way to understand if concentrated ownership curbs the classic agency cost and which is the effect on minority shareholder wealth in companies with agency cost of control is an empirical issue that finance literature has not failed in analysing.

The next chapter of this work illustrates the most important empirical evidence on the relationship between concentrated ownership and firm' value in closely-held corporation and in closely-held corporations where the blockholders has clear control motivations.

Chapter II

Ownership Structure and Performance

Jensen and Meckling (1976) suggest that there is a positive relation between concentrated managerial ownership and firm's value. As the managers' stake rises managers are less likely to squander corporate wealth[18]. Since Jensen and Meckling (1976), the relation between ownership structure and firm's value has received significant attention, especially in the last decade.

Shleifer and Vishny (1997) and more recently La Porta et al. (1998, 2000) show that around the world the managers frequently have a part in the ownership structure and that blockholder are also very common. However, while theoretical models suggest what benefits we should expect from this non-complete separation of ownership and control, there is no consensus on the impact that this has on firm's value.

Analyzing existing theoretical literature, non-complete separation can lead to two opposing effects:

[18] Morck et al. (1988) label this idea of Jensen and Meckling (1976) as convergence-of-interest hypothesis, market value increases with management ownership.

a. Positive effect: Concentrated ownership should have a positive effect in reducing the agency cost arising from the manager's opportunistic behaviour.

b. Negative effect: Concentrated ownership would create agency costs of control that would lead to minority expropriation.

From an empirical point of view then we would expect one of the following results:

i. If the positive effect offsets the negative one, there is a positive relationship between concentrated ownership and firm performance measures.

ii. Vice versa, if the negative effect offsets the positive one, there is a negative relationship between concentrated ownership and firm performance measure.

iii. No effect. The presence of a blockholder does not really have an effect on firm valuation.

Existing empirical literature[19] has studied the impact of the concentrated ownership on firm's value mostly using accounting-based measure of firm's performance: Tobin's Q[20], accounting profit rate and ROA.

Tobin's Q compares the value of a company given by financial markets with the value of a company's assets. It is calculated by dividing the market value of firm's assets by the replacement cost of its assets. In other words, the Tobin's Q focuses on what the firm's is worth today relative to what it would cost to replace it today. Tobin' Q is a forward-looking measure of performance, but there are some issues with the way it is calculated.

Demsetz and Villalonga (2001) argue that the numerator of Tobin' Q, the market value of the firm, partly reflects the value investors assign to a firm's intangible assets, however the denominator of Tobin' Q, the estimated replacement cost of the firm's tangible assets, does not include investments the firm has made in intangible assets. Hence, the firm's future revenue it is treated as if it can be generated from investments made only in tangible capital and this distorts performance comparisons of firms that rely in differing degrees on intangible capital (Telser (1969); Weiss (1969); Demsetz (1979)). Problems are also related to the way

[19] In particular, Demsetz and Lehn (1985) study used accounting profit rate to measure firm performance while all of the studies that followed used Tobin's *Q*. Mork et al. (1988) use both profit rate and Tobin's Q.

[20] Tobin (1969)

replacement cost of tangible capital (denominator of Tobin's *Q*) is calculated. Finally, the idea behind the Tobin's Q is that in the long run the ratio of market price to replacement cost tends toward 1, but the evidence is that this ratio can differ significantly from 1 from very long period of time.

Accounting profit rates are measures of the relative profitability of an investment[21]. They are intended to measure how efficiently a firm uses its assets. ROA is one of the profitability measures. ROA (or Return on Asset), which measures profitability for all contributors of capital, is defined as earnings before interest and taxes divided by total assets or as net income on total assets.

Measures of profitability, such as ROA and profit rate, are subject to accounting artefact problems. Profitability rate are based on accounting earning that are affected by several convention regarding the valuation of assets such as inventory, and by the way some expenditure are recognized over time (as depreciation expenses). In addition to this to these accounting issues, as the firm makes its way through the business cycle, its earning will rise above or fall below the trend line that that might accurately reflects sustainable economic earning. Economic earnings are the sustainable cash flow that can be paid out to stakeholders without impairing the productive capacity of the firm.

The problems related to the use of accounting-based measures of performance, then, suggest that other measures of performance might be more appropriate to investigate if ownership structure matters for performance.

In this work instead of accounting based performance I use stock-returns performance. While existing empirical literature has largely studied accounting-based performance, not much has been done on stock-returns performances. As far as I know, only Fahlenbrach (2003) and Corstjens et al. (2006) have used stock-return performance to investigate if there are significant differences between family and non-family firms.

According with the efficient market hypothesis, financial markets process all the relevant information about securities quickly and efficiently, so that the required price usually reflects all the information available to investors at any point in time. Therefore, the security price that prevails at any time should be an unbiased

[21] Mork et al. (1988) use as profit rate the ratio of the firm's net cash flows (less the inflation adjusted value of depredation) divided the replacement cost of the firm's tangible assets

reflection of all current information, including the risk involved in owning that security. Hence, in an efficient market, the expected returns implicit in the current price of a stock should reflect its risk. Using stock return, then, I am not only able to understand if ownership matters for performance, but studying the trade-off between risk and performance I am also able to conclude that if ownership structure matters for returns this is due to the fact that certain ownership structures are is riskier than others.

Finally, another concern about sample selection arise when analysis the results of the existing empirical literature. In these studies, in fact, scholar mostly use large company in countries in which the law that protects stakeholders is effectively enforced (for example, USA and UK). However, there is evidence that the blockholders (especially family blockholders) are very common in company of medium and small size; besides, large shareholders govern by exercising their voting rights and their power depends on the degree of legal protection (Shleifer and Vishny (1997)). Therefore, the results may vary when considering different law systems. To address these two concerns, I consider a very large sample of companies with large, medium and small size and also study how the impact of ownership structure on stock returns changes across countries with different law systems.

In this chapter I will describe what existing literature has found on the empirical relationship between agency costs and firm accounting measures of performance. I will start by describing some empirical evidence that shows that the classic agency conflicts between managers and shareholders lead to a loss in value that can be reduced if the manager accumulates enough shares. The paper I will present mostly study the impact of the presence of an owner-manager and use as measure of performance the Tobin's Q.

Second, I will review another strand of the literature showing evidence how agency costs of control impact firm's performance. In this latter case the focus shifts away from the manager and his conflict with shareholders towards the blockholder and his conflicts with other financial stakeholders, such as minority shareholders and bondholders. The driving factor here is the blockholder's involvement in the firm ownership and management.

Section 1 Firm's Performance and Insider Ownership

Morck, Shleifer, and Vishny (1988a) were among the first to address the relationship between *inside ownership* and firm value. They measure inside ownership as the sum of all the shares owned by all members of the management, and use it to test what they call "the convergence-of-interest hypothesis" and the "entrancement hypothesis" [22].

Their first hypothesis comes directly from the discussion of Jensen and Meckling (1976). According with this hypothesis, firm value is expected to increase as the managerial stake rises. This positive effect is, however, tempered by the managerial entrenchment that may happen in such cases.

When test the "entrancement hypothesis" they do not expect a clear result (either positive or negative) because entrenchment is not just a consequence of voting power. For example, some managers, by virtue of their relationship with the firm (they can be the firm's founders) can be entrenched but have relatively small ownership stakes. Moreover, managers in firms with a large outside shareholder or an active group of outside directors may face high level of monitoring and in this case the negative effects from entrenchment are minimized even if managers have high ownership stakes. Then it is possible that more managerial ownership allows deeper entrenchment, but the result on the firm performance is not obvious.

Morck, Shleifer, and Vishny examine a sample of 371 Fortune 500 firms. For which they have ownership information only for the year 1980. They measure the firm's performance using Tobin's Q (and run additional checks the profit rate[23]), while the firm concentrated ownership is captured by managerial holding[24]. They

[22] Shleifer and Vishny (1989)

[23] They mostly test this accounting measure of performance to be able to confront their research with the one of Demsetz and Lehn (1985) that finds no relationship between the rate of profit and the concentration of shares held by the management. The profit rate is defined as the ratio of the firm's net cash flows less the inflation-adjusted value of depreciation to the previously defined replacement cost of its capital stock, The profit rate is the relative profitability of an investment project, of a capitalist enterprise, or of the capitalist economy as a whole and it is similar to the concept of the rate of return on investment.

[24] Demsetz and Villalonga (2001) criticize Morck et al. (1988) choice of the firm ownership measure. They argue that to measure concentrated ownership considering managerial holding suggests that all shareholders that are involved in the company's management have a common interest, but this is very far from being true. A board member, for example, may have a position on the board because he has, or represents someone who has, large holdings of the company's stock. Board members like this one

find that Tobin's Q tends to increase as managerial stock ownership increases to 5%. Firm value, then, decreases (the effect is very small) as managerial stock ownership increases from 5% to 25%. Finally, firm value tends to increase very slightly as managerial ownership increases beyond 25%.

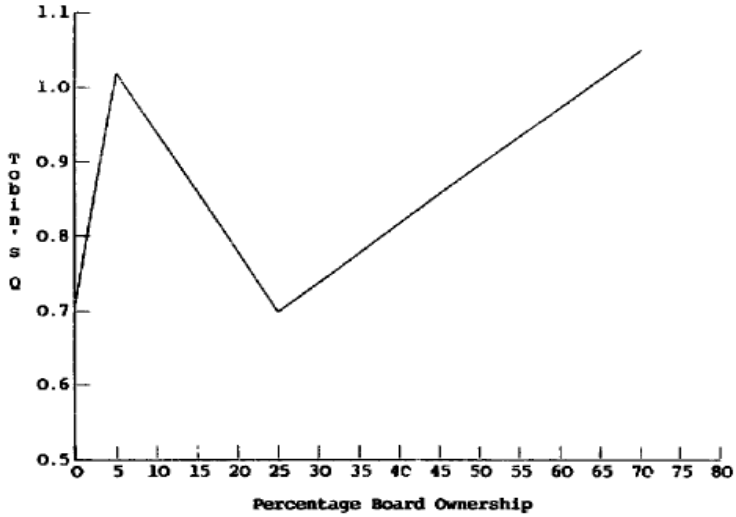

Figure 1. Morck et al. (1988), p. 301

This figure shows the relationship between board ownership and Tobin's Q implied by the piecewise linear ordinary least squares regression of 1980 Tobin's Q on board ownership and other firms characteristics for 371 Fortune 500 firms

The first two breakpoints are statistically significant. The breakpoint of 25% is marginally significant in some specifications and insignificant in others. The same results are also found with ownership of the firm's top officers and by its outside directors.

Figure 1 above (Fig.1; Morck et al. (1988), *p. 301*) shows clearly the pattern. They interpret this finding as saying that the convergence-of-interests effect operates throughout the whole range of ownership, while the conditions necessary for entrenchment (voting power, control of the board of directors, status as a founder, etc.) are significantly correlated with increasing managerial ownership beyond 5%. However, they conclude that these conditions are not much different for firms with greater than 25% board ownership than they are for those with 20-25% ownership. McConnell and Servaes (1990) take a similar approach used by Morck, Shleifer, and

do not have interests identical to those of professional management. More likely, their interests are more closely aligned with those of outside investors.

Vishny (1988a) and examining a large sample of New York Stock Exchange (and American Stock Exchange) listed firms. The primary hypothesis they investigated is that the value of the firm is a function of the distribution of equity ownership among corporate insiders (i.e., officers and directors), individual atomistic shareholders, block shareholders, and institutional investors. They define as inside ownership as the amount of shares owned by officers and members of the board of directors. To define blockholders and their ownership stakes they use *Value Line Investment Survey*[25] for the years 1976 and 1986.

McConnell and Servaes find that Tobin's Q tends to increase until reaches 40 to 50 %, followed by a gradual decline as ownership increases further. This is clear in the following figure (McConnell and Servaes (1990), *p. 604*) where on the y-axis there is the Tobin's Q and on the x-axis there is the insider ownership.

They find a strong positive relation between Tobin's Q and the fraction of shares held by institutional investors and no significant relationship between Tobin's Q and either the presence of an "outside" blockholder[26] or the percentage of stock owned by such shareholders. Moreover, their results confirm Morck, Shleifer, and Vishny's findings only for inside ownership between 0 and 5%.

Kole (1995) tries to reconcile the findings of Morck, Shleifer, and Vishny (1988a) with those of McConnell and Servaes (1990). She examines the performance-ownership relation for a sample composed of 95% of the firms studied by Morck, Shleifer and Vishny.

Kole examines a sample of large firms for which ownership data are available from different data sets: CDE (Corporate Data Exchange), corporate proxy statement, and Value Line. First, she considers the sample of Morck, Shleifer, and Vishny (1988) and finds a total of 363 out of 371 firms for which ownership data are available from *Value Line Investment Survey* from October 1980 through March 1981. Of these 363 firms she ends up with a sample of 352 firms for which she has complete data from all three ownership dataset. Replicating the regressions of Morck, Shleifer, and Vishny for each of the three data sources, she finds that the signs on the

[25] . *Value Line* gathers this information from annual corporate proxy statements, public disclosures, and Forms 3 and 4 filed with the Securities and Exchange Commission (SEC) on insider trading. *Value Line* defines corporate insiders to include officers and members of the board of directors.

[26] Holderssen (2003) arguments that the authors are unclear on what constitutes an outside blockholder. Is it a blockholder who is not an officer, or is it a blockholder who is neither an officer nor a director?

three breakpoints are the same for all three data sources: positive for ownership from 0% to 5%, negative for 5% to 25%, and positive beyond 25%.

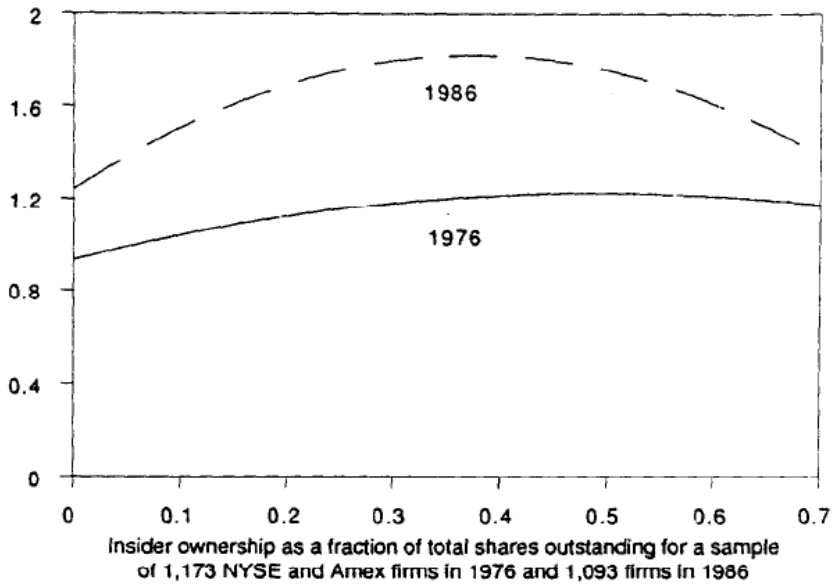

Figure 4 - McConnell and Servaes (1990), *p. 604*

This figure shows the relationship between Tobin's Q and insider ownership.

Looking at Table 4 (Kole (1995), *p. 427*) reported above we can notice that the results for the ownership coefficient are quite different among them and mostly not significant. Among the three datasets (Sub-sample I) all coefficients are not significant for an ownership stake beyond 25%. Moreover, for a stake ranging from 5% to 25% only the coefficient for proxy and CDE are significant. Finally, in the range between 0% and 5%, Value Line is insignificant. Still, Kole's interpretation of these results is that all the three datasets are able to discover the existence of a non-monotonic relationship between Tobin's Q (firm value) and concentrated ownership. The data, then, are not driving the different results found by Morck, Shleifer, and Vishny (1988a) and McConnell and Servaes (1990). However, the difference can be explained in terms of sample size: McConnell and Servaes (1990) use more then 1000 firms while Morck, Shleifer, and Vishny (1988a) only 371.

Table 4
Coefficient estimates of ownership from model of firm performance, [a] for two subsamples of the 1980 Fortune 500 firms
Subsample I: Sample of 352 firms for which value line, Corporate Data Exchange (CDE), and proxy data are available.
Subsample II: Sample of 313 firms for which Value Line highlights the ownership of insiders, directors or management.

Subsample:		Coefficient estimate (standard error)				
Dependent Variable	Data Source	0–5%	5–25%	25%+	Adj. R^2 Part. [b] R^2	F-value Prob > F
	CDE	5.46 ***	−1.38 ***	0.64	0.4962	4.1880
		(1.63)	(0.51)	(0.41)	0.0172	0.0064
Subsample I:	Proxy	4.82 ***	−0.94 *	0.30	0.4870	2.4637
Tobin's Q		(1.79)	(0.55)	(0.48)	0.0080	0.0627
	Value	3.12	−0.70	0.43	0.4805	1.2679
	Line	(1.94)	(0.49)	(0.33)	0.0015	0.2857
	CDE	6.08 ***	−1.43 **	0.92 *	0.5054	4.6463
		(1.75)	(0.59)	(0.51)	0.0218	0.0035
Subsample II:	Proxy	6.58 ***	−1.16 *	0.43	0.5009	3.8827
Tobin's Q		(1.94)	(0.64)	(0.57)	0.0177	0.0098
	Value	4.35 **	−1.06 *	0.78 *	0.4919	2.3904
	Line	(2.05)	(0.57)	(0.43)	0.0087	0.0694

[a] Each regression includes the set of control variables that include R&D/A, ADV/A, DEBT/A, and A. [b] Partial R^2 measures the variation in the dependent variable that is jointly attributable to the three ownership variables. * Parameter estimate is significantly different from 0 at $\alpha = 0.10$. ** Parameter estimate is significantly different from 0 at $\alpha = 0.05$. *** Parameter estimate is significantly different from 0 at $\alpha = 0.01$.

Table 1 - Kole (1995), ***p. 427: Coefficient Estimates***

So far I have presented evidence of a positive relation between firm performance and concentrated ownership. Other strands of the literature actually propose an opposite point of view and find different results.

This is the case of Mehran (1995) who investigates the structure of managerial compensation, and also analyze if the executive compensation matter in the context of the firm's ownership structure He uses compensation data for 153 randomly-selected manufacturing firms (small as well as large firms) from 1979 to 1980.

The percentage of equity held by managers is measured as the sum of their direct share ownership and their stock options outstanding plus share ownership by their immediate families. The percentage of equity held by all outside blockholders is measured using the sum of the percentages of equity held by individual investors, institutional investors, and corporations who own at least 5% of the common stock of

the company[27]. Outside directors are considered as the members of the board who are neither top executives nor retired executives nor former executives of the company nor relatives of the CEO.

Mehran finds no significant relationship between firm performance (both Tobin's Q and return on assets (ROA)) and outside directors' stock holdings. Second, he also finds no significant relationship between firm performance and blockholders' holdings, or between firm performance and the outside blockholdings of a variety of investors (individual, institutional, corporate).

The first result of Mehran clearly contrasts with the finding of Morck, Shleifer, and Vishny (1988). The author clarifies that Morck, Shleifer, and Vishny (1988) use a sample of large firms only and this could explain the difference in results since it is known that the percentage of outside directors increases with firm size. In addition, he also explains that outside directors' equity ownership is normally not significant enough to give them an incentive to monitor the firm.

The studies I have reviewed so far are all cross sectional researches. Himmelberg, Hubbard, and Palia (1999) argue that *"these studies do not address the endogeneity problem that confronts the use of managerial ownership as an explanatory variable, a problem noted early by Jensen and Warner (1988, p. 13)"*.

Hence, Himmelberg et al. (1999) use a different approach to study the relationship between firm value and inside ownership: panel data to test for the endogeneity of managerial ownership. Following Demsetz and Lehn (1985) and Kole (1995), they argue that managerial ownership is endogenous, and support the idea that both ownership and performance are determined by similar (observed and unobserved) variables in the firm's contracting environment.

In a sample of 600[28] randomly selected Compustat firms over the 1982-92 period, they find that changes in managerial ownership do not to affect firm performance.

Himmelberg, Hubbard, and Palia (1999) mostly extend the cross-sectional results of Demsetz and Lehn (1985). The latter investigate the relationship between

[27] He chooses 5% (as many researchers do) because this ownership level triggers mandatory public filing under SEC regulation.
[28] The number of firms shrinks to only 330 in 1992, so the panel is systematically less random over time.

firm value and inside ownership and test whether diffuse ownership structures adversely affect corporate performance. They find no significant relation in the linear regressions they estimate using accounting profit rate as measure of performance.

In their study Demsetz and Lehn also provide some evidence on the endogeneity of the firm structure suggesting that the ownership structure can be affected by four forces:

(a) *Value-maximizing size of the firm*. If a firm wants to be successful in a market, it needs to achieve a competitive size. Then the larger is the size the larger are the firm's resources and, generally, the greater is the market value of a given fraction of ownership.

(b) *Potential profit coming from exercising more effective control* (they call this control potential). This is the wealth gain achievable through more effective monitoring of managerial performance by the firm's owners. Given that the monitoring from the labour market and the market for control is not costless, this force has an impact on the ownership structure.

(c) *Systematic regulation*. Systematic regulation restricts the options available to owners, and imposes constraints on the scope and impact of shareholders' decisions thus reducing control potential. Regulation also provides some subsidized monitoring and disciplining of the management of regulated firms. These effects of regulation should reduce ownership concentration.

(d) *Amenity potential of firms*. The term "amenity potential", refers to non-pecuniary private benefits of control or the utility to the founder that does not come at the expense of profits. For example, a founder may derive pleasure from having his child run the company that bears the family name.

On a sample of 511 firms from major sectors of the U.S. economy, they also regress an measure performance on the fraction of shares owned by the top 5 and top 20 shareholders (and a set of control variables), in which ownership structure is treated as an endogenous outcome[29]. When they study the relationship between firm value and ownership concentration, they do not find any significant relationship between ownership concentration and accounting profit rate.

[29] An endogenous variable is a factor in a causal model or causal system whose value is determined by the states of other variables in the system.

In 2001, Demsetz and Villalonga find additional evidence suggesting further the endogeneity of ownership structure. They examine the roles played by two aspects of ownership structure: (a) the fraction of shares owned by the five largest shareholding interests, and (b) the fraction of shares owned by management. They model these as endogenous using a two-stage least square estimator and find no relationship between firm value and inside ownership.

Section 2 Family-Blockholders, Agency Cost and Performance

Family-owned firms are generally identified by existing literature as corporations where the founder, or descendents of his/her family (either by blood or through marriage), is a blockholder, either individually or as a group (for example, through a trust or a foundation). Evidence from existing literature, such as La Porta et al. (1998, 2000), shows that family firms are very pervasive in many countries, even in the US, and have a long-term commitment to the firm, often spanning different generations. Their long-term commitment creates a situation where the family's reputation (and, in many cases, its national and international prestige) is very much related to the firm's performance. This means that a family blockholder will be very much interested in exerting control over the firm's decisions. Beyond monitoring and control advantages, James (1999) posits that families have longer investment horizons.

2.1 Family Firms' Agency Costs[30]

Traditionally, researchers have assumed that owner-managed firms will have either zero or insignificant classic agency costs (Jensen & Meckling (1976); Fama & Jensen (1983); Ang, Cole, & Lin (2000)). Chrisman et al. (2004) suggest that there is a tendency to extend this last conclusion to family firms because the family blockholder is expected to be either in direct control of management or closely

[30] For a complete review see Chrisman et al. (2004).

control the manager. Moreover, Stewart (2003) suggests that family members are altruistic toward each other as a result of moral obligations so that altruism could mitigate some agency costs (Wu, (2001)). Unfortunately, though, altruism can also lead to other agency costs, for example, free riding by family members, as in the "Samaritan's dilemma"[31] (Bruce and Waldman, 1990), and entrenchment of ineffective managers[32] (Morck et al. (1988) and Morck & Yeung (2003)).

Two recent articles (Schulze et al., 2001; Schulze, Lubatkin, and Dino, 2003) claim that family relationships make it more difficult to resolve certain kinds of conflicts. Since nepotism does exist (Ewing, 1965) and families find it difficult to replace ineffective family members (Handler & Kram, 1988), it is hard to deny that family involvement has the potential to lower firm performance. However, a large part of the more recent literature on family firms' performance suggests that family firms overperform non family firms when considering accounting-based measures. This is at least true in a number of countries. Thus, it is reasonable to argue that the nature of agency costs of family firms and the impact on firm performance deserves more careful consideration.

According to some scholars (Becker (1974); Parsons (1986); Eisenhardt (1989); Daily & Dollinger (1992)), family firms should be less expose or exempt from problems of agency. However, many scholars disagree with this conclusion.

Sharma, Chrisman, & Chua, (1997) suggest that families are not always composed of individuals sharing the same goals. As a result, some family firms may be particularly vulnerable to agency problems. Bergstrom (1989) concludes that we are more likely to observe children shirking than working and this is consistent with some of the most recent finance literature that shows that in family firms the presence of a founder-CEO is associated with higher firms' performance while a descendant-CEO has a negative impact[33].

Family firms also face different challenges relative to non-family firms because of their tendency to enjoy private benefits and self-dealing actions (Litz

[31] Parents are faced with a Samaritan's dilemma when their actions give beneficiaries incentive to take actions or make decisions that may ultimately harm the parents' own welfare. Zellweger (2006) suggest that this problem is associated with the exercise (or lack) of self-control by the principal. Self-control problems arise whenever parties to a contract have both the incentive and the ability to take actions that "harm themselves and those around them" (Jensen, 1994).

[32] Beyond a certain point managers' ownership can reduce the effectiveness of corporate governance mechanisms.

[33] Villalonga and Amit (2006)

(1997); Schulze et al. (2001)). La Porta et al. (1999, p. 510) see this characteristic as particularly troublesome and argue that family enterprises are uniquely predisposed to internal dysfunction. Schulze et al. (2001) suggest that parents' altruism will lead them to be generous to their children even when the latter free ride and lack the competence and/or intention to exploit the firm's potential growth. Schulze et al. (2003) also note that altruism may bias perceptions of parent-CEOs regarding the performance of family agents and may make it more difficult to punish poor performance, particularly when such punishment has spillover effects on family relationships outside the business arena.

2.2 Family Firm Performance

Recent empirical evidence suggests that founding-family ownership is associated with superior firm performance when compared to widely-held companies, both in terms of accounting performance and market valuation (Anderson and Reeb, 2003; Villalonga and Amit, 2006; Barontini and Caprio, 2005; Fahlenbrach (2003)).

In US, Anderson and Reeb (2003) find that families have better performance using profitability-based measures of firm performance (ROA). Villalonga and Amit (2006) using Tobin's Q[34] to measure the performance, find that family ownership creates value only when the founder serves as the CEO of the family firm or as its Chairman with a hired CEO. Instead, when descendants serve as CEOs, firm value is destroyed. Besides, Fahlenbrach (2003) finds that firms run by their founders display abnormal market returns relative to the Fama-French (1993) factor model augmented by Carhart's (1997) momentum factor.

In European countries some interesting evidence is provided by Barontini and Caprio (2005) and Corstjens et al. (2006). Barontini and Caprio (2005) find that, even after controlling for control enhancing mechanisms and management involvement, family firms are better than non-family ones when descendants limit themselves to the role of non-executive directors, and are not worse than non-family firms when a descendant takes the helm. Corstjens et al. (2006)using a four factors

[34] The ratio of the firm's market value to the replacement cost of its assets

model (as Fahlenbrach (2003)) investigates whether there are significant differences between family and non-family firms in France, Germany, UK and US. Interestingly, they find that in France family firms are riskier and perform better than non-family firms, while in Germany, UK and US there is not significant difference in performance between family and non-family firms.

Here follows a review of two fundamentals papers: Anderson and Reeb (2003) and Villalonga and Amit (2006). Both papers are common references for the literature on family firms' performance and their findings have opened a debate that has inspired new research and new interest in family firms.

2.2.1 Anderson and Reeb (2003)

Anderson and Reeb (2003), using accounting and market measures of firm performance, compare family and non-family firms. After controlling for industry and firm characteristics, they suggest that firms with continued founding-family presence exhibit significantly better accounting and market performance than non-family firms.

To define a family firm, they use the fractional equity ownership of the founding family and (or) the presence of family members on the board of directors to identify family firms[35]. Non-family firms are those firms without family ownership or family presence on the board of directors.

They manually collect data from corporate proxy statements on board structure, CEO characteristics, independent blockholdings, and family attributes for 403 S&P 500 firms[36] from 1992 to 1999 yielding 2,713 firm-years observations. Their measures of firm performance are Tobin's Q and ROA (measured using either

[35] However, while the identification of family's members is not too difficult for young firms, it becomes harder for older firms that already had crossed different generations. In this latter case, in fact, very often the family expands to include distant relatives such as second or third cousins whose last names may no longer be the same. To resolve these descendant issues they examine corporate histories for each firm in their sample (Histories are from Gale Business Resources, Hoovers, and from individual companies).

[36] They exclude banks and public utilities due to the difficulty in calculating Tobin's *Q* for banks and because government regulations potentially affect firm performance.

EBITDA or Net Income)[37], [38]. Panel B of Table II (Anderson and Reeb (2003), *p.29*) presents the univariate. analysis between family and non-family firms. In this Table they present evidence that in the U.S.:

Panel B: Difference of Means Tests

This panel provides difference of means tests between family and non-family firms. Indicates significance at the one percent (*), five percent (**), and 10 percent level (***), respectively. *t*-statistics corrected for serial correlation using the Huber White Sandwich Estimator for variance.

		Family Firms	Non-Family Firms	*t*-statistic
1	Number of Firms	141	262	
2	Family Ownership (%)	17.88	0.00	10.38*
3	Founder CEOs (%)	14.54	0.00	4.68*
4	Descendant CEOs (%)	30.43	0.00	7.32*
5	Outside CEOs (%)	55.03	100.0	12.20*
6	R & D/Sales (%)	2.10	2.12	0.07
7	LT Debt/Total Assets (%)	18.54	19.18	0.44
8	Return Volatility	0.283	0.279	0.48
9	Total Assets ($000,000)	9,617	14,999	3.73*
10	Firm Age (Years)	76.00	88.61	3.13*
11	Return on Assets (EBITDA) (%)	15.90	14.63	1.39
12	Return on Assets (Net Income) (%)	6.07	4.70	2.81*
13	Return on Equity (EBITDA) (%)	53.89	43.26	0.56
14	Tobin's Q	1.59	1.32	3.14*
15	Officer and Directors Ownership (less family) (%)	1.35	1.45	0.47
16	Outside Directors (%)	43.59	61.16	10.73*
17	Unaffiliated Blockholdings (%)	8.35	11.84	3.58*
18	CEO Equity Based Pay (%)	29.37	39.07	5.69*

Table 2 - Anderson and Reeb (2003), *p.29:* Panel B of Table II

1. Family firms are smaller than non-family firms.

2. Among family firms 45% of the CEOs are family members and 55% are outsiders or "hired-hands."

[37] . Tobin's Q and Return On Assets (ROA) are their performance measures. Tobin's Q (Q) is the market value of total assets divided by the replacement cost of assets. Return on assets (ROA) is computed in two ways. In one approach, they use net income scaled by the book value of total assets. In the second approach, they use earnings before interest, tax, depreciation, and amortization (EBITDA) divided by the book value of total assets.

[38] They introduce several control variables into their analysis to control for industry and firm characteristics. Firm size is the natural log of the book value of total assets. Growth opportunities are measured as the ratio of research and development expenses to total sales. Firm risk is the standard deviation of monthly stock returns for the prior 60 months. They control for debt in the capital structure by dividing long-term debt by total assets. Firm age is measured as the natural log of the number of years since the firm's inception. Because corporate governance mechanisms can also influence firm performance and may affect family control, they include proxies for various governance devices. They use annual corporate proxy statements to collect data on the size and composition of the board of directors. They also incorporate a CEO compensation measure into the analysis because of the relation between executive pay and firm performance. Their measure, CEO Equity Based Pay, is defined as equity based pay (new options) divided by the sum of equity based pay, salary, and annual bonus. Compensation data comes from S&P's and COMPUSTAT.

3. Family firms have a higher performance relative to non-family firms in terms of ROA.

Using Tobin's Q, as the performance measure, they find that family firms have significantly (but very slightly) greater valuations than non-family firms.

To better understand the univariate results and control for the many other variables that influence firm performance, Anderson and Reeb also produce a multivariate analysis. The results of these regressions are in Table III (with accounting measures of performance) and Table IV (with market-based performance).

Table III

Accounting Measures of Performance and Founding-Family Ownership

This table reports results of regressing firm performance on family ownership. *Return on Assets* is EBITDA or net income divided by total assets. *Family Firm* is binary variable that equals one when the founding family is present in the firm. *Young Family Firm* equals one when firm age is less than 50 years and the family is present in the firm. *Old Family Firm* equals one when firm age is greater than or equal to 50 years and the family is present in the firm. *CEO Hire* equals one when the CEO is a non-family member in a family firm, *CEO Founder* equals one if the CEO is the founder of the firm and *CEO Descendant* equals one if the CEO is a founders' descendant. *Officers and Directors Ownership* (less family ownership) is insider ownership less family ownership. *Unaffiliated Blockholders* is the aggregate fractional holdings of entities holding more than five percent of the firm's shares. *Outside directors* is the number of independent directors divided by board size. *CEO Equity Based Pay* is the annual value of option grants divided by total CEO pay. *R&D/Sales* is research and development expenses divided by total sales. *LT Debt/Total Assets* is the book value of long-term debt divided by total assets. *Return Volatility* is the standard deviation of monthly stock returns for the previous 60 months. *Ln (Total Assets)* is the natural log of total assets. *Ln (Firm Age)* is the natural log of number of years since firm inception. All regressions include dummy variables for two-digit SIC codes and for each year of the sample period. *t*-values are in parentheses and are corrected for serial correlation with the Huber White Sandwich Estimator for variance. Number of observations is 2,713.

	Return on Assets (Using EBITDA)			Return on Assets (Using Net Income)		
	(1)	(2)	(3)	(4)	(5)	(6)
Intercept	0.287	0.265	0.266	0.215	0.188	0.195
	(9.55)	(8.02)	(8.30)	(13.92)	(13.24)	(11.77)
Family Firm	0.010			0.007		
	(2.42)			(2.31)		
Young Family Firm		0.028			0.016	
(Age ≤ 50.0 years)		(2.90)			(3.23)	
Old Family Firm		0.014			0.004	
(Age > 50.0 years)		(3.51)			(1.69)	
CEO Hire			0.008			0.002
			(1.63)			(0.81)
CEO Founder			0.035			0.314
			(2.83)			(4.09)
CEO Descendant			0.019			0.115
			(3.61)			(2.67)
Officer/Directors Own	0.014	0.081	0.035	0.049	0.032	0.072
(less family)	(0.22)	(1.00)	(0.57)	(1.06)	(0.73)	(1.52)
Unaffiliated Blockholders	-0.014	-0.013	-0.014	-0.013	-0.012	-0.012
	(3.80)	(3.35)	(3.61)	(3.99)	(4.73)	(3.83)
Outside Directors	-0.016	-0.006	-0.010	0.003	0.001	0.006
	(1.43)	(0.53)	(0.88)	(0.31)	(0.05)	(0.77)
CEO Equity Based Pay	0.008	0.009	0.011	0.006	0.007	0.009
	(1.18)	(1.20)	(1.58)	(1.30)	(1.51)	(1.80)
R & D/Sales	0.251	0.218	0.249	0.071	0.002	0.069
	(3.07)	(2.61)	(3.02)	(1.27)	(0.04)	(1.23)
LT Debt/Total Assets	0.037	0.041	0.039	-0.141	-0.135	-0.140
	(1.86)	(2.01)	(1.99)	(12.63)	(12.59)	(12.59)
Return Volatility	-0.207	-0.185	-0.211	-0.181	-0.163	-0.185
	(7.43)	(6.86)	(7.66)	(7.12)	(7.80)	(7.26)
Ln (Total Assets)	0.005	0.005	0.005	-0.004	-0.004	-0.004
	(2.14)	(2.35)	(2.27)	(2.56)	(3.30)	(2.50)
Ln (Firm Age)	-0.029	-0.029	-0.026	-0.013	-0.008	-0.009
	(5.93)	(5.07)	(4.95)	(4.34)	(2.88)	(2.98)
Adjusted R Square	0.365	0.363	0.363	0.276	0.281	0.283

Table 3 - Anderson and Reeb (2003), *p.31:* Table III

Table III, here reported as Table3, shows the results using accounting performance. The coefficient estimated for the presence of a family is positive and significant (both statistically and economically) when using either EBITDA or Net

Income when calculating ROA. Based on ROA, family firms appear to return 6.65 % more relative to non-family firms[39].

Table IV (reproduced below) shows additional results that provide further support to those found using ROA. Column 1 reports the results of the regression with Tobin's Q as the dependent variable and the family firm binary variable on the right-hand side. The coefficient estimate for the family firm indicator is positive and significant at the 1% level. This result is economically significant and suggests that Tobin's Q in family firms is 10.0 % higher than in non-family firms[40].

Table IV

Market Measures of Performance and Founding-Family Ownership

This table reports results of regressing firm performance on family ownership. *Tobin's Q* is the market value of assets divided by the replacement cost of assets. *Family Firm* is binary variable that equals one when the founding family is present in the firm. *Young Family Firm* equals one when firm age is less than 50 years and the family is present in the firm. *Old Family Firm* equals one when firm age is greater than or equal to 50 years and the family is present in the firm. *CEO Hire* equals one when the CEO is a non-family member in a family firm, *CEO Founder* equals one if the CEO is the founder of the firm and *CEO Descendant* equals one if the CEO is a founders' descendant. *Officers and Directors Ownership* (less family ownership) is insider ownership less family ownership. *Unaffiliated Blockholders* is the aggregate fractional holdings of entities holding more than five percent of the firm's shares. *Outside directors* is the number of independent directors divided by board size. *CEO Equity Based Pay* is the annual value of option grants divided by total CEO pay. *R&D/Sales* is research and development expenses divided by total sales. *LT Debt/Total Assets* is the book value of long-term debt divided by total assets. *Return Volatility* is the standard deviation of monthly stock returns for the previous 60 months. *Ln (Total Assets)* is the natural log of total assets. *Ln (Firm Age)* is the natural log of number of years since firm inception. All regressions include dummy variables for two-digit SIC codes and for each year of the sample period. *t*-values are in parentheses and are corrected for serial correlation with the Huber White Sandwich Estimator for variance. Number of observations is 2,713.

	Tobin's Q		
	(1)	(2)	(3)
Intercept	3.638	3.421	3.473
	(17.14)	(15.28)	(15.79)
Family Firm	0.142		
	(3.63)		
Young Family Firm (Age ≤ 50.0 years)		0.265	
		(3.54)	
Old Family Firm (Age > 50.0 years)		0.102	
		(2.56)	
CEO Hire			0.123
			(2.82)
CEO Founder			0.472
			(4.83)
CEO Descendant			0.057
			(1.05)
Officer/Directors Own (less family)	1.666	2.744	1.737
	(1.92)	(2.53)	(1.98)
Unaffiliated Blockholders	-0.345	-0.332	-0.345
	(10.59)	(10.09)	(10.66)
Outside Directors	0.040	0.074	0.072
	(0.41)	(0.74)	(0.73)
CEO Equity Based Pay	0.209	0.230	0.231
	(3.38)	(3.64)	(3.80)
R & D/Sales	4.609	4.141	4.538
	(6.99)	(6.10)	(6.91)
LT Debt/Total Assets	-1.032	-1.097	-1.025
	(7.95)	(8.14)	(7.97)
Return Volatility	-1.896	-1.740	-1.967
	(9.85)	(8.83)	(10.14)
Ln (Total Assets)	-0.093	-0.079	-0.101
	(5.61)	(4.69)	(6.24)
Ln (Firm Age)	-0.200	-0.192	-0.149
	(5.87)	(5.36)	(4.36)
Adjusted R Square	0.411	0.413	0.416

Table 4 - Anderson and Reeb (2003), *p.32:* Table IV

[39] They calculate this as: Return = coefficient estimate/average ROA = 0.010/.1505 = 0.0665. Similarly, for ROA based on net income, the differential is: .007/.0516 = 0.1357. They also repeat the analysis using return on equity (ROE) as the performance measure and find similar results.

[40] They calculate this as the coefficient estimate of family firms (0.142) divided by the average Tobin's Q for the sample (1.415).

Finally, following Morck, Shleifer, and Vishny (1988) and McConnell and Servaes (1990), Anderson and Reeb test the hypothesis that the relation between equity ownership structure and firm performance may be non-linear. To do so they include family ownership and the square of family ownership as continuous variables (McConnell and Servaes (1990)). They conclude from the analysis[41] that the relation between family holdings and performance is not uniform over the entire range of family ownership; firm performance is increasing until families own about one-third of the firm's outstanding equity. Beyond this level, performance begins to decline but is still better, on average, than non-family firms.

How we can expect, all the analysis that investigate the relationship between the presence of a family and performance suffer from endogeneity problems. In fact, because it is not clear if the presence of the family explains the likely higher performance or it is the better performance that keeps the family from leaving the business. Of course this problem does not only concern Anderson and Reeb' paper, but it is a common issue for all scholars that work in this field. To get rid of this concern, many researchers run some additional checks using, in many cases Instrumental Variables (IV). Anderson and Reeb for example use an Instrumental Variable 2stage least square approach[42]. The estimates they got are consistent with prior OLS results, suggesting that family firms are superior performers relative to non-family firms. However, they do not completely eliminate the possibility that families are more likely to exit firms with poor future performance; implying that the better performance observed in family firms is potentially due to both family foresight and reduced managerial agency costs.

2.2.2 Villalonga and Amit (2006)

Villalonga and Amit (2006) study if family firms trade at a premium or at a discount with respect to non-family firms and suggest that to fully understand the relationship between family ownership and performance it is important to consider three important aspects of family firms: ownership, control, and management.

[41] Table V, Anderson and Reeb (2003), p. 33.
[42] Table VI, Anderson and Reeb (2003), p. 34

Using data from the proxy filings of all Fortune 500 firms between 1994 and 2000 for a total of 2,808 firm-years[43], they find that family ownership only creates value for all firm's shareholders when the founder is still active in the firm either as CEO or as Chairman with a hired CEO.

In Villalonga and Amit (2006) family firms are identified as those whose founder or a member of the family by either blood or marriage is an officer, a director, or the owner of at least 5% of the firm's equity, individually or as a group. They also focus on the firm founder defined as individual responsible for the firm's early growth and development[44].

As measure of corporate performance they use the firm's market-to-book value as a proxy for Tobin's Q, and use the market value of common equity plus the book value of preferred stock and debt as a proxy for the firm's market value[45]. They also measure the market risk (beta), idiosyncratic risk, and ROA.

In Table II they provide the unvariate analysis showing that family firms outperform non-family firms when using Tobin's Q. At the same time, they find that family firms are riskier both in terms of idiosyncratic and market risk. All the differences are statistically significant.

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[43] Their data collection process involves two distinct phases. In Phase I, they build a database at the individual shareholder level which covers, for each firm-year in the sample, all of its insiders (officers and/or directors), blockholders (owners of five percent or more of the firm's equity), and the five largest institutional shareholders. They compile our Phase I data set from four sources: proxy statements for detailed information about blockholder and insider ownership, and about the firm's voting and board structures; Spectrum data on institutional holdings; Hoover's, corporate websites, and web searches about company histories and family relationships; and various SEC filings, to clarify the identity of ultimate owners whenever firms are controlled through intermediate corporations or "pyramids." This data set comprises 52,787 shareholder firm-year observations. Phase II of their data collection process centers on aggregating our shareholder-level database from Phase I into firm-years, and obtaining data on a broad range of firm characteristics from three other sources: Compustat, CRSP, and the Investor Responsibility Research Center (IRRC), which provides data on governance provisions in charters, bylaws, and the Securities and Exchange Commission (SEC) filings. This aggregation results in 2,808 firm-year observations from 508 different firms.

[44] There is an interesting bite of how they did work: In Kellogg, the largest individual shareholder is Gorge Gund III, as a result of his father George Gund II's sale for stock of one of his companies to Kellogg in 1927. In addition, George III's brother Gordon is a director. Yet the Kellogg family, through the W.G. Kellogg foundation, owns about three times as many shares as does the Gund family. We therefore consider the Kelloggs, and not the Gunds, as the controlling family.

45 For firms with a single class of shares, the market value of common equity is the product of the share price at fiscal year-end times the number of common shares outstanding. They obtain both items from Compustat. For firms with multiple classes of tradable shares, the procedure is the same for each class of stock and only requires adding the market value of all classes (Zingales, 1995, Nenova, 2003). For firms with multiple share classes, including at least one class that is not publicly traded, we multiply the total shares outstanding of all classes by the share price of the tradable shares to estimate the market value of common equity.

Table II
Summary Statistics for Family and Non-Family Firms

t-statistics are based on clustered (by firm) standard errors from OLS regressions of each variable on a family firm dummy. Family firms are defined as those where one or more family members are officers or directors or own 5% or more of the firm's equity either individually or as a group. The sample comprises 2,808 firm-year observations from 508 Fortune 500 firms listed in U.S. stock markets during 1994-2000. Asterisks denote statistical significance at the 1% (***), 5% (**), or 10% (*) level.

	[a] All Firms		[b] Family Firms		[c] Non-Family Firms		Diff. in Means	
	Mean	Std Dev	Mean	Std Dev	Mean	Std Dev	[b] - [c]	*t*-stat.
Tobin's *q*	2.03	1.60	2.17	1.83	1.95	1.44	0.23	1.65 *
Industry-adjusted *q*	-0.32	1.43	-0.07	1.59	-0.47	1.29	0.40	3.43 ***
Market risk (beta)	1.05	0.41	1.10	0.42	1.02	0.39	0.08	2.32 **
Idiosyncratic risk	0.27	0.19	0.30	0.24	0.26	0.16	0.04	2.62 ***
Diversification dummy	0.56	0.50	0.50	0.50	0.60	0.49	-0.09	-2.31 **
R&D/Sales	0.02	0.04	0.02	0.04	0.02	0.04	-0.01	-2.09 **
CAPX/PPE	0.23	0.22	0.26	0.32	0.22	0.14	0.04	2.35 **
Number of firm-years	2,808		1,041		1,767			
Number of firms	508		193		336			

Table 5 - Villalonga and Amit (2006) p. 35 Table II

In Table III they present the results from multivariate analysis of value regressed on different measures of family ownership, control, and management. In columns (1) and (2), Tobin's Q is used as the dependent variable and use *year and Fama-French industry dummies to control for time and industry effects*. In columns (3) and (4), they control for these two effects by using industry adjusted Q[46] as the dependent variable while dropping the industry and year dummies.

In columns (1) and (3) family ownership is measured by a family firm dummy and family control by a dummy that indicates the presence of control-enhancing mechanisms such as multiple share classes, pyramids, cross-holdings, or voting agreements[47]. In columns (2) and (4), Villalonga and Amit use continuous measures of both family ownership and control. The measure of family ownership is the percentage of shares of all classes held by the family as a group. The measure of

[46] Industry-adjusted Q is the difference between the firm's Q and the asset-weighted average of the imputed *Q's* of its segments, where a segment's imputed *Q* is the industry average Q, and *Q* is measured as before.

[47] Following La Porta et al. (1999) and Bebchuk et al. (2000), Villaonga and Amit assume that the use of these mechanisms reflects the family's ability to extract private benefits of control

family control (in excess of ownership) is the percentage of votes owned by the family in excess of the percentage of shares it owns.

Table III
OLS Regressions of Tobin's *q* on Family Ownership, Control, and Management

The family ownership dummy equals one when one or more family members are officers or directors or own five percent or more of the firm's equity either individually or as a group. Family ownership stake is the percentage of shares of all classes held by the family as a group. Control-enhancing mechanisms is a dummy that equals one when there are multiple share classes, pyramids, cross-holdings, or voting agreements that create family excess voteholdings. Family excess voteholdings is the difference between the percentage of all votes outstanding held by the family and the family ownership stake. Tobin's *q* is measured as the ratio of the firm's market value to total assets. For firms with non-tradable share classes, the non-tradable shares are valued at the same price as the publicly traded shares. Observations with *q* greater than 10 are considered outliers and excluded from estimation. Industry-adjusted *q* is the difference between the firm's *q* and the asset-weighted average of the imputed *q*'s of its segments, where a segment's imputed *q* is the industry average *q*. Industry averages are computed at the most precise SIC level for which there is a minimum of five single-segment firms in the industry-year. The (unadjusted) *q* regressions include dummies for all years except 1994, and for 40 Fama-French industries. The governance index measures the number of charter provisions that reduce shareholder rights. The sample comprises 2,808 firm-year observations from 508 Fortune 500 firms listed in U.S. stock markets during 1994-2000. *t*-statistics from clustered (by firm) standard errors appear in parentheses. Asterisks denote statistical significance at the 1% (***), 5% (**), or 10% (*) level.

	Dependent Variable: Tobin's *q*		Dep. Var.: Industry-Adjusted *q*	
	(1)	(2)	(3)	(4)
Family ownership dummy	0.26 **		0.25 **	
	(2.57)		(2.27)	
Family ownership stake		0.66 *		0.66 *
		(1.88)		(1.85)
Control-enhancing mechanisms dummy	-0.21 **		-0.07	
	(-2.35)		(-0.77)	
Family excess voteholdings		-0.12 *		-0.12 *
		(-1.69)		(-1.92)
Family CEO dummy	-0.03	0.05	0.12	0.23 *
	(-0.20)	(0.40)	(0.94)	(1.91)
Governance index	-0.02 *	-0.01	-0.04 **	-0.03 **
	(-1.66)	(-0.99)	(-2.44)	(-2.10)
Non-family blockholder ownership	-0.36 **	-0.33 **	-0.34	-0.32
	(-2.15)	(-2.08)	(-1.53)	(-1.42)
Non-family outside directors (%)	0.09	0.09	0.13	0.09
	(0.56)	(0.55)	(0.78)	(0.54)
Dividends/Book value of equity	0.27	0.25	0.30	0.29
	(1.52)	(1.42)	(1.58)	(1.54)
Debt/Market value of equity	-0.20 ***	-0.21 ***	-0.22 ***	-0.22 ***
	(-3.40)	(-3.52)	(-3.40)	(-3.50)
Market risk (beta)	0.15 **	0.16 **	0.02	0.03
	(2.02)	(2.05)	(0.30)	(0.39)
Diversification dummy	-0.22 ***	-0.23 ***	-0.25 ***	-0.25 ***
	(-3.02)	(-3.17)	(-3.08)	(-3.09)
R&D/Sales	7.20 ***	7.53 ***	0.61	0.64
	(2.97)	(3.06)	(0.33)	(0.35)
CAPX/PPE	0.42	0.40 *	0.32	0.33
	(1.63)	(1.66)	(1.34)	(1.40)
Ln (assets)	0.02	0.03	0.06	0.06
	(0.63)	(0.85)	(1.53)	(1.63)
Sales growth	0.05	0.06	0.07	0.07
	(1.48)	(1.53)	(1.58)	(1.64)
Ln (age)	-0.04	-0.05	-0.01	-0.01
	(-1.11)	(-1.31)	(-0.25)	(-0.29)
Intercept	1.60 ***	1.43 ***	-0.46	-0.49
	(4.24)	(3.61)	(-1.18)	(-1.20)
R-Squared	0.38	0.38	0.10	0.10

Table 6 - Villalonga and Amit (2006) p. 36 Table III

Columns (1) and (3) in Table III confirm the univariate differences in Q reported in Table II. The coefficient of the family firm dummy is 0.26 in the Tobin's Q regression, 0.25 in the industry-adjusted Q regression, and it is statistically significant in both. Control-enhancing mechanisms have a negative and significant effect on Q (-0.21). *This finding suggests that family firm shareholders pay a price for the family's appropriation of private benefits.* In other word, since large shareholders, such as family firms, govern by exercising their voting rights what really matters is the amount of voting rights they obtain through control enhancing mechanism. Hence the use of control enhancing mechanisms exacerbates the agency cost problem; however, this is negatively reflected in the company's performance so that the family pays a price for it since the family has right to a share of the firm's

performance proportional to its cash flow rights. The effect of control-enhancing mechanisms on industry-adjusted Q is also negative but not significant.

Columns (2) and (4) provide further investigation of the value effects of family ownership and control. Villalonga and Amit find a positive and significant coefficient of family ownership that is identical for both industry-adjusted and unadjusted Q (0.66). However, ion both regressions, the coefficient on the excess vote-holdings variable is negative and significant (-0.12). These findings suggest that, despite the costs associated with the family's excess of control, the family ownership is beneficial for minority shareholders. In other words, minority shareholders in family firms are better off than they would have been in a non-family firm. However, family management, as measured by the presence of a family CEO, has no significant effect on value.

The last step of the Villalonga and Amit study an investigation of which agency cost has more impact on family firm. To analyse this issue the authors distinguish between two kinds of agency problems:

c. Agency Cost I. The classic agency cost between manager and atomistic shareholders.

d. Agency Cost II. The agency problem between the dominant blockholder and the minority shareholders.

In this paper, among many interests, Villaonga and Amit are also trying to understand which agency cost dominates in different contests. Hence, to break down the agency cost issue, Villaonga and Amit exploit the interaction between family control and family CEO dummies. Assuming that a family CEO eliminates the conflict between owners and managers they suggest that in family firms there is the absence of Agency Problem I. Further, Villaonga and Amit assume that the use that families do of mechanisms that enhance their voting power over and above their equity ownership stake proxies for the divergence of interests between large (family) and small (non-family) shareholders. This is referred to as Agency Problem II.

Interaction the two dummies Villalonga and Amit break the sample in four firm-types:

- Type I: Family firms with control-enhancing mechanisms and a family CEO. These firms may have Agency Problem II, but not Agency Problem I.

- Type II: Family firms with control-enhancing mechanisms but no family CEO. These firms may have both agency problems.
- Type III: Family firms with a family CEO but no control-enhancing mechanisms. These firms do not have either agency problem
- Type IV: Non-family firms, which may have Agency Problem I, but not Agency Problem II

Applying the latter classification their sample, Villaonga and Amit have 260 Type I family firms, 262 Type II family firms, 271 Type III family firms, and 1,767 non-family (Type IV firms). There are also 248 family firms that, like the non-family firms, have neither control-enhancing mechanisms nor a family CEO. For each group and among them Villalonga and Amit provide the results for a difference in mean test mean on the Tobin's Q. The results are shown in Table IV.

This analysis suggest that the absence of agency problem is linked with the better firm performance and the difference in performance between the latter group and any other group is statistically significant different from zero. Similar results are obtained also using as measure of performance industry adjusted Tobin's Q.

Villalonga and Amit also find that family management adds value as long as the founder serves as the CEO of the family firm, or as its Chairman with a non-family CEO. Firm value is destroyed when descendants of the founder serve as CEOs.

Concluding with their own words: *"Family firms whose CEO is a member of the family, and which have no control-enhancing mechanisms in place (Type III firms), enjoy the highest performance".*

It is important to notice, though, that Villalonga and Amit study suffer from some due to sample selection problems. This is because "*the firms in (their) sample are among the largest in the world, are listed on an exchange in a country with a high degree of shareholder protection, are frequent investment targets for index funds, and are generally old and thus more difficult to maintain under family control".*

Table IV

Impact of Agency Problems on Firm Value

The top number in each cell is the mean Tobin's *q*, the middle number is industry-adjusted q (in italics), and the bottom number is the number of firms of each type (in square brackets). Family firms are defined as those where one or more family members are officers or directors or own five percent or more of the firm's equity either individually or as a group. The presence of Agency Problem I is measured by the absence of a family-CEO in the firm. The presence of Agency Problem II is measured by a dummy that equals one when there are control-enhancing mechanisms (such as multiple share classes, pyramids, cross-holdings, or voting agreements) that lead family voteholdings to exceed family shareholdings. Tobin's *q* is measured as the ratio of the firm's market value to total assets. For firms with non-tradable share classes, the non-tradable shares are valued at the same price as the publicly traded shares. Industry-adjusted *q* is the difference between the firm's *q* and the asset-weighted average of the imputed *q*'s of its segments, where a segment's imputed *q* is the industry average *q*. Industry averages are computed at the most precise SIC level for which there is a minimum of five single-segment firms in the industry-year. The sample comprises 2,808 firm-year observations from 508 Fortune 500 firms listed in U.S. stock markets during 1994-2000. *t*-statistics from clustered (by firm) standard errors appear in parentheses. Asterisks denote statistical significance at the 1% (***), 5% (**), or 10% (*) level.

		Conflict of Interest Between Owners and Managers (Agency Problem I)		Differences (*t*-stats)
		No	Yes	
Conflict of Interest Between Large and Minority Shareholders (Agency Problem II)	Yes	Type I Family Firms 1.93 *-0.16* [260]	Type II Family Firms 1.94 *-0.32* [262]	(I) – (II) -0.01 (-0.07) *0.16 (1.05)*
	No	Type III Family Firms 2.66 *0.30* [271]	Type IV (Non-Family) Firms 1.97 *-0.42* [2,015]	(III) – (IV) 0.69 (2.16)** *0.72 (2.81)***
Differences (*t*-stats)		(I) – (III) -0.73 (-2.21)** *-0.46 (-1.71)**	(II) – (IV) -0.03 (-0.26) *0.10 (0.84)*	(I) – (IV) -0.05 (-0.27) *0.26 (1.78)**

Table 7 - Villalonga and Amit(2006), p. 37

Chapter III

Hypotheses, Data and Results

This Chapter is organized as follows: Section 1 explains the hypotheses development; Section 2 describes the two datasets used in the analysis. Section 3 proposes summary statistics. Section 4 describes the methodology used to form portfolios and the econometric models used to test the hypotheses. Section 5 describes the main results. Section 6 concludes.

Section 1 Hypotheses Development

In this work I consider the impact that the firm's ownership structure has on the firms' returns and risk. As explained in the Introduction, Chapter I and Chapter II, the economic driving force of such an impact should be generated by the agency costs arising from the presence of a blockholder. In a rational expectations framework, if such agency costs arise from the presence of a blockholder, investors will only consider holding such firms in their portfolios if they are adequately compensated for the additional risk.

My research question can be answered by comparing the return generating process of closely-held firms relative to those of widely-held firms. While the latter are not difficult to recognize, the former are harder to identify properly because blockholders can come in different classes. While the most pervasive internationally are family blockholders, we also see institutional blockholders (both widely-held institutions and closely-held ones). In this research project I will capture the presence of a powerful blockholder by identifying family blockholders. In other words, I will focus on two main ownership structures: family firms and non-family firms.

The reason behind my decision is explained by agency costs and the type of blockholder that can significantly influence such costs. Below I will argue that family firms are different to other firms owned by non-family blockholders. I argue that different types of blockholders have different incentives to (a) monitor management, and (b) extract private benefits from small shareholders. Let us consider the extraction of private benefits which causes agency costs of control. Any private benefits extracted by a widely-held financial institution, such as a mutual fund, etc are likely to be divided among several final owners, resulting in heavy dilution of such benefits. Dilution is not likely to be a problem for a family blockholder and hence we expect families to have more pronounced incentives to extract private benefits at the expense of other stakeholders. This makes family-owned firms different compared to other firms owned by blockholders. The same can be said for monitoring. Many institutional blockholders may lack the incentive to monitor management either because their ownership stake is low or because they have a high

turnover rate (leading to a relatively short term presence of such blockholders in the firm's ownership structure).

In what follows I will review the family blockholders' salient features that are relevant for my analysis and, at the same time, will address the question: what is so special about the founding family? I want to address this question in order to justify fully my choice of using family blockholders for my analysis.

Recent empirical literature on family firms indicates both positive and negative aspects of having a family as main blockholder. Families tend to have an inter-generational presence in the firm and, by definition, they have a long-term investment horizon that privileges value maximization over the long term rather than the very short term (James (1999)). This is one important feature that distinguishes family blockholders from (a) the average institutional blockholder, and (b) widely-held firms. There are various important effects arising form this characteristic. First, family blockholders are either in management or have a very high incentive to monitor management. It is not difficult to see how this may curb the classic agency conflict between managers and owners (Demsetz (1993), Demsetz and Lehn (1985)). Moreover, their long term presence in the company allows strong relationship with financial markets. The latter is important because reputation-building is possible with family blockholders especially for family blockholders that are financially-constrained. In such cases, family firms would have to resort to external finance repeatedly and hence the family blockholder has an incentive to build reputations. Besides, while some literature[48] suggests that the presence of a large shareholder can be detrimental to efficiency because of adverse effects on employees' incentives, Andersen and Reeb (2003) and Lee (2006) state that family firms are able to cultivate employment stability and employees loyalty more than non-family firms.

Besides the positive aspects that family blockholders may have, one has also to consider the possible negative aspects that may counterbalance the positive effects of family blockholders. Specifically, family blockholders may follow specific goals that are not always consistent with profit maximization.

If, as postulated by Ward (1997) and Spremann (2002), business survival and independence goals are the most important for this kind of corporations, family firms

[48] Shleifer and Vishny (1997); Schmidt (1996); Cremer (1995) among others.

may prefer survival rather than growth and value maximization. Once survival becomes a priority then taking on *excessive risk* should not be one of the founding family's objectives. This behavior should have an influence on the firm's investment policies because high risk projects may be turned down in favor of low risk ones even if the former have higher future payoffs. Family inclination to risk avoidance is documented by De Angelo and De Angelo (2000) and Anderson and Reeb (2004). This should not be the case of institutional blockholders since these investors are interested in maximizing short-term profitability.

The other important feature of family blockholders is their powerful and dominating presence in the firms that can lead them to abuse their dominant position to exchange profits for private rents (Fama and Jensen (1983)) and special dividends (De Angelo and De Angelo (2000)). They can also engage in asset substitution as observed by Jensen and Meckling (1976) or engage in stealing or tunneling of the firm's resources. Recent empirical studies[49] show that ownership concentration and unification of ownership and management in family firms creates agency costs because of management entrenchment issues that motivate family members in expropriating interests of minority shareholders (Morck et al. (2003)).

If one also adds the fact that the founding family is very often highly undiversified and thus may be affected adversely by the firm's idiosyncratic risk (Maug (1998)) – something that should also keep the firm from taking excessive risk – and that the family's reputation is very much linked with the firm's reputation and success, then it is not unreasonable to argue that the family's incentives might be very far from the one of other investors, resulting in higher possibilities of expropriation of minority shareholders[50].

Which side of family presence mostly impact firm's risk and performance is an empirical issue, especially so since there is no theoretical finding that can be used to generate precise hypotheses. Then, my empirical design will take an agnostic view of the presence of family blockholders and I will just assume that whether this effect is – on a net basis – positive or negative should have an impact on the return generating process. Specifically, if a family blockholder is more harmful to

[49] See Shea (2007) for an overview.
[50] Bebchuk, 1994, Stiglitz (1985), Shleifer and Vishny (1997). Empirically, the ability of a family to extract private benefits not shared with minority shareholders is documented also by Dyck and Zingales (2004).

(minority) shareholders than the lack of control over the management in non-family firms it should show up on returns demanded by investors.

It can be reasonable assumed that the ownership structure that suffer higher agency costs is the one in which there is the higher risk of expropriation for potential investors. According to the Efficient Market Hypothesis we know that there is a trade-off between risk and returns: higher risk must be associated with higher returns. Using the returns generated by family firms and non-family firms, it is possible to investigate this trade-off and conclude that the ownership structure in which a potential investor would suffer higher risk of expropriation is the one that must pay the higher return.

Hypothesis 1: if agency costs matter and family firms have higher agency costs relative to non-family firms, then, they have to compensate investors with higher stock returns.

One important point that must be considered to fully investigate the proposed hypothesis is the way family blockholders are disciplined and monitored by country-wide governance systems. These can restrict the blockholders' behavior and avoid their expropriation of cash flows at the expense of other stakeholders.

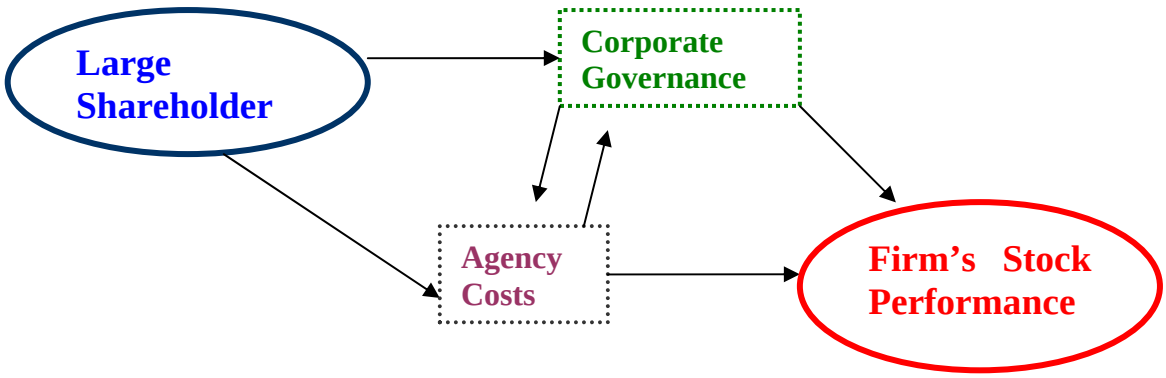

Figure 5. Agency Cost and Internal Corporate Governance in Family Firms

The level of corporate governance becomes central when considering mechanisms that can be in place to avoid expropriation and abuse of the blockholder's dominant position. Specifically for my research, I will ask how families are disciplined and monitored in order to avoid private benefits consumption and understand how finance-providers protect themselves from such behavior. Existing evidence shows

that the ultimate impact of a large shareholder is likely to depend on both the type of internal and external governance. [51] For example, Claessens et al. (2002) interpreting the results found on the impact of large blockholders on firm valuation in East Asian countries, state that "the degree to which certain ownership and control structures are associated with entrenchment discounts likely depends on economy-specific circumstances." Lins (2003) finds that the way blockholders impact firm valuation is significantly influenced by the type of shareholder protection rules in each country. Lins state that "one interpretation of these results is that external shareholder protection mechanisms play a role in restraining managerial agency costs..."

In closely-held corporations corporate governance mechanisms should mostly discipline the large shareholder to prevent and limit any tunnelling, risk-shifting or other types of expropriation or consumption of private benefits. On one hand, in companies such as family firms the role of the main blockholder might reduces the effectiveness of internal corporate governance. Family blockholders, in fact, are very unlikely to restrict their actions through high quality internal corporate governance. For example, there is evidence that founding families are used to be reluctant to retain a fair proportion of independent directors on their boards[52] and normally use control enhancing mechanisms to obtain voting rights over and above cash-flow rights. On the other hand, the role of the market and the legal system cannot be neutralized by the blockholder.

Shleifer and Vishny (1997) explain that since large shareholders govern by exercising their voting rights, their power depends on the degree of legal protection in the country: *"majority owners can dictate the decisions of the company only if the law allows them to do so*". Thus, the ability of family blockholders to exacerbate agency cost depends on how market discipline is exercised. This, in turn, will determine how much power a family can exert within the firm and to what extent the family itself is monitored by the financial market.

Where capital market institutions are effective in their disciplinary role and minority shareholders' protection rules are in place and effective, we would expect that the large blockholder has less possibility to extract private benefits. For example,

[51] See Claessens et al. (2000), Durnev and Kim (2005), Lins (2003), Stulz (2005), Weinstein and Yafeh (1998), amongst many others.
[52] Anderson and Reeb (2003); Morck, Wolfenzon, and Yeung (2004); Hiller and McColgan (2004); De Holan and Sanz (2006), Bartholomeuz and Tanewski (2006).

in order to get external finance the blockholder might decide to commit to higher quality governance as a way to show unambiguous commitment to avoid expropriation at the cost of minority shareholders or bondholders.

But what happens when minority shareholders' protection rules are not enforced? In this case it is possible that the presence of a family in the ownership may end up increasing the total agency cost bore by minority shareholders. In this kind of legal environment we can expect that it is easier for blockholders to expropriate minority shareholders, or to extract private benefits to the detriment of the other stakeholders. If we consider the role of the capital market as a possible mechanism that mitigates expropriation, then investors will still invest in family firms. However, in order to do so they will ask for higher returns on the stocks of these companies as compensation for the risk of expropriation.

Hypothesis 2: there is a negative relationship between the enforcement of the law to protect minority shareholders from expropriation and the returns of family firms.

As shareholder rights become stronger the risk of minority shareholders' expropriation decreases; hence, in countries in which minority protection rules are effectively enforced family firms pay lower returns than in countries where minority shareholders are less protected against expropriation.

Section 2 Data

To test my hypotheses I will be using two distinct datasets of European firms, each with its own advantages and constraints. The first dataset is composed of a total of 1,565 European firms operating in different industries (except in the financial industry) spanning the period from January 1992 to December 2006 for a total of 249,989 firm-monthly observations. I will henceforth refer to this as DATASET A.

The second dataset contains a total of 2,048 European firms operating in different industries (except in the financial industry) and spans the same period of time (1992-2006) for a total of 252,934 firm-monthly observations. I will henceforth refer to this as DATASET B.

In what follows I will describe the two datasets, the way I constructed them and their advantages and costs that should be borne in mind when devising the empirical methodology.

2.1 Datasets

2.1.1 DATASET A

Dataset A is constructed from different sources. First, I started by using the dataset of Faccio and Lang (2002)[53] that contains ultimate ownership information for 5,232 firms, mostly large and medium sized publicly-listed European companies from 13 countries (Austria, Belgium, Finland, France, Germany, Ireland, Italy, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom) over the period 1996 to 1999. Ultimate ownership data is collected for all owners that hold at least 10% of a company's stock.

Second, I have proceeded to collect monthly prices for firms in the Faccio and Lang dataset from Worldscope over the period 1992 – 2006. It should be noted that price information on Worldscope seem to be sparse before 1992 and this feature has determined by starting date point. Even so, price data for a significant number of firms may be sparse or intermittent even after 1992. The first screen that I have applied for the Worldscope data is that firms in my dataset should have a full and complete series of price information for every month from January 1992 until December 2006. With this screen in mind, I have been able to download monthly prices for 1,730 companies in 13 European countries: Austria, Belgium, Finland, France, Germany, Ireland, Italy, Norway, Portugal, Spain, Sweden, Switzerland, and U.K.[54]. I also applied another screen in order to have a balanced dataset, where I have an adequate number of family and non-family firms in each country. For each country I imposed that I should have at 10 firms that can be identified as family firms. This has led me to drop data from Austria, Belgium, Ireland and Spain.

[53] The dataset can be found in the following website: http: //jfe.rochester.edu/data.htm

[54] I also have financial data for companies in Portugal, but, at least for now, I have excluded this country from my basic dataset because the value factor is not available from French's website.

Third, I have then proceeded to obtain information on market returns in every country for every month over the period 1992 – 2006. Together with this data, I also required data on the Fama and French factors. I have obtained this data from Kenneth French's website[55]. I have downloaded the data on Fama and French factors for every country (with the exception of Portugal, for which there is no data on the Fama and French factors) for every month from January 1992 until December 2006.

To recapitulate, DATASET A consists of 1,565 European firms from 8 European countries (Finland, France, Germany, Italy, Norway, Sweden, Switzerland and U.K.) as shown in panel A of Table 2.

It is important to notice that I ended up with a total of only 1,565 companies, compared to the starting number of 5,232 firms in the Faccio and Lang dataset. The difference in number can be explained by the various screens I have applied and which I have explained above. There is one additional screen that I have applied to be consistent with the previous literature[56], i.e. I deleted financial firms (SIC code between 6000 and 6900 and firms classified as "Financial" by Faccio and Lang (2002)). There are 1,114 of such firms, leaving me with a total of 4,118 companies.

Faccio and Lang (2002) have collected ownership data using different sources. The major sources are the national Stock Exchange ownership files over 1996 and 1999. They collect information on the ownership stake of blockholders using two cut-off points: (i) 10% cut-off point and (ii) 20% cut-off point. They also provide information about the largest blockholder's cash flow and control rights and for family firms also indicate if the family is in active management or not.

One important issue that needs to be highlighted is the fact that Faccio and Lang (2002) collect ownership information at one point in time between 1996 and 1999. This means that a firm is identified as a family firm or otherwise based on that single observation collected by Faccio and Lang. This may be thought as being a potential problem for my analysis since I will be looking over a period of time spanning 1992 to 2006. In other words, by using the Faccio and Lang ownership data I will be assuming that the ownership structure is stable through time. In fact, existing literature has shown that this time-invariance of ownership should not create

[55] http://mba.tuck.dartmouth.edu/pages/faculty/ken.french/data_library.html#International
[56] Among others Barottini and Caprio (2006)

significant problems (Claesseans et al. (2002)) since it is well-known that ownership is sticky over a relatively short period of time like the one we use.

I investigate further the assumption of ownership stability to make sure that I does not bias in any way my results. The only possible methodology is using the ownership data of AMADEUS, a dataset for more than 5 million European private and public companies. The advantage of AMADEUS is that it provides ownership data on a yearly basis. The constraint is that ownership data starts only from 2002. As suggested by Ellul (2007), I look at the stability of ownership across the period 1996 to 1999, for which I have data from Faccio and Lang, and 2002 to 2006, for which period I collect data from AMADEUS. As found by Ellul (2007) I also find stability of ownership across the two datasets and the two periods, confirming the time-invariance of ownership. Given this finding, there should not be any significant bias in the way I identify family firms on my results.

2.1.2 DATASET B

Dataset A is constructed on the basis of the Faccio and Lang dataset which, while providing depth of ownership data, has one important constraint: it provides data mainly for medium and large firms. Given that family firms are likely to be small, such a dataset may under-represent family firms. Because of this reason, I proceeded to construct a new dataset of all the firms listed in each country, and hence I have data for all firms whether they are small, medium and large. I expect that family firms will be more fairly represented in this dataset. Given the depth ad width of such a dataset I have focused 8 European countries: firms from Austria, France, Germany, Italy, Netherlands, Spain, Sweden and Switzerland. One can reasonable say that this dataset is still a work-in-progress and incomplete but it contains enough information that should allow me to run various tests that can be considered as either extensions from the ones I run on DATASET A or as robustness checks. The number of firms in DATASET B and their country of origin are shown in panel A of Table 17. One important characteristic that I would like to highlight is that the number of firms in DATASET B for the 8 countries is much larger. In fact,, while DATASET A

has data for 1,565 firms, DATASET B has 2,048 firms for these 8 countries[57]. This should allow for a larger cross-sectional difference across types of firms considered in my analysis.

To construct DATASET B I follow these steps. First, I download all the companies listed on Worldscope as publicly listed in the 8 countries mentioned above. For each company, I get the information about its industry. Consistent with the literature, I keep only firms that are not in the financial industry (the equivalent of SIC code between 6000 and 6900). Following this, I look at the status of each firm since Worldscope gives information on whether the company is "Dead" (meaning it went into bankruptcy) or "Delisted" (meaning that the company was delisted either because of an action from the company itself or from the stock exchange on which it was listed). To be consistent with the existing literature, I have removed these companies from my dataset.

Following these two screens, I have then proceeded to obtain monthly price for each of the firms in my dataset. When doing so, I have applied another screen to keep only firms for which I have at least 60 monthly observations. In other words, firms with less than 5 years of data are not kept in the dataset. This leaves me with 2,048 firms in my dataset.

Following the completion of the final dataset I get data on financial and accounting variables that will provide me with the firm characteristics. I collect data on annual sales, operating income, total assets, market capitalization and dividend yield. These characteristics are obtained on an annual basis for the period 1992 to 2006.

I then proceed to obtain ownership information from AMADEUS. The main constraint that this dataset provides is that ownership data is only provided starting from 2002. I collect all ownership information from 2002 until 2006, specifically whether a firm has a family blockholder or not, and whether the family blockholder has an active role in the firm's management. At this stage I capture the ownership and management variables with a dummy variable as explained below. Given that I can only collect ownership data from 2002 I will have to assume that the ownership

[57] Moreover, in both datasets I have information for: France, Germany, Italy, Sweden and Switzerland. However, while in DATASET A for these countries I only have a total of 236, 179, 40, 35 and 36 companies; in DATASET B for the same countries I have a much higher number of companies: 428 in France, 464 in Germany, 261 in Italy, 262 in Sweden and 250 in Switzerland.

structure in 2002 will be the same for the period spanning from 1992 to 2001. Hence, I will assume the time-invariance of the ownership before 2002. Again, this is not likely to be a significant issue for two reasons. First, existing literature and my tests on the stability of ownership for DATASET A show that there is high ownership stability across time. Second, since for the tests using DATASET B I will be using a dummy variable to distinguish a family firm from a non-family firm this should reduce even further any bias. This is because while family blockholders may change their ownership stae across time, it is quite rare for a family blockholder to sell out completely. In other words, it is very hard for a firm to pass from being a family firm to non-family firm.

Having said this, I would like to point out two additional issues for DATASET B. While Faccio and Lang ownership information used for my first dataset provides complete and detailed information on the entire ownership structure of a company, using AMADEUS I only collect (so far) information on whether a company is a family firm or not and if the family is involved in the management. Hence, so far I do not have information on the difference between the family blockholder's cash flow rights and voting rights (the so called wedge). I also do not have information on ownership concentration and the presence of other blockholders in the ownership structure.

A second difference with the information provided by Faccio and Lang (2002) arises from the use of cut-off points to define family firms. Faccio and Lang collect information on the ownership stake of blockholders using two cut-off points: (i) 10% cut-off point and (ii) 20% cut-off point. AMADEUS, instead, provides information about the nature of the ultimate blockholder regardless of the ownership stake. Hence, in DATASET B I will be defining a family firm if a family blockholder is present in the ownership structure regardless of the size of its stake. In this way, I will be closer to the definition used by Anderson et al. (2003) and Villalonga and Amit (2006).

2.2 Main Variables

I will next describe the variables used in my analysis, starting with the ownership definition.

2.2.1 Ownership Classification

I define a family firm as a company in which the founder, or descendents of his/her family (either by blood or through marriage), is a blockholder, either individually or as a group. This definition is the one that has been most widely used in the literature so far. The application of such a definition has changed mostly in the application of any possible cut-off point for the family blockholder's ownership stake. For example, while Anderson et al. (2003) and Villalonga and Amit (2006) do not set any cut-off point in the family stake, others, like Faccio and Lang, have applied a 10% or a 5% cut-off.

To define a family firm Faccio and Lang use a very similar definition, but whenever they are not able to find the ultimate owner of an unlisted firm they have classified it as family. Then, as they explain[58], in their dataset a firm is defined as family either if it is a family (including an individual) or if it is a firm that is unlisted on any stock exchange[59]. Although, this methodology will may not be a significant issue, I decided to use a conservative approach only using Faccio and Lang definition at 10% cut-off point. Instead, since Amadeus dataset does not provide any cut-off stake, in DATASET B a firms is family owned also if the family blockholder has more or less than 10% stake.

In the rest of this analysis to indicate the presence of a family in the ownership of a corporation following Anderson et al. (2003) and Villalonga and Amit (2006), I use a dummy variable. In DATASET A this dummy variable takes the value of 1 if the company is identified as family from Faccio and Lang and zero otherwise, while in DATASET B it takes the value of 1 if the company is identified as family in Amadeus dataset and zero otherwise.

[58] Faccio and Lang (2002) p. 373.
[59] A similar approach has been used by Claessens et al. (2000)

The definition of a family firm, though, it is not the only issue involved in this discussion. There is, in fact, an ongoing debate about what really drives the incentives and behaviour of a family blockholder. It is not clear if it is family's ownership that matters or any managerial role that the family has or the control of voting rights in excess of its cash flow right.

Unfortunately, the use of a dummy variable to capture the ownership structure has the disadvantage of not considering that the ability of a family blockholder to expropriate minority shareholders can depend on his control motivations (and hence a function of the blockholder voting stake). The dummy variable approach though can introduce important bias that, in DATASET A, I try to correct using the family's ownership stake and voting rights (ownership of shares outstanding in percentage) as alternative ways of defining a family's presence and its impact on the agency cost. I use these measures because it is reasonable to expect that the larger is the family's stake the clearer is its incentive structure.

Moreover, existing literature has also indicated that the participation of a family member in the management can have both positive and negative effects on the risks borne by minority shareholder. To address this issue I will also consider the famly's presence in the firm management, irrespective of the actual stake of its ownership. To implement this approach, in both datasets, I will use a dummy variable that takes value of one if a family member is in active management and zero otherwise.

2.2.2 Internal and External Corporate Governance

A major component of my research is the impact of internal and external corporate governance mechanism on the agency conflicts within a firm generated by the presence of a powerful blockholder. Hence, I will need measures of both types of corporate governance.

Family firms have been identified as the most active of all types of blockholders and have interest in keeping their dominant position. It is very unlikely

that a family blockholder should restrict his actions by committing to high standards of internal governance.

Nevertheless, all else equal, we would expect that when the family is not the only blockholder with a significant stake, the presence of other blockholders could reduce the ability of the family to weaken the internal corporate governance. In DATASET A I have enough depth in the data that allows me to see whether the family blockholder is on his own or not. I capture the presence of a controlling blockholder that is alone by using a dummy variable equal to one if the company has a controlling shareholder alone and zero otherwise. Following the definition of Faccio and Land (2002), a controlling shareholder is said to be "alone" if no other owner controls at least 10% of the voting rights.

Moreover, Villalonga and Amit (2006) claim that, in family firms, the use of mechanisms that enhance the voting power of the controlling blockholder can be an indicator of agency cost of control. The use of control enhancing mechanisms can also be considered as an indication of weak corporate governance. Hence, I also employ a dummy variable that indicates the use of control enhancing mechanisms. Faccio and Lang provide data on different types of control enhancing mechanisms used by European companies: dual class shares, pyramids, holding through multiple control chains, cross-holding, etc.[60]. I use a dummy variable that takes the value of 1 if a company has any type control enhancing mechanisms in place.

Also central to my work is the analysis of how ownership structures impact risk and performance across countries. While the use of control enhancing mechanisms and the presence of a controlling shareholder can be used as proxy of weak internal governance, measures of external governance help correct for country specifics biases due to legislative differences.

To address the impact from external (country) governance and to account for different minority protection laws across countries I use the Anti Self-Dealing Index proposed by Djankov et al. (2006).

The original version of the Anti Self-Dealing Index (the Anti-Director Index Rights) was proposed by La Porta et al. (1997, 1998) and measures the strength of minority shareholders' protection against self-dealing by the controlling shareholder.

[60] See Table I for an explanation of these variables.

The Anti Self-Dealing Index improves the original Anti-Director Rights relying on the same basic dimensions of corporate law, but defining them with more precision because it captures both law and its enforcement.

The Anti Self-Dealing Index addresses the ways in which the law deals with corporate self-dealing (or tunnelling) and covers the following six areas: (1) vote by mail; (2) obstacles to the actual exercise of the right to vote (i.e., the requirement that shares be deposited before the shareholders' meeting); (3) minority representation on the Board of Directors through cumulative voting or proportional representation; (4) an oppressed minority mechanism to seek redress in case of expropriation; (5) pre-emptive rights to subscribe to new securities issued by the company; and (6) right to call a special shareholder meeting.

To create this index the authors simulate a hypothetical self-dealing transaction between two firms controlled by the same person and measure the difficulties that the controlling shareholder must face in order to accomplish this transaction. The more obstacles to these kinds of transactions in place within a country the higher is the Anti Self-Dealing Index. The Index takes a value from zero to one: a value of zero in countries with the least minority shareholders' protection and a value of 1 when the law strongly protects them.

I also use the Block Premium Variable as reported in Djankov et al. (2006). The premium paid for control in corporate control transactions is widely interpreted as a measure of the private benefits of control, which are higher in countries with weaker investor protection laws (Grossman and Hart 1988, Nenova 2003, Dyck and Zingales 2004).

Section 3 Descriptive Statistics

In what follows I will provide and discuss the descriptive statistics for DATASET A (in Section 3.1) and for DATASET B (in section 3.2)

3.1 Descriptive Statistics: DATASET A

Table 2 provides descriptive statistics for DATASET A.

[Insert Table 2 here]

Panel A describes the country of origin and the number of observations per country. Panel B shows descriptive statistics for firm level characteristics, ownership measures and country level variables. Panel C shows, for each country, the descriptive statistics for the market return and value premium for each country.

The mean stock returns is 0.83% per month with a median of zero. The average beta corrected for thin trading is roughly 0.30 and a median value of 0. 25. Using the definition of family firms (based on family ownership, irrespective of the ownership size) I find that 29% of the firms in this sample have a family in their ownership structure and 68.6% of such firms have a family member involved in active management. I also find that 30% of these family firms use control enhancing mechanisms to keep control. The average wedge is 1.76, meaning that for each cash flow right the blockholder has 1.76 voting rights. The median of wedge is 1. Finally, 50% of the overall sample is composed of companies with a controlling blockholder that is alone. For these companies, there is no discipline being exercised on the family blockholder from other institutional blockholders.

Panels B1 and B2 show that family firms have on average higher monthly stock returns (0.92%) relative to non-family firms (0.80%), and the beta (corrected for thin trading) is on average higher in non-family firms (0.32) relative to 0.28 in family firms. Both family firms and non-family firms use control enhancing mechanisms that entitle the blockholder to obtain voting rights over and above his

cash flow rights. These mechanisms include dual share classes with differential voting rights, pyramids, cross-holdings, and holding through multiple chains. However, families make significantly less frequent use of these mechanisms than do other large shareholders in non-family firms (31% versus 43%, respectively). Family firms' voting rights in excess of cash flow rights average 1.21 for all firms. In non-family firms the large shareholders own on average voting rights in excess of cash flow rights equal to 2.05, with a median equal to 1. Finally, among family firms 58% of all family blockholders are alone, hence are not subject to the discipline of any other blockholder. Among non-family firms 47% of all companies are owned by a blockholder alone.

The fact that family firms appear to make less use of control enhancing mechanisms and have on average lower wedge than non-family firms might depend on the definition of non-family firms, In fact, in the group of non-family firms there is a large number of firms that are either owned by a blockholder or are controlled through cross-holding[61]. The most represented ultimate blockholder are: institutional blockholders (14%) and unlisted company (42%). However, also if only 10% of all non-family firms is owned by the State or through cross-holding, these companies are the one for which the ultimate owners has the large number of voting rights in excess to his cash flow rights. The average wedge in these last two groups is equal to 6.61 and 9.98 respectively and this highly impacts the mean on the overall sample. Removing these two types of shareholders from the sample, in fact, the mean wedge in the set of non-family firms becomes 1.50. Given the variety of type of owners among family firms the definition of non-family firms also biases the overall results of this analysis in favour of rejecting the main hypotheses.

As argued before, institutional blockholders have been shown to be (largely) inactive in monitoring the management and are more likely to have incentive structures similar to atomistic shareholders[62]. Using this definition, all companies with institutional blockholder are considered free from agency costs of control. However, there is evidence that many ultimate owners classified as unlisted company are simply family blockholders. Since it is impossible to measure the agency cost in a

[61] Cross-holdings: The firm Y is controlled by another firm, that is controlled by Y, or directly controls at least x% of its own stocks. Miscellaneous: Charities, voting trusts, employees, cooperatives, or minority foreign investors

[62] Tufano (1996)

company and we can only study the presence or the absence of agency cost observing the nature of ultimate owner and the use he makes of different instruments to keep control, it is not clear that all non-family firms are free from agency cost of control and this negatively impact the results of this research.

Table 3 shows the descriptive statistics for each country in the dataset.

[Insert Table 3 here]

Finally, both for the entire dataset and each country, Table 4 shows the results from a difference in means test between family and non-family firms for the main variables of interest.

[Insert Table 4 here]

For the sake of brevity, in this section I will only describe results for the entire sample.

From Table 4, we can notice that in the overall dataset, family firms have significantly higher average stock return than non-family firms, but use less control enhancing mechanisms and have lower wedge. Family firms have higher mean monthly stock returns than non-family firms in Italy (1.03% versus 0.52% monthly), Sweden (1.98% versus 1.43% monthly), Switzerland (1.18% per month versus 0.70%) and U.K. (0.88% versus 0.73% monthly), while the difference in performance is not statistically different in Finland, France, Germany and Norway.

In many countries non-family have significantly more wedge (voting rights in excess to cash flow rights) than family firms. Non-family firms have higher wedge than non-family firms in Finland (1.74 versus 1.17, respectively), France (1.24 versus 1, respectively), Germany (2.18 versus 1.27, respectively), Norway (5.86 versus 1.17, respectively), Sweden (2.96 versus 1.41, respectively) and U.K. (1.77 versus 1.08¸ respectively). Instead, family firms have higher wedge than non-family firms Switzerland (3.50 versus 1.40, respectively) while there is not difference in Italy. Analysing the median of wedge, I find that both family firms and non family firms have a median wedge equal to 1in France, Germany, Norway and U.K., however, this median is statistically different between groups only in France and U.K. In Finland the median of wedge for family firms is 1.25 while it is 1 for non-family firms. In Italy family firms have a median wedge of 1.07 and this is 1 for non-family firms. In Sweden instead family firms have a median wedge equal to 1 and non-family firms

have a median wedge equal to 0.70. In all countries, though, the median is not statistically difference between groups. Finally, In Switzerland family firms have median wedge equal to 2.27 while non-family firms have a median wedge of 1 and the difference is statistically significant.[63]

However, both in Italy and Switzerland among non-family firms there is a significantly higher number of companies with a controlling blockholder alone, while in France, Germany and the U.K. family firms have the highest (and significant) number of controlling owners alone.

3.2 Descriptive Statistics: DATASET B

Table 15 provides descriptive statistics for the DATASET B.

[Insert Table 15 here]

Panel A describes the country of origin and the number of observations per country. Panel B shows descriptive statistics for firm level characteristics for family firms and non-family firms. Panel C shows descriptive statistics for each country. Panel B and Panel C also provide the result of the difference-in-means test between the stock returns of family and non-family firms.

Panel B shows that in the overall dataset family firms have on average higher (and statistically significant) monthly stock returns (0.92%) with respect to non-family firms (0.66%).The median of the monthly stock returns is equal to 0 for family firms and equal to 0.60 for non-family firms.. Beta corrected for thin trading is 0.65 in family firms and 0.71 in non-family firms. The median of beta for family firms is 0.65 while it is 0.54 for non-family firms. The median Operating Margin for both family firms and non-family is 0.05, while the average is for both negative. Family firms have an average Book-to-Market ratio of 0.54, while for non-family firms this averages 0.76. The median is 0.51 and 0.62 respectively. Market value (the natural logarithm of the market capitalization) is on average around 12.86 in non-family firms, while its average in family firms is around12.16. The median of Market value is respectively equal to 6.13 and 5.54. The average Leverage is 0.24 in non-

[63] Results for the Wilcoxon rank-sum test are not shown in any table, but are available upon request.

family firms and 0.38 in family firms while the median is respectively equal to 0.10 and 0.07.. Total assets (the natural logarithm of total assets) averages 13.59 in non-family firms and 12.26 in family firms, the median is equal to 4.85 in non-family firms and 1.60 in family firms. Net sales over assets are 0.95% in non-family firms and 0.91 in family firms, the median is respectively equal to 0.88 and 0.81. .Finally, the average Dividend Yield is 0.003 for non-family firms and 0.034 for family firms and the median is 0.015 and 0.012 respectively.

Section 4 Methodology

From an asset pricing point of view, one possible approach that can be used is investigating whether the ownership structure is a pricing factor. As intriguing this idea may be, it faces a very difficult obstacle that precludes me from applying it in practice. This is because for a factor to be considered as a pricing factor or not requires time-variance, i.e. the factor should change through time. If those changes do influence returns then one considers that factor as crucial in the pricing kernel. When considering ownership structure this is not possible, or is very difficult because of the ownership stickiness through time. For example, if one were to form portfolios based on ownership characteristics for this to be considered as a pricing factor one would need transition between portfolios. This is extremely slow when we consider ownership structures. In other words, events where the firm changes ownership status are rare and firms are seldom subject to ownership "uncertainty".

Hence, given the structure of my dataset where the presence of a family in the ownership structure is indicated by a dummy variable that does not change through time, it would be inappropriate to see the ownership structure as delivering uncertainty risk. In other words, I cannot investigate whether the ownership structure is a pricing factor – from an asset pricing point of view - given the time-invariance of ownership.

Hence, it is reasonable to argue that it is possible that firms are rather influenced by the (time-invariant) effects related to the presence of a controlling blockholder and investigate whether this is true or not. In other words, given the many differences between family firms and non-family firms that may be induced by

the presence of a family blockholder it is possible that some characteristics of family behaviour positively or negatively impact the risk of other (minority) shareholders. In a rational world, this should in turn impact firms' stock returns.

To investigate this issue, I follow the most recent literature started by the seminal paper of Gompers et al. (2003) where they investigate the impact of corporate governance, i.e. distinguish between companies with strong and weak corporate governance. Like Gompers et al. (2003) I will develop a methodology based on portfolio sorting.

I will focus mostly on the performance of family firms with respect to non-family firms and build portfolios to test this. However, wherever possible I want to analyze the multi-dimensional influences of the presence of the family blockholder and to do so I will create portfolios based on other characteristics rather than simply the ownership structure. In particular, I study the impact of the family manager and the interaction between family ownership, its control and family management. For each portfolio I will create I will always study its performance using a performance attribution regression and when possible I also try to understand if other firm characteristics (besides ownership) have any impact on the results using a Fama and MachBeth regression approach.

The two datasets I use in this work do not allow me to undertake the same analysis on both of them. For DATASET A I have complete information on the ownership structure, but no information on other firm characteristics. For DATASET B I only know if the main blockholder is a family or not and if it is involved in the management. One advantage of DATASET B is that it contains complete information on the firm characteristics.

Hence, on the DATASET A I extensively study the relationship between various portfolios of family firms constructed by combining the information on the ownership structure. Using DATASET B, instead I mostly study portfolios of family firms and non-family firms, but I also analyze if family ownership is still significant after controlling for other firms characteristics. This means that the set of results I obtain for each dataset should be viewed together rather than just individually.

This section is organized as follows: section 4.1 explains the portfolios formation methodology, while section 4.2 explains the econometric methodology.

4.1 Portfolio Formation

One approach that can be used to address my research question is portfolio formation where portfolios are formed from stocks with the characteristic that should be entering the pricing kernel. In my case, this is the ownership structure. I form various portfolios to test my hypotheses.

The first portfolio formation exercise is based on the presence of a family blockholder in the ownership structure. As explained in the previous section, I indicate the presence of a family in the ownership of a corporation using a dummy variable that takes the value of 1 if the company is identified as family from Faccio and Lang (2002) and zero otherwise[64]. Using this dummy variable for each country and for each month I create two portfolios: the first one composed only of family firms and the second one only composed of non-family corporations. the framework used here has the underlying assumption that family firms have a different magnitude of agency costs (considering both agency costs of control and the classic agency costs) relative to non-family firms.

Following the first portfolio exercise, I proceed to analyze the role of the family in the management and its impact on agency costs. Following Villalonga and Amit (2006) I assume that family with a family manager should not suffer from the classic agency cost while family firms with a professional manager experience the classic conflict between the manager and the shareholders. Using the dummy variable indicating the presence of the family manager I create portfolios long in family firms with a family manager and short in non-family firms. However, in this case, I also want to consider the possibility that if a family is actively involved in the management the manager completely shares the family economic and non-economic incentives and would be keen to enforce familiar decision for the good of the family only. Hence, the presence of a family in the management curbs the classic agency cost, but might increase the risk of minority expropriation.

Finally, I complete my analysis by using a third methodology whereby I form portfolios that distinguish family firms with respect to the possible magnitude of

[64] This is also consistent with the approach of Anderson et al. (2003) and Villalonga and Amit (2006).

agency costs of control. In other words, I assume that the higher the interest that the blockholder shows in controlling the companies the higher the risk of expropriation against minority shareholders will be. To investigate this issue, I will analyze a number of factors that, cumulatively, should provide a measure of the family blockholders' incentive to generate agency costs.

To reach this objective, I will use an interaction of different variables that can show (individually) the incentives of the family blockholder as follows: (a) the dummy variable indicating the presence of a family in the ownership, (b) the dummy indicating the use of control enhancing mechanisms, and (c) the dummy that measure if the blockholder is a controlling blockholder alone or not. Following this procedure, I create the following groups of family firms:

Group A: Family firms in which the family is not a controlling blockholder alone and does not use control enhancing mechanisms as a way to keep control.

Group B: Family firms in which either the family is a controlling blockholder alone ***or*** it uses control enhancing mechanisms to keep control.

Group C: Family firms in which the family is a controlling blockholder alone ***and*** it uses control enhancing mechanisms as way to keep control.

The ownership structure of group A indicates that the family may have low interest in keeping control over the company. That is because, first, it does not use control enhancing mechanisms so it should not have voting rights over and above its cash flow rights to enforce its decisions over the company; and, second, the family is not the only blockholder with a substantial stake. The latter implies that some form of monitoring could take place from other blockholders present in the firm. Consequently, for this group while I do not exclude the possibility that the family still has some ways to divert resources from minority shareholders, I expect that the there is a low probability that minority shareholders will suffer expropriation. Hence, I indicate this group as one where family firms have NO agency costs of control.

In Group B I expect that the family blockholder has a higher probability of generating agency costs of control relative to family firms in Group A. This is so because the blockholder has higher probability of extracting private benefits at expenses of minority shareholder because (a) either he is alone, so no other blockholder has enough stake to exercise any monitoring, or (b) the family

blockholder has enough voting rights in excess to its cash flow rights indicating that he can impose his control over the company. Thus, in this group I reckon a higher risk of minority shareholders' expropriation than in Group A. Accordingly, I expect that the family firms in Group B to have LOW agency costs of control.

Group C, finally, is composed of family firms where the family blockholder is a controlling blockholder alone **and** have controlling enhancing mechanisms in place to have much bigger voting power than its cash flow rights. Obviously, in this group the chances that the blockholder expropriates minority shareholder increases significantly with respect to both Group A and Group B. Accordingly, I indicate this group of family firms as a group with HIGH control level of agency cost of control.

To recapitulate, I expect family firms in Group A to have no agency costs of control, those in Group B should have low agency costs of control and those in Group C should have the highest agency costs of control.

Given these three groups, I try to understand the interaction between classic agency costs and agency costs of control and to study which agency cost has more impact on family firms' risk and performance. In this analysis I closely follow what Villalonga and Amit (2006) did, but I improve their study by including different magnitude of agency cost of control in family firms.

Villalonga and Amit (2006) refer to the classic agency cost as Agency Cost I, and to the agency cost of control as Agency Cost II. To study the relationship between classic agency cost and agency cost of control they exploit the interaction between the family control and family manager dummies. They argue that a family manager eliminates the conflict between owners and managers, while the use of control enhancing mechanisms increase the blockholder's voting power over and above his equity ownership stake an should proxy for the divergence of interests between large (family) and small (non-family) shareholders. Using the interaction between these two variables, they break up their sample of U.S. firms in four firm-types:

Type I: Family firms with control-enhancing mechanisms and a family manager. These firms may have Agency Problem II, but not Agency Problem I.

Type II: Family firms with control-enhancing mechanisms but no family manager. These firms may have both agency problems.

Type III: Family firms with a family manager but no control-enhancing mechanisms. These firms do not have any of the agency problems mentioned.

Type IV: Non-family firms, which may have Agency Cost I, but not Agency Cost II.

Following the same steps of Villalonga and Amit I use the dummy variable indicating the presence of a family manager to divide the groups of family firms with different magnitudes of agency costs by looking at the (a) presence of a family manager, (b) the use of control-enhancing mechanisms, and (c) the presence of the family blockholder alone (i.e. without the presence of any other blockholder in the ownership structure).Thus, I create six firm- types of companies as shown in the figure below:.

		Agency Cost Of Control		
		NO	**LOW**	**HIGH**
Classic Agency Cost	**NO**	Type 1	Type 2	Type 3
	YES	Type 4	Type 5	Type 6

Figure 2: Family Firms Groups Based On Level Of Agency Cost Of Control And Classis Agency Cost.

Type 1: Family firms with no control-enhancing mechanisms, family management, and the family blockholder is not the only blockholder in the ownership structure. These firms might have NO Agency Problem II, but not Agency Problem I.

Type 2: Family firms with either control-enhancing mechanisms ***or*** with the absence of any other blockholder in the ownership and a family manager. These firms might have LOW Agency Problem II, but not Agency Problem I.

Type 3: Family firms with both control-enhancing mechanisms ***and*** with the absence of any other blockholder in the ownership and a family manager. These firms might have HIGH Agency Problem II, but not Agency Problem I.

Type 4: Family firms with no control-enhancing mechanisms, the family blockholder is not the only blockholder in the ownership structure and no family manager. These firms might have NO Agency Problem II, but Agency Problem I.

Type 5: Family firms with either control-enhancing mechanisms ***or*** with the absence of any other blockholder in the ownership and no family manager. These firms might have LOW Agency Problem II and Agency Problem I.

Type 6: Family firms with both control-enhancing mechanisms and with the absence of any other blockholder in the ownership and no family manager. These firms might have HIGH Agency Problem II and Agency Problem I.

After the formation of these six groups, I first compare family firms among them to understand the different impact that agency costs have across family firms. Then I study how each of these six groups perform relative to non-family firms. Finally, I analyze the interaction between the classic agency costs and agency costs of control regardless of the magnitude of the agency costs. In this analysis I indicate the two different types of agency costs by referring to the distintion made by Villalonga and Amit (2006). Henceforth I will be referring to Agency Cost I as ACI and to Agency Cost II as ACII.

Finally, I use the Anti Self-dealing Index to study how the impact of the ownership structure changes in countries with different shareholders protection laws. In both datasets I use the index as independent variable in country fixed effect panel models. However, when using DATASET A I also use the Anti Self-dealing Index to split the entire dataset in two sub-samples as explained below.

Country	Anti Self-dealing Index	Block Premium
Austria	0.21	0.38
Finland	0.46	0.01
France	0.38	0.01
Germany	0.28	0.11
Italy	0.42	0.16
Netherlands	0.20	0.03
Norway	0.42	0.01
Spain	0.37	0.02
Sweden	0.33	0.03
Switzerland	0.27	0.07
U.K.	0.95	0

Figure 3.Anti Self- Dealing Index and Block Premium In Each Country.

Figure 3 above shows the values that the Anti Self-dealing Index takes in each country in my datasets. Looking at the values of the Index for the countries in DATASET A, it is clear that all Continental European countries are clustered close to each other while the U.K. distinguishes itself scoring 0.95 which is way above all others countries. Hence, I introduce a dummy variable equal to 1 for the U.K. and zero otherwise and split the entire dataset in two sub-samples Continental Europe (i.e. countries with low Anti Self-dealing Index) and the U.K. (i.e. country with high Self Dealing Index).

In each legal system, I study the performance of the groups of family described in the previous sub-section.

While in DATASET B I do not have enough information to go deeper in the investigation of the interaction between management and control, I do this analysis using the data collected in DATASET A. In DATASET A, I first distinguish between family firms with different level of control motivation and then I study the impact of the family manager.

4.2 Econometric Methodology

I analyze the time series of each portfolio that is formed as explained above by using a Fama and French factor model regression. With this factor model, I test the result of an equal-weighted strategy that in each country (or legal system), and for each month from February 1992 to December 2006, goes long in family firms (or family firms with different levels of agency costs of control) and short in non-family firms.

The intercept coefficient in this type of regression – the so-called "alpha" – is interpreted as the abnormal return that an investor investing in one or the other portfolio receives by not passively investing in the model factors exclusively. The coefficients of the independent variables, instead, measure the exposure to the risk factors. To complete the analysis I also study the market risk (beta) and risk adjusted performance of each portfolio using Sharpe ratio and Treynor ratio portfolio's performance measures.

On DATASET B, then, using raw data, I run a Fama and MacBeth (1973) type regression to analyse if the ownership structure is still significant after controlling for other firm characteristics. This methodology is used both as a robustness check and also to understand what other factors besides the ownership structure might be driving the difference in return between family and non-family firms.

In this section I first introduce the Fama and Fench two factors model, then, in Section 4.2.2 I discuss on the Fama and MacBeth methodology. In Section 4.2.3 I explain how I calculate the market risk for each company. Section 4.2.4 illustrates the alternative measures of the risk adjusted performance: Sharpe Ratio and Treynor Ratio.

4.2.1 Performance Attribution Regression: Fama and French Two Factors Model

Existing literature in asset pricing has identified several characteristics that can be proposed as factors that can explain differences in firms' realized returns. There is considerable evidence that shows that the cross-sectional pattern of stock returns can be explained by characteristics such as size, leverage, past returns, dividend yield, earning-to-price ratios, and book-to-market ratios[65]. This evidence can be referred to as factor models which has developed after Ross (1976) paper on the Arbitrage Pricing Theory. In a series of papers, Fama and French (1992a, b, 1993b, 1996) examine several factors simultaneously and provide evidence that, with the exception of the momentum factor of Jegadeesh and Titman (1993, 1995), the cross sectional variation in expected returns associated with these non-risk characteristics can be captured by just two factors: (a) size (market capitalization), and (b) the book-to-market ratio. Moreover they document that once these factors are taken into consideration, Beta which is the measure of market risk and used by the

[65] Banz (1981) documented size anomalies; Bhandari (1988) documented leverage effect; Jegadeesh and Titman (1993) and DeBondt and Thaler (1985) documented past returns effect; Basu (1983) documented the earning-to-price ratio; Stattman (1980) and Rosemberg, reid, and Lanstein (1985) documented book-to-market effect.

CAPM as the measure of risk, explains almost none of the cross-sectional dispersion in expected returns.

To construct the size premium factor (the so called Small Minus Big, or SMB),Fama and French use data from every year from 1963 to 1990 and group all stocks traded on the NYSE, Amex and Nasdaq into deciles based either on their market capitalization. They then measure the average returns of each portfolio in each decile over the next year. The average return over this sample period of the smallest stock size decile is 0.74 percent per month higher than the average return of the largest decile. When they repeat the exercise using the book-to-market ratio to rank securities (the so-called, high minus low or HML) and then form portfolios they find that the average return of the highest book-to-market ratio decile (made up of "value" stocks) is 1.53 percent per month higher than the average return in the lowest book-to-market ratio (made up of "growth" stocks). These differences are much higher than can be explained through differences in beta between the two portfolios.

These findings have been received with mixed reactions over the years. Part of the finance literature has perceived them as "anomalies" with respect to the classic parading of rationality that states that high performance must be associated with higher risks. In this view, the factors proposed by Fama and French can be viewed as anomalies if they are not risk factors. It has to be said that there is a widespread and ongoing debate on whether these factors are really risk factors or not.

Fama and French (1993) suggest that book-to-market and size are proxies for distress. They also propose that distressed firms may be more sensitive to certain business cycle factors, like changes in credit conditions, compared to firms that are financially less vulnerable. In addition, the duration of high growth firms' earnings should be somewhat longer than the duration of low growth firms; therefore, term structure shifts should affect the two groups of firms differently. Therefore, they use (Fama and French (1992a, b, 1993b, 1996)) the firm size and book-to-market effects within a three factor model in which the factors are returns on the market portfolio, and on two zero net-investment portfolios. One portfolio is long in high book-to-market securities and short in low book-to-market securities (the HML factor). The other portfolio is long in small firms and short in large firms (SMB).

The findings of the literature on factor models in general, and those of Fama and French, have not gone unquestioned. One criticism to these findings is that they

may be due to data mining. For example, Lakonishok, Shleifer and Vishny (1994), and Haugen (1995) argue that the size and book-to-market equity effects are due to investor overreaction rather then compensation for risk bearing. They argue that investors systematically overreact to recent corporate news, unrealistically extrapolating high or low growth into the future. This, in turn, leads to underpricing of value (small market capitalization, high book-to-market equity stocks) and overpricing of growth (large, low book-to-market) stocks. Daniel and Titman (1997) find that firm characteristics (i.e. size and boo-to-market) explain returns better than factor loadings from Fama and French model and conclude that there is no return premium associated with any of the three factors identified by Fama and French (1993), suggesting that the high return related to these portfolios cannot be viewed as compensation factor risk.

Although I recognize that there is an ongoing debate about whether Fama and French' factors are proxies for risk I will not be taking positions in this debate. Instead I will follow the empirical methodology used by existing literature that investigates whether corporate governance impact firms 'performance and risk. In this case, I will follow Gompers et al (2003) and use the Fama and French model to analyze the performance of various portfolios sorted on ownership structure. In other words, the intercept of my model, the so-called "alpha", is interpreted as the abnormal return an investor would have received by investing in a portfolio long in family firms (or family firms with different magnitude of agency cost) and short in non-family firms in excess to what he could have earned passively investing in the two factors from year 1992 to year 2006.

However, in this work I do not apply the classic version of Fama and French regression model where they use the three factor model, but instead I use their *two factor* model (Fama and French (1998)). The two factor model is different from their more popular and widely-used three-factor model because it lacks the size factor. There is a reason that explains the absence of the size factor from the model for international stocks. Fama and French (1998) extend their three factors model to a global context and provide evidence that the two factor model, with the market factor and the book-to-market factor, essentially explains international stock returns better than the capital asset pricing model (CAPM). In other words, I will apply the two

factor model where the size factor is dropped because it has been shown that it does not contribute significantly to the analysis.

The international two factors model is estimated by the following equation:

$$R_t = \alpha + \beta_1 RMRF_t + \beta_2 HML_t + e_t \quad (1)$$

where R_t is the excess return in month t, $RMRF_t$ is the month t value-weighted market return minus the risk-free rate, and HML_t (high minus low) is the month t returns on the zero-investment factor-mimicking portfolios designed to capture the book-to-market effect.

To recapitulate Fama and French show that the two factors model explains very well the returns at the country level. The same result is obtained under the assumption of integrated market. Besides the finding of Fama and French, there are other reasons that clearly indicate the same outcome. There is evidence that the size premium effect has been decreasing over the last ten years so much so that Gompers and Metrick (2001) argue that this is due to demand pressure for large stock resulting from the growth of institutional investors. Such investors may prefer larger stocks rather than small stocks, especially since their high turnover requires high stock liquidity something that is easier to find for large stocks.

4.2.2 Fama and MacBeth Methodology

Using the Fama and French two factors model I am able to study the performance of different portfolios and can understand if family firms pay a higher return adjusted for risk than non-family firms. One important criticism to such an approach is based on the different firm characteristics that may exist between family and non-family firms. Hence, it is very important to control for firm characteristics that may be driving the difference in returns between family firms and non-family firms. The way I address this issue is through the use of the standard Fama and MacBeth (1973) approach.

Although the first time the Fama and MacBeth (1973) methodology as developed in relation to the CAPM, the procedure itself has now become standard in

the field of asset pricing and goes beyond the objectives for which it was first developed. Indeed, Fama and MacBeth (1973) interpreted the CAPM as a basic linear relationship between stock returns and market betas which should completely explain the cross-section of returns. In order to test the CAPM, Fama and MacBeth implemented a two-step regression methodology that survived and went on to become a standard methodology in the field

In line with existing literature, I will use this two-step methodology and for each month in the sample period from February 1992 to December 2006 I estimate the following relationship:

$$r_{it} = a_t + b_t X_i + c_t Z_{it} + e_{it} \quad (2)$$

where, r_{it} are the raw returns for firm i in month t, X_i is a vector of ownership and agency cost related variables and Z_{it} is a vector of firm characteristics.

As element of X_i I include either dummy variable that indicates the presence of a family in the ownership structure or a dummy variable indicating if the family is involved in the management.

As elements of Z, following Brennan, Chordia, and Subrahmanyam (1998) I include the *Market Value,* the natural logarithm of the market capitalization in local currency at the end of month t-1 and the *Book-to-Market ratio* as proxies for the size and value effect (Fama and French (1993)), three variables for returns over the month -3 to -2, -6 to -4 and -12 to -7 prior to the month of the analysis.

Brennan, Chordia, and Subrahmanyam (1998) suggest that all variables involving the price level are lagged in order to preclude the possibility of a linear combination of the lagged return variables. They also include three momentum factors to exclude the returns during the immediate prior month in order to avoid any spurious association between the prior month return and the current month return caused by thin trading or bid-ask spread effects. In other words, the three return lagged variables should proxy for the momentum factor of Jegadeesh and Titman (1993, 1995).

Following Gompers et al. (2003) among the independent variable I also add *Dividend Yield* in the prior fiscal year. Finally, following Corstjens et al. (2006) I use *Leverage*, defined as long-term debt divided by total assets, *Total Assets* and the *Idiosyncratic Risk,* calculated as the standard error of the market model. In this

market model the firm's monthly returns are regressed on the market monthly returns in each country and betas are corrected for thin trading. Finally, I also use *Operating Margin,* defined as operating income over net sales at the end of the previous year, and *Sales on Assets* at the end of the previous year.

4.2.3 Market Risk and Thin Trading Correction

One way I use to investigate the riskiness of family firms and non-family firms is measuring their market risk (exposure to the market factor as measured by beta). However, given the characteristics of the stocks in my dataset, beta is very likely to be affected by thin trading biases, so that a correction is needed.

The presence of thin trading in my datasets is not difficult to notice since such a problem seems to be pervasive. In DATASET A I find that 30% of the total monthly stock return are zeros[66]. These zero returns can be explained in two ways: they are either the product of low trading volume that does not change the price level, or the price level does not change even if high volumes are transacted. Given that most of the firms in my datasets are either medium-sized or small firms, I tend to think that the most reasonable explanation for this big cluster of returns around zero is low trading volume.

It is important to notice that in markets that suffer from thin trading the beta estimates may be highly unstable due to the tendency of the estimates to drift towards the mean. In other words, betas are negatively biased. The literature on thin trading in markets distinguishes between stocks on the quality of trading that they exhibit. Fowler et al. (1981) distinguish: (1) fat stocks, i.e. stocks that are always traded on the last day of each month (in this case the price is regarded as correct); (2) moderate stocks, i.e. stocks that have at least one observation per month, but the price is not necessarily correct; (3) infrequent stocks, i.e. stocks that have at least one month with no trade on record.

Given these three types of stocks, a reasonable way to correct for the bias due to thin trading is required. Dimson and Marsh (1983) state that the best method is a

[66] In DATASET B I have that only 2% of all monthly stock returns is equal to zero.

trade-to-trade approach for which the betas are calculated using the following equation

$$R_{jt} = \alpha_{jt} + \beta_{jt} R_{Mt} + E_{jt} \tag{3}$$

Betas then are divided by 1 plus the matrix of the trading infrequency for each security calculated using the information on transactions.

$$\hat{\beta}^1 jt = \frac{\hat{\beta}_{jt}}{1 + I_{jt}} \tag{4}$$

Where $\hat{\beta}^1 jt$ is the corrected beta for security j during period t, $\hat{\beta}_{jt}$ beta estimated with OLS from equation (3) for security j during period p and I_{jt} is the matrix of the trading infrequency of security j during period t. The matrix of the trading infrequency is independent of the security returns and is simply given by:

$$I_{jt} = T^{-1} \sum_{p=(t-1)T+1}^{tT} Min(L_{jp}, 1) \tag{5}$$

where L_{jp} is the age (in fractions of a month) of the last marked price for security j at the end of month p.

However, when the full information on the trading transactions is not available Dimson and Marsh (1983) suggests using the methodology proposed by Scholes and William (1977).

Since I do not have full information on the trading matrix of each stock, in order to correct for thin trading, I assume that all stocks in my dataset are "moderate" stocks and will follow the methodology of Scholes and William (1977). To correct the betas, I first perform the following three regressions for each individual stock (j):

(a) CAPM using the lag of monthly market observation:

$$R_{jt} = \alpha_{-1j} + \beta_{-1j} R_{Mt-1} + E_{-1jt} \tag{6}$$

(b) CAPM using the current monthly market observation:

$$R_{jt} = \alpha_{0j} + \beta_{0j} R_{Mt} + E_{0jt} \tag{7}$$

(c) CAPM using the lead of each month market observation:

$$R_{jt} = \alpha_{+1j} + \beta_{+1j} R_{Mt-1} + E_{+1jt} \tag{8}$$

Second, a consistent estimator of β_j can be obtained from the following relationship:

$$\hat{\beta}_j = \frac{\beta_{-1j} + \beta_{0j} + \beta_{+1j}}{1 + 2\rho_I} \tag{9}$$

Where $\hat{\beta}_j$ is the adjusted beta, β_{-1j} is beta estimated using equation (6), β_{0j} is beta estimated using equation (7), and β_{+1j} is beta estimated using equation (8), while ρ_I is the first order serial correlation for the market proxy calculated as follow:

$$\rho_I = \frac{\sum_{t=1}^{N-1} (R_{Mt} - \overline{R}_M)(R_{Mt+1} - \overline{R}_M)}{\sum_{t=1}^{N-1} (R_{Mt} - \overline{R}_M)^2} \tag{10}$$

Unfortunately, as has been indicated by existing literature, Scholes and William (1977) correction does not work for stocks that suffer from infrequent trading. Infrequent trading is highly correlated with the size of a company and small companies are the most likely to suffer from such a problem. Concerns about beta and the total risk apply all along this research since most family firms have smaller market capitalization and suffer from infrequent trading. In fact the thin trading problem is likely to affect the results in each country since for each of them I have a group of small size companies that have a high probability of trading infrequently. Moreover, since covariance risk is one of the components of the total risk, the total risk of a company is also affected by thin trading. Then, it is very likely that some of the betas will still be biased. However, this correction procedure that is used should, at least, generate better estimates for moderate and fat stocks.

4.2.4 Other Measures of Risk Adjusted Performance

The Fama and French two factors model already gives me a measure of risk adjusted abnormal return and the sensitivity of each portfolio to market and value

factors. As robustness checks, I will also use the additional measures known as the Sharpe ratio and Treynor ratio.

The Sharpe measure of portfolio performance is as follows:

$$S_i = \frac{\overline{R}_i - Rf}{\sigma_i} \tag{11}$$

While the Treynor ratio is given by:

$$T_i = \frac{\overline{R}_i - Rf}{\beta_i} \tag{12}$$

In these two ratios $\overline{R}_i$ is the average rate of return for portfolio I during a specified time period, *Rf* is the average rate of return on risk-free assets during the same time period, σ_i is the standard deviation of the rate of return for portfolio during the time period and β_i is the systematic risk of the portfolio (that in my case is corrected for thin trading as explained in the previous sub-section).

Since in both ratios the numerator is the risk premium and the denominator is a measure of risk, the total expression indicates the portfolio's risk premium return per unit of risk. However, while the Sharpe ratio gives us the risk premium per unit of total risk (systematic and non-systematic risk), the Treynor ratio implicitly assumes a completely diversified portfolio, which means that systematic risk is the relevant measure of risk.

For a completely diversified portfolio, one without any unsystematic risk, the two measures give identical ranking because the total variance of the completely diversified portfolio is its systematic variance. Alternatively, a poorly diversified portfolio could have a high ranking on the base of Treynor ratio, but a much lower ranking on the basis of Sharpe measure of performance. Any difference in risk would come directly from differences in diversification.

These measures then provide complementary yet different information and I use them both along with the performance attribution regression.

Section 5 Results

I now proceed to describe the results obtained from the various methodologies using both DATASET A and DATASET B.

5.1 Results from DATASET A

5.1.1 Family Firms versus Non-Family Firms

I start by investigating the stock returns of family firms and non-family firms using the portfolio formation approach. The results are summarized in Table 5. For (a) the entire sample, and (b) each country I report the two factor model regression for an equal-weighted investment in two different portfolios: the first composed only of family firms, and the second composed only of non-family firms. In the same table I also show the results of an investment strategy that, in the entire sample and in each country goes long in family firms and short in non-family firms.

[Insert Table 5 here]

Analyzing the entire dataset, I find that family firms have statistically significantly higher returns compared to non-family firms. Family firms outperform non-family firms by 0.27% per month (significant at 1% level). This result is also economically significant.

While the results hold for the entire dataset there are noticeable differences across different countries. This may be as expected since country-specific factors may be behind these differences.

I find no significantly different abnormal returns between family and non-family firms in Finland, France, Germany and Norway while I find such abnormal performance in Italy, Sweden, Switzerland and the U.K.. In Italy family firms have an abnormal return of 0.47% per month (significant at the 5% level). A significant result is also found in Sweden, Switzerland and the U.K. where family firms do

better by 0.59% (significant at the 10% level), 0.43% (significant at the 5% level) and 0.17% (significant at the 10% level) per month respectively.

These results for the entire sample provide the first evidence consistent with the hypotheses that family firms should generate higher stock returns. Looking at the results for Finland, France, Germany and Norway, it should be noted that in these countries family firms do not underperform non-family firms.

Table 5 also shows the results for the Fama and French two factor model applied to (a) a portfolio composed exclusively of family firms, and (b) a portfolio composed exclusively of non-family firms. In all countries family firms show a significantly different than zero abnormal return. The same applies to non-family firms with the exception of Italy.

Using the performance attribution regression I am also able to derive some conclusions about the risk profiles of firms and I will be interpreting the coefficients of the market and value factors as measures of the risk exposures. This is an important analysis because different types of ownership structures may be exposed to the risk factors differently and this may be ultimately driving the return generating process.

Table 5 shows that family and non-family firms have significantly different risk exposures. In the overall dataset both types of firms are significantly positively exposed to the value factor. One interesting result, consistent with most of the findings of Fama and French factor models, they do not show any exposure to the market premium.

In each country, both types of firms also display a different level of sensitivity with respect to the value factor and market premium. Family firms in France, Italy, Norway and Switzerland show exposures to the value factor (measured by the coefficient of the HML factor). Family firms seem to be more exposed to the value factor in all countries except in Finland, Norway and Sweden. The difference, however, is not significant. More important is the result that family firms are not exposed to the market risk differently than non-family firms. The only exception to this result is constituted by family firms in France.

Taken together, these results are important because they indicate that the overperformance of family firms cannot be explained by the way family and non-

family are exposed to the market risk and value premium factors. The risk exposures in themselves are the outcomes of the different choices made by the firms. The results shown so far do not indicate that these different choices are leading to different exposures to risks, at least not to the market risk and value factor. Obviously, family firms may be exposed to different risk factors – such as the size factor – compared to non-family firms. I will come back to this issue when investigating the results from DATASET B.

To complete the analysis on the risk profile I also investigate other measures of risk adjusted performance, as captured by the Sharpe and Treynor ratios. These results can be considered as robustness checks for the previous tests using portfolio formation.

The question that I will be asking is central to asset pricing: do family firms produce higher risk-adjusted returns or merely higher returns (non-risk adjusted)? This is an important question because is very much related to the issues of market efficiency. If markets are pricing correctly family firms, then we should expect that the higher returns we see are compensation for higher risks. In other words, while family firms should generate higher absolute returns they should not generate higher risk-adjusted returns.

One important issue that should be mentioned at this stage is that both ratios are influenced by the thin trading problem I have mentioned before. Both beta and measures of total risk are negatively biased due to the low volume of trading of medium and small size companies, which is especially true for family firms..

Tables 6 and 7 show the results of the difference in means test for the Sharpe Ratio, Beta (corrected for thin trading), and Treynor Ratio[67] between family and non-family firms. I measure each of the risk-adjusted performance measures for a portfolio composed of family firms and a portfolio composed of non-family firms. Table 6 shows the results for the entire data set while Table 7 shows the result for each country.

[Insert Tables 6 and 7 here]

[67] See Section 4.2.3 for more details on these ratios.

Table 6 shows that the difference in the Treynor Ratio and Sharpe Ratio between family and non-family firms is not statistically significant. Moreover, the difference in the means test for the beta is not statistically significant.

Table 7 shows the results for the Sharpe and Treynor ratios in each country. The difference in means for both the Sharpe Ratio and Treynor Ratio between family and non-family firms is never statistically significant, confirming that the higher performance of family firms is due to compensation for higher risk.

These two results – the one for the entire sample and the one for each country – is central to the analysis. These shows that once family and non-family firms make their own decisions and choices (in which industry they should be, the level of business risk, capital structure etc.) then the market appears to be pricing these firms correctly on average. Hence, the superior performance of family firms is due entirely to higher risks that they may be facing.

Table 7 also shows that the difference in means test for the systematic risk also shows that family firms in Finland, France, Germany and Norway have betas that are not significantly higher than the ones of non-family firms. However, in Italy, Sweden and Switzerland family firms have significantly higher betas, confirming that the difference in performance may be due to the fact that the former are compensating minority investor for higher risk.

In conclusion, the findings from these robustness checks do support the idea that in countries where family firms overperform non-family firms they do so as pure compensation for higher risks these companies face.

5.1.2 Robustness Checks

In this section I undertake additional tests to investigate further which characteristics of the family blockholder may be driving the results I have shown so far.. Specifically, I will be looking not just at the presence of a family blockholder but also its control rights, and its presence in the firm's management. To do so, I will first investigate how the interaction between family ownership, control and family management impacts stock returns. Second, I will investigate how the overall level of

agency costs in family firms influence the results as illustrated in Section 4.1. Finally, I will then look at institutional blockholders and investigate whether their impact on stock returns is different than the impact generated by family blockholders.

5.1.2.1 Family Ownership, Control and Stock Returns

Table 8 shows the results of a panel data regression over the period 1992 – 2006 where the dependent variable is the monthly stock return.

[Insert Table 8 here]

In column (1), I analyze how family ownership and use of control enhancing mechanisms impact stock returns. It is expected that the expropriation of minority shareholders is directly related to family control. The use of control enhancing mechanism, then, should have a positive effect on agency costs of control, since the higher the level of control the easier it should be for the blockholder to dictate and impose his own decisions on the company.

As expected family ownership has a positive and significant effect on stock returns. Interestingly, the use of control enhancing mechanisms has a negative impact but the effect is not statistically significant. A similar result is shown in column (4) where instead of using a dummy variable approach I consider the family's control stake (in %) together with the ratio between voting rights and cash-flow rights (ownership of shares outstanding in percentage). These are alternative ways of defining a family's presence and its impact on the agency costs. In this column the family control variable has a positive and significant coefficient, while wedge has a positive effect, but it is not significant.

In column (2) I study the impact of family presence and the effect of a blockholder alone. The intuition here is that when the blockholder is alone (he is the only blockholder with at least 10% ownership stake), it is unlikely that other blockholders will exercise any control or discipline over the family blockholder. In this case, the family blockholder can more easily expropriate other shareholders. Thus I expected the coefficient of this variable to have a positive sign. Once again,

while the presence of a family blockholder has positive and significant effect, the presence of a blockholder alone has a negative and not significant effect.

The previous results, then, indicate that the presence of a family blockholder matters more than the level of control and independence it has. To further investigate this issue, I look at the impact of (a) family ownership, (b) the use of control enhancing mechanisms, and (c) the presence of a blockholder alone together in column (3). The result is confirmed. The effect of a family blockholder is positive and significant while both the coefficients of the other variables are negative but not significant.

In conclusion, I expected that the level of expropriation depends on the control that the family has on the company and on the independence that the blockholder has within the company. The results show that the presence of a family blockholder (through its incentives and behavior) in itself may determine the level of agency costs and the resulting impact on stock returns. Hence, the presence of the family blockholder subsumes the level of control that the family is supposed to exercises on the company. In other words, the presence of a family is associated by the market with higher risks of expropriation, regardless of the level of control. This may in turn mean that it is extremely difficult for a family blockholder to remove the perception that it is a likely candidate that expropriates. This may call for very strong internal governance mechanisms that can provide discipline.

Finally, using the Anti Self-Dealing Index I study how the legal system in each country impacts the results. I expect that the higher the level of minority shareholders protection the lower is the impact of the family presence and control on stock returns because agency costs induced by the behavior of the family blockholder will be lower. The law and its enforcement should reduce the ability of the controlling blockholder to expropriate minority shareholders. Hence, I expect that the coefficient of the Anti Self-Dealing Index to carry a negative sign.

The results are reported in columns (5), (6), (7) in Table 8. In all columns the signs of the coefficient of the family presence and Anti Self-Dealing Index are as expected. In column (7), in which I have (a) family presence, (b) use of control enhancing mechanisms, (c) presence of a blockholder alone, and (d) Anti Self-Dealing Index, I find that the family presence's influence is positive and significant. The variables measuring control and independence of the blockholder have no

statistically significant impacts. Finally, the Anti Self-Dealing Index has a negative (and significant) impact on stock returns confirming my hypothesis that the higher is the level of protection the lower is the risk of expropriation (then lower is the return required by the market).

Table 9 investigates the relationship between family ownership, family management and control.

[Insert Table 9 here]

The role of a family manager can have two alternative impacts on the total agency costs. First, the presence of the family manager eliminates the separation between ownership and control, reducing the classic agency costs. Second, the family manager shares completely the family's economic and non-economic objectives and would be keen to enforce its decisions. Hence, the presence of a family manager could also increase the risk of minority shareholders expropriation. If the negative impact on the agency cost of control overshadows the positive impact from the classic agency costs, the presence of the family manager should lead to higher returns to compensate investors for higher risks.

Moreover, since the level of expropriation might depend on the control that the family exercises on the company, I also expect that the dummy indicating the use of control enhancing mechanisms and the dummy variable indicating the presence of a controlling blockholder alone should both have positive signs.

Column (1) of Table 9 shows that the presence of a family manager has a significant and positive impact on stock returns, confirming that the market prices in the higher probability that with a family manager expropriation may be more possible. In column (2) I study how family management, the use of control enhancing mechanisms and the blockholder's independence impact returns. I find that while the dummy indicating the presence of the family manager remains positive and significant, the coefficients of the other variables are negative and insignificant. As in the previous analysis, then, these results indicate that it is the presence of the family manager and not the level of family control and independence that counts for the market. Moreover these results support the conclusion that the involvement of the family manager tends to either exacerbate or be seen by the market as exacerbating

the agency costs of control which, in this case, may be higher than the classic agency costs.

Finally, I also investigate the impact of the minority shareholder protection (measured by the Anti Self-Dealing Index) on stock returns along with family management and control. Column (4) in Table 9 shows that the legal system has, as expected, a negative impact on the stock return.

5.1.2.2 Agency Costs of Control in Family Firms

In this section I will analyze the interaction between family ownership, family management and control focusing on family firms only. Moreover, in order to consider the differences between legal systems, I will split the sample in two sub-samples based on the level of (minority) shareholder protection: U.K (which is the country with high minority shareholders protection), and Continental Europe (countries with low minority shareholders protection).

Table 10 shows a test for the difference in raw stock market performance of family firms with different levels of agency costs constructed as described in Section 4.1. Panel A in Table 10 shows the results for U.K. firms, while Panel B shows the results for countries with low minority shareholder protection.

[Insert Table 10 here]

Table 10 Panel A shows that in the U.K., for any level of agency costs of control, family firms with a family manager have statistically higher returns than family firms that have a professional manager. Family firms with low agency costs of control have the highest average performance (1.13%), closely followed by family firms with high agency costs of control (1.08%) and family firms with no agency costs (0.97%). Interestingly, the lowest performance is given by family firms that only suffer from the classic agency cost (0.45%).

Table 10 Panel B shows that in countries in which the law does not effectively protect minority shareholders, regardless of the level of agency cost of control, family firms with no classic agency costs do not perform better than family firms with classic agency costs. Analyzing the performance of each group, the one

with the highest monthly average return is constituted by family firms with no agency cost of control and no classic agency costs (1.17%). Firms with high agency costs of control and classic agency costs have an average monthly performance of 1.09% closely followed by firms that do not have agency costs of control and suffer from classic agency costs (1.01%). Finally, the lowest monthly performance is given by firms with low agency costs of control and classic agency costs (0.83%).

These results indicate that where minority shareholders are highly protected by the law, i.e. the U.K., the presence of a family manager is a key issue to understand family firms' performance. This does not seem to be so important in countries with low minority protection.

To complete the analysis I also show the results for measures of risk-adjusted performance. Table 11 shows the results of the test of the difference in means for the Sharpe Ratio and Treynor Ratio between portfolios made up of family with different levels of agency costs is. Table 11 Panel A shows the results for family firms in U.K. while Panel B shows the results for countries with low minority shareholders protection.

[Insert Table 11 here]

In both legal systems the results show that the difference in performance is completely explained by the risk profile of family firms. In the U.K. the difference in means for the Treynor is not significant for any group, while the difference in Sharpe Ratio is significant only for family firms with no and high agency costs of control. However, the magnitude of the effect is extremely low and not economically significant. In countries with low minority shareholder protection the result is even clearer: neither the Sharpe Ratio nor the Treynor Ratio is statistically different between family and non-family firms.

To further investigate the results in Table 10 I analyze portfolios of family firms using the performance attribution regression methodology. The results are shown in Table 12.

[Insert Table 12 here]

Table 12 shows the main results of a Fama and French model regression that controls for market and value risk factors for equal weighted portfolios of family firms. I have analyzed many different portfolios than the ones reported in the table.

For the sake of brevity, I only report the results for which the intercept of the model is statistically significant different than zero. The results for the portfolios not reported here are available upon request.

First, Panel A of Table 12 shows that in U.K. family firms with agency costs of control perform better than family firms with no agency costs of control (1.80% per month and significantly different from zero at 5% level). Second, family firms with both agency costs of control generate higher returns than family firms with only classic agency costs (1.15% per month and significant at 1% level). Finally, family firms with a family manager do statistically better than family firms with a professional manager (0.49% per month and significant at 1%). This results show the importance of the family presence in the active management in UK. Family managers, in fact, seem to reduce the total agency cost.

Table 12 Panel B shows that even in countries with weak minority shareholder protection family firms with agency costs of control have higher returns than firms with no agency costs of control (1.90% per month, significant at 1% level). A positive abnormal return is also generated by family firms with agency cost of control and no classic agency cost (1.04% monthly significant at 10%). Finally, family firms with both agency costs outperform family firms with only the classic agency cost (0.87% per month significant at 1% level).

This multivariate analysis shows that even in Continental Europe the level of agency cost of control does not make any significant difference on the results when distinguishing between high and low level of agency cost. However, here the presence of a family manager seems to exacerbate, instead that reducing, the total impact of agency costs.

5.1.2.3 Type of Ownership and Stock Returns

The research question is whether ownership structures impact risk and the return generating process. To do so, up to now I have focused on the difference between family firms and non-family firms. I have so far assumed that institutional blockholders have incentive structures similar to atomistic shareholders. Thus, closely-held corporations with an institutional blockholder are assumed to only suffer

from the classic agency cost. Moreover, I assume that the presence of a family blockholder might exacerbate the agency costs of control in family firms and increases the risk of minority expropriation.

In this section I investigate whether it is reasonable to consider that family blockholders have a different impact on returns relative to non-family blockholders, specifically institutional blockholders. Hence, I want to relax the assumption about institutional blockholders and study if their presence has any impact on stock returns.

If institutional blockholders behave in the same way as family blockholders, then the presence of an institutional blockholder should increase the probability of minority shareholders expropriation. In such a case, I would then expect their presence to have a positive impact on the firm's stock returns.

Table 13 shows the results from a panel data regression over the period 1992 – 2006 where the dependent variable is the monthly stock return. In column (1) and (2) I study the individual effect of a family blockholder and an institutional blockholder, respectively.

[Insert Table 13 here]

The first finding of Table 13 is that the presence of a family blockholder has the expected positive (and statistically significant) effect on stock returns. Instead, the presence of a blockholder has a negative and significant impact.

Interpreting this result is not an easy task and should be left for future research. Normally institutional blockholder are "chasing alphas", especially if they are widely-held. Hence one would expect that such blockholders would invest in stocks that outperform. These results, however, indicate otherwise at least for the types of institutional blockholders in the sample. One possible interpretation of this result is that the presence of an institutional blockholder may curb the risk of expropriation if the institutional blockholder is large enough to undertake some monitoring of the manager. In which case, such firms are generating lower absolute performance that is compatible with lower agency risks.

The Faccio and Lang (2002) dataset distinguishes between institutional blockholders and "unlisted companies" as ultimate owners. While the authors do not say anything specific on the difference between the two groups, one possible way to understand the difference between these two is that while the former seem to be

widely-held institutions the latter are closely-held institutions. Hence, I also study if the presence of "unlisted companies" as ultimate owner has any effect on stock returns. This is done in order to capture a bigger number of institutional blockholders. In column (3) I find that similar to institutional blockholders, the presence of an unlisted company is also associated with lower return.

Finally, column (4) shows the collective impact of the three different ownership structures on stock returns. This column shows that the presence of family blockholder still has a positive, and statistically significant, impact on stock returns while both the presence of an institutional blockholder and an unlisted company has a negative and statistical significant impact.

To complete the analysis I also use the performance attribution methodology, as illustrated in Section 4, in this case. From this analysis I expect that if family firms have higher agency costs than closely-held firms with either an institutional blockholder or an unlisted company as ultimate owner, then they should generate higher returns to compensate minority shareholder for this expropriation.

Table 14 reports the results from a Fama and French two factors model regression.

[Insert Table 14 here]

The Table shows the results for an equal-weighted investment in two different portfolios: the first composed only of family firms and the second composed only of closely-held firms with either an institutional blockholder or an unlisted company as ultimate owner.

As expected, I find that family firms generate higher returns than closely-held firms with either an institutional blockholder or an unlisted company as the ultimate owner. The abnormal return, measured by the intercept (the "alpha") of the model, is equal to 0.33% per month and is statistically significant at 1% level.

5.2 Results from DATASET B

I now proceed to discuss results from further tests I have done using DATASET B.

5.2.1 Family versus Non Family Firms

In this section I investigate the stock returns of family firms and non-family firms shown in Table 16. For each country I report the two factor model regression for an equal-weighted investment in two different portfolios, the first composed only of family firms and the second composed only of non-family firms. The Table also shows the results of an investment strategy that goes long in family firms and short in non-family firms. I apply this approach both to the entire sample and the country level.

[Insert Table 16 here]

In the overall sample I find that family firms outperform non-family firms by 0.38% each month (significant at 1% level). Consistent with the results from DATASET A, there are no significantly different monthly abnormal returns between family and non-family firms in France and Germany. However, in this dataset, I find that in all other countries (Austria, Italy, Netherlands, Spain, Sweden and Switzerland) family firms have abnormal returns. In Austria family firms have an abnormal return of 0.78% per month (significant at 1% level) and in Italy an abnormal return of 0.47% per month (significant at the 1% level). A significant result is also found in Netherlands, Spain, Sweden and Switzerland where family firms outperform by 0.24% (significant at the 5% level), 0.42% (significant at the 5% level), 0.60% (significant at the 1% level) and 0.46% (significant at the 1% level) per month respectively.

The second finding in Table 16 is that family and non-family firms have some differences in risk exposures. I find that for family firms the exposure to the value factor (measured by the coefficient of the HML factor) is significant overall and also in Austria, Italy, and Switzerland. Among these countries the exposure of family firms to the value factor is negative and significant in Austria (at 10% level of significance) while positive and significant in Italy and Switzerland (at 5% level of significance).

Non-family firms have significant exposure to the value factor in the overall sample and in France, Italy and Switzerland. French non-family firms show the lower exposure to the value factor (at 5% level of significance). Only in Austria both family firms and non-family firms are significantly exposed to the market premium. In Germany only family firms are exposed to the market premium. The exposure to the market premium is not statistically significant for both family and non-family firms in any other country.

However, there seems to be no statistically significant difference in the exposure of family and non-family firms to the market risk and the value factor. This result is consistent with the one I obtained in DATASET A. When reviewing the results in DATASET A, I stated that while the two types of firms may not have different exposures to these two risk factors, they may be exposed to different risks not considered so far. I will now proceed to investigate this possibility.

To address the possibility that the difference in performance is driven by industry effects I also analyze the industry adjusted stock return of portfolios long in family firms and short in non-family firms. This analysis is important because the higher performance of family firms might be due to the choice of the industry in which family firms invest. In other words family firms might be clustered in more lucrative industries due to a strategic decision made by the family blockholder.

To address this issue, I again use the performance attribution regression methodology and report the two factors model regression for an equal-weighted investment in a portfolio that goes long in family firms and short in non-family firms over the sample period. In this case, the return generated by each stock is adjusted for the appropriate industry average returns in each month. Hence, I will be using industry-adjusted returns for this analysis. The results are shown in Table 17.

[Insert Table 17 here]

Table 17 shows that this investment strategy would have earned to an investor a positive abnormal return of 0.28% per month in the overall sample. This is both statistically and economically significant. This result holds in all countries in DATASET B, except for France. Interesting, the results are also significant in Germany, where after adjusting for industry effect, family firms overperform non-family firms by 0.30% per month (significant at 1% level). Hence using an industry-

adjusted returns methodology provides us with strong evidence that family firms outperform non-family firms.

One more possibility is that the difference in returns is driven by other firms' characteristics, and not ownership. This view would hold that the firm owners make strategic decisions on many firm characteristics – such as its size, capital structure, etc – and it is these, and not ownership per se, that will influence returns.

I address this issue using the methodology proposed by Gompers et al. (2003). I use a Fama and MacBeth regression approach to control for the following (a) firm characteristics, (b) value, (c) size factor, and (d) momentum factors. The following are the firm characteristics I use: (a) Dividend Yield, (b) Operating Margin, (c) Leverage, (d) Total Assets, (e) Sales to Assets, and (f) Idiosyncratic Risk. I use both raw and industry adjusted stock returns and I show the results in Table 18.

[Insert Table 18 here]

Table 18 shows that even after controlling for all these variables I still find that the family blockholder has a significant and positive impact on returns. This confirms that the results we have obtained so far from different methodologies cannot be explained by different firm characteristics across family and non-family firms.

One possible concern is given by the differences in the legal systems across the countries in this dataset. I address this issue in Table 19 where I consider country-specific measures of legal protection.

In Table 19 I show the results of a panel data regression over the period 1992 – 2006 where the dependent variable is the monthly industry-adjusted stock return. In this table I control for the same characteristics and factors used in the Fama and MacBeth regression above and shown in Table 18.

[Insert Table 19 here]

In columns (4) and (7) I have (a) family presence, (b) Anti Self-Dealing Index, (c) Block Premium, and (d) an interaction term between family presence and the Anti Self-Dealing Index. In column (4) I use as controlling variables only the firm characteristics, while in column (7) I also control for lagged returns variables (as proxy for the momentum factor) and the idiosyncratic risk.

If my argument on control motivation holds, then I should expect the coefficient estimate of the family variable and the Block Premium to be positive. The blockholder's control motivations should be more important in countries in which they can sell their blockholding at a premium. Hence, the higher the block premium, the higher the probability of expropriation should be. I expect, instead, that the coefficient estimate for the Anti Self-Dealing Index should be negative because as minority shareholders' rights become stronger the lower is the risk of minority shareholders expropriation and the lower the stock returns should be.

Finally, I look at the impact generated by the two sets of variables together: (a) Family Presence, and (b) Family Presence interacted with the Anti Self-Dealing Index. Using this interaction I can analyze how, if at all, the family blockholder's impact on stock returns changes through different minority shareholder rights environments. I expect that the higher the level of minority shareholders' protection the lower the impact of a family blockholder should be. Hence I expect this interaction to have a negative sign.

After controlling for firms' characteristics in column (4), I find that the presence of a family blockholder has a positive effect on firms' stock market performance, consistent with what I have found earlier. The Anti Self-Dealing index has a positive sign but it is not significant. However, the interaction term between the family presence and the Anti Self-Dealing Index is negative, meaning that the better the investors' protection regime the less will the family's presence impact on stock returns.

Moreover, I also find the sign of the coefficient for the block premium variable in column (4) as positive, as was expected. In equation (7) I find similar results, the only difference is that after controlling for idiosyncratic risk and past returns the block premium variable looses its significance.

To complete the analysis I also consider the effect of the family manager and analyze portfolios of family firms with family managers versus portfolios of non-family firms. The results are shown in Table 20.

[Insert Table 20 here]

I find that in the sample period family firms with a family manger outperform non-family firms in all countries, except France and Netherlands. Interestingly while

in all the previous analysis that used raw stock returns in Germany I have never found any effect of family ownership on stock returns, here I find that family firms with a family manger overperform non-family firms by 0.76% per month (significant at 1% level). The results hold also when adjusting for industry effects.

Section 6 Conclusions

I started my work by posing a simple question: do ownership structures influence stocks' return generating process? The answer I have reached is a yes!

To investigate my research question I compared the return generating process of closely-held firms with a family blockholder relative to those of widely-held firms and closely-held firm with a non-family blockholder. The main result that I find is that ownership structure matters for companies' returns generating process. In other words, I find that the presence of a family blockholder impacts the stock returns because increases the probability of minority shareholders expropriation. This is consistent with a rational expectations framework where investors in family firms have to be compensated with higher returns for the higher risk they are faced with.

Using Fama and French two factors model regression I find that from year 1992 to year 2006, an investor would have received an abnormal return (captured by the "alpha", or the intercept of the model) by investing in a portfolio long in family firms and short in non-family firms, in excess to what he could have earned passively investing in the two factors. The abnormal returns vary across the two different datasets but indicate the same economic outcome: an abnormal return of 0.27% per month (significant at 1% level) in DASATET A, and of 0.38% per month (significant at 1% level) in DATASET B. These abnormal performances, besides being statistically significant, also have economic significance.

While the results hold for the entire dataset there are noticeable differences across different countries. This may be as expected since country-specific factors may be behind these differences. It is still true to say that the results hold for the majority of the countries.

In DATASET A, I find that family firms' stock returns are not significantly higher to non-family firms in Finland, France, Germany and Norway. On the other hand, family firms in Italy, Sweden, Switzerland and the U.K. generate higher stock returns relative to non-family firms. Specifically, in Italy investors replicating the strategy described above would have earned an abnormal return of 0.47% per month (significant at the 5% level) by investing in family firms. A significant result is also found in Sweden, Switzerland and the U.K. where family firms do better than non-family firms by 0.59% (significant at the 10% level), 0.43% (significant at the 5% level) and 0.17% (significant at the 10% level) per month respectively.

Using DATASET B, I find that family firms in Austria, Italy, Netherlands, Spain, Sweden and Switzerland also pay higher returns relative to non-family firms. The overperformance of family firms is 0.78% per month in Austria (significant at 1% level), 0.47% in Italy (significant at the 1% level), 0.24% per month (significant at the 5% level) in Netherlands, 0.42% per month in Spain (significant at the 5% level), 0.60% per month in Sweden (significant at the 1% level) and 0.46% per month in Switzerland (significant at the 1% level).

It is equally important to note that the impact of family ownership holds also after controlling for other firm characteristics using the Fama and MachBeth regression approach either with raw stock returns or industry adjusted returns.

To recapitulate, this work deals with both agency costs of control and the classic agency costs. Consistent with the efficient market hypothesis, the risk associated with the agency costs of control is correctly priced by the market, so that closely-held corporations with control motivations have higher market performance than widely-held firms to compensate minority shareholders for the higher risk of expropriation.

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Table 1: Variable Definitions

This table defines the variables used in the analysis. I obtain monthly prices and accounting information from Worldscope, while ownership information comes either from Faccio and Lang (2002) or AMADEUS dataset. Kenneth French's website provides the monthly data about market returns and the value premium factor for each country over the period 1992 - 2006.

Firm-Level Characteristics	
Company Stock Returns (Monthly)	This is the monthly stock returns obtained from monthly prices collected at the beginning of each month from February 1992 to December 2006.
Beta (adjusted for thin trading)	Estimates from market model in which the firm's monthly returns are regressed on the market monthly returns (data obtained from Kenneth French's web site) in each country. The adjustment for thin trading is applied following Scholes and Williams (1977).
Market Value	The natural logarithm of the market capitalization in the local currency at the end of month t-1.
Book-to-Market Ratio	The natural logarithm of the ratio of book value of common stocks to market value of common stocks for the previous year.
Operating Margin	Operating Income over Net Sales at year t-1.
Return_2_3	The natural logarithm of the cumulative returns over the two months ending at the beginning of the previous month.
Return_4_6	The natural logarithm of the cumulative returns over the three months ending three months previously.
Return_7_12	The natural logarithm of the cumulative returns over the 6 months ending 6 months previously.
Dividend Yield	The dividend per share as percentage of the share price for the previous year.
Sales/Total Asset	Net Sales divided by Total Assets at the end of the previous year.
Leverage	Long Term Debt divided by Total Assets.
Total Asset	Natural logarithm of Total Assets.
Idiosyncratic Risk	Standard error of the market model in which the firm's monthly returns are regressed on the market monthly returns.

Firm Ownership Measure	
Family Dummy	Equals one if the founding family owns shares in the firm, zero otherwise. In DATASET A this dummy variable takes the value of 1 if the company is identified as family owned in Faccio and Lang dataset and zero otherwise. In DATASET B it takes the value of 1 if the company is identified as family owned in AMADEUS dataset and zero otherwise.
Family Control Rights	The total number of shares held by the family blockholder as a percentage of the shares outstanding of the firm.
Family Manager	Equals one if family is in the firm's active management, zero otherwise.
Control Enhancing Mechanisms	A company has control enhancing mechanisms in place if it uses one of the following (source: Faccio and Lang (2002)): 1. Dual class shares; 2. Pyramids; Firm; 3. Holding through multiple control chains; 4. Cross-holding. I use a dummy variable that takes the value of 1 if one of the mechanisms described above is used by the firm and zero otherwise.
Controlling Owner Alone	A controlling shareholder is determined to be "alone" if no other blockholder controls at least 10% of the voting rights. The presence of a controlling owner alone is indicated with a dummy variable equal to 1 if the company has a controlling shareholder with the described characteristics and zero otherwise. (source: Faccio and Lang (2002)).
Wedge	The difference between the largest shareholder's voting rights and his cash flow rights. It is calculated as the difference between the percentage of the votes held by the blockholder and the percentage of outstanding shares held by the blockholder. The wedge will be positive in the case the largest shareholders uses control enhancing mechanisms.

Country-Level Governance Measures	
Anti Self-Dealing Index	Anti Self-Dealing Index addresses the channels through which the law deals with corporate self-dealing (or tunnelling). It is obtained from Djankov et al. (2006). It takes a value between 0 and 1.Using this index I create a dummy variable equal to one if the Anti Self-Dealing index is higher than the average in the sample and zero otherwise. Countries for which the Anti Self-Dealing Index Dummy is zero are called "Countries with Low Anti Self-Dealing Index", while all the others are defined as "Countries with High Anti Self-Dealing Index".

Table 2: Descriptive Statistics for DATASET A

The table shows descriptive statistics for the 1,565 non-financial firms in DATASET A. Panel A shows the decomposition of the number of firms in the dataset by the country of incorporation and also distinguishing among family, non-family. Panel A gives also the number of observation in countries with Low Anti Self-Dealing index (all country but UK). For each country monthly data has been collected from February 1992 to December 2006. Panel B1 shows the descriptive statistics for monthly stock return, ownership characteristics, external governance measures, and market and value factors for the entire dataset. The loading factors described have been collected from Kennet French's website. For the latter, I always use the more restrictive ones calculated using value and growth portfolios obtained only sorting firms for which it was possible to have all the data about the following ratios: Book-to-market (B/M), Earning/Price (E/P), Cashflow/Price (C/P), or Dividend/Price (D/P). Panel C shows descriptive statistics Market Return and Value Premium by country. The rest of the variables shown in each panel are described in Table 1. I obtain monthly returns from Worldscope and ownership characteristics from Faccio and Lang dataset. For the latter, we always apply the 10% control rights cut-off point. For each country monthly data have been collected from February 1992 to December 2006.

Panel A: Country of Origin

Country	Number Of Firms	Number of Family Firms	Number of Non-Family Firms	Monthly Observations All Firms	Monthly Observations Family Firms	Monthly Observations Non-Family Firms
Finland	93	19	74	11,953	2,309	9,644
France	236	84	152	38,725	14,029	24,696
Germany	179	74	105	28,422	11,182	17,240
Italy	40	20	20	6,337	3,262	3,075
Norway	77	11	66	10,773	1,578	9,195
Sweden	35	10	25	4,878	1,156	3,722
Switzerland	36	11	25	5,861	1,882	3,979
	696	***229***	***467***	***106,949***	***35,398***	***71,551***
UK	*869*	*226*	*643*	*143,040*	*36,694*	*106,346*
Total	***1,565***	***455***	***1,110***	***249,989***	***72,092***	***177,897***

Panel B: Descriptive Statistics for Entire Dataset

Variable	Mean	Standard Deviation	Median	Min	Max
Company Stock Returns	0.8346	8.4969	0	-23	40
Beta	0.3083	0.383	0.261	-1.471	2.431
Family Dummy	0.2884	0.4530	0	0	1
Family Manager	0.6862	0.4640	1	0	1
Wedge	1.7667	5.3652	1	0.7040	172.4138
Control Enhancing Mechanisms	0.3957	0.4891	0	0	1
Controlling Blockholder Alone	0.5023	0.50	1	0	1
Market Premium	0.7564	4.9939	1.05	-28.34	32.55
Value Premium	0.3096	5.0322	0.54	-32.27	41.59
Anti Self-Dealing Index	0.6978	0.2946	0.95	0.27	0.95

Panel B1: Descriptive Statistics for Family Firms

Variable	Mean	Standard Deviation	Median	Min	Max
Company Stock Returns	0.9173	8.8634	0	-22.994	40
Beta	0.280	0.377	0.239	-0.604	2.250
Family Control Rights	39.0197	20.6947	35.0000	10.02	100
Family Cash Flow Rights	35.8958	20.3465	31.1800	2.685	100
Wedge	1.213	1.037	1	1	16.667
Control Enhancing Mechanisms	0.308	0.462	0	0	1
Controlling Blockholder Alone	0.576	0.495	1	0	1

Panel B2: Descriptive Statistics for Non-Family Firms

Variable	Mean	Standard Deviation	Median	Min	Max
Company Stock Returns	0.8011	8.3435	0	-23	40
Beta	0.320	0.386	0.272	-1.471	2.431
Wedge	2.053	6.549	1	0.704	172.414
Control Enhancing Mechanisms	0.432	0.496	0	0	1
Controlling Blockholder Alone	0.470	0.499	0	0	1

Panel C:
Descriptive Statistics for Market Returns (denoted as "A") and Value Premium (denoted as "B")

	Mean	Standard Deviation	Median	Min	Max
Finland					
(A)	1.484	9.388	1.22	-28.34	30.72
(B)	-0.286	11.517	-0.15	-31.96	41.59
France					
(A)	0.851	5.288	1.46	-16.64	14.32
(B)	0.264	5.052	0.64	-25.63	14.41
Germany					
(A)	0.758	5.861	1.35	-24.06	19.14
(B)	0.568	5.065	0.39	-18.16	13.22
Italy					
(A)	0.976	6.571	0.91	-15.55	23.34
(B)	0.332	4.726	0.63	-15.12	21.94
Norway					
(A)	1.175	5.989	1.6	-25.47	14.42
(B)	0.578	7.203	0.65	-26.41	30.81
Sweden					
(A)	1.26	6.645	1.31	-16.08	32.55
(B)	0.55	7.352	0.47	-32.27	23.17
Switzerland					
(A)	1.016	4.435	1.76	-17.09	11.26
(B)	0.204	5.163	0.13	-22.9	18.48
UK					
(A)	0.601	3.848	0.88	-11.99	9.97
(B)	0.295	3.645	0.58	-10.74	14.65

Table 3: Descriptive Statistics for Each Country in the Dataset A

The table shows descriptive statistics for restock returns, beta and ownership structure for both family and non-family firms. All variables are described in Table I.

	Finland					*France*				
Non-Family Firms	***Mean***	**Standard Deviation**	***Median***	***Min***	***Max***	***Mean***	**Standard Deviation**	***Median***	***Min***	***Max***
Company Stock Returns	1.11	8.738	0	-22.9943	40	0.9004	8.5618	0	-22.994	40
Beta	0.1707	0.2208	0.1059	-0.1427	1.1995	0.4158	0.3665	0.3425	-0.4631	1.7097
Wedge	1.7924	2.8265	1	1	19.5313	1.2517	0.8833	1	1	7.3801
Control Enhancing Mechanisms	0.4187	0.4934	0	0	1	0.2291	0.4202	0	0	1
Controlling Blockholder Alone	0.4078	0.4914	0	0	1	0.5616	0.4962	1	0	1
Family Firms										
Company Stock Returns	1.2133	10.0049	0	-22.6667	38.8889	1.0148	8.7536	0	-22.994	39.9922
Beta	0.1742	0.1474	0.1763	-0.0609	0.6102	0.304	0.2613	0.2671	-0.2055	1.0275
Wedge	1.1964	0.2369	1.25	1	1.9775	1.0066	0.0404	1	1	1.3301
Control Enhancing Mechanisms	0.599	0.4902	1	0	1	0.1866	0.3896	0	0	1
Controlling Blockholder Alone	0.4205	0.4938	0	0	1	0.7060	0.4556	1	0	1
Family Control Rights	35.3902	16.2743	32.06	12	65.57	49.7342	18.6278	50	12.4	97.12
Family Cash Flow Rights	30.2682	14.9011	25.648	9.6	65.57	49.5466	18.7426	50	12.4	97.12
Family MANAGER	0.5873	0.4925	1	0	1	0.6775	0.4675	1	0	1

	Germany					*Italy*				
Non-Family Firms	***Mean***	**Standard Deviation**	***Median***	***Min***	***Max***	***Mean***	**Standard Deviation**	***Median***	***Min***	***Max***
Company Stock Returns	0.6334	8.8818	0	-22.9412	40	0.5264	7.951	0	-22.3315	39.37474
Beta	0.3948	0.3335	0.3702	-1.047	1.3023	0.4733	0.3222	0.496	-0.01216	1.913167
Wedge	2.2601	5.1477	1	1	31.5457	1.7301	2.1411	1	1	10.23541
Wedge Dummy	0.3441	0.4751	0	0	1	0.4956	0.5001	0	0	1
Controlling Blockholder Alone	0.5616	0.4962	1	0	1	0.6836	0.4652	1	0	1
Family Firms										
Company Stock Returns	0.5879	9.4269	0	-22.9152	40	1.0351***	8.9301	0	-22.4806	39.7661
Beta	0.3204	0.327	0.2756	-0.3253	1.2023	0.6757	0.3616	0.6988	-0.2037	1.3189
Idiosyncratic Risk	-0.4537	9.3988	-1.0754	-25.5034	39.7503	-0.0178	8.908	-0.8682	-24.8537	38.711
Wedge	1.2726	0.505	1	1	3.5224	2.0957	2.4372	1.0774	1	10.49318
Control Enhancing Mechanisms	0.4001	0.4899	0	0	1	0.7259	0.4461	1	0	1
Controlling Blockholder Alone	0.7060	0.4556	1	0	1	0.5494	0.4976	1	0	1
Family Control Rights	53.8636	21.9796	53.53	11.93	100	46.7687	10.8723	47.54	28.17	65.76
Family Cash Flow Rights	47.1702	23.2676	50	5.2358	100	37.9814	17.7028	40.98	2.685	65.76
Family MANAGER	0.6015	0.4896	1	0	1	0.7934	0.4049	1	0	1

	Norway					*Sweden*				
Non-Family Firms	***Mean***	**Standard Deviation**	***Median***	***Min***	***Max***	***Mean***	**Standard Deviation**	***Median***	***Min***	***Max***
Company Stock Returns	1.2171	9.3159	0	-22.9508	40	1.4316	8.5968	0	-22.9167	39.94169
Beta	0.5349	0.415	0.3912	-1.4637	2.4239	0.3761	0.2673	0.4685	-0.0442	0.932
Wedge	5.203	19.7433	1	1	172.4138	2.7866	3.3884	1	0.703978	19.45525
Control Enhancing Mechanisms	0.4622	0.4986	0	0	1	0.6243	0.4844	1	0	1
Controlling Blockholder Alone	0.3811	0.4857	0	0	1	0.4208	0.4938	0	0	1
Family Firms										
Company Stock Returns	1.4181	9.8977	0	-22.8571	40	1.9792**	10.5157	0	-22.5579	40
Beta	0.5104	0.3287	0.5391	-0.0863	1.0482	0.4357	0.2674	0.4061	-0.0085	0.9108
Idiosyncratic Risk	0.3361	9.8775	-0.7902	-24.2269	39.0772	0.8833	10.4682	-0.7767	-26.2802	38.2933
Wedge	1.1606	0.2727	1	1	1.8591	1.4633	0.8335	1	1	3.1797
Control Enhancing Mechanisms	0.3695	0.4828	0	0	1	0.4801	0.4998	0	0	1
Controlling Blockholder Alone	0.3815	0.4859	0	0	1	0.4161	0.4931	0	0	1
Family Control Rights	39.0141	16.2	43.47	10.02	69.4	37.3454	14.1415	31.1	12.1	59.6
Family Cash Flow Rights	34.0992	13.9226	37.33	10.02	50.7	30.8863	16.9476	30.6	12.1	59.6
Family Manager	0.6534	0.4761	1	0	1	0.8359	0.3705	1	0	1

	Switzerland					*UK*				
Non-Family Firms	***Mean***	**Standard Deviation**	***Median***	***Min***	***Max***	***Mean***	**Standard Deviation**	***Median***	***Min***	***Max***
Company Stock Returns	0.7069	6.4408	0	-22.9236	38.3085	0.7306	8.1363	0	-23	40
Beta	0.322	0.3338	0.3384	-1.026	1.1515	0.2536	0.3498	0.2027	-0.7666	1.9283
Wedge	1.4091	0.7843	1	1	3.5855	1.7978	2.4548	1	1	24.4499
Control Enhancing Mechanisms	0.3704	0.483	0	0	1	0.5034	0.5	1	0	1
Controlling Blockholder Alone	0.5726	0.4948	1	0	1	0.4255	0.4944	0	0	1
Family Firms										
Company Stock Returns	1.1846***	7.5246	0	-22.4084	36.579	0.8826***	8.5965	0	-22.9885	40
Beta	0.4489	0.3254	0.5346	-0.1195	0.8799	0.1709	0.3896	0.1121	-0.5993	2.2648
Idiosyncratic Risk	0.0456	7.4795	-1.0255	-25.0439	34.695	-0.1373	8.5636	-1.0163	-26.6718	39.5743
Wedge	3.5071	4.3417	2.2732	1	16.6667	1.0946	0.5983	1	1	9.3721
Control Enhancing Mechanisms	0.9049	0.2934	1	0	1	0.2388	0.4263	0	0	1
Controlling Blockholder Alone	0.5632	0.4961	1	0	1	0.5455	0.4979	1	0	1
Family Control Rights	46.2158	27.5034	50.4	15.5	100	29.66825	16.45108	25.53	10.05	84.5
Family Cash Flow Rights	22.1992	17.8659	16.9	3.846	66.101	28.34727	16.08202	24.22	4.9338	84.5
Family Mananger	0.4513	0.4978	0	0	1	0.7236	0.4472	1	0	1

Table 4: Difference in Means: Family vs. Non-Family Firms

For the whole dataset and each country, this table presents the results for difference in means test for (A) company stock performance, (B) wedge, (C) controlling blockholder alone, (D) control enhancing mechanisms between family and non-family. Family firms are indicated with FF while non-family firms are NFF. * indicates significance at one percent (***), five percent (**), ten percent (*) levels based on the t-statistic assuming unequal variance.

		FF ***Mean***	**NFF** ***Mean***	**Difference FF-NFF>0**		**FF** ***Mean***	**NFF** ***Mean***	**Difference FF-NFF>0**		**FF** ***Mean***	**NFF** ***Mean***	**Difference FF-NFF>0**
	Overall Sample				***Finland***				***France***			
(A)		0.9173	0.8011	0.1162***		1.2133	1.11	0.1033		1.0148	0.9004	0.1144
(B)		1.2132	2.0527***	-0.8396		1.1699	1.7446**	-0.5748		1.0066	1.2401***	-0.2338
(C)		0.5758	0.4704	0.1055***		0.4205	0.4078	0.01276		0.6740	0.6150	0.0590***
(D)		0.3076	0.4319***	-0.1248		0.5990	0.4187	0.1803***		0.1866	0.2291***	-0.0425
	Germany				***Italy***				***Norway***			
(A)		0.5879	0.6334	-0.0455		1.0351	0.5264	0.5087***		1.4181	1.2171	0.201
(B)		1.2700	2.1818**	-0.9117		2.0202	1.6804	0.3398		1.1770	5.8557**	-4.6788
(C)		0.7059	0.5616	0.14434***		0.5494	0.6836***	-0.134221		0.3815	0.3811	0.00041
(D)		0.4001	0.3342	0.0659***		0.7259	0.4956	0.2303***		0.3695	0.4622***	-0.0928
	Sweden				***Switzerland***				***UK***			
(A)		1.9792	1.4316	0.5476**		1.1846	0.7069	0.4777***		0.8826	0.7306	0.152***
(B)		1.4171	2.9603***	-1.5432		3.4348	1.4603	1.9744*		1.0808	1.7770***	-0.6887
(C)		0.4161	0.4208	-0.0047		0.3735	0.5726	-0.1991		0.5455	0.4255	0.1200
(D)		0.4801	0.6243***	-0.1442		0.9049	0.3704	0.5344***		0.2388	0.5034***	-0.2646

Table 5: Performance-Attribution Regression
Equal Weighted Portfolios Family vs Non-family Firms

This table presents the coefficient and level of significance of the performance attribution regressions with robust standard errors for the entire sample and for each country. These regressions are based on 179 observations, one for each month in 15 years time period between February 1992 and December 2006. *Alpha* is the abnormal return. *RMRF* is the value-weighted market return minus the risk free rate. *HML* is Fama and French value factor. The p-values are below each coefficient. Panel A shows results for the entire dataset. Panel B shows the results for Italy, Sweden, Switzerland and the U.K. Panel B shows the results for Finland, France and Germany and Norway.

Panel A: Results From the Entire Sample

Country	Excess Return	R^2	Alpha	RMRF	HML
	Family- Risk Free Rate	0.0101	**1.1199**	0.0058	**0.0703**
			(0.0000)	(0.7970)	(0.0020)
All Sample	Non- Family- Risk Free Rate	0.0190	**0.8561**	0.0151	**0.0747**
			(0.0000)	(0.3890)	(0.0000)
	Family – Non- Family	0.0003	**0.2638**	-0.0093	-0.0044
			(0.0060)	(0.5870)	(0.8250)

Panel B: Results for Italy, Sweden, Switzerland, UK

Country	Excess Return	R^2	Alpha	RMRF	HML
	Family- Risk Free Rate	0.0229	**0.9043**	-0.0252	**0.1683**
			(0.0260)	(0.6890)	(0.0340)
Italy	Non- Family- Risk Free Rate	0.0277	0.4339	-0.0237	**0.1574**
			(0.2040)	(0.6670)	(0.0280)
	Family – Non- Family	0.0004	**0.4704**	-0.0015	0.0109
			(0.0250)	(0.9580)	(0.8010)
	Family- Risk Free Rate	0.0021	**2.0402**	-0.0252	0.0248
			(0.0000)	(0.7520)	(0.7340)
Sweden	Non- Family- Risk Free Rate	0.0051	**1.4505**	-0.0040	0.0406
			(0.0000)	(0.9480)	(0.3810)
	Family – Non- Family	0.0015	**0.5898**	-0.0213	-0.0159
			(0.0730)	(0.6220)	(0.7860)
	Family- Risk Free Rate	0.0609	**1.0460**	0.0566	**0.1551**
			(0.0000)	(0.4610)	(0.0140)
Switzerland	Non- Family- Risk Free Rate	0.0501	**0.6110**	0.0523	**0.0717**
			(0.0010)	(0.2580)	(0.0480)
	Family – Non- Family	0.0263	**0.4350**	0.0042	**0.0834**
			(0.0340)	(0.9290)	(0.0640)
	Family- Risk Free Rate	0.0131	**0.8866**	-0.0776	0.0238
			(0.0000)	(0.2130)	(0.6860)
UK	Non- Family- Risk Free Rate	0.0087	**0.7122**	-0.0636	0.0206
			(0.0010)	(0.2840)	(0.7730)
	Family – Non- Family	0.0018	**0.1744**	-0.0140	0.0032
			(0.0940)	(0.6500)	(0.9030)

Panel C: Results for Finland, France, Germany, Norway

Country	Excess Return	R^2	Alpha	RMRF	HML
	Family- Risk Free Rate	0.0026	**1.3579**	-0.0253	0.0098
			(0.006)	(0.7330)	(0.8750)
Finland	Non- Family- Risk Free Rate	0.0148	**1.3419**	-0.0302	0.0238
			(0.0000)	(0.470)	(0.5330)
	Family – Non- Family	0.0007	0.0159	0.0049	-0.0139
			(0.9770)	(0.9530)	(0.8450)
	Family- Risk Free Rate	0.0197	**0.9450**	-0.0117	**0.0901**
			(0.0000)	(0.8060)	(0.0450)
France	Non- Family- Risk Free Rate	0.0391	**0.7713**	0.034	**0.1109**
			(0.0010)	(0.4470)	(0.0060)
	Family – Non- Family	0.0318	0.1737	**-0.0457**	-0.0208
			(0.1620)	(0.0580)	(0.3890)
	Family- Risk Free Rate	0.0087	**0.4944**	0.0089	0.0554
			(0.0330)	(0.8290)	(0.2840)
Germany	Non- Family- Risk Free Rate	0.0061	**0.5268**	0.0295	0.03004
			(0.0180)	(0.4280)	(0.5310)
	Family – Non- Family	0.0109	-0.0325	-0.0207	0.0254
			(0.8070)	(0.3390)	(0.3880)
	Family- Risk Free Rate	0.0383	**1.3715**	-0.0175	**0.137**
			(0.0010)	(0.7480)	(0.0160)
Norway	Non- Family- Risk Free Rate	0.0866	**1.0719**	0.0234	**0.1491**
			(0.000)	(0.6140)	(0.0010)
	Family – Non- Family	0.0058	0.2996	-0.0409	-0.0121
			(0.2980)	(0.3650)	(0.7940)

Table 6: Market Risk and Risk-Adjusted Returns

This Table shows the results from the difference in means tests for the Sharpe Ratio, Beta, and Treynor Ratio. The Sharpe Ratio, Beta and Treynor Ratio are obtained for the portfolio made up of family firms and a portfolio made up of non-family firms. Beta is corrected for thin trading. The results are shown for the entire dataset and for countries with low minority protection. Family firms are indicated with FF while non-family firms are NFF. P-values for the difference between FF and NFF are in parenthesis. * indicates significance of one percent (***), five percent (**), ten percent (*) levels based on the t-statistic assuming unequal variance

Country		Sharpe Ratio	Beta	Treynor Ratio
All Sample				
	Family Firms	0.0887	0.3805	2.8074
	Non-family Firms	0.0691	0.3783	1.7175
	Difference FF-NFF>0	0.0195	0.0067	**1.0899***
		(0.1387)	(0.1102)	(0.0908)
Countries with LOW Anti Self-Dealing Index				
	Family Firms	0.0685	0.3645	24.5952
	Non-family Firms	0.0583	0.3997	0.6412
	Difference FF-NFF>0	**0.1020***	-0.0351	23.9540
		(0.0583)	(1.0000)	(0.1581)

Table 7: Market Risk and Risk-Adjusted Returns by Country

For each country this table presents the results for difference in means test for Sharpe ratio, Beta and Treynor Ratio between family and non-family firms. Family firms are indicated with FF while non-family firms are NFF. P-values for the difference between FF and NFF are in parenthesis. * indicates significance of one percent (***), five percent (**), ten percent (*) levels based on the t-statistic assuming unequal variance.

Country		Sharpe Ratio	Beta	Treynor Ratio
Finland				
	Family Firms	0.0993	0.1567	8.8416
	Non-family Firms	0.1180	0.1753***	5.2658
	Difference FF-NFF>0	-0.0186	-0.0185	3.5757
		(0.6204)	(1.000)	(0.2737)
France				
	Family Firms	0.0741	0.3113	2.0067
	Non-family Firms	0.0604	**0.4259*** **	1.1201
	Difference FF-NFF>0	0.0137	-0.1146	0.8866
		(0.3665)	(1.000)	(0.1789)
Germany				
	Family Firms	0.0250	0.3289	0.6817
	Non-family Firms	0.0304	**0.4063*****	0.6196
	Difference FF-NFF>0	-0.0054	-0.0774	0.0620
		(0.5610)	(1.000)	(0.4719)
Italy				
	Family Firms	0.0553	0.6845	0.6909
	Non-family Firms	0.0040	0.4893	0.0506
	Difference FF-NFF>0	0.0512	**0.1951*** **	0.6403
		(0.2070)	(0.000)	(0.2399)
Norway				
	Family Firms	0.1048	0.5361	1.8472
	Non-family Firms	0.0866	**0.5638*** **	1.3230
	Difference FF-NFF>0	0.0182	-0.0277	0.5242
		(0.3647)	(1.000)	(0.2815)
Sweden				
	Family Firms	0.1668	0.4376	3.7267
	Non-family Firms	0.1336	0.3823	2.8716
	Difference FF-NFF>0	0.0332	**0.0552*** **	0.8551
		(0.2915)	(0.000)	(0.2605)
Switzerland				
	Family Firms	0.1302	0.4533	2.0227
	Non-family Firms	0.0848	0.3283	1.4449
	Difference FF-NFF>0	0.0454	**0.1249*** **	0.5777
		(0.1854)	(0.000)	(0.2441)
UK				
	Family Firms	0.0542	0.1681	2.7427
	Non-family Firms	0.0353	**0.2550*** **	1.0441
	Difference FF-NFF>0	0.0189	-0.0868	1.6985
		(0.2927)	(1.000)	(0.1321)

Table 8: Family Ownership and Control

This table provides the estimates of a panel regression model with country fixed effect for 1,565 firms in European countries. The dependent variable is the Company Stock Return as defined in Table 1. Standard errors are robust. The p-values appear in parentheses below parameter estimates.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Family Dummy	**0.1465**	**0.1542**	**0.1533**		**0.1059**	**0.1173**	**0.1173**	
	(0.000)	(0.000)	(0.000)		(0.006)	(0.003)	(0.003)	
Family Control Rights				**0.0032**				**0.0017**
				(0.000)				(0.041)
Control Enhancing Mechanisms	-0.0087		-0.0114		0.0021		-0.0003	
	(0.803)		(0.756)		(0.951)		(0.993)	
Controlling Blockholder Alone		0.0020	0.0024			-0.0268	-0.0268	
		(0.954)	(0.947)			(0.446)	(0.446)	
Wedge				0.0036				**0.0057**
				(0.239)				(0.062)
Anti Self-Dealing					**-0.2022**	**-0.2025**	**-0.2025**	**-0.2467**
					(0.001)	(0.001)	(0.001)	(0.000)
Country Fixed Effect	YES	YES	YES	YES	NO	NO	NO	NO
Year Dummy	YES	YES	YES	YES	YES	YES	YES	YES
Number of Observations	249,876	238,710	238,710	212,118	249,876	238,710	238,710	212,118
R^2	0.0047	0.0048	0.0048	0.0046	0.0047	0.0048	0.0048	0.0047

Table 9: Family Ownership, Family Management and Control

This table provides the estimates of a panel regression model with country fixed effect for 1,565 firms in European countries. The dependent variable is the Company Stock Return as defined in Table 1. Standard errors are robust. The p-values appear in parentheses below parameter estimates.

	(1)	(2)	(3)	(4)
Family Manager	**0.2459**	**0.2500**	**0.2088**	**0.2212**
	(0.0000)	(0.0000)	(0.000)	(0.000)
Control Enhancing Mechanisms		-0.0125	0.0038	0.0003
		(0.729)	(0.912)	(0.992)
Controlling Blockholder Alone		-0.004		-0.0352
		(0.892)		(0.316)
Wedge				
Anti Self-Dealing			**-0.1990**	**-0.2015**
			(0.001)	(0.001)
Country Fixed Effect	YES	YES	NO	NO
Year Dummy	YES	YES	YES	YES
Number of Observations	249,876	238,710	249,876	238,710
R^2	0.0047	0.0048	0.0047	0.0048

Table 10: Agency Costs and Returns in Family Firms

This table presents the results of a difference in means test between family firms with different agency costs. I divided the entire dataset with respect to the minority shareholders protection law, the enforcement of which is measure Anti-Self dealing Index (see Table I for details). Panel A shows results for the U.K. (country with high Anti Self-Dealing Index) and Panel B shows the results for countries with low Anti Self-Dealing Index. The top number in each cell is the mean of Company Stock Returns, and the bottom number is the number of monthly-observations for each group (in square brackets).The presence of classic agency cost is measured by the absence of a family-manager in the firm. The presence of agency cost of control is measured by the sum of two dummy variables: a dummy that equals one when there are control-enhancing mechanisms that lead family vote holdings to exceed family shareholdings and a dummy variable equal 1 if the family is a controlling owner alone. A controlling shareholder is said to be "alone" if no other owner controls at least 10% of the voting rights. P-values are in parenthesis. * indicates significance of one percent (***), five percent (**), ten percent (*) levels based on the t-statistic assuming unequal variance.

Panel A: Country with HIGH Anti-Self Dealing Index-UK

		Agency Cost Of Control			
		NO	**LOW**	**HIGH**	
Classic Agency Cost	**NO**	0.97047 [7,538]	1.1310 [11,731]	1.0881 [3,588]	1.0713 [22,857]
	YES	0.45152 [3,628]	0.7653 [4,230]	0.3960 [872]	0.59805 [8,730]
Difference t-test		**0.5189***** (0.0025)	**0.3656***** (0.0095)	**0.6921**** (0.0189)	**0.4733***** (0.0000)

Panel B: Countries with LOW Anti-Self Dealing Index

Classic Agency Cost	**NO**	1.168 [4,016]	0.9028 [13,072]	0.9146 [5,153]	0.9535 [22,241]
	YES	1.0183 [3,053]	0.8292 [6,681]	1.0968 [2,160]	0.9263 [11,894]
Difference t-test		0.14988 (0.2385)	0.07359 (0.2942)	-0.1821 (0.7723)	0.02712 (0.3964)

Table 11: Agency Costs and Risk-Adjusted Performance in Family Firms

This table presents the results of a difference in means test between family firms with different agency cost. I divided the entire dataset with respect to the minority shareholders protection law, the enforcement of which is measure Anti-Self dealing Index (see Table I for details). Panel A shows results for the U.K. (country with high Anti Self-Dealing Index) and Panel B shows the results for countries with low Anti Self-Dealing Index. In each panel I first analyze the Sharpe Ratio and then the Treynor Ratio. The presence of classic agency cost is measured by the absence of a family-manager in the firm. The presence of agency cost of control is measured by the sum of two dummy variables: a dummy that equals one when there are control-enhancing mechanisms that lead family vote holdings to exceed family shareholdings and a dummy variable equal 1 if the family is a controlling owner alone. A controlling shareholder is said to be "alone" if no other owner controls at least 10% of the voting rights. P-values are in parenthesis. * indicates significance of one percent (***), five percent (**), ten percent (*) levels based on the t-statistic assuming unequal variance.

Panel A : Country with HIGH Anti-Self Dealing Index-UK

Sharpe Ratio

		Agency Cost Of Control			
		NO	**LOW**	**HIGH**	
Classic Agency Cost	**NO**	0.0632	0.0782	0.0702	0.0722
	YES	0.0039	0.0434	-0.0135	0.0199
Difference t-test		**0.0593*** (0.0630)	0.03480 (0.1824)	**0.0838*** (0.0533)	**0.0531*** (0.0684)

Treynor Ratio

Classic Agency Cost	**NO**	-2.7631	2.9686	2.5972	3.2094
	YES	0.0591	3.7148	-3.4009	1.2422
Difference t-test		-2.82 (0.6183)	-0.7461 (0.5870)	5.9981 (0.1966)	1.9671 (0.1654)

Panel B : Countries with LOW Anti-Self Dealing Index

Sharpe Ratio

		Agency Cost Of Control			
		NO	**LOW**	**HIGH**	
Classic Agency Cost	**NO**	0.0976	0.0603	0.0636	0.0678
	YES	0.0801	0.0554	0.0839	0.0669
Difference t-test		0.0174 (0.2338)	0.0048 (0.3728)	-.00203 (0.7848)	0.0008 (0.4699)

Treynor Ratio

Classic Agency Cost	**NO**	2.8049	1.3479	1.0185	1.4533
	YES	2.6452	1.1527	2.1457	1.6116
Difference t-test		0.1596 (0.0.4530)	0.1952 (0.4131)	-1.1271 (0.8575)	-0.1585 (0.5699)

Table 12: Performance Attribution Regression
Results of Equal-Weighted Portfolios of Family Firms

This table presents the coefficient and level of significance of the performance attribution regressions with robust standard errors. I divided the entire dataset with respect to the minority shareholders protection law, the enforcement of which is measure Anti-Self dealing Index (see Table I for details). Panel A shows results for the U.K. (country with high Anti Self-Dealing Index) and Panel B shows the results for countries with low Anti Self-Dealing Index. These regressions are based on 179 observations, one for each month in 15 years time period between February 1992 and December 2006. *Alpha* is the abnormal return. *RMRF* is the value-weighted market return minus the risk free rate. *HML* is Fama and French value factor. Panel A shows the results for UK. Panel B shows the results for countries with low Anti Self- Dealing Index. FF indicates Family Firms. Following Villalonga and Amit (2006), ACI means classic agency cost, ACII means agency cost of control. The p-values appear in below parameter estimates.

Panel A: Country with HIGH Anti-Self Dealing Index – UK

Excess Return	R^2	Alpha	RMRF	HML
FF WITHACII – FF NOACII	0.0143	**1.8027**	-0.1945	0.0422
		0.0140	0.1810	0.7900
FF WITH ACII and ACI- FF NO ACII and ACI	0.0110	**1.1537**	-0.1073	0.0358
		0.0050	0.2540	0.7380
FF with Family Manager- FF with no Family Manager	0.0200	**0.4855**	-0.0872	-0.0454
		0.0000	0.1570	0.0950

Panel B: Countries with LOW Anti-Self Dealing Index

Excess Return	R^2	Alpha	RMRF	HML
FF WITH ACII - FF NOACII	0.0019	**1.8976**	0.0113	0.3720
		0.0000	0.9000	0.0030
FF WITH ACII and NO ACI - FF NOACII and NO ACI	0.0027	**1.0317**	0.0274	0.1862
		0.0840	0.6560	0.0050
FF WITH ACII and ACI - FF NO ACII and ACI	0.0008	**0.8659**	-0.0303	0.1858
		0.0050	0.7300	0.012

Table 13: Family Ownership and Institutional Blockholders

This table provides the estimates of a panel regression model with country fixed effect for 1,565 firms in European countries. The dependent variable is the Company Stock Return as defined in Table 1. Standard errors are robust. The p-values appear in parentheses below parameter estimates.

	(1)	(2)	(3)	(4)
Family Dummy	0.1478			0.0851
	(0.000)			(0.065)
Institutional Blockholder Dummy		-0.1316		-0.1296
		(0.006)		(0.015)
Unlisted Company			-0.1025	-0.0874
			(0.008)	(0.056)
Country Fixed Effect	YES	YES	YES	YES
Year Dummy	YES	YES	YES	YES
Number of Observations	249,989	249,989	249,989	249,989
R^2	0.0046	0.0046	0.0046	0.0047

Table 14: Performance-Attribution Regression Of Closely-held Firms
Family vs Non-family Blockholders

This table presents the coefficient and level of significance of the performance attribution regressions with robust standard errors for the entire sample. These regressions are based on 179 observations, one for each month in 15 years time period between February 1992 and December 2006. *Alpha* is the abnormal return. *RMRF* is the value-weighted market return minus the risk free rate. *HML* is Fama and French value factor.

Excess Return	**R^2**	**Alpha**	**RMRF**	**HML**
Family – Institutional and Unlisted Ultimate Blockholder	0.0023	**0.3287**	-0.0252	0.0013
		(0.000)	(0.126)	(0.942)

Table 15: Descriptive Statistics for Dataset B

The Table shows descriptive statistics of the main variables for 2,048 non-financial firms DATASET B. Panel A shows the decomposition of the number of firms in the dataset by the country of incorporation, also distinguishing between family and non-family. For each country monthly stock returns and accounting data has been collected from February 1992 to December 2006. Panel A also shows the number of family firms with a family manager. Panel B of this Table present the statistic descriptive for the main variables in the entire dataset. Panel C presents the statistic descriptive for the main variables in each country in the dataset. Moreover, for both the entire dataset and each country this Table gives the results for a difference in means test for Company Stock Returns between family and non-family. Family firms are indicated with FF while non-family firms are NFF. Values are calculated as the cross-sectional mean of firm time-series averages over the period 1992-2006. * indicates significance at one percent (***), five percent (**), ten percent (*) levels based on the t-statistic assuming unequal variance.

Panel A: Countries and Number Of Observations

Country	**Number Of Firms**	**Number of Family Firms**	**Number of Non Family Firms**	**Family with Family Manager**	**Monthly Observations Non-Family Firms**	**Monthly Observations Family Firms**
Austria	82	46	36	17	5,766	4,094
France	428	158	270	74	19,502	32,649
Germany	464	174	290	105	22,722	33,498
Italy	261	69	192	127	8,240	21,243
Netherlands	170	78	92	56	10,818	12,916
Spain	131	45	86	53	6,552	12,017
Sweden	262	88	174	133	10,705	19,070
Switzerland	250	94	156	124	13,961	19,181
Total	***2,048***	***752***	***1,296***	***689***	***98,266***	***154,668***

Panel B: Descriptive Statistics and Difference in Means Test – All Sample

		Mean	*Standard Deviation*	*Median*	*Min*	*Max*
Company Stock Returns	***NFF***	0.66	10.42	0.00	-47.91	47.99
	FF	0.92***	11.15	0.60	-48.00	48.68
BETA	***NFF***	0.720	0.536	0.655	-2.804	5.063
	FF	0.658	0.595	0.546	-5.405	5.146
Idiosyncratic Risk	***NFF***	10.657	3.881	10.053	0.557	25.910
	FF	11.174	4.178	10.743	1.103	28.342
Operating Margin	***NFF***	-4.287	223.593	0.054	-17651.330	358.660
	FF	-1.717	32.352	0.046	-1573.500	214.542
Book-to-Market (ln)	***NFF***	0.762	1.185	0.623	-4.479	6.062
	FF	0.543	1.115	0.512	-6.635	7.439
Market Value (ln)	***NFF***	12.840	2.253	12.732	6.138	19.205
	FF	11.634	1.896	11.513	4.543	17.853
Leverage	***NFF***	0.244	0.493	0.107	0.000	5.604
	FF	0.375	7.675	0.079	0.000	601.400
Total Assets (ln)	***NFF***	13.534	2.640	13.327	4.852	21.169
	FF	12.110	2.109	11.928	1.609	18.997
Sales/Total Asset (%)	***NFF***	0.956	0.801	0.886	-0.194	18.720
	FF	0.919	0.881	0.813	-2.392	16.590
Dividend Yield	***NFF***	0.031	0.752	0.015	0.000	66.074
	FF	0.034	0.912	0.012	0.000	95.521

Panel C: Descriptive Statistics and Difference in Means Test - By Country

		Austria					***France***				
		Mean	***Standard Deviation***	***Median***	***Min***	***Max***	***Mean***	***Standard Deviation***	***Median***	***Min***	***Max***
Company Stock Returns	***NFF***	0.62	9.19	0.19	-47.17	47.14	0.49	11.19	0.00	-47.86	47.76
	FF	1.49***	9.11	1.03	-44.67	46.33	0.41	11.82	0.00	-48.00	47.98
BETA	***NFF***	0.69	0.49	0.71	-0.01	2.70	0.61	0.62	0.46	-0.74	3.18
	FF	0.57	0.47	0.56	-1.59	2.60	0.57	0.68	0.37	-4.72	3.62
Idiosyncratic Risk	***NFF***	8.74	4.02	8.81	0.56	20.73	11.11	4.12	10.46	3.68	23.45
	FF	8.58	4.03	8.28	1.10	16.72	11.73	4.03	11.12	3.25	28.34
Operating Margin	***NFF***	0.02	0.33	0.04	-4.49	2.54	0.004	0.92	0.04	-29.72	1.32
	FF	-0.29	4.68	0.04	-78.69	1.59	-0.12	2.50	0.05	-82.21	13.82
Book-to-Market (ln)	***NFF***	1.25	1.26	1.07	-2.99	5.58	0.74	1.14	0.64	-2.66	4.06
	FF	0.57	1.03	0.73	-3.14	5.51	0.59	1.08	0.59	-4.09	4.74
Market Capitalization	***NFF***	866,113	2,015,951	254,155	2,469	17,500,000	2,411,644	9,024,785	138,894	463	135,000,000
	FF	309,261	550,421	75,000	953	3,685,218	966,114	4,109,434	64,057	363	56,700,000
Leverage	***NFF***	0.16	0.15	0.12	0.00	0.77	0.12	0.13	0.09	0.00	0.86
	FF	0.11	0.13	0.07	0.00	0.52	0.12	0.19	0.07	0.00	5.47
Total Assets	***NFF***	6,324,449	22,800,000	869,760	1,675	198,000,000	17,300,000	95,700,000	210,964	1,288	1,490,000,000
	FF	600,329	1,088,614	116,591	133	5,999,714	1,372,002	4,047,535	111,944	36	37,300,000
Sales/Total Asset (%)	***NFF***	0.77	0.62	0.77	0.02	3.81	0.96	0.67	0.94	-0.19	4.86
	FF	0.61	0.58	0.43	-0.72	2.74	0.98	0.78	0.94	-0.65	16.59

		Germany					*Italy*				
		Mean	***Standard Deviation***	***Median***	***Min***	***Max***	***Mean***	***Standard Deviation***	***Median***	***Min***	***Max***
Company Stock Returns	***NFF***	0.30	11.04	0.00	-47.84	47.92	0.62	9.47	0.06	-44.77	47.63
	FF	0.41	12.00	0.30	-47.98	48.68	1.10***	10.28	0.50	-47.01	48.20
BETA	***NFF***	0.74	0.56	0.64	-0.24	3.78	0.86	0.39	0.82	-0.31	2.05
	FF	0.61	0.64	0.45	-1.90	3.37	0.88	0.50	0.82	-5.40	4.54
Idiosyncratic Risk	***NFF***	11.36	4.13	10.44	3.25	25.91	10.73	2.69	10.89	3.54	15.42
	FF	11.84	4.71	11.29	2.54	28.16	11.40	2.77	11.27	2.72	21.24
Operating Margin	***NFF***	-0.04	1.03	0.03	-19.53	46.41	0.04	0.28	0.06	-5.60	0.81
	FF	-0.38	10.58	0.01	-483.00	214.54	-0.24	6.19	0.04	-247.38	1.89
Book-to-Market (ln)	***NFF***	0.80	1.21	0.71	-4.48	4.65	1.31	1.16	1.29	-2.29	4.88
	FF	0.45	1.14	0.40	-4.48	4.78	0.86	1.06	0.77	-3.47	5.23
Market Capitalization	***NFF***	4,084,912	11,800,000	331,500	525	215,000,000	4,891,160	11,800,000	555,318	4,524	103,000,000
	FF	290,730	861,906	59,991	94	15,800,000	906,483	1,845,227	221,387	934	18,400,000
Leverage (%)	***NFF***	0.12	0.13	0.07	0.00	0.84	0.12	0.11	0.10	0.00	0.66
	FF	0.10	0.14	0.04	0.00	1.03	0.11	0.11	0.08	0.00	1.18
Total Assets	***NFF***	28,600,000	108,000,000	550,319	512	1,300,000,000	27,100,000	68,200,000	1,900,461	10,484	923,000,000
	FF	1,023,994	4,414,854	90,946	27	49,600,000	4,258,604	15,400,000	449,228	1,662	178,000,000
Sales/Total Asset (%)	***NFF***	1.04	0.91	0.95	0.00	18.72	0.52	0.44	0.43	0.02	2.97
	FF	1.05	0.91	0.94	-0.02	10.45	0.61	0.46	0.60	-0.04	4.10

		Netherlands					*Spain*				
		Mean	***Standard Deviation***	***Median***	***Min***	***Max***	***Mean***	***Standard Deviation***	***Median***	***Min***	***Max***
Company Stock Returns	***NFF***	0.90	10.08	0.44	-47.90	47.62	1.45	8.77	0.43	-42.86	47.37
	FF	1.17**	10.03	0.86	-47.72	47.76	1.85***	9.62	1.03	-47.21	47.84
BETA	***NFF***	0.84	0.51	0.75	-2.80	2.21	0.62	0.46	0.68	-0.40	2.40
	FF	0.73	0.51	0.69	-0.43	2.62	0.53	0.38	0.51	-0.48	1.72
Idiosyncratic Risk	***NFF***	10.39	3.42	9.99	5.71	19.73	9.29	2.11	9.45	4.08	13.64
	FF	9.82	4.34	9.10	1.48	21.35	9.76	2.92	9.57	3.38	20.03
Operating Margin	***NFF***	0.09	0.67	0.06	-4.77	17.16	0.05	0.42	0.08	-5.19	0.81
	FF	0.04	2.79	0.05	-48.42	41.58	-0.07	1.97	0.06	-50.50	1.15
Book-to-Market (ln)	***NFF***	0.40	0.97	0.33	-3.11	3.62	0.73	0.88	0.63	-1.79	2.93
	FF	0.27	1.02	0.26	-6.64	3.98	0.70	0.98	0.67	-2.45	3.68
Market Capitalization	***NFF***	7,357,201	24,200,000	462,404	787	219,000,000	5,383,722	12,400,000	961,516	4,103	89,300,000
	FF	1,051,543	2,229,702	169,868	1,093	15,500,000	945,520	1,954,644	187,623	2,578	15,000,000
Leverage (%)	***NFF***	0.12	0.12	0.09	0.00	0.95	0.12	0.12	0.09	0.00	0.49
	FF	1.50	27.11	0.05	0.00	601.40	0.11	0.13	0.07	0.00	1.31
Total Assets	***NFF***	26,600,000	114,000,000	602,566	492	1,370,000,000	20,500,000	75,400,000	1,604,236	13,358	946,000,000
	FF	1,165,647	2,190,973	235,238	5	17,200,000	3,189,879	10,100,000	340,029	4,175	103,000,000
Sales/Total Asset (%)	***NFF***	1.45	1.03	1.27	0.00	7.00	0.56	0.44	0.41	0.00	2.38
	FF	1.23	1.25	1.01	-0.21	16.39	0.63	0.50	0.61	0.00	3.56

		Sweden					*Switzerland*				
		Mean	***Standard Deviation***	***Median***	***Min***	***Max***	***Mean***	***Standard Deviation***	***Median***	***Min***	***Max***
Company Stock Returns	***NFF***	0.71	12.18	0.00	-47.91	47.95	0.95	8.64	0.31	-47.06	47.99
	FF	1.10***	12.79	0.86	-47.44	48.09	1.40***	9.42	0.86	-47.85	47.69
BETA	***NFF***	0.67	0.49	0.53	-0.09	2.26	0.72	0.44	0.69	-1.51	5.06
	FF	0.64	0.48	0.54	-0.61	5.15	0.65	0.58	0.47	-2.89	4.24
Idiosyncratic Risk	***NFF***	12.29	3.82	11.05	4.99	23.22	8.64	2.79	8.58	0.56	19.22
	FF	12.65	3.88	11.76	5.23	23.65	8.95	3.73	8.83	2.07	21.27
Operating Margin	***NFF***	-17.42	390.26	0.43	-17651.33	358.66	-5.82	196.19	0.10	-6475.07	8.90
	FF	-9.90	74.52	0.29	-1573.50	158.59	-2.39	51.32	0.09	-1502.65	81.33
Book-to-Market (ln)	***NFF***	0.20	1.07	0.15	-2.98	5.12	0.91	1.28	0.71	-2.45	6.06
	FF	0.12	1.04	0.13	-4.98	9.55	0.78	1.24	0.64	-2.99	7.44
Market Capitalization	***NFF***	2,665,204	7,732,800	289,056	1,003	126,000,000	5,626,220	17,900,000	414,339	10,081	132,000,000
	FF	432,688	1,289,248	72,514	227	14,000,000	673,244	1,944,165	157,441	885	39,700,000
Leverage (%)	***NFF***	1.12	1.11	0.92	0.00	5.60	0.22	0.19	0.19	0.00	1.00
	FF	1.24	1.48	0.60	0.00	8.25	0.23	0.23	0.17	0.00	1.43
Total Assets	***NFF***	,589,528	34,600,000	327,947	128	384,000,000	24,900,000	118,000,000	1,115,643	6,704	1,560,000,000
	FF	1,275,033	9,440,679	80,647	476	154,000,000	2,220,481	7,214,681	276,234	1,826	103,000,000
Sales/Total Asset (%)	***NFF***	1.08	0.68	1.05	-0.02	3.59	0.84	0.73	0.79	-0.19	4.96
	FF	1.10	1.14	1.03	-0.58	13.53	0.74	0.73	0.72	-2.39	5.28

Table 16: Performance-Attribution Regression
Equal Weighted Portfolios Family vs Non-family Firms

This table presents the coefficient and level of significance of the performance attribution regressions with robust standard errors for the entire sample and for each country. These regressions are based on 179 observations, one for each month in 15 years time period between February 1992 and December 2006. *Alpha* is the abnormal return. *RMRF* is the value-weighted market return minus the risk free rate. *HML* is Fama and French value factor. P-values are below each coefficient. Panel A shows results for the entire dataset. Panel B shows results for Austria, Italy Netherlands, Spain Sweden and Switzerland. Panel C shows results for France and Germany.

Panel A: Results From the Entire Sample

Country	Excess Return	R^2	Alpha	RMRF	HML
	Family- Risk Free Rate	0.0118	**0.7804**	**0.0662**	**0.0533**
			0.0000	0.0160	0.0500
All Sample	Non- Family- Risk Free Rate	0.0143	**0.4031**	**0.0699**	**0.0694**
			0.0020	0.0090	0.0130
	Family - Non- Family	0.0020	**0.3766**	-0.0032	-0.0153
			0.0000	0.7640	0.1880
			0.2600	0.5340	0.7670

Panel B: Results From Austria, Italy, Netherlands, Spain, Sweden and Switzerland

Country	Excess Return	R^2	Alpha	RMRF	HML
	Family- Risk Free Rate	0.0484	**0.9792**	**0.1162**	**-0.1173**
			0.0000	0.0580	0.0520
Austria	Non- Family- Risk Free Rate	0.0434	**0.1967**	**0.1434**	-0.0865
			0.4680	0.0290	0.1850
	Family - Non- Family	0.0075	**0.7760**	-0.0272	-0.0308
			0.0000	0.4670	0.3770
	Family- Risk Free Rate	0.0339	0.5997	-0.0031	**0.2318**
			0.1770	0.9650	0.0120
Italy	Non- Family- Risk Free Rate	0.0456	0.1277	-0.0330	**0.2669**
			0.7710	0.6190	0.0020
	Family - Non- Family	0.0192	**0.4719**	0.0303	-0.0351
			0.0000	0.2230	0.2990

	Family- Risk Free Rate	0.0102	**1.1478**	0.0797	0.0122
			0.0000	0.3250	0.8490
Netherlands	Non- Family- Risk Free Rate	0.0132	**0.9057**	0.1085	-0.0167
			0.0100	0.2010	0.8120
	Family - Non- Family	0.015	**0.2420**	-0.0288	0.0289
			0.0420	0.1670	0.140
	Family- Risk Free Rate	0.0085	**1.2739**	0.0485	0.0869
			0.0010	0.5180	0.4850
Spain	Non- Family- Risk Free Rate	0.0134	**0.8531**	0.0788	0.0846
			0.0150	0.2610	0.4820
	Family - Non- Family	0.0066	**0.4208**	-0.0303	0.0022
			0.0130	0.3130	0.9610
	Family- Risk Free Rate	0.0090	**1.0175**	0.0810	0.0101
			0.0270	0.3460	0.8730
Sweden	Non- Family- Risk Free Rate	0.0143	0.4196	0.1000	0.0439
			0.3820	0.1750	0.4600
	Family - Non- Family	0.0122	**0.5979**	-0.0193	0.0337
			0.0020	0.5670	0.2920
	Family- Risk Free Rate	0.0622	**1.1572**	0.0694	**0.1558**
			0.0000	0.3840	0.0170
Switzerland	Non- Family- Risk Free Rate	0.0768	**0.6922**	0.0484	**0.2049**
			0.0260	0.5910	0.0020
	Family - Non- Family	0.0244	**0.455**	0.0211	**-0.0491**
			0.0000	0.4830	0.0270

Panel C: Results From France and Germany

Country	Excess Return	R^2	Alpha	RMRF	HML
	Family- Risk Free Rate	0.0176	0.0516	0.0433	0.0813
			0.8550	0.488	0.1300
France	Non- Family- Risk Free Rate	0.0241	0.1690	0.0370	**0.1134**
			0.5740	0.5920	0.0500
	Family - Non- Family	0.0139	-0.1173	0.0063	**-0.0321**
			0.2390	0.7360	0.0520
	Family- Risk Free Rate	0.0349	0.1176	**0.1033**	0.0580
			0.6650	0.0520	0.4350
Germany	Non- Family- Risk Free Rate	0.0167	-0.0380	0.0872	0.0477
			0.9080	0.1770	0.6170
	Family - Non- Family	0.0033	0.1557	0.0160	0.0107
			0.2600	0.5340	0.7670

Table 17: Performance-Attribution Regression
Equal Weighted Portfolios Family vs Non-family Firms
Industry Adjusted Stock Return

This table presents the coefficient and level of significance of the performance attribution regressions with robust standard errors for the entire sample and for each country. These regressions are based on 179 observations, one for each month in 15 years time period between February 1992 and December 2006. The dependent variable is the Industry Adjusted Stock Returns. For each company, the Adjusted Stock Returns is calculated subtracting the appropriate average industry return from the stock return each month. *Alpha* is the abnormal return. *RMRF* is the value-weighted market return minus the risk free rate. *HML* is Fama and French value factor. The p-values are below each coefficient.

Country	Excess Return	R^2	Alpha	RMRF	HML
All Sample	**Family - Non- Family**	0.0030	**0.2826**	-0.0021	-0.0144
			0.0000	0.7970	0.1040
Austria	**Family - Non- Family**	0.0074	**0.4215**	-0.0266	-0.0166
			0.0040	0.3660	0.5250
France	**Family - Non- Family**	0.0230	-0.1444	0.0083	**-0.0383**
			0.1150	0.6640	0.0120
Germany	**Family - Non- Family**	0.0240	**0.2794**	0.0049	0.0124
			0.0080	0.8160	0.6450
Italy	**Family - Non- Family**	0.0335	**0.5096**	**0.0311**	-0.2080
			0.0000	0.0230	0.3610
Netherlands	**Family - Non- Family**	0.0331	**0.2674**	**-0.0409**	**0.0313**
			0.0080	0.0330	0.0920
Spain	**Family - Non- Family**	0.0035	**0.2024**	-0.0150	-0.0096
			0.0700	0.4960	0.7850
Sweden	**Family - Non- Family**	0.0201	**0.3738**	-0.0072	-0.0329
			0.0050	0.7110	0.1530
Switzerland	**Family - Non- Family**	0.0262	**0.3544**	0.0022	-0.0383
			0.0000	0.9202	0.0250

Table 18: Fama-MacBeth Return Regression

For the entire dataset, this table reports the average coefficients and time series standard errors for 179 equally weighted cross-sectional regressions for each month from February 1992 to December 2006. The dependent variable is (1) raw monthly Company Stock Return. or (2) the Industry-Adjusted Stock Return calculated subtracting the appropriate average industry return from each firm's stock return each month h. Family is 1 if the company is a family firm and 0 otherwise. The independent are illustrated in Table I. The p-values appear in parentheses below parameter estimates.

	(1)	(1)	(2)	(2)
Family Dummy	**0.4787**	**0.4610**	**0.2319**	**0.2352**
	(0.0000)	(0.0000)	(0.0170)	(0.0150)
Market Value	**0.1358**	0.0362	0.0341	-0.0121
	(0.0150)	(0.5880)	(0.3780)	(0.7620)
Book-to-Value	0.0534	-0.0214	-0.0240	-0.0346
	0.4660)	(0.7440)	(0.6280)	(0.4260)
Dividend Yield	**-10.4624**	**-11.7445**	**-6.3383**	**-7.5323**
	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Return_2_3	0.0102	0.0400	0.0296	0.0422
	(0.8020)	(0.3010)	(0.3670)	(0.1980)
Return_4_6	-0.0518	-0.0060	-0.0356	-0.0247
	(0.1580)	(0.8510)	(0.1710)	(0.3470)
Return_7_12	**-0.0646**	**-0.0498**	**-0.0359**	**-0.0379**
	(0.0090)	(0.0240)	(0.0440)	(0.0540)
Operating Margin		**0.7622**		**0.5593**
		(0.0000)		(0.0000)
Leverage		0.2099		-0.0775
		(0.2340)		(0.5280)
Total Assets		0.0947		0.0441
		(0.1510)		(0.3760)
Sales/Total Asset (%)		**0.2852**		**0.1537**
		(0.0100)		(0.0550)
Idiosyncratic Risk		-0.0508		-0.0084
		(0.2710)		(0.7700)
Intercept	-0.1134	-0.1513	0.3410	0.2527
	0.8680	(0.8570)	(0.5350)	(0.7060)

Table 19: Industry Adjusted Stock Returns and Ownership

This table provides the estimates of a robust regression for 2,048 firms. The model was run over the period February 1992- December 2006. The dependent variable is the Industry Adjusted Stock Returns. For each company, the Adjusted Stock Returns is calculated subtracting the appropriate average industry return from the stock return each month. Standard errors are robust. The p-values appear in parentheses below parameter estimates.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Family Dummy	**0.3383**	**0.3325**	**0.3327**	**0.8047**	**0.2499**	**0.2390**	**1.0871**
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0220)	(0.0270)	(0.0120)
Market Value	0.0034	0.0025	0.0059	0.0066	0.0326	0.0541	0.0517
	(0.8720)	(0.9030)	(0.7700)	(0.7520)	(0.5490)	(0.3950)	(0.3300)
Operating Margin	0.0002	0.0002	0.0002	0.0002	0.0005	0.0005	0.0005
	(0.4240)	(0.4260)	(0.4360)	(0.4450)	(0.5450)	(0.5570)	(0.5570)
Dividend Yield	0.0165	0.0158	0.0151	0.0158	**0.1216**	**0.1192**	**0.1214**
	(0.2680)	(0.2890)	(0.3130)	(0.2900)	(0.0780)	(0.0890)	(0.0810)
Leverage	-0.0250	-0.0009	0.0058	0.0062	-0.0968	0.0387	0.0373
	(0.5460)	(0.9780)	(0.8550)	(0.8460)	(0.4110)	(0.6620)	(0.6760)
Total Assets	**0.0550**	**0.0485**	**0.0451**	**0.0459**	-0.0065	-0.0371	-0.0324
	(0.0040)	(0.0090)	(0.0160)	(0.0140)	(0.8930)	(0.4310)	(0.4930)
Sales/Total Asset (%)	**0.0785**	**0.0850**	**0.0895**	**0.0928**	0.0353	0.0629	0.0673
	(0.0030)	(0.0010)	(0.0010)	(0.0000)	(0.6520)	(0.4160)	(0.3900)
Return_2_3					**0.0540**	**0.0530**	**0.0524**
					(0.0760)	(0.0810)	(0.0850)
Return_4_6					-0.0293	-0.0296	-0.0305
					(0.2470)	(0.2410)	(0.2280)
Return_7_12					**-0.0381**	**-0.0365**	**-0.0372**
					(0.0270)	(0.0350)	(0.0310)
Idiosyncratic Risk					-0.0325	-0.0162	-0.0147
					(0.1060)	(0.4160)	(0.4620)
Anti Self-Dealing Index		-0.3891	-0.2854	0.6133		-0.1364	1.4769
		(0.1270)	(0.2630)	(0.1100)		(0.8500)	(0.1660)
Block Premium			**0.3800**	**0.4551**			-0.0265
			(0.0690)	(0.0310)			(0.9570)
Family Dummy * Anti Self-Dealing Index				**-1.4885**			**-2.7107**
				(0.0030)			(0.0460)
Year Dummy	YES	YES	YES	YES	YES	YES	YES
R^2	0.0012	0.0012	0.0013	0.0013	0.0019	0.0016	0.0017
Number of Observations	219,088	219,088	219,088	219,088	28,368	28,368	28,368

Table 20: Performance-Attribution Regression
Equal Weighted Portfolios Family with Family Manager vs Non-family Firms

This table presents the coefficient and level of significance of the performance attribution regressions with robust standard errors for the entire sample and for each country. The dependent variable is Company Stock Returns. These regressions are based on 179 observations, one for each month in 15 years time period between February 1992 and December 2006. *Alpha* is the abnormal return. *RMRF* is the value-weighted market return minus the risk free rate. *HML* is Fama and French value factor. The p-values are shown below each coefficient.

Country	Excess Return	R^2	Alpha	RMRF	HML
All sample	**Family - Non- Family**	0.0024	**0.4417**	-0.0028	-0.0217
			0.0000	0.8210	0.1280
Austria	**Family - Non- Family**	0.0055	**0.8315**	-0.3280	-0.0399
			0.0040	0.5350	0.4080
France	**Family - Non- Family**	0.0348	-0.2420	0.0280	**-0.0782**
			0.1220	0.3350	0.0060
Germany	**Family - Non- Family**	0.0047	**0.7625**	0.0279	-0.0082
			0.0000	0.4260	0.8760
Italy	**Family - Non- Family**	0.0161	**0.4305**	0.0255	-0.0468
			0.0050	0.3470	0.1970
Netherlands	**Family - Non- Family**	0.0161	0.2094	-0.0437	0.0376
			0.1420	0.1080	0.1080
Spain	**Family - Non- Family**	0.0043	**0.5138**	-0.0214	0.0145
			0.0040	0.5100	0.7900
Sweden	**Family - Non- Family**	0.0106	**0.4193**	-0.1965	-0.0350
			0.0040	0.5540	0.3300
Switzerland	**Family - Non- Family**	0.0131	**0.6083**	0.0083	-0.0377
			0.0000	0.7960	0.1160